

# The impact of green tourism on the Hmong community in Vietnam



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**Abstract** This study investigates how green tourism affects the Hmong community in Lao Cai province, Vietnam. The results indicate that the environmental and sociocultural advantages of green tourism have a positive and noteworthy influence on the community's understanding of sustainable tourism practices. This increased awareness, in turn, encourages their dedication to sustainable tourism practices. However, the study did not establish a significant link between economic benefits and public perception, implying that the Hmong community places a higher value on cultural heritage conservation than financial gain. These findings underscore the importance of involving local communities in decision-making processes and ensuring that they obtain tangible benefits from participating in sustainable tourism initiatives. This study makes two significant contributions to knowledge. First, it provides a comprehensive understanding of how green tourism impacts local communities, specifically the Hmong community in Vietnam. Second, it highlights the critical role of community participation in sustainable tourism development. Local communities are essential in promoting and maintaining sustainable tourism practices. This research suggests that policymakers involve local communities in decision-making and ensure that they receive tangible benefits from engaging in sustainable tourism practices.

**Keywords:** sustainable tourism practices, community participation, environmental conservation, cultural heritage preservation, Hmong people

## 1. Introduction

Tourism contributes significantly to global economic growth, job creation, and infrastructure development (Mishra et al 2011). However, its rapid expansion has led to negative environmental and social impacts, prompting the emergence of green tourism (Manzoor et al 2019). Green tourism emphasizes responsible travel practices that prioritize environmental conservation, social and cultural sensitivity, and economic sustainability (Mishra et al 2011).

Local communities are increasingly recognized for their role in promoting green tourism (Manzoor et al 2019). Their active participation and commitment to sustainable practices are crucial (McCombes et al 2015). Engaging local communities in planning and management is essential for successful implementation (Manyara and Jones 2007). Equitable distribution of benefits, economic incentives, and preservation of cultural heritage strengthen community involvement (Cole, 2006; Mydland and Grahn 2012; Lordkipanidze 2005). Training and capacity-building initiatives empower communities to engage in sustainable tourism (Reggers et al 2016).

The Vietnamese government prioritizes green tourism for the Hmong community to preserve culture, protect the environment, and foster economic growth (Davison et al 2005; Gerdner 2015). It safeguards traditions while generating job opportunities and increased income (Nepal 2002; Cahill 2018). Responsible tourism practices are essential for preserving natural resources and diversifying the region's economy (Mallick 2019; Davison et al 2005). Local community participation depends on awareness, economic and social benefits, and involvement in decision-making (Berry and Ladkin 1997; Guttentag 2009). Information sharing, community engagement, and education are crucial to encourage participation (Saufi et al 2014; Chan et al 2021).

The Hmong people, comprising over a million individuals, are one of Vietnam's major ethnic minority groups residing primarily in the mountainous regions of northern provinces, particularly Lao Cai (Turner 2012; Turner et al 2015 ;Tugault-Lafleur and Turner 2009). Their culture is vibrant and diverse, encompassing their own language, traditions, and beliefs (Turner 2012). Despite encountering various obstacles such as poverty, illiteracy, and discrimination, the Hmong community has opportunities to maintain and promote their cultural heritage through education, tourism, and collaboration with other ethnic groups (Briain 2013). To that end, the Vietnamese government recognizes the importance of developing green tourism in the Hmong community in Lao Cai province as a means of promoting green growth and poverty alleviation (Turner 2012). Green tourism has the potential to generate income, create green jobs, and lay the foundation for eco-friendly economic



development (Turner and Michaud 2008). Furthermore, the Hmong community's diverse culture, colorful costumes, intricate embroidery, and skillful farming can attract tourists from nearby countries like China, Thailand, Vietnam, and Malaysia (Ó Briain 2014; Turner and Michaud 2008).

