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**ARTICLE**

# Towards Sustainable Rural Tourism: Insights into Tourists' Preferences in Northern Vietnam

***Nguyen Manh Hung*** [1,2] , ***Xuan Lam Duong*** [2*] , ***Luong Xinh Ho*** [2]

[1] *Department of Environmental Economics, Institute for Environmental Studies, Vrije Universiteit Amsterdam, 1081 HV Amsterdam, The Netherlands*

[2] *Faculty of Economics and Rural Development, Thai Nguyen University of Agriculture and Forestry (TUAF), Thai Nguyen 250000, Vietnam*

## ABSTRACT

This study employs a discrete choice experiment (DCE) to examine tourists' preferences for rural tourism in Northern Vietnam, with a focus on key attributes including activity type, accommodation, price, cultural immersion, and sustainability. Data were collected from 953 tourists across three emerging rural tourism provinces, providing a comprehensive perspective on both domestic and international market segments. The results indicate that activity type—particularly trekking and cultural tours—and accommodation style, especially homestays and traditional ethnic minority houses, are the most influential factors shaping tourist decision-making. While price sensitivity remains evident, especially among domestic and first-time visitors, the analysis reveals that many tourists are willing to pay premiums for authentic, high-quality experiences that offer deeper engagement with the local context. Cultural immersion emerges as a particularly strong driver of preferences, highlighting the growing demand for meaningful interactions with local traditions, heritage, and lifestyles. Sustainability, although secondary compared to other attributes, is still valued by tourists and plays an important complementary role in shaping choices, especially for environmentally conscious travelers. These findings suggest that rural tourism providers should emphasize authentic cultural experiences, adventure-based activities, and visible sustainable practices to effectively

*CORRESPONDING AUTHOR:
Xuan Lam Duong, Faculty of Economics and Rural Development, Thai Nguyen University of Agriculture and Forestry (TUAF), Thai Nguyen 250000, Vietnam; Email: duongxuanlam@tuaf.edu.vn

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respond to diverse tourist expectations. The research offers practical implications for sustainable rural tourism development, product design, and strategic market positioning in emerging destinations.

***Keywords:*** Property Rights; Urbanization Rate of Registered Population; Livelihood Security; Income; Regional Heterogeneity

# 1. Introduction

Rural tourism has emerged as a rapidly growing and significant sector within the global tourism industry, largely due to its multifaceted contributions to sustainable rural development, poverty reduction, and the preservation of both tangible and intangible cultural heritage [1–4]. By promoting visitation to less urbanized and often marginalized rural areas, rural tourism plays a vital role in diversifying local economies, generating employment opportunities, and incentivizing the conservation of natural landscapes alongside traditional cultural practices [5–8]. This form of tourism not only offers economic benefits but also enhances social cohesion and empowers local communities by enabling them to share and celebrate their unique identities [9,10].

Despite its potential, rural tourism faces a suite of persistent challenges on a global scale. Infrastructural deficits, including poor transportation networks and limited accommodation facilities, often constrain the accessibility and quality of rural tourism destinations [11–14]. Additionally, rural tourism is characterized by pronounced seasonality and fluctuations in visitor numbers, which undermine income stability and complicate business sustainability [15,16]. Marketing and promotional efforts tend to be underdeveloped in rural contexts, limiting destination visibility and competitiveness in a globalized tourism market [17,18]. Moreover, there is an ongoing tension in balancing economic growth with environmental conservation and social equity. Unchecked tourism development can lead to degradation of ecosystems, loss of cultural authenticity, and displacement of local residents [19,20]. Notably, Li et al. caution that overreliance on tourism as the sole engine of rural revitalization may undermine long-term sustainability [21], as communities risk becoming economically dependent on volatile visitor flows. Complementing this, Priatmoko et al. show the complexity of rural tourism businesses is shaped by four major forces—marketability, participatory engagement, crisis mitigation, and sustainability—with sustainability emerging as the most prominent factor [22]. Extending these insights, a recent bibliometric analysis by Wang et al. maps the evolution of sustainable rural tourism research, identifying shifting hotspots such as stakeholder participation, ecosystem services, and tourist satisfaction [23], while pointing to interdisciplinary directions for future inquiry. These studies highlight the need to balance local authenticity and market demands with broader sustainability objectives.

A fundamental challenge to advancing rural tourism lies in a nuanced understanding of tourist preferences and behaviors, which is essential for the design of tourism products that are attractive to visitors while ensuring benefits for host communities [24–26]. Contemporary tourists increasingly seek authentic, immersive cultural experiences and environmentally responsible tourism options, reflecting broader shifts in consumer values towards sustainability and meaningful engagement [19,27,28]. This evolving demand has driven a transition from traditional mass tourism models to more niche, experience-based rural tourism offerings, emphasizing personal interaction, learning, and conservation [29,30]. However, these shifts impose operational challenges for rural tourism providers who must carefully balance the delivery of authentic and sustainable experiences with economic viability and competitive pricing strategies [31,32].

To capture and quantify the complex trade-offs that tourists make among diverse rural tourism attributes, researchers increasingly rely on discrete choice experiment (DCE) [33–35].

By simulating realistic choice scenarios, DCE estimates the relative importance of several attributes at the same time, offering nuanced insights into how tourists prioritise different elements of rural tourism

products [36,37]. This approach is especially valuable in rural contexts, where tourism products combine environmental, cultural, and social dimensions [21,38].

Despite the growing application of DCE in tourism research, empirical studies specifically addressing rural tourism remain limited, especially those that integrate critical attributes such as cultural authenticity and sustainability. Much of the existing rural tourism literature focuses on overall tourist satisfaction or broad destination choice without dissecting the precise attributes influencing decision-making. Furthermore, the intersection of environmental and socio-cultural factors in shaping preferences is still underexplored, particularly regarding how these preferences vary across key demographic dimensions such as nationality, age, gender, and travel experience. These research gaps are especially pressing in light of intensified global policy focus on sustainable tourism development and the United Nations' Sustainable Development Goals (SDGs), which underscore the importance of fostering tourism that is economically viable, socially equitable, and environmentally responsible. In addition, wide regional disparities in infrastructure capacity, community readiness, and tourist profiles highlight the necessity for context-specific, data-driven approaches rather than generic strategies.

This study frames rural tourism as a complex decision-making environment in which tourists simultaneously weigh authenticity, cultural engagement, environmental sustainability, and economic value when choosing destinations and experiences. The DCE employed here operationalizes these theoretical constructs by quantifying the relative importance of multiple attributes, allowing for an empirically grounded understanding of preference heterogeneity and trade-offs. The three research questions (RQ) of this study are:

RQ1. What are the key attributes that influence tourists' preferences for rural tourism?

RQ2. How do tourists value different aspects of rural tourism, including accommodation type, activity preferences, price sensitivity, and cultural immersion?

