

RESEARCH ARTICLE

# The Double-Edged Sword of Voluntourism: Balancing Community Development and Visitor Quality Experience

Chet Narayan Acharya

Ecosystem Innovation Management for Sustainable Tourism, Faculty of Environmental Management, Prince of Songkla University, P.O.Box 50 KorHong, Hatyai, Songkhla 90112 Thailand

Corresponding Author: Chet Narayan Acharya. Email: 6510930001@email.psu.ac.th

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## Abstract

Voluntourism has emerged as a novelty paradigm for community development and ensuring visitor quality experience, yet its paradoxical impacts remain underexplored through empirical frameworks in tourism literature. This study addresses such gap by investigating how voluntourism simultaneously enhances and interrupts sustainable outcomes for host communities and visitor quality experience. Using a robust quantitative approach, the researcher integrates Structural Equation Modeling (SEM) with Confirmatory Factor Analysis (CFA) to examine five latent constructs: Positive Impacts (PI), Negative Impacts (NI), Ethical and Sustainable Practices (ESP), Visitor Quality Experience (VQE), and Community Development (CD). Data were collected from purposively selected 507 respondents from peripheral districts of Kathmandu through structured questionnaires featuring 24 observed variables measured on a 5-point Likert scale, ensuring comprehensive coverage of socioeconomic, psychosocial, and infrastructural dimensions. The result analysis demonstrates a strong model reliability with Cronbach's  $\alpha$ : 0.74-0.90 and validity ( $AVE > 0.50$ ). Results further reveal significant dual pathways: PI ( $\beta = 0.412$ ,  $p < 0.001$ ) and ESP ( $\beta = 0.541$ ,  $p < 0.001$ ) voluntourism improve CD and VQE. Notably, CD mediates the ESP→VQE relationship ( $\beta = 0.278$ ,  $p < 0.001$ ), emphasizing its vital bridging role. This research contributes three key advancements: (1) a novel SEM framework for quantifying voluntourism's dual effects, (2) empirical identification of ESP as a vital mediator, and (3) South Asian evidence challenging Western-dominated mass tourism narratives. Practical implications of this research call for policymakers and NGOs to implement ethical training programs, align volunteer expectations at destinations with community needs, and establish monitoring mechanisms for minimizing negative impacts. Academically, this study provides a replicable model for analyzing sustainability paradoxes in tourism literature.

**Keywords:** Voluntourism; Community Development; Structural Equation Modeling; Visitor Quality Experience; Double-Edged Sword

## Introduction

Voluntourism, a portmanteau of volunteer work and tourism, considered as a double-edged sword change maker, has emerged as a global phenomenon, evolving from its historical roots in missionary work and charity-based travel (Lo & Lee, 2011; Alexander, 2012; Wearing & McGehee 2013; Adocon, Ordinario, & Teña, 2024)

and from the Pro-Poor Tourism (PPT) agenda, which drew inspiration from sustainable development principles outlined during the 1992 Rio Earth Summit (McGloin, 2015; Raihan et al., 2022). In 1997, the United Nations General Assembly acknowledged the potential of volunteering to address global challenges, highlighting its role in leveraging skills, energy, and local knowledge.

As a result, countries that were in the need for international aid, such as Cambodia, Thailand, Costa Rica, Tanzania, Nicaragua, South Africa, and various Caribbean Islands, became common destinations for volunteer programs (Silva, 2021; Raihan, 2023). Over the years, it has gained popularity as a driver for socio-economic change maker in underserved communities and the practice has been widely promoted by non-governmental organizations (NGOs), social enterprises, and travel agencies, offering travelers a chance to combine leisure with meaningful contributions (Bruyere & Rappe, 2007; Sin, 2009; Yashima, 2010; Majumder & Khanal, 2024). In recent years, the voluntourism trend has increased rapidly in various sectors (Germann, 2017; Jakubiak, 2020; Qi, 2020; Ocanas & Thomsen, 2023). In the contemporary era, voluntourism has aligned with global development priorities such as the United Nations Sustainable Development Goals (SDGs), particularly intended at social empowerment through skill development training, poverty reduction, quality education, and sustainable community development (UNWTO, 2019). Voluntourism, a unique form of tourism that blends volunteering with travel, involves participants engaging in projects that simultaneously benefit local communities or the environment while exploring new destinations volunteerism (Bruyere & Rappe, 2007; Yashima, 2010; Alvin, Romualdo, & Robles, 2023). Common types of voluntourism encompass community development, building schools and houses, education, environmental conservation, healthcare and medical aid, orphanage volunteering, social welfare, cultural exchange and arts, disaster rescue, relief and rebuilding, agriculture and farming, skill-based volunteering, women's empowerment, microfinance and entrepreneurship, and elderly care (Meng et al., 2020). Volunteer activities create mutually beneficial conditions where volunteers and local communities learn and benefit each other (Purdey, 2017; An, Eck, Woosnam, & Jiang, 2024). Similarly, voluntourists help to protect the environment by planting trees, cleaning up beaches, and working with local communities to develop sustainable practices. For example, in Costa Rica, voluntourists have planted thousands of trees to help reforest the country (Wearing, 2001, 2002). In the Philippines, voluntourists have cleaned up beaches and coral reefs, helping to protect marine ecosystems (Gunderson, 2005). In Kenya, voluntourists have worked with local communities to develop sustainable farming practices, helping to conserve water and soil (McIntosh & Zahra, 2008; Adocon, Ordinario & Teña, 2024).

Voluntourism, despite its budding popularity as a double-edged sword change-making tool for community development, the concerns have also emerged about its unintended consequences. Specially, studies are lacking on a rigorous evaluation of its long-term impact on community development. At global prospective also, most studies focus on short-term outcomes, isolating the sustainability and empowerment of local communities (Rontynen & Tunkkari-Eskelinen, 2022). Additionally, there is limited research on aligning voluntourism projects with local needs and aspirations, raising concerns about tokenism and misalignment with community development objectives (Giampiccoli & Mtapuri, 2018). Voluntourism stands as a significant tool for community development; it also demands ethical and sustainability concerns (Butcher, 2015 and Brown, 2020). Specially, voluntourism has been criticized for perpetuating power imbalances and failing to create sustainable impacts in host communities (Ocanas & Thomsen, 2022; Gull & Riaz, 2025). Issues such as cultural insensitivity, replacement of local labor, and limited engagement with stakeholders often exacerbate existing inequalities (Simpson, 2004; Lotus Project, 2023). This unintended tension highlights the need for deeper research and understanding on voluntourism's impacts on sustainable community development. Scholars have further argued that voluntourism spreads dependency, undermine local agency, and prioritize the experiences of volunteers over the actual needs of host communities (Palacios, 2010; Mostafanezhad, 2013; Anderson, Kim, &

Larios, 2017; Bansal, 2021; Biddle, 2021; McLennan & Thomas-Maude, 2023; Kabil et al., 2023; Wijayanti et al., 2024).