Developing green tourism in the region would also help to safeguard the natural landscape and biodiversity of protected areas (Eagles et al 2002; Job et al 2017). Nonetheless, it remains unclear whether the Hmong community's awareness and commitment to sustainable tourism practices affect their involvement in green tourism (Chen et al 2017). This study aims to examine the relationship between awareness and commitment and green tourism participation in the Hmong people community of Lao Cai province, Vietnam. The findings of this research will aid in comprehending the factors that influence local communities' participation in green tourism and provide insight into how to encourage sustainable tourism practices in local communities

## 2. Literature Reviews

### 2.1. Green tourism

Green tourism, which is also referred to as sustainable tourism, is a type of tourism that aims to decrease the negative impact of tourism on the environment (Budeanu 2007), while simultaneously generating economic benefits for local communities and promoting cultural preservation (Mihalic 2016; Hudson and Miller 2005). Green tourism practices involve being environmentally responsible, culturally and socially sensitive, and economically feasible (Kiper 2013). The types of green tourism practices that can be implemented vary depending on the location and context (Garrod and Fyall 1998). Examples of such practices include utilizing renewable energy sources like solar or wind power to operate accommodations and facilities, reducing waste and conserving water through recycling and composting programs (Kasavana 2008), promoting local food and agriculture to minimize the carbon footprint of food transportation while supporting the local economy (Bruns-Smith et al 2015), promoting conservation efforts and responsible wildlife tourism practices, encouraging low-impact activities such as hiking, biking, and kayaking, and engaging and empowering local communities through responsible tourism practices that involve and benefit them (Poponi et al 2020). Ultimately, the goal of green tourism is to strike a balance between the economic benefits of tourism and the need to preserve the environment (Hunter 1997), as well as local cultures and communities, for future generations (Hui-Chun et al 2003).

### 2.2. Some potential benefits of green tourism

**Economic benefits:** Green tourism provides employment opportunities and boosts the local economy (Amerta et al 2018; Niedziółka 2014). It offers diverse jobs, including hospitality services, ecotourism guides, and environmental educators (Amerta et al 2018). By creating environmentally responsible employment, green tourism stimulates economic growth (Goodwin 1996). It also supports local businesses and agriculture by promoting local food and reducing carbon emissions in food transportation (Lordkipanidze et al 2018; Pan et al 2018), preserving culinary traditions and cultural heritage while fostering economic development (Sims 2009).

**Environmental benefits:** Green tourism preserves natural and cultural resources and supports conservation (Amerta et al 2018; Niedziółka 2014). Through sustainable practices and low-impact activities, it minimizes the negative environmental impact of tourism (Isaacs 2000; Olszewski-Strzyżowski 2022). By engaging in responsible tourism, green tourism safeguards forests, rivers, and wildlife habitats while offering authentic experiences (Eagles et al 2022). It also promotes cultural heritage and protects historic sites and monuments (Niedziółka 2014; Skanavis and Giannoulis 2009), raising awareness about environmental conservation (Edgell 2019).

**Social and cultural benefits:** Green tourism fosters cultural exchange, respect for traditions, and understanding between tourists and local communities (Amerta et al 2018; Niedziółka 2014). Community-based tourism initiatives enable direct engagement, cultural learning, and participation in local activities (Polnyotee and Thadaniti 2015), promoting diversity and bridging cultural gaps (Lordkipanidze et al 2005). Green tourism preserves traditional knowledge and cultural heritage through responsible practices and support for cultural tourism (Prasetyo et al 2021). By respecting local cultures, promoting local products, and supporting traditional practices, it contributes to sustainable tourism benefiting both tourists and local communities (Barna et al 2021).