RQ3. How do these preferences vary by tourist demographics (including nationality, age, gender, etc.)?

By answering these questions, this study will offer a deeper understanding of tourist behavior in rural tourism and provide practical recommendations for enhancing the competitiveness and sustainability of rural tourism destinations. The rest of this paper is structured as follows: Section 2 represents the theoretical framework of this study. Section 3 provides information about data and research area. Section 4 provides our employed methodology. Section 5 presents the results of the experiment. Section 6 discusses the result interpretation. Section 7 provides our implications based on empirical findings. Section 8 concludes our study.

## 2. Theoretical Framework

This research is grounded in Consumer Behavior Theory (CBT), a framework developed to understand how individuals make choices among competing alternatives [39–41]. The theory posits that consumers act as utility-maximizers, systematically evaluating a set of product or service attributes and selecting the option that provides the greatest satisfaction or perceived value [42,43]. The decision-making process is influenced not only by objective factors, such as cost, quality, and availability, but also by subjective perceptions, preferences, and experiences [44,45]. In tourism, these choices involve complex trade-offs between intrinsic motivations—such as the desire for cultural immersion, relaxation, or learning—and extrinsic constraints, including price, accessibility, and service infrastructure [46–48].

CBT incorporates insights from psychology, sociology, and marketing, emphasizing that decision-making is not purely rational [49–51]. Tourists' preferences are shaped by perceptions, attitudes, past experiences, social influence, and cultural background, which determine the relative importance of attributes and influence choice patterns [20,52]. Emotional and experiential factors play a crucial role, particularly in rural tourism contexts, where the aesthetic, cultural, and social dimensions of destinations often contribute more to the overall utility than purely functional aspects [53–55].

A key feature of CBT is the attention to heterogene-

ity in preferences [56,57]. Tourists are influenced by demographic, socio-economic, and cultural factors, which lead to variation in attribute importance and decision-making patterns [28,47]. Age, gender, nationality, income, travel experience, and cultural orientation can all influence how tourists perceive destinations and make choices [58,59]. This recognition of heterogeneity is particularly critical in rural tourism, where visitor motivations range from environmental stewardship and cultural learning to leisure and price sensitivity. CBT also emphasizes the dynamic nature of preferences, acknowledging that tourist choices evolve with changes in social norms, market conditions, technological innovation, and environmental awareness [60,61]. These evolving preferences necessitate that rural tourism providers understand not only the current drivers of choice but also anticipate shifts in demand to design products that remain attractive, economically viable, and environmentally sustainable.

Random Utility Theory (RUT) is a widely applied operationalization of CBT. It conceptualizes the utility of an alternative as a combination of observable attributes (e.g., accommodation type, activities, sustainability measures, price) and random unobserved components, capturing personal idiosyncrasies and factors not directly measured [62–64]. RUT provides a quantitative basis for modeling tourists' choices, enabling researchers to estimate how changes in individual attributes influence overall preferences and decision outcomes. This approach is especially effective in rural tourism studies, where offerings are multidimensional and include both tangible (e.g., facilities, landscapes) and intangible features (e.g., cultural authenticity, local traditions) [16,30].

DCE is a methodological extension of CBS and RUT, widely used to elicit preferences in tourism research [65–67]. By simulating realistic scenarios with multiple alternatives described by varying attributes, DCE captures the trade-offs tourists make among competing features and quantifies their willingness-to-pay for specific characteristics [33,35]. DCE allows for the inclusion of both economic and non-economic factors, including environmental sustainability, cultural experiences, and local engagement, offering a nuanced understanding of consumer priorities and behaviors [68,69]. By integrating psychological, economic, and sociocultural dimensions, CBT provides a comprehensive lens to study rural tourism. It enables researchers to examine how tourists evaluate multiple attributes, how trade-offs are made between economic, cultural, and environmental factors, and how variations in tourist characteristics shape the patterns of destination choice. This theoretical framework supports the design of empirical studies, such as DCE, which can quantify preference structures, inform marketing strategies, and guide sustainable tourism development policies.

# 3. Data

The study was conducted in three trending rural tourism destinations in Northern Vietnam: Lai Chau, Ha Giang, and Lao Cai. **Figure 1** highlights our study area. These provinces were chosen for their popularity among domestic and international tourists, as well as their rich cultural and natural landscapes. Moreover, the selected provinces represent diverse rural contexts, including mountainous terrains, ethnic minority communities, and emerging adventure tourism sites, which allows for capturing variation in tourist experiences and preferences. The data was collected between September and December 2024 from 953 tourists (409 domestic and 544 international), who were randomly selected from 12 rural tourist attractions in these 3 provinces. The selected locations were approved by the local government upon our list of requests. While the findings are most directly applicable to Northern Vietnam, the observed patterns—such as the importance of activity type, accommodation authenticity, and cultural immersion—may also provide insights for other rural tourism contexts with similar cultural and environmental characteristics, thereby supporting the broader relevance of the study.

**Table 1** presents the baseline characteristics of the 953 respondents surveyed. The sample comprised 42.9% domestic tourists and 57.1% international tourists. In terms of age, the majority were between 25–44 years old (61.8%), followed by 45–64 years (21.5%), 18–24 years (12.1%), and 65 years or older (4.6%). The gender distribution was nearly balanced, with 50.6%

male and 49.4% female respondents. Regarding education, over half (54.1%) had a high school education or below, while 37.8% held a bachelor's degree and 8.1% had a master's degree or higher. In terms of travel experience, 46.8% were visiting for the first time, 33.3% for the second time, and 19.9% had visited more than twice. Among international tourists, the largest proportion came from Asia (47.4%), followed by Europe (26.8%), North America (9.9%), Oceania (12.1%), and other regions (3.7%). Accommodation preferences varied, with boutique hotels (37.7%) being the most popular, followed closely by traditional ethnic minority houses (36.4%) and homestays (25.9%). In terms of preferred activities, trekking was the most common choice (42.0%), followed by cultural tours (31.0%), nature walks (17.3%), and local craft workshops (9.7%).