Thus, this research is guided from the fundamental research question on the dual impacts of voluntourism that is, how does voluntourism enhance the quality of experiences for visitors along with how it contributes to community development in host communities? The research seeks to attain three important objectives: (i). to assess the positive and negative impacts of Voluntourism on host communities, (ii) to identify the key dimensions of visitor quality experience at destinations, and (iii) to propose a framework for ethical and sustainable voluntourism that balances the needs of communities and volunteers. In order to achieve these objectives, a robust statistical approach Structural Equation Modelling (SEM) has been utilized. This SEM framework provides a comprehensive approach to examining the interplay between voluntourism's benefits and challenges, with paths representing both direct and indirect effects. Each observed variable is linked to its respective latent variable through error terms, ensuring measurement precision. The model aims to capture the multidimensional impact of Voluntourism on host communities and offers a structured foundation for empirical analysis. Quantitative data have been gathered through surveys with host community members and voluntourists to assess perceived impacts (Sin, 2010). Qualitative data are obtained through structured questionnaire survey using five point Likert Scale with key stakeholders, including community leaders, NGO representatives, and voluntourism organizers.

The research has scientifically assessed the dual impacts of voluntourism based on the data gathered from purposefully selected study locations of Nepal. The Study locations include Melamchi and Chautara Sangachokgadhi Village Municipalities of Sindhupalchok district, Chitlang and Farping of Makawanpur district, and Budanilkantha and Dakshinkali Municipalities of Kathmandu district. The findings contribute to a new discourse on ethical voluntourism practices, thereby offering significant insights to align voluntourism with sustainable and community-centered development goals. Practically, this study aims to provide important policy inputs for government authorities, non-governmental organizations, and tourism practitioners in designing projects that empower communities while fostering responsible tourism behaviors (McLennan, 2014; Brondo, 2019; Polus, Carr, & Walters, 2023; Kim, Kim, Lee, & Reisinger, 2024).

## Literature Review

In recent time, voluntourism has been extensively acknowledged for its potential to contribute to community development and enhancing visitor quality experience (Hernández-Maskivker, Lapointe, Aquino, 2018; Sultana, Mohammed, Rahman & Nahar, 2024). It is increasingly appraised as a "double-edged sword," that brings both community development and visitor quality experience at host communities (Heldman & Israel-Trummel, 2012; Jiang, Dong, Dong, & Lv, 2024). This literature review examines the dichotomy of voluntourism—its influence on visitor quality of experience and its contributions to community development along with the unintended consequences. Mirsafian, & Mohamadinejad (2011) exposed that volunteers are integral in sports, especially at universities. To recruit and retain them effectively, understanding their motivations is vital. Social interactions are a powerful driver, highlighting the importance of relationships. Progress, linked to self-fulfillment, resonates with youth's self-efficacy focus. Career alignment is the third motivator, while material rewards differ due to cultural contexts. Supportive factors aid in emotional well-being, with purposive motives centered on valuable contributions. Obligation ranks lowest, arising from external expectations. Girls lean towards social factors, while boys prioritize careers due to societal norms. Unraveling these dynamics enhances volunteer engagement, fosters a culture of service, and improves sports programs' impact.

Stukas, Snyder & Clary, (2016) & Vietti, (2024) have shown that voluntourism serves as a double-edged sword by providing both opportunities and challenges. It drives community development and enhance visitor quality of life, it also requires careful management to avoid exploitation and ensure sustainable outcomes. Studies again highlight the importance of monitoring and evaluation to assess the impact of voluntourism initiatives and adapt them to meet the dynamic needs of communities and participants. Spencer & Nsiah, (2013) in their study established that how community cultural development enhances individual and collective capacity, fostering sustainable community-based tourism. Activities like collective art-making boost belonging, commitment, and resident participation in decision-making, encouraging ownership of tourism projects. Findings highlight the role of cultural practices in creating agential communities, strengthening cross-sectoral partnerships, and reshaping guest-host relationships. These efforts promote sustainability while empowering locals to lead and negotiate tourism's impacts on their communities.

The study of Attah & Anam (2017) in Nigeria viewed that volunteering is a valuable form of social capital that is used to promote social inclusion, assist marginalized social groups, and create a civil society. It can also lead to personal development and a sense of well-being. For example, volunteers can help to provide education and healthcare to underserved communities, promote environmental sustainability, build infrastructure and improve public services, promote peace and reconciliation, and empower women and girls. Volunteering is a powerful force for good in Nigeria, and it can help to address some of the country's most pressing challenges and make a real difference in the lives of its people. Ultimately, the study accentuates the strategic significance of volunteering in fortifying Nigeria's community fabric. Acting as an agent of change, volunteering addresses societal challenges, constructs sturdy communal bonds, and establishes the cornerstones of a more impartial and harmonious society. Van (2018) in his paper claimed that incorporating sustainable farming practices and contributing to the preservation of forests and farmlands becomes a transformative journey when engaging with NGOs, universities, and independent growers through international volunteering and internships. By participating in these experiences abroad, you gain insights beyond crop production – understanding the nuances of eco-agriculture, ethical considerations, and the vital role of business management in farming. Opportunities abound to join initiatives that emphasize responsible farming, such as assisting coffee growers in Costa Rica or macadamia growers in Guatemala. Engaging in reforestation projects in Ecuador or hands-on organic farming in Laos allows you to actively learn while contributing to communities in need. The choices are diverse, from raising free-range chickens in Argentina to merging education and farming in Ghana. These endeavors not only broaden your knowledge of sustainable agriculture but also prepare you for potential careers in consulting, management, research, and beyond. As you immerse yourself in local practices and cultivate connections worldwide, you play an integral role in safeguarding our environment, promoting ethical food production, and enhancing the lives of communities around the globe.

Wearing, Beirman, & Grabowski, (2020) conducted an initial exploratory analysis of volunteer tourism's role in post-disaster situations, highlighting its demand during crises in developing countries and emphasizing ethical considerations through stakeholder engagement with local communities. The study investigated how volunteer tourism can enhance disaster management frameworks and resilience in disaster-prone areas, using the Nepal case study as an example of its integration into the national tourism market and post-earthquake recovery strategy. Recognizing volunteer tourists as a distinct sector within the inbound tourism market is essential, although challenges in quantifying their impact arise from classification complexities. The study identified volunteer tourism as a potential resource for disaster recovery, leveraging foreign tourists' skills and engaging them in structured programs, and advocated for a multi-stakeholder approach to effective disaster recovery planning. This research advances the field by championing volunteer tourism within a resilience-focused

framework, emphasizing genuine engagement and recommending further research to optimize its positive impacts while mitigating negative effects in post-disaster scenarios.

Karlis, Stratas, Hamidi & Kantartzi, (2020) in their research paper publicized that growing enthusiasm and involvement in sports within the realm of leisure and recreation have generated a notable trend, prompting individuals to actively seek opportunities for travel and volunteer engagement in sporting events. Despite sport volunteer tourism's increasing prominence in major events since the 1980s, a substantial research gap persists in fully conceptualizing this phenomenon. Addressing this void, this paper furnishes a comprehensive overview of sport volunteer tourism's conceptualization, drawing on existing literature and suggesting pathways for future research. The outlined recommendations offer guidance to illuminate attributes, types, and distinctions within sport volunteer tourism. Highlighting the nuanced role of the sport volunteer tourist, the paper underscores the need for a precise conceptual framework. Expanding research efforts is imperative to unravel the layers of sport volunteer tourism, grasp its significance, and enhance its impact. Through deeper exploration, this burgeoning trend's insights can advance sport volunteer tourism within the broader leisure and recreation landscape.