### 2.3. The local communities' awareness of green tourism

The level of awareness of the green tourism model among local communities varies based on factors such as education, exposure to tourism, and cultural and social norms (Hassan 2000; Stem et al 2003). Some communities actively participate in sustainable tourism practices, recognizing the importance of environmental protection and cultural heritage preservation (Hassan 2000; Polnyotee and Thadaniti 2015). However, other communities may have limited awareness due to lack of information, education, or involvement in tourism development (Cole 2006; Aref 2011). Cultural and social norms prioritizing economic development can also hinder sustainable tourism promotion (Tosun 2001). Raising awareness through education, outreach programs, and community involvement is crucial for promoting sustainable tourism (Frey and George

2010; Lordkipanidze et al 2005). Empowering local communities encourages commitment and advocacy for sustainable tourism practices (Cole 2006)

2.4. *The commitment to participate in the green tourism model of local communities*

The commitment of local communities to green tourism is influenced by factors such as awareness of sustainable tourism benefits and drawbacks of traditional practices (Lee 2011; Ritchie and Crouch 2003). Active involvement in decision-making processes and ownership of sustainable tourism initiatives increase commitment (Marzuki 2008; Beaumont and Dredge 2010). Economic benefits, including job opportunities and support for local businesses, also contribute to commitment (Hassan 2000; Frey and George, 2010). Cultural and social values alignment further enhances commitment (Aman et al 2019; Li and Hunter 2015). Overall, involving local communities, considering their values, and providing tangible benefits promote commitment to green tourism (Gamble and Gibson 1999; Barbieri et al 2020)

2.5. *The relationship between awareness and commitment to participate in the green tourism*

The relationship between awareness and commitment to participate in the green tourism model of local communities is a complex one (Frey and George, 2010). On the one hand, greater awareness of the benefits of sustainable tourism practices can lead to increased commitment among local communities to participate in such initiatives (Garrod, 2003). For example, if a community understands the economic, environmental, and cultural benefits of green tourism, they may be more likely to actively participate in sustainable tourism activities (Wheeller 1991).

On the other hand, even if local communities have a high level of awareness of green tourism practices, their level of commitment may still vary depending on other factors such as their level of involvement in decision-making processes and their economic and social circumstances (Tzschentke et al 2004). For example, if a community perceives that their participation in sustainable tourism practices will not result in significant economic benefits or if they are facing other economic challenges, they may be less committed to participating in green tourism initiatives (Frey and George 2010).

Therefore, it is important to not only raise awareness among local communities about the benefits of green tourism but also to involve them in the decision-making process and ensure that they see tangible benefits from their participation (Scheyvens, 2000). This can help increase their level of commitment to sustainable tourism practices and ensure that they are actively engaged in promoting and supporting these initiatives within their community (Li et al 2015).

Based on literature reviews, we propose the following research hypotheses:

Hypothesis 1 (H1). The economic benefits of green tourism have a positive and meaningful impact on local communities' awareness of green tourism.

Hypothesis 2 (H2). The environmental benefits of green tourism have a positive and meaningful impact on local communities' awareness of green tourism.

Hypothesis 3 (H3). The social and cultural benefits of green tourism have a positive and meaningful impact on local communities' awareness of green tourism.

Hypothesis 4 (H4). Local communities' awareness of green tourism has a positive and meaningful impact on a commitment to participate in the green tourism model of local communities.

From the above research hypotheses, we propose the following research model (Figure 1):