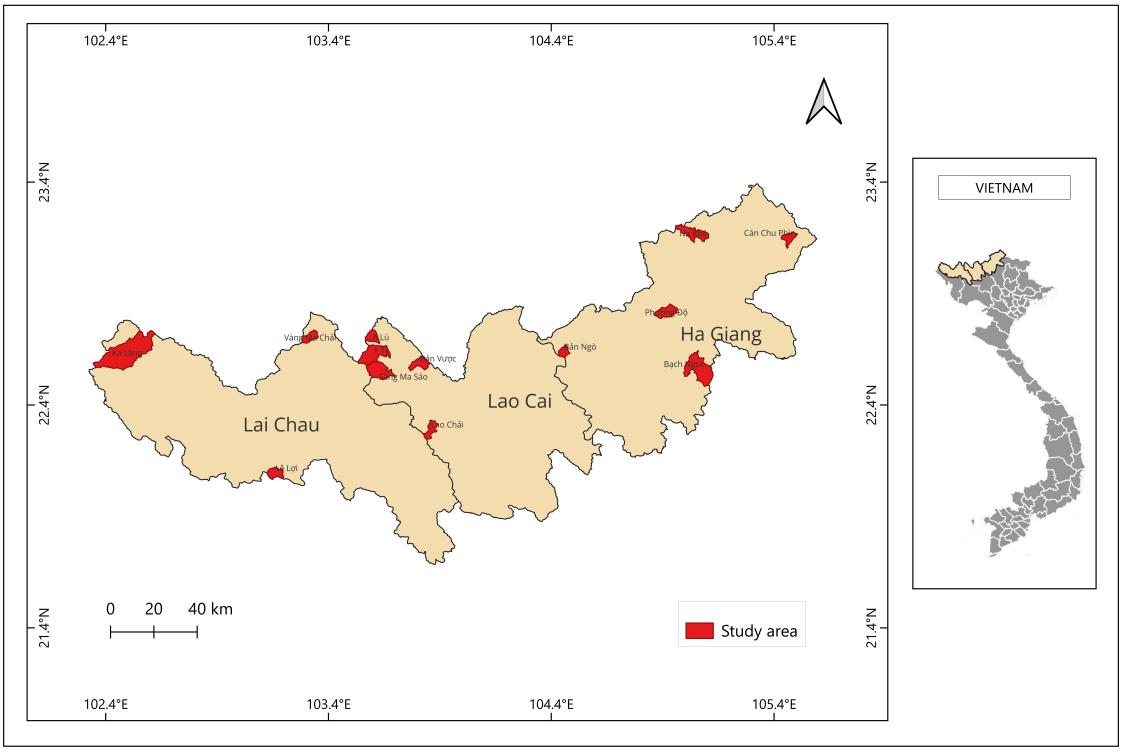


**Figure 1.** Map of Study Area.

*Note.* This study was conducted prior to July 1, 2025, when Vietnam implemented the merger of several provinces and municipalities. Therefore, the provincial names used in this research reflect the administrative units at the time of data collection (from September to December 2024). The map presented in **Figure 1** is likewise based on the administrative boundaries and names in effect during this period.

**Table 1.** Baseline Characteristics of Respondents.

| Characteristic | Category | Frequency | Percentage (%) |
|---|---|---|---|
| Age Group | 18–24 years | 115 | 12.1 |
| | 25–44 years | 589 | 61.8 |
| | 45–64 years | 205 | 21.5 |
| | 65+ years | 44 | 4.6 |
| Gender | Male | 482 | 46.8 |
| | Female | 471 | 33.3 |
| Education Level | High school or below | 516 | 54.1 |
| | Bachelor | 360 | 37.8 |
| | Master or higher | 77 | 8.1 |
| Frequency of Visit | First time | 446 | 46.8 |
| | Second time | 317 | 33.3 |
| | More than two visits | 190 | 19.9 |
| Tourist Type | Domestic | 409 | 42.9 |
| | International | 544 | 57.1 |

**Table 1.** *Cont.*

| Characteristic | Category | Frequency | Percentage (%) |
|---|---|---|---|
| Origin of Continent (International tourists only) | Asia | 258 | 47.4 |
| | Europe | 146 | 26.8 |
| | Oceania | 54 | 12.1 |
| | North America | 66 | 9.9 |
| | Other | 20 | 3.7 |
| Accommodation Type Preference | Homestay | 247 | 25.9 |
| | Boutique Hotel | 359 | 37.7 |
| | Traditional Ethnic Minority House | 347 | 36.4 |
| Preferred Activity | Trekking | 400 | 42.0 |
| | Cultural Tour | 295 | 31.0 |
| | Nature Walk | 165 | 17.3 |
| | Local Craft Workshop | 93 | 9.7 |

# 4. Method

This section outlines the methodology used to explore tourist preferences for rural tourism in North Vietnam. The study employs DCE to quantify the relative importance of various tourism attributes. DCE is a robust statistical method that simulates real-world decision-making by presenting respondents with hypothetical scenarios involving different combinations of attributes [68,70,71].

## 4.1. DCE Design

The DCE design was developed using a fractional factorial approach to allow for an efficient estimation of the relative importance of key tourism attributes while minimizing the number of choice tasks presented to each respondent. This method is widely accepted in choice modeling for its ability to balance statistical efficiency and respondent burden.

In designing the DCE, the following five key attributes of rural tourism in Northern Vietnam were identified based on previous literature, expert consultation, and preliminary focus groups with tourists and local stakeholders. **Table 2** describes our attributes and the level of attributes.

## 4.2. Fractional Factorial Design

To minimize the number of hypothetical alternatives and choice tasks, a fractional factorial design was employed. This design reduces the full factorial combinations of all levels for each attribute, while maintaining a sufficient level of statistical power. Qualtrics was used to generate a set of choice tasks, resulting in a 12-choice task survey for each respondent, with three alternatives per task. To minimize potential order effects, the presentation order of the choice tasks and alternatives was fully randomized for each respondent. **Figure 2** shows an example of the choice task.

Please make a choice

| Option | Option A | Option B | Option C |
|---|---|---|---|
| **Accommodation Type** | Homestay | Hotel | Traditional Ethnic Minority House |
| **Activity Type** | Trekking | Cultural Tour | Nature Walk |
| **Price per Night** | $30 | $50 | $70 |
| **Cultural Immersion** | Low | Medium | High |
| **Sustainability Practices** | None | Eco-friendly | Fully Sustainable |
| Your Choice | ☐ | ☐ | ☐ |

**Figure 2.** Example of the Choice Task.

**Table 2.** Attributes and Levels in the DCE.

| Attribute | Level | Description |
|---|---|---|
| Accommodation Type | Homestay | Traditional, community-based accommodation. |
| | Hotel | Modern, luxury accommodation. |
| | Traditional Ethnic Minority House | Authentic ethnic housing with cultural experiences. |
| Activity Type | Trekking | Nature and adventure-based activity. |
| | Cultural Tour | Ethnic culture immersion and heritage tours. |
| | Nature Walk | Ecological tours in rural landscapes. |
| | Local Craft Workshop | Hands-on experience with local artisans. |
| Price per Night | $30 | Low-cost option. |
| | $50 | Mid-range option. |
| | $70 | High-end option. |
| Cultural Immersion | Low | Minimal interaction with local culture. |
| | Medium | Moderate cultural immersion through guided tours or interactions with locals. |
| | High | Intensive cultural engagement, including homestays and workshops. |
| Sustainability Practices | None | No sustainability practices in place. |
| | Eco-friendly | Some sustainable practices, e.g., waste management, renewable energy. |
| | Fully Sustainable | Comprehensive sustainability practices, such as organic farming, community-based tourism. |

*Note.* Although the local currency in the study area is the Vietnamese Dong (VND), USD was used in the survey to facilitate responses from international tourists. USD is also relatively popular among domestic respondents, so this choice did not cause significant difficulty for them.