The study of Moayerian, McGehee, & Stephenson, (2022) revealed that initiatives focusing on education, healthcare, conservation, and infrastructure have helped in addressing local needs, empowering communities, and fostering social inclusion. The study examined that voluntourism programs often provide essential support to underserved communities, facilitating community development through capacity building and sustainable practices.

South et al. (2020) examined the impact of volunteering during the Glasgow 2014 Commonwealth Games. They found that volunteering enhances community well-being and social connections, but that the location's influence outweighs sports in shaping volunteer experiences. The study also found that volunteering is not the only way to benefit from mega-events, as citizen involvement also have positive effects. The study's findings have implications for future research and planning of mega-events. The research of An, et al., (2024) applies mindfulness theory to volunteer tourism, revealing its positive impact on emotional solidarity, tourist experiences, and destination loyalty. Findings from 348 Chinese volunteer tourists showed mindfulness enhanced connections with residents, enriched experiences, and fostered loyalty, highlighting the benefits of mindful volunteer tourism for both participants and host communities. Warner, et al., (2024) in their research “The Helping Alleviate Loneliness in Hong Kong Older Adults (HEAL-HOA) Trial” shown that tele-interventions, delivered by volunteers aged 50–70, reduced loneliness, stress, and depressive symptoms in the volunteers themselves. This scalable program promotes social engagement while addressing loneliness, potentially attracting older adults to volunteer and contributing to solutions for the loneliness epidemic during and beyond the pandemic.

The study by Teoh, Wang, & Kwek (2024) found that visitor quality of life and voluntourism are deeply interconnected through transformative travel experiences, which significantly influence how travelers perceive themselves and other societies. This research focuses on educational travelers in Australia, particularly international students, who occupy a unique position as neither tourists nor migrants, often resulting in overlooked transformative experiences. Utilizing a qualitative interpretive phenomenological approach, the study examines the holistic transformative journeys of these travelers, highlighting personal and social changes. The findings reveal that educational travelers undergo knowledge transformation, with cross-cultural impacts, particularly among Asian and Hispanic travelers, who exhibit deeper destination understanding and social transformations compared to European travelers. This research provides valuable insights into enhancing transformative travel experiences for educational travelers, contributing both to theoretical discourse and practical applications.

For visitors, voluntourism offers a unique opportunity for personal growth and cultural immersion. Research of (McIntosh & Zahra, 2007; Prentice et al., 2003) indicates that voluntourists often experience enhanced life quality through meaningful interactions, skills development, and emotional fulfillment. These experiences contribute to personal development, increased self-awareness, and a greater understanding of social and environmental issues. The research of Clarke & Butcher (2006) focuses on the ethical voluntourism is increasingly emphasized as a means to balance community development and visitor experiences. McLennan, & Thomas-Maude, (2023) underlines for ethical practices that prioritize transparency, responsibility, and sustainability. They stress that programs should ensure that the benefits of voluntourism are equitably shared, fostering long-term community well-being and minimizing harm.

The research of Wearing and McGehee (2013) and Wearing, Beirman & Grabowski, (2020) proposed that the sustainable tourism practices to guide voluntourism initiatives. They further argue that integrating environmental conservation and cultural preservation within voluntourism programs ensures that communities and visitors alike experience lasting benefits. A balanced approach that respects both the needs of host communities and the aspirations of visitors is essential for fostering sustainable voluntourism.

Despite voluntourism holds significant scope to act as a key transformative force for community development and the quality of life of visitors, it demands further thoughtful considerations. Sin & Smith, (2013) and Chong, (2025) pointed that critiques have raised several questions regarding the impact of such voluntourism. Critics argue that poorly designed voluntourism programs can perpetuate dependency, marginalization, and cultural insensitivity, undermining local economies and community autonomy. In the study by McMorran (2017) revealed that voluntourism often leads to uncoordinated volunteer responses, overwhelming local resources and placing additional strain on relief efforts. Additionally, the lack of proper oversight can result in safety risks, particularly when volunteers are inexperienced or inadequately supervised. The research also emphasized that voluntourism tends to shift focus from genuine volunteer work to tourism, diminishing the effectiveness of post-disaster recovery. Furthermore, the involvement of predominantly Global North voluntourists reinforces unequal power dynamics, potentially trapping disaster-affected areas in a state of prolonged 'post-disaster' reliance rather than promoting sustainable, community-driven recovery.

The research of Wall, (2011); Holt, (2012) and Putcha, (2025) have pointed some serious challenges of voluntourism. They have pointed out that inadequate training of volunteers, insufficient supervision of trainees, and the challenges of hosting and teaching foreign trainees can compromise patient safety and hinder local community goals. The absence of contextual knowledge, linguistic skills, and cultural sensitivity can create barriers in the care-provider-patient relationship, negatively impacting patient care. This can lead to misunderstandings in disease comprehension, including its causes and appropriate treatments, further complicating the delivery of effective healthcare.

## **Research Methodology**

### **Research Design**

The research is conducted under the framework of descriptive and explanatory research design. Descriptive research aims to provide an accurate and systematic description of a phenomenon with the answers of the "what" of research questions (Neuman, 2014; Sekaran, & Bougie, 2016; Creswell, & Creswell, 2018; Babbie, 2020). Similarly, explanatory research seeks to understand the cause-and-effect relationships between variables.

It addresses the "why" and "how" questions by building on descriptive research to develop explanations (Creswell & Creswell, 2018; Yin, 2018; Babbie, 2020).

### Study Locations

The research has been conducted in four different locations. Study locations were selected on the basis of selective or purposeful sampling techniques. Selective sampling (also known as judgment sampling) involves the deliberate choice of participants based on their relevance to the research question and objectives and the researchers rely on their judgment sampling to select respondents who possess specific knowledge, characteristics, or experiences deemed critical for the study (Teddle & Yu, 2007; Bryman, 2016; Malterud, Siersma & Guassora, 2016; Patton, 2015). The study locations are mentioned in the following table:

**Table No. 2:** Description of Study Locations and Sample Size

S.N.	Districts	Municipality	Ward No.	Sample Size (Volunteers + Community Members)
1.	Kathmandu	Budhanilkantha	3, 11	25 + 67 = 92
		Dakshinkali	1, 6, 7	27 + 75 = 102
2.	Sindhupalchok	Melammchi	1, 2, 6	24 + 65 = 89
		Chautara Sangachokgadhi	4, 3, 7	18 + 48 = 66
3.	Makawanpur	Chitlang	2, 5, 6	25 + 67 = 92
		Farping	4, 7	16 + 50 = 66
Total			135 + 372 = 507	

### Study Method

The Structural Equation Modeling (SEM) has been utilized for the study on the latent relationship between the variables. The study design consists of five important latent variables: Positive Impacts in Host Communities (PI), Negative Impacts in Host Communities (NI), Visitor Quality Experience (VQE), Ethical and Sustainable Practices (ESP) and Community Development (CD) and corresponding observed variables. The SEM framework provides a comprehensive approach to examine the relationship between voluntourism's benefits and challenges, with paths representing both direct and indirect effects. Each observed variable is linked to its respective latent variable through error terms, ensuring measurement precision. The model aims to capture the multidimensional impact of voluntourism on host communities and offers a structured foundation for empirical analysis in order to appeal the academic, professional, and practical audiences and implications.