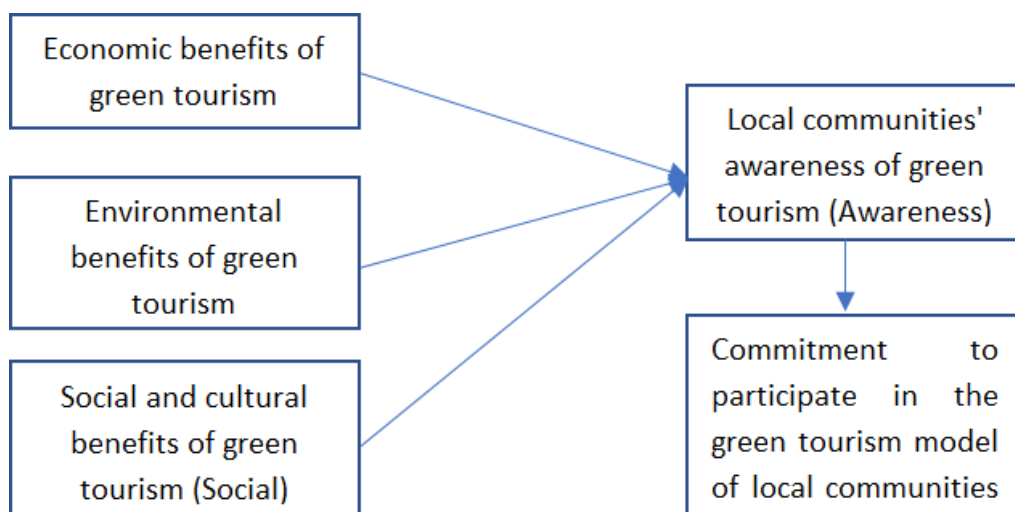


Figure 1 Proposed research model.

3. Method



### 3.1. Instrument and participant

The questionnaire was constructed in two parts, based on literature reviews and references to two public policy professors, three tourism studies professors, and one psychology professor. Part one collects demographic information, while part two gathers information related to the economic, environmental, and social/cultural benefits of green tourism, as well as local communities' awareness of green tourism and their commitment to participate in the green tourism model. Each factor is measured by four questions on a 5-point Likert scale.

Before the formal research began, a pilot survey was conducted with 40 volunteers to test the questionnaire. Minor corrections were made to the questionnaire based on the analysis of the survey data, and a language expert edited and translated the final version into Hmong for use in the official study. The study was conducted in January 2023, during the traditional Hmong New Year when demand for green tourism services is high. The study utilized the purposeful sampling method, and 200 Hmong individuals from Lao Cai province volunteered to participate. The questionnaire was administered directly to participants in Hmong, and they marked their answers with a pencil. All 200 answer sheets were collected, resulting in a 100% response rate. Table 1 presents the demographic information of the survey subjects. SPSS 20 and AMOS 20 software were used to analyze the research data.

**Table 1** Demographic characteristics of survey participants.

		Age							
		18 24 years old		25 34 years old		45 54 years old		56 or older	
		Count	Row N %	Count	Row N %	Count	Row N %	Count	Row N %
Gender	Female	10	13.2%	32	42.1%	26	34.2%	8	10.5%
	Male	15	12.1%	52	41.9%	41	33.1%	16	12.9%
Education	Bachelor's degree	3	8.1%	17	45.9%	16	43.2%	1	2.7%
	High school diploma	7	14.0%	19	38.0%	18	36.0%	6	12.0%
	Less than high school	6	18.8%	12	37.5%	10	31.2%	4	12.5%
	Some college/Associate's degree	9	11.1%	36	44.4%	23	28.4%	13	16.0%

Source: Prepared by the authors (2023).

### 3.2. Reliability analysis

Cronbach's alpha is used to assess the positive correlation among survey questions, indicating their measurement of the same construct. A high alpha score signifies questionnaire reliability, while a low score suggests the need for revision. Interpretation depends on factors like research purpose, data type, and target population (Fornell and Larcker 1981). Generally, an alpha score of 0.7 or higher is acceptable, indicating high internal consistency and reliability (Considine et al 2005). Scores between 0.6 and 0.7 may also be acceptable, but some questions might require revision (Hair et al 2006). Scores below 0.6 are generally low, indicating the need for question revision or refinement (Cortina 1993).

Composite reliability (CR) is commonly used to assess the internal consistency or reliability of a scale or questionnaire (Hair et al., 2006; Henson & Roberts, 2006). It determines if a set of items consistently measures a single construct (Zucoloto et al., 2014). CR is calculated as the ratio of the total variance of observed scores to the total variance of actual scores (Sijtsma, 2009). It indicates the proportion of variance in observed scores attributable to the measured construct, rather than measurement error or other sources of variability (Hair et al., 2010). A CR value of 0.70 or higher is generally considered acceptable, indicating reasonable internal consistency (Zucoloto et al., 2014; Zinbarg et al., 2005). However, the threshold may vary based on research context and scale usage (Henson & Roberts, 2006).