This approach ensures that each combination of attribute levels appears across respondents, enabling the estimation of part-worth utilities for each attribute level. The fractional factorial design was selected based on the principle of orthogonality, meaning that each attribute is independently varied, and efficiency, ensuring that the design minimizes the number of choice sets while still allowing for reliable estimation of preference patterns.

## 4.3. Multinomial Logit Model (MNL)

The multinomial logit model (MNL) is the primary method for estimating the part-worth utilities from the DCE data. This model is widely used in choice experiments due to its ability to predict choices from multiple alternatives based on the utility derived from each alternative's attributes.

### 4.3.1. Model Specification

The MNL model assumes that each alternative in a choice set has an associated utility for the respondent, which is a linear function of the attributes of the alternative. The utility for individual *i* choosing alternative *j* in choice set *t* is specified in:

$$U_{ijt} = \beta_0 + \sum_{k=1}^{K} \beta_k X_{ijt} + \epsilon_{ijt} \quad (1)$$

where:

- $U_{ijt}$ = Utility of alternative $j$ for individual $i$ in choice task $t$,
- $\beta_0$ is the constant term (representing the baseline utility),
- $\beta_k$ is the coefficient for attribute $k$,
- $X_{ijt}$ is the level of attribute $k$ for alternative $j$ in task $t$,
- $\epsilon_{ijt}$ is the error term (assumed to be independent and identically distributed).

The dependent variable in the MNL model is a binary choice (whether the respondent selects one alternative over the others), which means the utility for each alternative is transformed into a probability of selection.

### 4.3.2. Estimation of Part-Worth Utilities

The part-worth utility for each attribute level is the estimated value representing the degree to which a respondent values that particular level. The part-worth utilities are derived from the estimated coefficients $\beta_k$ in the model. A positive coefficient indicates that the attribute level is preferred, while a negative coefficient indicates that it is less preferred.

The utility function for each attribute is as follows:

- Accommodation Type: Positive part-worth utilities indicate preferences for Homestay or Traditional Ethnic Minority House over Boutique Hotel, which

may be considered less attractive by tourists seeking authenticity and local experiences.

- Activity Type: Higher part-worth utilities for Trekking and Cultural Tour suggest that adventure and cultural immersion are highly valued by respondents.
- Price per Night: Part-worth utilities for price levels reflect the trade-off between cost and preference for other attributes (e.g., cultural immersion and sustainability).
- Cultural Immersion: Higher levels of cultural immersion (Medium and High) are associated with greater utility, suggesting that tourists prefer authentic cultural experiences.
- Sustainability Practices: The utility associated with sustainability will likely vary, with eco-friendly and fully sustainable practices being positively valued by environmentally-conscious tourists.

### 4.3.3. Model Estimation Procedure

To estimate the model, the maximum likelihood estimation (MLE) method was employed. The MLE approach allows for the simultaneous estimation of the part-worth utilities and their statistical significance. The procedure involves:

Step 1: Choosing a baseline alternative (e.g., choosing Boutique Hotel as the reference category for accommodation type).

Step 2: Estimating the part-worth utilities for all other alternatives based on the responses.

Step 3: Calculating the probabilities of choosing each alternative using the logistic function (2) as follows:

$$P_{ijt} = \frac{e^{U_{ijt}}}{\sum_{k=1}^{3} e^{U_{ikt}}} \tag{2}$$

where $P_{ijt}$ is the probability of choosing alternative $j$ over alternative $k$ in choice set $t$.

The statistical significance of each estimated coefficient is determined using t-tests or Wald tests based on the standard errors of the estimated coefficients.

### 4.3.4. Analysis of Relative Importance

To determine the relative importance of each attribute in shaping tourist preferences, the study calculates the range of part-worth utilities for each attribute level and divides it by the total range of part-worth utilities across all attributes.

The relative importance of attribute $k$ is calculated in:

$$\text{RI}_k = \frac{\text{Range of Part-Worth Utilities for Attribute } k}{\sum_{k=1}^{K} \text{Range of Part-Worth Utilities for All Attributes}} \tag{3}$$

where the Range of Part-Worth Utilities is the difference between the highest and lowest utility values for each attribute across all levels.

This allows for a comparison of the relative contribution of each attribute to the overall choice-making process. For example, if the Cultural Immersion attribute has a higher relative importance than Price per Night, this suggests that tourists value cultural engagement more than the price of their stay, which has important implications for tourism planning and development in rural areas.

### 4.3.5. Willingness to Pay

The willingness-to-pay (WTP) values were derived from the part-worth utilities obtained through the DCE. In this framework, WTP represents the additional monetary amount a respondent is willing to pay to obtain a specific attribute level over a designated baseline level, holding all other factors constant. The estimation is grounded in the principle that the utility of a product can be decomposed into the sum of the utilities of its attributes, and that the marginal utility of price provides a natural conversion factor between utility units and monetary units.

Let $U_{ij}$ denote the part-worth utility of attribute level $j$ for respondent $i$, and let $\beta_p$ represent the marginal utility of price. The WTP for an attribute level $k$, relative to a baseline $b$, can be expressed in:

$$\text{WTP}_k = \frac{U_k - U_b}{-\beta_p} \tag{4}$$

The calculation procedure consisted of three steps. First, baseline levels were identified for each attribute, corresponding to the omitted category in effects cod-

ing (e.g., Boutique Hotel for accommodation type, Local Craft Workshop for activity type, Low cultural immersion for immersion level, and No sustainability practices for sustainability). Second, the difference in part-worth utilities between each target level and its baseline was computed. Finally, each utility difference was divided by the marginal utility of price to yield the WTP in US$ per night.

It is important to note that the positive price coefficient observed in the part-worth estimates suggests that respondents in this sample may partially perceive higher prices as a quality signal. Consequently, the WTP values presented here reflect the implicit monetary premium associated with preferred attributes, rather than the classical compensating variation measure that assumes price always enters the utility function negatively. This methodological nuance should be considered when interpreting the magnitude and direction of the WTP estimates.

### 4.3.6. Heterogeneity of Preferences

To account for heterogeneity of preferences among different tourist groups and potential temporal effects, the utility function is specified with interaction terms between attribute levels and group membership, as well as week-level time fixed effects, as given in:

$$U_{ijt} = \sum_{k=1}^{K} \beta_k X_{ijt} + \sum_{l=1}^{L} \gamma_l (D_{il} \times X_{ijt}) + \sum_{w=1}^{W} \delta_w W_{iw} + \epsilon_{ijt} \quad (5)$$

where

- $\beta_k$ = coefficient for attribute $k$ (part-worth utility),
- $X_{ijt}$ = level of attribute $k$ for alternative $j$ in choice task $t$,
- $D_{il}$ = dummy variable for group $l$ (e.g., continent, age group, gender, education level),
- $\gamma_l$ = coefficient for interaction term $l$, capturing group-specific preference differences,
- $W_{iw}$ = dummy variable for week $w$ of the interview (week-level time fixed effect),
- $\delta_w$ = coefficient for week fixed effect $w$, capturing potential temporal influences on choices,
- $\epsilon_{ijt}$ = error term.