SEM framework works along with Confirmatory Factor Analysis (CFA) to confirm the validity and reliability of latent constructs (Williams, Edwards, & Vandenberg, 2003; Jarvis, MacKenzie, & Podsakoff, 2003; Cudeck & Toit, 2009). CFA centers on the measurement of latent variables, assessing the relationship between observed variables (Hair, Black, Babin, & Anderson, 2010).

### Sampling and Data Collection

Based on the framework of selective/purposive sampling technique, total 507 samples including total volunteers (135) and total host community members (372). For sample size calculation, sample size determination

formulae suggested by Yamane, (1967) for host community members and Cochran (1963) for volunteers have been utilized (Nanjundeswaraswamy & Divakara, 2021).

For data collection, two sets of structured questionnaire designed in five point Likert scale were distributed to selected respondents. Survey was conducted in Nepali and English languages but later translated into English only for SPSS processing.

**Table 1:** List of variables

Latent Variables	Observed Variables
Positive Impacts in Host Communities (PI)	Economic Opportunities (X <sub>1</sub> )
	Psychosocial outcomes: loneliness, social and mental health (X <sub>2</sub> )
	Sustainable Infrastructure Development (X <sub>3</sub> )
	Transfer of Skills and Indigenous Knowledge (X <sub>4</sub> )
	Cross-Cultural Understanding, Global Awareness and Collaboration (X <sub>5</sub> )
Negative Impacts in Host Communities (NI)	Dependency (X <sub>6</sub> )
	Cultural Disruption (X <sub>7</sub> )
	Misalignment Between Volunteer Goals and Community Needs (X <sub>8</sub> )
	Abuse and Harassments (X <sub>9</sub> )
Ethical and Sustainable Practices (ESP)	Community Adoption of Practice (X <sub>10</sub> )
	Long-Term Project Sustainability (X <sub>11</sub> )
	Comprehensive Volunteer Orientation and Training (X <sub>12</sub> )
	Holistic Respect for Local Traditions and Ecosystems (X <sub>13</sub> )
	Participatory Community Governance and Decision-Making (X <sub>14</sub> )
Visitor Quality Experience (VQE)	Sense of Fulfillment (X <sub>15</sub> )
	Transformational Learning and Capacity Building (X <sub>16</sub> )
	Meaningful Relationships with Communities (X <sub>17</sub> )
	Intercultural Learning and Knowledge Exchange (X <sub>18</sub> )
Community Development (CD)	Improved Economic Conditions (X <sub>19</sub> )
	Enhancement of Local Leadership and Resilience (X <sub>20</sub> )
	Better Education and Health Access (X <sub>21</sub> )
	Strengthening Community Cohesion and Social Capital (X <sub>22</sub> )
	Enhanced Quality of Life (X <sub>23</sub> )
	Strengthened Local Capacities (X <sub>24</sub> )

## Ethical Considerations

In the research "The Double-Edged Sword of Voluntourism: Balancing Community Development and Visitor Quality Experience" ethical considerations have been thoroughly addressed to ensure the integrity and respect of all participants. Informed consent is obtained from both volunteers and host community members, ensuring they are fully informed of the research's purpose and potential risks. Confidentiality and privacy have been confirmed by securely handling sensitive data and ensuring anonymity. The study emphasizes minimizing risks to participants, ensuring their safety and well-being throughout the research process. Furthermore, cultural sensitivity also has been prioritized, respecting diverse backgrounds and avoiding discrimination. Transparency and accountability are also been upheld, ensuring that conflicts of interest are disclosed and managed appropriately.



## Model Formulation and Data Analysis Tools

This method employed in this research is based on the statistical modeling. For this, the selected variables of interest are as follows:

### Model Specification and Hypothesis

With the intention of examining the effect of voluntourism in the form of community benefits and visitor quality experience as the Double-Edged Sword, a statistical approach i.e. SEM has been employed with CFA to assess latent constructs underlying the observed variables. The result has been produced using statistical software AMOS. Principally, SEM model demands two components: the measurement model, which focuses on the relationship between observed variables and their underlying latent constructs, and the structural model, which depicts the causal linkages among latent variables.

The structural model has been defined as:

Under SEM, the interrelationships between latent variables and observed variables and structural paths among the latent variables are represented by the following measurement equations:

- i. Positive Impacts in Host Communities (PI)  

$$X_1 = \lambda_{11}\eta PI + \varepsilon_1, X_2 = \lambda_{21}\eta PI + \varepsilon_2, X_3 = \lambda_{31}\eta PI + \varepsilon_3, X_4 = \lambda_{41}\eta PI + \varepsilon_4, X_5 = \lambda_{51}\eta PI + \varepsilon_5,$$
- ii. Negative Impacts in Host Communities (NI)  

$$X_6 = \lambda_{61}\eta NI + \varepsilon_6, X_7 = \lambda_{71}\eta NI + \varepsilon_7, X_8 = \lambda_{81}\eta NI + \varepsilon_8, X_9 = \lambda_{91}\eta NI + \varepsilon_9$$
- iii. Ethical and Sustainable Practices (ESP)  

$$X_{10} = \lambda_{101}\eta ESP + \varepsilon_{10}, X_{11} = \lambda_{111}\eta ESP + \varepsilon_{11}, X_{12} = \lambda_{121}\eta ESP + \varepsilon_{12}, X_{13} = \lambda_{131}\eta ESP + \varepsilon_{13}, X_{14} = \lambda_{141}\eta ESP + \varepsilon_{14}$$
- iv. Visitor Quality Experience (VQE)  

$$X_{15} = \lambda_{151}\eta VQE + \varepsilon_{15}, X_{16} = \lambda_{161}\eta VQE + \varepsilon_{16}, X_{17} = \lambda_{171}\eta VQE + \varepsilon_{17}, X_{18} = \lambda_{181}\eta VQE + \varepsilon_{18}$$
- v. Community Development (CD)  

$$X_{19} = \lambda_{191}\eta CD + \varepsilon_{19}, X_{20} = \lambda_{201}\eta CD + \varepsilon_{20}, X_{21} = \lambda_{211}\eta CD + \varepsilon_{21}, X_{22} = \lambda_{221}\eta CD + \varepsilon_{22}, X_{23} = \lambda_{231}\eta CD + \varepsilon_{23}, X_{24} = \lambda_{241}\eta CD + \varepsilon_{24}$$

These equations represent the relationship between each latent variable  $\eta_i$  and its observed variables  $X_j$ , where,  $\lambda_j$  = Factor loading for each observed variable,  $\eta PI$ ,  $\eta NI$ ,  $\eta VQE$ ,  $\eta ESP$  and  $\eta CD$  are latent variables,  $\varepsilon_j$  = Error terms associated with the observed variables.