Average Variance Extracted (AVE) is a statistic used to measure the amount of variance explained by a construct or latent variable (Fornell & Larcker, 1981). AVE is calculated based on the shared variance between items and is commonly used in confirmatory factor analysis (CFA) and structural equation modeling (SEM). It is computed as the average of squared correlations between the construct and its indicator items (Fornell & Larcker, 1981). Specifically, AVE is the sum of squared loadings divided by the sum of variances and measurement error (Hair et al., 2006). AVE ranges from 0 to 1, with higher values indicating greater variance explained by the construct. AVE values of 0.5 or higher are generally considered acceptable, indicating reasonable reliability (Fornell & Larcker, 1981; Hair et al., 2010; Kline, 2015). However, the threshold may vary depending on research context and scale usage (Bagozzi & Yi, 2012; Schreiber et al., 2006). Table 2 presents the results of the reliability and validity tests for the research questionnaire (Hair et al 2019; Henseler et al 2015). The Cronbach's alpha coefficients for all items were found to be greater than 0.7, indicating satisfactory internal consistency and reliability of the questionnaire (Henseler et al 2015). The CR of all items met the minimum threshold of 0.70 (Fornell and Larcker, 1981), indicating good convergent validity (Hair et al 2019; Henseler et al 2015). The AVE of all items was approximately 0.50, which is an acceptable threshold for further analysis (Fornell and Larcker, 1981). Overall, these results demonstrate that the questionnaire items have satisfactory reliability and validity for analyzing the proposed research model.



**Table 2** Summary of Reliability.

Scales	Number of variables observed	Reliability coefficients (Cronbach Alpha)	Composite Reliability (CR)	Average variance extracted (AVE)
Economic	4	0.778	0.779	0.468
Environmental	4	0.755	0.756	0.437
Social	4	0.753	0.754	0.435
Awareness	4	0.751	0.751	0.431
Participate	4	0.793	0.793	0.489

Source: Prepared by the authors (2023).

**3.3. Factor analysis**

Exploratory factor analysis (EFA) is a statistical technique used in the social sciences to identify underlying latent factors or dimensions in a set of variables (Fabrigaret al 1999). The goal of EFA is to reduce the number of variables in a dataset by identifying patterns of inter-correlation among them and grouping them into a smaller set of underlying factors. In an EFA, a correlation matrix of the variables is created, and factor scores are generated through a series of mathematical operations (Costello and Osborne 2005). The number of factors to be extracted is often determined through the examination of scree plots and eigenvalues, which represent the magnitude of the factors and their relative importance (Kaiser 1960). The results of an EFA can help researchers identify the key factors that explain the relationships among the variables in a dataset (Brown 2006). This information can then be used to guide the development of more refined and focused research questions, hypotheses, and models (Hair 2006).

Table 3 presents the results of the factor analysis for the research questionnaire. The Bartlett test was statistically significant (Sig. = 0.000), and the Kaiser-Meyer-Olkin (KMO) coefficient was 0.870 (>0.5), indicating that the observed variables are correlated with each other in the population and, thus, the variables are valid for factor analysis.

**Table 3** Exploratory factor analysis.

	Rotated Component Matrix <sup>a</sup>				
	Component				
	1	2	3	4	5
Participate3	.752				
Participate1	.723				
Participate4	.723				
Participate2	.706				
Awareness4		.740			
Awareness1		.728			
Awareness3		.714			
Awareness2		.651			
Economic2			.743		
Economic1			.732		
Economic3			.725		
Economic4			.686		
Environmental1				.743	
Environmental2				.711	
Environmental4				.709	
Environmental3				.651	
Social3					.740
Social2					.735
Social4					.718
Social1					.693

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 5 iterations.

b. KMO =0.870; Bartlett's Test of Sphericity (Chi-Square = 1285.245; df = 190; Sig.=0.000)

c. Initial Eigenvalues =1.192; Extraction Sums of Squared Loadings = 60%.