This specification allows estimation of heterogeneity in preferences across key socio-demographic groups while controlling for potential week-level temporal effects. Individual fixed effects are not included because they would prevent estimation of between-group differences, which are the focus of this study.

## 5. Result

This section presents the results from the DCE, including the estimated part-worth utilities, statistical significance, and the relative importance of each attribute influencing tourists' preferences for rural tourism in Northern Vietnam. All models were estimated using the Multinomial Logit Model (MNL), with 953 respondents completing 12 choice tasks each.

### 5.1. Estimated Part-Worth Utilities

**Table 3** presents the estimated part-worth utilities for each attribute level derived from the MNL model. These utilities indicate the relative importance that respondents place on each attribute level when making their tourism choices.

**Table 3.** Part-Worth Utilities and Statistical Significance of Attributes.

| Attribute | Attribute Level | Part-Worth Utility ($\beta$) | Standard Error | *t*-Statistic | *p*-Value |
|---|---|---|---|---|---|
| Accommodation Type | Homestay | 0.324 | 0.075 | 4.320 | 0.000 |
| | Boutique Hotel | −0.227 | 0.068 | −3.338 | 0.001 |
| | Traditional Ethnic Minority House | 0.213 | 0.072 | 2.958 | 0.003 |
| Activity Type | Trekking | 0.647 | 0.081 | 7.988 | 0.000 |
| | Cultural Tour | 0.428 | 0.077 | 5.558 | 0.000 |
| | Nature Walk | −0.118 | 0.065 | −1.815 | 0.070 |
| | Local Craft Workshop | −0.443 | 0.079 | −5.608 | 0.000 |

**Table 3.** *Cont.*

| Attribute | Attribute Level | Part-Worth Utility ($\beta$) | Standard Error | *t*-Statistic | *p*-Value |
|---|---|---|---|---|---|
| Price per Night | $30 | −0.238 | 0.069 | −3.449 | 0.001 |
| | $50 | 0.012 | 0.062 | 0.194 | 0.846 |
| | $70 | 0.254 | 0.070 | 3.629 | 0.000 |
| Cultural Immersion | Low | −0.182 | 0.066 | −2.758 | 0.006 |
| | Medium | 0.014 | 0.058 | 0.241 | 0.810 |
| | High | 0.197 | 0.063 | 3.127 | 0.002 |
| Sustainability Practices | None | −0.042 | 0.060 | −0.700 | 0.484 |
| | Eco-friendly | 0.019 | 0.055 | 0.345 | 0.730 |
| | Fully Sustainable | 0.083 | 0.061 | 1.361 | 0.174 |

The analysis reveals clear differences in preferences across accommodation types. Homestay ($\beta = 0.324$) and Traditional Ethnic Minority House ($\beta = 0.213$) exhibit substantially higher positive part-worth utilities compared to the Boutique Hotel ($\beta = -0.227$). This suggests that respondents favor authentic, culturally embedded accommodation experiences over modern or luxury-oriented alternatives.

For activity preferences, Trekking ($\beta = 0.647$) emerges as the most valued option, followed by Cultural Tour ($\beta = 0.428$). Both are significantly more attractive than Nature Walk ($\beta = -0.118$) and Local Craft Workshop ($\beta = -0.443$), indicating that activities involving physical engagement and exploration of the natural and cultural environment are strongly preferred over passive or craft-based experiences.

Price also plays a discernible role in decision-making. The $30 option ($\beta = -0.238$) yields a negative and statistically significant utility, the $50 option ($\beta = 0.012$) shows a negligible effect, whereas the $70 option ($\beta = 0.254$) is associated with a positive and statistically significant effect. These results imply that respondents are willing to pay a premium for perceived quality, especially when such offerings are combined with cultural and sustainability elements.

In terms of cultural immersion, the High level ($\beta = 0.197$) is most preferred, followed by Medium ($\beta = 0.014$), with Low immersion ($\beta = -0.182$) being the least favored. This pattern reflects an increasing demand for immersive and authentic tourism experiences, consistent with broader trends in rural and cultural tourism markets.

Preferences regarding sustainability practices also align with this shift. Fully Sustainable ($\beta = 0.083$) and Eco-friendly ($\beta = 0.019$) accommodations are preferred over those with None ($\beta = -0.042$). Although the magnitude of these effects is smaller than for other attributes, the positive direction underscores a growing awareness and valuation of environmentally responsible tourism practices among visitors.

## 5.2. Relative Importance of Each Attribute

**Table 4** presents the relative importance of each attribute based on the range of part-worth utilities for each attribute level. This metric helps to understand the contribution of each attribute to the overall decision-making process of the respondents.

**Table 4.** Relative Importance of Each Attribute.

| Attribute | Range of Part-Worth Utilities | Relative Importance (%) |
|---|---|---|
| Accommodation Type | $0.324 - (-0.227) = 0.551$ | 20.908 |
| Activity Type | $0.647 - (-0.443) = 1.090$ | 41.357 |
| Price per Night | $0.254 - (-0.238) = 0.492$ | 18.651 |
| Cultural Immersion | $0.197 - (-0.182) = 0.379$ | 14.382 |
| Sustainability Practices | $0.083 - (-0.042) = 0.125$ | 4.702 |

The findings highlight that the type of activity is the most influential factor shaping tourists' preferences, accounting for 41.4% of the relative importance based on the range of part-worth utilities. Activities such as trekking and cultural tours stand out as the most favored, indicating that adventure and cultural im-

mersion are key drivers of rural tourism in Northern Vietnam. Accommodation type also plays a significant role, contributing 20.9% to the decision-making process. Tourists show a clear preference for authentic lodging options like homestays and traditional ethnic minority houses, which aligns well with the broader trend toward cultural and sustainable tourism experiences.

Price per night is an important consideration as well, accounting for 18.7% of the relative importance. While many tourists are willing to pay a premium for high-quality experiences, such as $70 for superior accommodation or activities, cost remains a relevant factor influencing choices. The level of cultural immersion is another meaningful attribute, representing 14.4% of relative importance. Respondents tend to prefer higher degrees of cultural engagement, reflecting the increasing demand for experiential tourism where travelers seek meaningful interactions with local cultures.

Last, sustainability practices have the smallest impact on tourist preferences, with 4.7% relative importance. Nevertheless, there is still a noticeable preference for eco-friendly and sustainable initiatives, suggesting that environmental awareness is becoming more influential in tourism decisions. Together, these results provide valuable insights into what drives tourist behavior in rural Northern Vietnam, emphasizing the prominence of activities and authentic experiences alongside growing concerns about culture and sustainability.