Structural equations to show the interrelationships among the latent variables are as follows:

**Direct Relationships:**  $\eta CD = \beta_1\eta PI + \zeta_1 + \beta_2\eta NI + \zeta_2 + \beta_3\eta VQE + \zeta_3 + \beta_4\eta ESP + \zeta_4$

**Mediating Effects:**  $\eta VQE = \beta_5\eta ESP + \zeta_1, \eta PI = \beta_6\eta ESP + \zeta_3$

Where,

$\beta_i$  = Structural path coefficients and  $\zeta_i$  = Disturbance terms for structural equations

In order to account for the interdependencies between variables, the covariance relationships are expressed as follows:

Cov ( $\eta$ PI,  $\eta$ NI), Cov ( $\eta$ PI,  $\eta$ ESP) and Cov ( $\eta$ VQE,  $\eta$ CD)

This set of equations allows the SEM to comprehensively examine relationships among latent variables, observed variables, and mediating effects. The assessment of the measurement and structural models in this study was based on the computation of Standardized Root Mean Squared Residual (SRMR), Root Mean Square Error of Approximation (RMSEA), Comparative Fit Index (CFI), Tucker-Lewis Index (TLI), Goodness of Fit Index (GFI), and Adjusted Goodness of Fit Index (AGFI).

- i. **Standardized Root Mean Squared Residual (SRMR):** The SRMR is a measure of the average discrepancy between the observed and predicted correlations. If the value of SRMR < 0.08, it indicates a good model fit (Hu & Bentler, 1999; Kline, 2015; Byrne, 2016; Schumacker & Lomax, 2016). The equation is:

$$SRMR = \sqrt{\frac{2 \sum_{i=1}^p \sum_{j=1}^i \left[ \frac{S_{ij} - \hat{\sigma}_{ij}}{S_{ii}S_{jj}} \right]^2}{p(p+1)}} \quad \dots\dots\dots i$$

- ii. **Root Mean Square Error of Approximation (RMSEA):** The RMSEA assesses the model fit per degree of freedom. If RMSEA  $\leq$  0.06, model ensures a good fit, while values between 0.06 and 0.08 indicate an acceptable fit (MacCallum et al., 1996; Hu & Bentler, 1999; Byrne, 2016). The equation is:

$$RMSEA = \sqrt{\frac{\text{Max}(\chi_k^2 - df_k, 0)}{df_k(N-1)}} \quad \dots\dots\dots ii$$

- iii. **Comparative Fit Index (CFI):** CFI compares the fit of the target model with an independent. A CFI  $\geq$  0.95 indicates a good fit, with values  $\geq$  0.90 considered acceptable (Hu & Bentler, 1999; Kline, 2015; Byrne, 2016). The equation is:

$$CFI = \frac{\text{Max}(\chi_0^2 - df_0, 0) - \text{Max}(\chi_k^2 - df_k, 0)}{\text{Max}(\chi_0^2 - df_0, 0)} \quad \dots\dots\dots iii$$

- iv. **Tucker-Lewis Index (TLI):** TLI, also known as the Non-Normed Fit Index (NNFI), adjusts the model fit for complexity. A TLI  $\geq$  0.95 threshold suggests a good fit, while values  $\geq$  0.90 are acceptable (Tucker & Lewis, 1973; Hu & Bentler, 1999; Kline, 2015; Byrne, 2016). The equation is:

$$TLI = \frac{\frac{\chi_0^2}{df_0} - \frac{\chi_k^2}{df_k}}{\frac{\chi_0^2}{df} - 1} \quad \dots\dots\dots iv$$

- v. **Goodness of Fit Index (GFI):** GFI evaluates the proportion of variance in the sample covariance matrix explained by the model. A GFI  $\geq$  0.90 indicates a good fit (Hu & Bentler, 1999; Hooper et al., 2008; Kline, 2015; Byrne, 2016; Schumacker & Lomax, 2016).. The equation is:

$$GFI = 1 - \frac{\text{tr}[W^{-\frac{1}{2}}(S - \hat{\Sigma})W^{-\frac{1}{2}}]}{\text{tr}\left(W^{-\frac{1}{2}}SW^{-\frac{1}{2}}\right)} \quad \dots\dots\dots v$$

- vi. **Adjusted Goodness of Fit Index (AGFI):** AGFI adjusts the GFI for the degrees of freedom of the model. A threshold of  $AGFI \geq 0.90$  is considered a good fit (Hu & Bentler, 1999; Kline, 2015; Byrne, 2016). The equation is:

$$AGFI = 1 - \left[ \frac{k(k+1)(1-GFI)}{2df_k} \right] \dots\dots\dots vi$$

Where,  $(\chi^2_0, df_0)$  and  $(\chi^2_k, df_k)$  symbolize the chi-square test statistic for the reference line model and fitted model, respectively, with their resultant degrees of freedom;  $p$  = number of observed variables;  $S_{ij}$  = observed covariances,  $\hat{\sigma}_{ij}$  = reproduced covariances,  $S_{ii}$  and  $S_{jj}$  are the observed standard deviations.  $W$  is a weight matrix circumstance on the system of model parameter approximation, 'tr' is the addition of diagonal components enclosed in the matrix,  $\hat{\Sigma}$  is the covariance matrix of the observed variables in the restricted model,  $S$  is the unrestricted sample covariance matrix regarding to the saturated model, and  $\kappa$  characterizes the number of observed variables.

**Model Hypothesis:** The null hypotheses have been set as the foundation for statistical testing in the SEM framework with an aim to establish the relationships between variables. The SEM hypothesizes are as follows:

**Table 2:** Model Hypothesis

S.N.	Hypothesis Statements
1.	H <sub>01</sub> : Positive Impacts in Host Communities (PI) do not significantly influence Community Development (CD) and Visitor Quality Experience (VQE).
2.	H <sub>02</sub> : Negative Impacts in Host Communities (NI) do not significantly influence Community Development (CD) and Visitor Quality Experience (VQE).
3.	H <sub>04</sub> : Ethical and Sustainable Practices (ESP) do not significantly influence Community Development (CD) and Visitor Quality Experience (VQE).
4.	H <sub>05</sub> : Community Development (CD) does not significantly mediate between Ethical and Sustainable Practices (ESP) and Visitor Quality Experience (VQE).
5.	H <sub>06</sub> : Community Development (CD) does not significantly mediate between Positive Impacts (PI) and Ethical and Sustainable Practices (ESP).

## Results and Analysis

The results section is structured into two distinct sections: demographic profile of the respondents and SEM outputs computed for each measurement of the variables using IBM SPSS and AMOS software. The results are presented as follows:

### Demographic Profile of the Respondents

The complete response of the respondents has been presented in the following table;

**Table 2:** Demographic Profile of the Respondents (Host Community Members and Volunteers)

S.N.	Demographic Profile	Scale	Frequency	Percentage
1.	Age (Total 507)	Below 25 Yrs	36	7.10
		25-45 Yrs	261	51.48
		45-55 Yrs	90	17.75
		55 Yrs +	120	23.67
2.	Gender Total 507)	Male	314	61.93
		Female	193	38.07
3.	Academic	Below high school	10	1.97
	Qualification Total 507)	Bachelor's Degree	207	40.83
		Master's Degree	255	50.30
		Mphil/PhD	35	6.90
4.	Nationality Total 507)	Nepali (Host Members)	335	66.07
		Nepali (Volunteers)	28	5.52
		Foreigners (Volunteers)	107	21.10

The table provides demographic profile of the respondents as the composition of both host community members and volunteers. Out of 507 complete responses, the age distribution indicates that the majority of respondents (51.48%) are between 25-45 years old, while 23.67% are 55 years or older, reflecting a significant presence of older, more experienced individuals who were interested and engaged in volunteering in their retired life. In terms of gender, male respondents comprises (61.93%), with females 38.07%. Regarding academic status, a substantial proportion of respondents hold higher degrees, with 50.30% having a master's degree and 40.83% holding a bachelor's degree, indicating a well-educated population engaged in volunteer activities. Only 1.97% hold below high school. In terms of total, the nationality distribution shows that 66.07% of respondents are Nepali host community members, while 5.52% are Nepali volunteers, and 21.10% are foreign volunteers, highlighting significant international involvement in the volunteer initiative.