Source: Prepared by the authors (2023).

The factor loading of all variables was greater than 0.5, which means that the factor analysis is valid. Factor loading is the criterion used to ensure the practical significance of factor analysis, where a factor loading greater than 0.3 is considered the minimum, greater than 0.4 is considered important, and greater than 0.5 is considered to be of practical significance. Table 3 shows that all variables have a factor loading greater than 0.5, indicating that the factor analysis is valid. The Extraction Sums of Squared Loadings of seven factors were 60% (>50%), indicating that the factors extracted can explain a significant amount of the variance in the data. The initial eigenvalues of six factors were 1.192 (>1.00), indicating that the



factors extracted have eigenvalues greater than one and thus are valid. Overall, these results demonstrate the validity and suitability of the factor analysis for the proposed research model.

### 3.4. Structural equation modeling

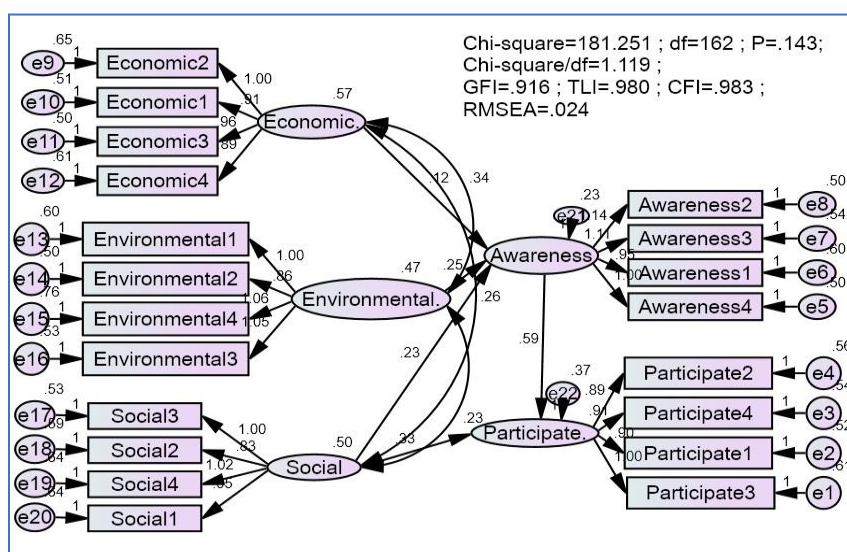
Structural equation modeling (SEM) is a widely used statistical method in the social sciences to analyze the relationships between variables in a complex system (Byrne 2016). It is a type of multivariate analysis that combines parts of regression analysis, factor analysis, and causal modeling (Kline 2015). In SEM, a set of equations are made to show how the variables in a system relate to each other. These equations can be used to estimate the strength and direction of the relationships between the variables and the degree to which underlying latent factors influence the associations (Zaslow et al 2006). The equations in SEM can also predict changes in one variable based on changes in other variables, which is one of the key advantages of the method (Fornell and Larcker 1981). SEM can be used to test theories about the relationships between concepts and variables (Bartholomew 2011). It can also be used to test complex hypotheses about the relationships between variables in a system. Joreskog and Sorbom (1993) found that the results of SEM can give important insights into the mechanisms that drive complex systems and can be used to guide the development of theories and models for these systems. SEM can also help researchers identify indirect and mediating effects between variables as well as direct effects (Kenny 2015).