## 5.3. Willingness to Pay

The willingness-to-pay (WTP) analysis offers a monetary interpretation of the part-worth utilities derived from the DCE, enabling an assessment of the implicit premiums respondents are prepared to pay for preferred travel attributes. The results reveal that activity type commands the highest monetary valuation in the sample. Specifically, the shift from a local craft workshop to trekking is associated with an average WTP of approximately US$36.333 per night, followed by US$29.033 for a cultural tour and US$10.833 for a nature walk. These findings suggest that physically engaging or culturally immersive activities are regarded as substantially more valuable than the baseline craft workshop, with trekking emerging as the most highly valued experience among respondents.

Accommodation type also generates notable willingness to pay. Transitioning from a boutique hotel to a homestay yields an average WTP of US$18.367 per night, while moving from a boutique hotel to a traditional ethnic minority house produces a slightly lower but still significant WTP of US$14.667. These premiums indicate a strong preference for authentic and culturally embedded lodging experiences, reinforcing the earlier part-worth findings that highlighted a taste for immersive travel. In contrast, the premium for boutique hotels over these alternatives appears relatively modest, suggesting that respondents do not perceive substantial sacrifices in comfort or quality when choosing more traditional accommodation types.

Attributes related to cultural immersion and sustainability also display meaningful WTP levels (**Table 5**). Respondents are willing to pay approximately US$12.633 per night for high cultural immersion compared to low immersion, and US$6.533 for medium immersion over low immersion. In sustainability terms, the shift from no sustainability practices to eco-friendly practices carries an average WTP of US$2.033, while moving to fully sustainable practices yields a higher WTP of US$4.167. These results indicate that environmental responsibility and authentic cultural engagement are valued by a portion of respondents, although the monetary premiums for sustainability are smaller than for activity type or accommodation.

**Table 5.** Willingness to Pay (WTP) Estimates.

| Comparison (Baseline → Level) | Utility Difference | WTP (US$ / Night) |
|---|---|---|
| Boutique Hotel → Homestay | $0.324 - (-0.227) = 0.551$ | 18.367 |
| Boutique Hotel → Traditional Ethnic Minority House | $0.213 - (-0.227) = 0.440$ | 14.667 |
| Local Craft Workshop → Trekking | $0.647 - (-0.443) = 1.090$ | 36.333 |
| Local Craft Workshop → Cultural Tour | $0.428 - (-0.443) = 0.871$ | 29.033 |
| Local Craft Workshop → Nature Walk | $-0.118 - (-0.443) = 0.325$ | 10.833 |
| Immersion Low → Immersion High | $0.197 - (-0.182) = 0.379$ | 12.633 |

**Table 5.** *Cont.*

| Comparison (Baseline → Level) | Utility Difference | WTP (US$ / Night) |
|---|---|---|
| Immersion Low → Immersion Medium | $0.014 - (-0.182) = 0.196$ | 6.533 |
| Sustainability None → Eco-friendly | $0.019 - (-0.042) = 0.061$ | 2.033 |
| Sustainability None → Fully Sustainable | $0.083 - (-0.042) = 0.125$ | 4.167 |

## 5.4. Heterogeneity of Preferences

To deepen the understanding of differences in tourist preferences for rural tourism in Northern Vietnam, additional interaction effects were analyzed between key socio-demographic variables (continent of origin, age, gender, and education level) and the five main tourism attributes. The analysis reveals notable variations in preferences that have implications for market segmentation and product design.

### 5.4.1. Preferences by Continent of Origin

Tourists were grouped into five continental categories: Asia, Europe, North America, Oceania, and Others (Africa, South America, and the Middle East). **Table 6** shows the heterogeneity of preferences by continent of origin. Trekking and adventure activities may be more effectively promoted in North America and Asia, whereas cultural immersion and sustainability could be focal points for European markets. Price-sensitive strategies might be necessary for the "Other" regions.

Specifically, tourists from Asia (including China, South Korea, Japan, and ASEAN countries) exhibited a stronger preference for Boutique Hotels ($\beta = 0.208$) compared to other continents, reflecting a higher demand for comfort-oriented rural stays. However, they also valued Trekking highly ($\beta = 0.478$). European tourists placed the strongest emphasis on Fully Sustainable accommodations ($\beta = 0.408$) and High Cultural Immersion ($\beta = 0.448$). They showed less sensitivity to price, with negligible differences between the $30 and $70 per night options.

**Table 6.** Part-Worth Utility Differences by Continent of Origin.

| Attribute | Asia | Europe | North America | Oceania | Other |
|---|---|---|---|---|---|
| Homestay | 0.172* | 0.348*** | 0.205 | 0.218 | 0.160 |
| | (0.096) | (0.074) | (0.119) | (0.105) | (0.127) |
| Boutique Hotel | 0.208** | 0.076 | 0.138 | 0.153 | 0.050 |
| | (0.082) | (0.090) | (0.108) | (0.091) | (0.110) |
| Traditional Ethnic House | 0.106 | 0.265* | 0.175 | 0.155 | 0.118 |
| | (0.091) | (0.103) | (0.110) | (0.097) | (0.109) |
| Trekking | 0.478*** | 0.534*** | 0.605*** | 0.430** | 0.373* |
| | (0.068) | (0.059) | (0.075) | (0.088) | (0.095) |
| Cultural Tour | 0.267 | 0.410*** | 0.398*** | 0.352** | 0.283* |
| | (0.083) | (0.058) | (0.064) | (0.070) | (0.081) |
| Nature Walk | 0.059 | 0.175 | 0.136 | 0.188* | 0.121 |
| | (0.090) | (0.096) | (0.101) | (0.093) | (0.096) |
| Local Craft Workshop | −0.078 | 0.071 | −0.019 | 0.050 | 0.039 |
| | (0.088) | (0.089) | (0.087) | (0.074) | (0.084) |
| $30/night | −0.216* | −0.142 | −0.170 | −0.082 | 0.227** |
| | (0.100) | (0.100) | (0.107) | (0.089) | (0.096) |
| $70/night | 0.255** | 0.319*** | 0.281** | 0.208* | −0.401*** |
| | (0.077) | (0.063) | (0.081) | (0.084) | (0.081) |
| High Cultural Immersion | 0.174 | 0.448*** | 0.324** | 0.281* | 0.211 |
| | (0.090) | (0.058) | (0.064) | (0.075) | (0.087) |
| Fully Sustainable | 0.203 | 0.408*** | 0.322** | 0.268* | 0.162 |
| | (0.085) | (0.061) | (0.074) | (0.076) | (0.081) |

Notes: Clustered standard errors in parentheses. Week-level time fixed effects are controlled. Heterogeneity across groups is captured through interaction terms between attributes and group. Significance levels: $^{***}p < 0.01$, $^{**}p < 0.05$, $^{*}p < 0.1$.