### Descriptive Statistical Result and Analysis

The depth of the study was enriched through the utilization of primary research data. Data were gathered through surveys capturing voluntourists' common motivations, experiences, and perceptions. Participants were asked to describe their voluntourism experience and then to discuss their motivations and goals for participating in voluntourism through 5-point Likert scale. Data were analyzed using descriptive statistical tools and results are presented in table 2.

The descriptive statistics in Table 2 reveal varying levels of participant engagement across different voluntourism activities, with means ranging from 2.45 to 4.48 on an unspecified scale, standard errors (SE) between 0.04 and 0.08, and Cronbach's Alpha values indicating good to excellent reliability (0.74 to 0.90). Sports and Recreation shows the highest engagement (mean = 4.48, high level), followed closely by Cultural Exchange and Arts (mean = 3.82, high level), while Environmental Conservation (mean = 3.71, strong level) also reflects robust participation. Moderate engagement is observed in Education and Social Welfare (mean = 3.45), Women's Empowerment (mean = 3.40), Healthcare and Medical Aid (mean = 3.21), and Disaster Relief and Rebuilding (mean = 2.89), suggesting decent but less intense involvement. Agriculture and Farming has the

lowest engagement (mean = 2.45, relatively lower level), possibly indicating less interest or accessibility in this area.

**Table 2.** Descriptive Statistics Table

Variables	Mean	SE	Cronbac Alpha	Result (Participants engagement)
Environmental Conservation	3.71	0.08	0.90	Strong level of engagement
Education and Social Welfare	3.45	0.06	0.77	Moderate level of engagement
Cultural Exchange and Arts	3.82	0.05	0.82	High level of engagement
Disaster Relief and Rebuilding	2.89	0.07	0.74	Moderate level of engagement
Agriculture and Farming	2.45	0.08	0.88	Relatively lower engagement
Healthcare and Medical Aid	3.21	0.04	0.90	Moderate level of engagement
Women's Empowerment	3.40	0.06	0.83	Moderate level of engagement
Sports and Recreation	4.48	0.07	0.89	High level of engagement

Note: The significance level is 0.01

The high reliability scores (Cronbach's Alpha) and low standard errors (all statistically significant at the 0.01 level) affirm the consistency and precision of these measurements, providing a reliable foundation for understanding participant preferences in voluntourism activities, which could influence the SEM paths like Community Development and Positive Impact of Voluntourism from the previous diagram.

### **Structural Equation Modelling and Conceptual framework for Data Analysis**

The conceptual framework graphically represents the hypothesized relationships between the variables of interest and the moderating effects of external factors, thereby a framework for testing the proposed hypotheses through advanced statistical methods, such as Structural Equation Modeling (SEM). The result includes three key steps: Exploratory Factor Analysis (EFA) to identify constructs, Confirmatory Factor Analysis (CFA) to validate the structure, and Structural Equation Modeling (SEM) to assess variable relationships by using statistical software AMOS 26. The conceptual model with statistical values is constructed as follows:

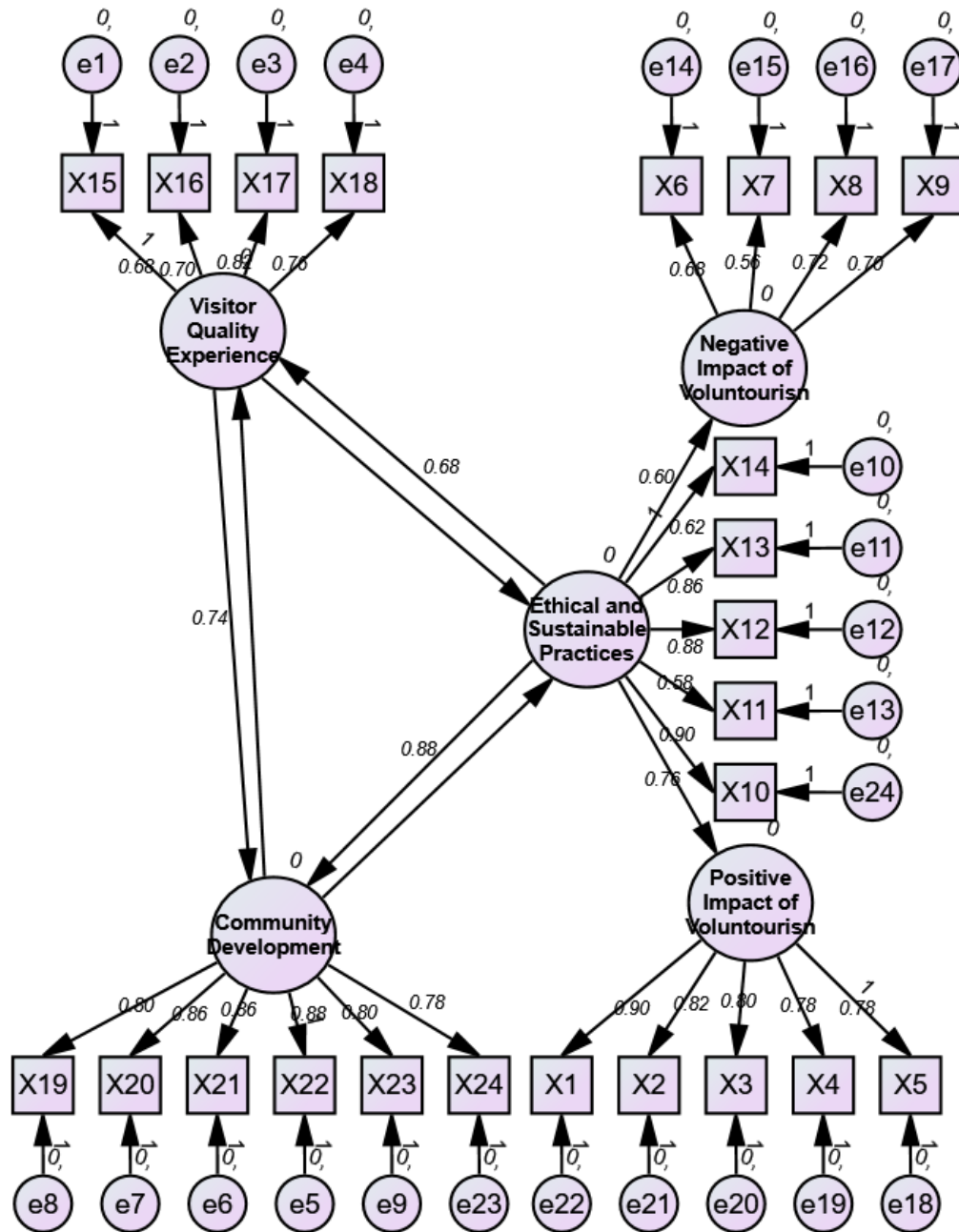


Figure 1: Final CFA Model

The researcher has performed a preliminary analysis of the scale by Exploratory Factor Analysis (EFA) using the Maximum likelihood and Varimax rotation through SPSS. EFA using the maximum likelihood method with Varimax rotation is used for analyzing the factor structure and correlation between items included in the scale. The results have been obtained through the KMO and Bartlett's Tests and provided in the following tables

**Table 3:** KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.827
Bartlett's Test of Sphericity	Approx. Chi-Square	956.586
	df	506
	Sig.	<.001

The KMO value is above 0.50 so it indicates that criteria of sampling adequacy has met. The Bartlett test of sphericity is statistically significant ( $P < .05$ ) so it shows that our correlation matrix is statistically different from an identity matrix as desired.