To evaluate the goodness of fit of the structural equation model (SEM), several fit indices were utilized, including the Chi-Square ( $\chi^2$ ) test, Root-Mean-Square Error of Approximation (RMSEA), standardized-root-mean square residual (SRMR), Tucker-Lewis Index (TLI), and Comparative Fit Index (CFI). A well-fitted model should have values of CFI and TLI  $\geq 0.980$ , and RMSEA and SRMR  $\leq 0.024$ . The analysis results, as shown in Figure 2, indicate that the SEM model satisfies the standard requirements. The Chi-square statistic = 181.251 with 162 degrees of freedom (P-value = 0.024, < 0.05), Chi-square/df ratio = 1.119, Goodness of Fit Index (GFI) = 0.916 (approximately equal to 0.9), TLI = 0.980, and RMSEA = 0.024. The results of the SEM analysis are presented in Table 4, which shows the statistically significant relationship between the independent variables Environmental, Social, Awareness and dependent variables Participate (P-value < 0.050). The remaining variable Economic are not statistically significant (P-value = 0.238 > 0.050). Overall, the results suggest that the SEM model fits well with the data and provides a good representation of the proposed research model.

**Table 4** Regression Weights.

			Estimate	S.E.	C.R.	P	
Awareness	<---	Economic.	.124	.105	1.179	.238	not supported
Awareness	<---	Environmental.	.249	.118	2.109	.035	supported
Awareness	<---	Social	.234	.093	2.523	.012	supported
Participate.	<---	Awareness	.589	.146	4.028	***	supported
Participate.	<---	Social	.333	.115	2.905	.004	supported

Source: Prepared by the authors (2023).



**Figure 2** SEM analysis results.

## 4. Results and Discussion

### 4.1. Results



Firstly, The SEM analysis in Table 4 confirms H2, indicating a statistically significant positive impact of green tourism's environmental benefits on local community awareness of green tourism (Niedziółka 2014). The Hmong community's commitment to sustainable tourism development stems from their long-standing tradition of protecting the environment from external influences. This aligns with previous research highlighting how green tourism can preserve cultural heritage and support local communities (Medina, 2005). Sustainable tourism practices also contribute to the safeguarding of historic sites and monuments, raise awareness about environmental conservation, and promote overall environmental sustainability (Pan et al 2018; Skanavis & Giannoulis 2009; Edgell 2019; Neto 2003). Green tourism initiatives focus on waste reduction, energy conservation, water resource preservation, and the promotion of renewable energy sources in tourism operations (Bohdanowicz et al 2001).

Secondly, the SEM analysis results presented in Table 4 indicate that the local community's perception of the socio-cultural benefits of green tourism has a positive and significant impact on their understanding of green tourism, supporting H3. This finding highlights the crucial role that socio-cultural benefits play in fostering the Hmong people's commitment to participate in the green tourism model in Lao Cai province. This result is consistent with previous research conducted in other cultures by Polnyotee and Thadaniti (2015), suggesting that sustainable tourism practices, such as community-based tourism initiatives, enable visitors to directly engage with local communities, learn about their customs, and participate in local cultural traditions and activities (Reisinger 1994). This cultural exchange can be mutually beneficial, allowing visitors and local communities to learn from each other, share experiences, and gain a better understanding of each other's cultures (Brislin et al 2006).

Thirdly, the SEM analysis results in Table 4 demonstrate that the Hmong community's awareness of green tourism has a positive and significant impact on their commitment to participate in the green tourism model in Lao Cai province, supporting H4. This finding is consistent with previous research in other cultures, such as Thais and Laotians, which also suggests that local communities' perception of green tourism positively influences their commitment to it. Therefore, it is crucial to increase local communities' awareness of the benefits of green tourism and involve them in decision-making processes, ensuring they experience tangible benefits from their participation (Scheyvens 2000). Doing so can enhance their commitment to sustainable tourism practices and promote and support these initiatives in their communities actively (Li et al 2015).