North American tourists ranked Trekking ($\beta = 0.605$) and Cultural Tours ($\beta = 0.398$) as top priorities but displayed relatively low preference for homestays compared to Europeans. Sustainability was moderately important for this group. Oceania tourists exhibited balanced preferences across all attributes but were particularly receptive to Culture Tour ($\beta = 0.352$) and Trekking ($\beta = 0.430$), possibly reflecting a stronger

nature-oriented travel culture. Tourists from other areas demonstrated the highest price sensitivity, with a strong negative coefficient for the $70 option ($\beta = -0.401$), suggesting that budget constraints play a more significant role in their decision-making.

### 5.4.2. Preferences by Age Group

**Table 7** presents the tourists' preferences by age group. Age-based segmentation reveals distinct generational patterns in travel preferences. Younger travelers in the 18–24 age range exhibit the strongest attraction to trekking ($\beta = 0.668$) and homestay experiences ($\beta = 0.498$), suggesting a desire for adventurous and immersive tourism. The 25–44 group maintains a strong interest in trekking ($\beta = 0.529$) but demonstrates a more balanced approach, combining adventure with cultural enrichment. Travelers aged 45–64 tend to gravitate toward less physically demanding activities such as nature walks ($\beta = 0.260$) and high cultural immersion ($\beta = 0.272$), indicating a preference for comfort and cultural engagement. The oldest group, aged 65 and above, shows the highest preference for nature walks ($\beta = 0.430$) and craft workshops ($\beta = 0.368$) while displaying the strongest price sensitivity, with a negative coefficient for the $70 option ($\beta = -0.320$), suggesting that accessibility, slower-paced experiences, and affordability are particularly important.

**Table 7.** Preferences by Age Group.

| Attribute | 18–24 yrs | 25–44 yrs | 45–64 yrs | 65+ yrs |
|---|---|---|---|---|
| Homestay | 0.498*** | 0.310** | 0.112 | 0.050 |
| | (0.119) | (0.136) | (0.155) | (0.176) |
| Boutique Hotel | 0.036 | 0.172* | 0.241** | 0.316** |
| | (0.143) | (0.115) | (0.105) | (0.132) |
| Trekking | 0.668*** | 0.529*** | 0.258** | 0.081 |
| | (0.101) | (0.111) | (0.125) | (0.157) |
| Cultural Tour | 0.203 | 0.355** | 0.320** | 0.265* |
| | (0.141) | (0.120) | (0.132) | (0.141) |
| Nature Walk | −0.040 | 0.077 | 0.260** | 0.430*** |
| | (0.157) | (0.138) | (0.117) | (0.106) |
| Local Craft Workshop | −0.145 | 0.046 | 0.215* | 0.368** |
| | (0.151) | (0.160) | (0.134) | (0.115) |
| High Cultural Immersion | 0.377** | 0.310** | 0.272** | 0.253* |
| | (0.117) | (0.125) | (0.134) | (0.149) |
| Fully Sustainable | 0.186 | 0.224* | 0.202* | 0.144 |
| | (0.160) | (0.145) | (0.146) | (0.164) |
| $70/night | 0.153 | 0.135 | −0.065 | −0.320** |
| | (0.138) | (0.156) | (0.172) | (0.124) |

Notes: Clustered standard errors in parentheses. Week-level time fixed effects are controlled. Heterogeneity across groups is captured through interaction terms between attributes and group. Significance levels: $^{***}p < 0.01$, $^{**}p < 0.05$, $^{*}p < 0.1$.

### 5.4.3. Preferences by Gender and Education Level

**Table 8** presents the tourists' preferences by gender and education level. Male respondents tend to value trekking more highly than female respondents, suggesting a stronger interest in physically demanding activities. Female respondents, on the other hand, show greater appreciation for cultural tours and fully sustainable offerings, indicating stronger engagement with cultural depth and environmental responsibility.

Education level appears to further differentiate preferences, with postgraduates assigning the highest value to fully sustainable options and cultural immersion. This finding suggests that greater educational attainment may correlate with increased environmental and cultural awareness. Those with a high school education or below demonstrate stronger positive preferences for lower prices and lower tolerance for premium pricing, reflecting a more budget-driven approach. Undergraduate respondents tend to occupy an intermediate position, showing balanced preferences across most attributes. These patterns clearly suggest opportunities for nuanced positioning. Specifically, adventure-focused products may particularly appeal to male travelers. Meanwhile, sustainability and culturally rich experiences tend to attract female and highly educated tourists. In addition, pricing strategies can be carefully tailored to match the economic and educational profiles of each market segment.

**Table 8.** Preferences by Gender and Education Level.

| Attribute | Male | Female | High School or Below | Under Graduate | Post Graduate |
|---|---|---|---|---|---|
| Trekking | 0.602*** | 0.435** | 0.415** | 0.518*** | 0.368* |
| | (0.084) | (0.104) | (0.096) | (0.076) | (0.114) |
| Cultural Tour | 0.276** | 0.387*** | 0.208* | 0.345** | 0.412*** |
| | (0.096) | (0.077) | (0.104) | (0.090) | (0.069) |
| High Cultural Immersion | 0.216* | 0.301** | 0.168 | 0.282* | 0.420*** |
| | (0.114) | (0.100) | (0.126) | (0.110) | (0.084) |
| Fully Sustainable | 0.080 | 0.234** | 0.051 | 0.174 | 0.475*** |
| | (0.107) | (0.083) | (0.119) | (0.095) | (0.063) |
| $30/night | −0.179* | −0.120 | 0.258*** | −0.051 | −0.208* |
| | (0.087) | (0.099) | (0.074) | (0.091) | (0.104) |
| $70/night | 0.190** | 0.149 | −0.135 | 0.065 | 0.187* |
| | (0.076) | (0.097) | (0.104) | (0.086) | (0.092) |

Notes: Clustered standard errors in parentheses. Week-level time fixed effects are controlled. Heterogeneity across groups is captured through interaction terms between attributes and group. Significance levels: $^{***}p < 0.01$, $^{**}p < 0.05$, $^{*}p < 0.1$.

# 6. Discussion

Our results affirm key tenets of Consumer Behavior Theory (CBT), notably that tourists evaluate multiple attributes simultaneously and that heterogeneity in preferences is shaped by demographic and cultural factors [46,47].