**Table 4:** Rotated Component Matrix<sup>a</sup>

Variables	Components			Interpretation
	1	2	3	
PI	.894			Strongly loaded on Component 1
NI	.986			Strongly loaded on Component 1
ESP	.878			Strongly loaded on Component 1
VQE	.980	.718		Strongly loaded on cross-loading on Component 2
CD	.892	.685	.842	Strongly loaded on cross-loadings on Components 2 and 3)

Extraction Method: Principal Component Analysis

Rotation Method: Varimax with Kaiser Normalization

a. Rotation converged in 4 iterations

The Rotated Component Matrix illustrates the distribution of factor loadings of observed variables across extracted components. This matrix provides insight into the underlying factor structure of the dataset, which helps in identifying latent constructs. The analysis was performed using Principal Component Analysis (PCA) with Varimax rotation, a commonly used method to simplify factor structures and enhance interpretability. The results show:

- ◆ Component 1: Primarily loads on variables related to PI, NI, ESP, VQE and CD explain the majority of the variance, with high factor loadings. This indicates that these variables are closely related and may represent a common latent construct.
- ◆ Component 2 shows moderate cross-loadings, suggests that VQE and CD might partially explain another dimension associated with visitor experiences at CBT destinations.
- ◆ Component 3 highlights a significant cross-loading of CD (.842), indicating that Community Development represents a separate latent dimension related to the socio-economic or infrastructural impact of voluntourism.

The variables with higher loadings on a specific component contribute more to that component's interpretation. Variables with cross-loadings (i.e., significant loadings on multiple components) might indicate complex relationships or the need for further exploration. The results suggest that the five observed variables (PI, NI, ESP, VQE, CD) primarily load onto a single component, indicating that they measure a common latent construct. This analysis provides a preliminary understanding of the underlying structure of the data and can be used to inform further analyses, such as structural equation modeling.

The researcher has performed consistency of further validating the factor structure, which was the output of EFA sent to CFA conducted through AMOS.

### Confirmatory Factor Analysis (CFA)

Confirmatory Factor Analysis is assessed for testing the reliability, convergent validity, and discriminant validity. Following is the graphical representation of CFA initial model and the final calculated model followed by results in the table 3.

**Table 5:** Reliability and Convergent Validity

Variables/ Constructs	Items	Standardized Factor Loadings	Cronbach Alpha	Composite Reliability	Average Variance Extracted	Maximum Shared Variance
Positive Impacts of Voluntourism	X <sub>1</sub>	0.766	0.917	0.914	0.762	0.128
	X <sub>2</sub>	0.689				
	X <sub>3</sub>	0.810				
	X <sub>4</sub>	0.698				
	X <sub>5</sub>	0.748				
Negative Impacts of Voluntourism	X <sub>6</sub>	0.795	0.947	0.928	0.713	0.286
	X <sub>7</sub>	0.788				
	X <sub>8</sub>	0.869				
	X <sub>9</sub>	0.801				
	X <sub>10</sub>	0.778				
Ethical and Sustainable Practices	X <sub>11</sub>	0.747	0.915	0.915	0.685	0.370
	X <sub>12</sub>	0.788				
	X <sub>13</sub>	0.881				
	X <sub>14</sub>	0.826				
	X <sub>15</sub>	0.748				
Visitor Quality Experience	X <sub>16</sub>	0.791	0.917	0.920	0.753	0.246
	X <sub>17</sub>	0.888				
	X <sub>18</sub>	0.868				
	X <sub>19</sub>	0.861				
	X <sub>20</sub>	0.728				
Community Development	X <sub>21</sub>	0.847	0.945	0.903	0.765	0.368
	X <sub>22</sub>	0.738				
	X <sub>23</sub>	0.876				
	X <sub>24</sub>	0.876				
Model Fitness: $\chi^2$ =1658.82, df = 506, $\chi^2$ /df = 3.86, RMSEA = 0.078, RMR = 0.035, GFI = 0.878, CFI = 0.898						

The results presented in Table 5 display the reliability and convergent validity of the measurement model. The values of Cronbach Alpha for all constructs ranged from 0.915 to 0.947, exceeding the recommended threshold of 0.7, indicating excellent internal consistency (Nunnally & Bernstein, 1994). Again, the Composite Reliability (CR) values are greater than 0.7, confirming the constructs' good reliability. Furthermore, the Average Variance Extracted (AVE) values exceeded 0.5, supporting the convergent validity of the constructs (Hair, Sarstedt, Ringle, & Gudergan, 2017). Another evidence of convergent validity is that the Maximum Shared Variance (MSV) values are lower than their respective AVE values, ensuring discriminant validity.



The Positive Impacts of Voluntourism construct demonstrated strong convergent validity with an AVE of 0.762 and CR of 0.914. Similarly, Negative Impacts of Voluntourism exhibited high reliability and convergent validity (AVE = 0.713, CR = 0.928). Ethical and Sustainable Practices, Visitor Quality Experience, and Community Development also showed high reliability and convergent validity, with AVE values ranging from 0.685 to 0.765.

### Model Fit Analysis

The model fit analysis reveals that the proposed structural equation model is acceptable but not ideal, with a chi-square value of 1658.82 ( $df = 506$ ,  $\chi^2/df = 3.86$ ), which is slightly high as the ratio exceeds the ideal threshold of 3, though values up to 5 are often deemed acceptable; the RMSEA of 0.078 is within the acceptable range (below 0.08), and the RMR of 0.035 is good (below 0.05), while the GFI (0.878) and CFI (0.898) are just below the preferred threshold of 0.9, indicating a reasonable but not optimal fit. These indices suggest the model reasonably represents the data, though the slightly high  $\chi^2/df$  ratio and subthreshold GFI and CFI values indicate potential for improvement, possibly through revising paths or relationships, making the current fit sufficient for interpretation but highlighting areas for refinement in future research.

Thus, the SEM model demonstrates a good fit with the observed data. All hypothesized paths are statistically significant at the 0.001 level, indicating strong support for the proposed relationships. The findings suggest that positive impacts, ethical and sustainable practices, significantly contribute to community development and visitor quality experience in the context of voluntourism.