Finally, The SEM analysis results (Table 4) indicate no statistically significant evidence of the economic benefits of green tourism impacting the local community's awareness of green tourism, leading to the non-acceptance of H1. This finding suggests that the Hmong community in Lao Cai province prioritizes the preservation of their cultural heritage over economic benefits, potentially reacting positively to threats against their cultural values. It differs from studies in other cultures that consistently demonstrate the job opportunities and economic boost provided by green tourism (Amerta et al., 2018; Niedziółka, 2014). Green tourism offers diverse employment prospects, including hospitality, ecotourism guides, park rangers, and environmental educators (Amerta et al., 2018). By generating environmentally and socially responsible jobs, green tourism can contribute to local economic growth (Goodwin, 1996). Engaging the local community in decision-making processes and ensuring tangible benefits are crucial for strengthening their commitment to sustainable tourism practices and promoting these initiatives within their community (Li et al., 2015).

#### 4.2. Discussion

Firstly, the research confirms that the environmental benefits of green tourism significantly influence the Hmong community's awareness of green tourism, reinforcing their commitment to sustainable tourism development. This aligns with earlier research highlighting how green tourism can aid in preserving cultural heritage and supporting local communities. Responsible tourism practices that involve and benefit the community can promote cultural tourism, support local businesses, and contribute to the protection of natural resources and environmental sustainability (Medina 2005; Skanavis and Giannoulis 2009).

Furthermore, the study emphasizes the crucial role of socio-cultural benefits in fostering the Hmong community's commitment to green tourism. The perception of socio-cultural benefits positively influences their understanding of green tourism, enabling visitors to engage with local communities, learn about customs, and participate in cultural traditions. This cultural exchange benefits both visitors and locals, fostering mutual understanding and appreciation of different cultures (Amerta et al 2018; Niedziółka 2014).

Moreover, the research demonstrates that the Hmong community's awareness of green tourism positively impacts their commitment to participate in sustainable tourism initiatives. It aligns with findings in other cultures, highlighting the importance of increasing community awareness and involving them in decision-making processes. Tangible benefits and active participation can strengthen their commitment to sustainable practices and support the development of green tourism within their community (Li et al 2015).

However, the study did not find statistically significant evidence of the impact of economic benefits on the community's awareness of green tourism. This suggests that the Hmong community prioritizes the preservation of their

cultural heritage and customs over economic gains. It highlights the importance of engaging the community in decision-making processes and ensuring that they receive tangible benefits from their participation. By doing so, their commitment to sustainable tourism practices can be enhanced, leading to the promotion and support of these initiatives within the community.

In conclusion, this research contributes to understanding the impact of green tourism on the Hmong community in Lao Cai province, Vietnam. The findings underscore the importance of environmental and socio-cultural benefits in shaping community awareness and commitment to sustainable tourism. They emphasize the need for responsible tourism practices that involve and benefit local communities, support cultural heritage preservation, safeguard natural resources, and promote environmental sustainability. The study's insights can inform policymakers and tourism stakeholders in developing strategies that actively engage the Hmong community, ensuring their active participation and mutual benefits in the context of green tourism.

This study confirms the significant positive impact of green tourism on local communities, specifically in terms of environmental and socio-cultural benefits (Tugault-Lafleur and Turner 2009). The findings support the importance of environmental benefits, socio-cultural benefits, and awareness of green tourism in driving the Hmong community's commitment to sustainable tourism development in Lao Cai province (Turner 2012; Turner et al 2015). It is crucial to involve the local community in decision-making processes and ensure tangible benefits to foster their commitment to sustainable tourism practices. However, the study also highlights that economic benefits may not be the primary motivating factor for the Hmong community's participation in green tourism. The research has limitations in terms of generalizability, the use of a quantitative approach, and the focus on the local community's perspective without considering tourists' viewpoints and potential negative impacts of green tourism. Future research should explore these aspects in more depth (Turner 2012; Turner et al 2015). These insights can inform sustainable tourism development strategies in the region, taking into account potential negative impacts and ways to mitigate them.

#### **Ethical considerations**

Not applicable.

#### **Conflict of Interest**

The authors declare that they have no conflict of interest.

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