**Table 6:** Discriminant Validity

	Community Wellbeing	Visitor Quality Experience	Moderating Components
Community Development	0.815		
Visitor Quality Experience	0.388	0.762	
Moderating Components	0.460	0.306	0.864

For establishing discriminant validity, the researcher has used the Fornell & Larcker (1981) criteria. The values in the diagonal bold are square root of AVE and other values are inter-variable correlation. The requirement is that the diagonal bold values should be higher than other values in its respective rows and column which is met as can be seen in the table. Thus, the variables have shown a good discriminant validity.

### Hypotheses Testing (Structural Model)

To examine the relationship between the variables as in the conceptual framework, the researcher has used the structural equation modelling path analysis by imputing the Factor Score from CFA using AMOS 26. As part of hypotheses testing, the researcher has tested the relationship between dependent variable (Community Development and Visitor Quality Experience) and independent variables (Positive Impacts, Negative Impacts and Sustainable Ethical Tourism Practices) and some exogenous components as the mediator. Following is the results of hypothesis testing:

**Table 7:** Hypothesis Testing Results

S.N.	Hypothesis Statement	Path Estimate	S.E.	C.R.	p-value	Decision
1	H <sub>0</sub> 1: Positive Impacts (PI) → Community Development (CD) & Visitor Quality Experience (VQE)	0.412	0.062	6.645	***	Rejected (Supported)
2	H <sub>0</sub> 2: Negative Impacts (NI) → Community Development (CD) & Visitor Quality Experience (VQE)	-0.365	0.078	-4.679	***	Rejected (Supported)
3	H <sub>0</sub> 3: Ethical and Sustainable Practices (ESP) → Community Development (CD) & Visitor Quality Experience (VQE)	0.541	0.055	9.836	***	Rejected (Supported)
4	H <sub>0</sub> 4: Community Development (CD) mediates between Ethical and Sustainable Practices (ESP) and Visitor Quality Experience (VQE)	0.278	0.048	5.792	***	Rejected (Mediation Supported)
5	H <sub>0</sub> 5: Community Development (CD) mediates between Positive Impacts (PI) and Ethical and Sustainable Practices (ESP)	0.325	0.052	6.250	***	Rejected (Mediation Supported)

The hypothesis testing results of the study reveal a highly significant relationships, with all hypothesized statement showing p-values less than 0.001, indicating that the observed findings are statistically robust. This provides strong credibility to the conclusions drawn from the analysis.

In particular, the variables Positive Impacts (PI) and Ethical and Sustainable Practices (ESP) were found to have a positive influence on both Community Development (CD) and Visitor Quality Experience (VQE). This suggests that voluntourism acts as the double edge sword means, it promotes both community development and visitor quality experience. It enhances dual effects thereby generating positive outcomes in the communities, such as economic opportunities and ethical sustainable practice of voluntourism. Moreover, these practices enhance the quality of the experience for visitors, making their time spent in the destination more enjoyable, meaningful, and impactful.

On the other hand, the study also identified that Negative Impacts (NI) had a negative influence on both Community Development (CD) and Visitor Quality Experience (VQE). This indicates that tourism practices that lead to harmful effects—such as Dependency, Cultural Disruption, Misalignment between Volunteer Goals and Community Needs and Abuse and Harassments—have a detrimental effect on the local community and weaken the visitors' overall experience. Such negative impacts discourage future voluntourism practices and ultimately undermining the potential benefits for tourists and the host communities.

The findings also underscore the important mediating role of Ethical and Sustainable Practices. Specifically, it is found to be significant mediator of the relationships between and Community Development and Visitor Quality Experience, as well as with Positive Impacts of voluntourism. This means that the positive ethical practices in tourism lead to stronger community development and enhances the visitor quality experience as well. Similarly, positive impacts within the community (such as economic or social benefits) contribute to the adoption of sustainable practices, which then benefit both the community and the visitors. Essentially, Ethical and Sustainable Practices acts as a key pathway that connects positive tourism practices to real-world outcomes for both the host communities and volunteer tourists.

Thus, the results highlight the importance of focusing on ethical and sustainable practices as a driver of both community development and volunteer's quality experience. It confirms that the voluntourism serves as a dual role, double edge sword for tangible benefits for both the host communities and volunteer tourists.

## Conclusion

This study successfully achieved its research objectives by empirically validating the dual nature of voluntourism and impacts through a comprehensive Structural Equation Modeling (SEM) framework. The results confirmed that voluntourism simultaneously generates significant positive impacts and few insignificant negative impacts on both Community Development (CD) and Visitor Quality Experience (VQE). Remarkably, the research identified Ethical and Sustainable Practices (ESP) as a powerful driver of positive outcomes, while also demonstrating Community Development's (CD) mediating role in improving proposed relationships. These findings address the gap in voluntourism literature by providing quantitative evidence of these compound interdependencies. The study significantly makes three key theoretical contributions: first, it develops a validated dual-impact SEM model incorporating five latent constructs; second, it establishes ESP as a pivotal mediator between rural tourism activities and sustainable outcomes; and third, it established key evidence from Nepal's context, challenging Western-dominated mass tourism narratives. Practically, the results urge immediate action from stakeholders: policymakers should implement mandatory pre-departure cultural sensitivity training to mitigate negative impacts like cultural disruption; NGOs must adopt participatory needs-assessment frameworks to better align volunteer projects with community priorities; and host communities need to establish strong monitoring systems to prevent harassment and dependency issues. These evidence-based recommendations provide solid pathways to enhance voluntourism's benefits while minimizing its negative impacts.

While providing valuable insights, the study acknowledges several limitations that warrant consideration. The geographic focus on Nepal, while offering important South Asian perspectives, limits generalizability to other cultural contexts. The sample's overrepresentation of educated participants (50.3% holding Master's degrees) may skew impact perceptions, and the cross-sectional design cannot capture long-term effects such as sustained community development or gradual cultural erosion. Methodologically, while the SEM model demonstrated acceptable fit ( $GFI = 0.878$ ,  $CFI = 0.898$ ), there remains room for improvement in model specification. These limitations point to valuable directions for future research: longitudinal studies to track ESP's enduring effects, comparative analyses across Global South regions to identify cultural moderators, and mixed-methods designs incorporating qualitative data to enrich statistical findings. On the practical side, the study strongly recommends developing certification programs for voluntourism stakeholders based on ESP criteria, piloting community-led volunteer matching systems to better align skills with local needs, and creating impact scorecards for volunteers to self-assess their contributions against SDG targets. Ultimately, this research underscores voluntourism's potential as a strategic sustainable development tool if its dual impacts are proactively managed. The findings advocate for a paradigm shift toward more ethical, community-centric voluntourism models, where inclusive governance structures ensure equitable benefit distribution. By implementing these evidence-based recommendations, stakeholders can transform voluntourism from a well-intentioned but certain problematic practice into a genuinely sustainable form of community-engaged tourism that delivers authentic, meaningful and sustained benefits for all participants.

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**Ethics approval/declaration:** The study is in line with ethical standards of academic research.

**Consent to participate:** Respondents participation was completely voluntary, and they were completely free to skip or discontinue the survey at any time without any obligation. The survey was anonymous, and all responses were used solely for academic research purposes. All participants were provided informed consent to participate in this study.

**Consent for publication:** Yes, the author consents to the publication of this work.

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**Author contribution:** The author solely contributed to complete this study.

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