## 6.1. Activity Type as the Most Influential Factor

The results of **Table 3** demonstrate that activity type is the most influential attribute in shaping tourists' preferences, accounting for 41.3% of the total decision-making weight. Specifically, Trekking ($\beta = 0.647$) and Cultural Tour ($\beta = 0.428$) were the most preferred activities, highlighting the demand for nature-based and culturally immersive experiences in rural tourism. Our results mirror findings from Fichter and Roman [72], who reported that active nature-based activities generate significantly higher utility than more passive or cultural alternatives in rural tourism choice experiments. In a similar vein, Adie et al. found that cultural and creative tourism has become increasingly central in rural and remote European contexts [73], underscoring the growing demand for immersive cultural experiences. This preference for adventure and culture-based tourism aligns with global trends that emphasize the value of unique, experience-driven travel, particularly in rural and natural settings [74,75].

In contrast, Nature Walks ($\beta = -0.118$) and Local Craft Workshops ($\beta = -0.443$) had relatively low preference scores, suggesting that less active or more passive activities may not appeal as much to tourists, especially those seeking adventure and immersion. The findings suggest that active engagement with nature and local culture is a key factor in rural tourism choices, as tourists increasingly seek to connect with local communities and ecosystems in meaningful ways.

## 6.2. Accommodation Preferences: Authenticity Over Luxury

Accommodation type was the second most influential factor in the decision-making process. The Homestay and Traditional Ethnic Minority House options received significantly higher preference scores compared to Boutique Hotels, emphasizing the desire for authentic and culturally immersive lodging experiences. This preference reflects a global shift toward experiential tourism, where visitors are increasingly prioritizing authenticity over luxury or comfort [76,77]. Tourists are drawn to the opportunity to live alongside local communities and experience traditional ways of life.

On the other hand, Boutique Hotels were less preferred, likely due to their modern and less culturally integrated nature. This preference for local and culturally rooted accommodations suggests that tourism providers should focus on creating authentic, culturally enriched experiences that integrate local heritage, architecture, and lifestyles. Our findings contrast with recent evidence indicating that boutique hotels retain strong appeal among certain tourist cohorts. For instance, research of Millennial travelers by Kaufman and Hoeschen reports that boutique hotels are particularly valued for their personalized service, distinctive design, and cu-

rated immersive experiences [78].

## 6.3. Price Sensitivity and Willingness to Pay

Price remains a significant factor, but it plays a secondary role compared to activity and accommodation preferences. The study found that while tourists are sensitive to price, they are willing to pay a higher price for premium experiences that offer cultural immersion, authenticity, and sustainability. The positive utility for the $70 per night option and the negative utility for the $30 per night option suggest that tourists view higher-priced options as a signal of higher quality and unique experiences. Similarly, Wei et al. found that tourists who report high satisfaction with their experiences tend to be less price-sensitive [79]. In other words, as value perception increases, the negative impact of higher prices diminishes.

However, price sensitivity is still notable, especially among first-time and domestic tourists, who show a preference for budget-friendly options. This price sensitivity indicates that tourism providers must offer a range of price points to cater to different market segments, balancing affordability with the desire for high-quality, immersive experiences.

## 6.4. Cultural Immersion: A Key Appeal for Tourists

The findings emphasize that cultural immersion plays a significant role in shaping tourist preferences. Tourists preferred high levels of cultural immersion ($\beta = 0.197$) over lower levels ($\beta = -0.182$), indicating that exposure to local traditions, festivals, and daily life is a key factor in their decision-making. This trend is in line with the increasing demand for transformational tourism, where travelers seek personal enrichment and connection through authentic cultural exchanges [80]. For instance, Zheng et al. developed a scale that captures transformative value in cultural tourism—comprising facets such as cultural identification and knowledge acquisition—and demonstrated how it significantly enhances tourists' eudaimonic well-being [81]. Similarly, Li et al. show that immersion increases perceived attractiveness and happiness, which in turn elevates satisfaction [82].

The negative utility for low cultural immersion further supports the idea that superficial or passive forms of engagement with local culture are less appealing. Tourists seem to prefer deep, hands-on experiences where they can interact with local communities and participate in their traditions.

## 6.5. Sustainability Practices: Growing but Secondary Importance

While sustainability was the least influential factor in the model (4.7%), tourists still demonstrated a preference for eco-friendly ($\beta = 0.019$) and fully sustainable ($\beta = 0.083$) accommodations, especially in the international tourist segment. This reflects the growing importance of responsible tourism globally, where tourists are increasingly considering the environmental impact of their travel choices. However, the lower relative importance of sustainability suggests that it is not a primary driver of choice, but rather a complementary factor that can enhance the appeal of other primary attributes such as cultural immersion or high-quality experiences. In a similar vein, d'Angella et al. highlighted that environmental concern often fails to translate into tangible behavior, since factors such as cost, convenience, or habit typically dominate decisions [83].

The positive utilities for eco-friendly and fully sustainable options, compared to accommodations with no sustainability practices ($\beta = -0.042$), indicate a market for green tourism that incorporates environmentally conscious practices into the tourism experience. Nevertheless, sustainability practices alone are unlikely to drive tourists' decisions unless coupled with other attractive factors, such as adventure activities and culturally immersive experiences. The modest influence of sustainability may also reflect contextual factors specific to Northern Vietnam, including limited tourist awareness of environmental impacts or the framing of sustainability attributes in the DCE. It is possible that tourists prioritize experiential and tangible aspects of rural tourism, such as activities, accommodations, and cultural engagement, over abstract considerations like sustainability. Moreover, methodological constraints, including

the wording and presentation of sustainability options, could have affected their perceived importance. These findings highlight the need for future research to explore how sustainability preferences interact with cultural, demographic, and experiential factors, as well as how educational interventions or marketing strategies might elevate the prominence of sustainability in tourists' decision-making.

# 7. Implications

The findings from this study have significant implications for various stakeholders involved in rural tourism development, including tourism providers, local communities, policymakers, and destination marketers.

## 7.1. Tourism Providers

First, tourism providers should focus on activity development. Given the high preference for Trekking and Cultural Tours, they should develop and enhance trekking routes and cultural experiences. These offerings should emphasize authentic engagement with local culture and nature, such as visits to ethnic minority villages, participation in traditional festivals, and guided hikes to scenic landscapes.

Second, accommodation strategies should be prioritized. To cater to tourists seeking authentic experiences, tourism providers should expand homestay programs and ethnic minority house conversions. Ensuring that these accommodations are culturally sensitive and comfortable will enhance the overall tourist experience.

Third, tourism providers should adopt sustainable practices. Although sustainability is a secondary factor, it remains a growing trend. Providers should implement eco-friendly measures such as reducing waste, using renewable energy, and promoting sustainable local products. Offering green certification could attract eco-conscious tourists, particularly international travelers.

## 7.2. Local Communities

First, local communities should be empowered to engage actively in tourism activities. This includes cultural exchanges, artisan workshops, and tour guiding. Involving locals provides tourists with authentic experiences and brings economic benefits to host communities.

Second, capacity building is essential. Training programs for homestay hosts, local artisans, and tour guides will equip the community to deliver high-quality, culturally sensitive services. This will help preserve cultural heritage while promoting tourism development.

## 7.3. Policymakers

First, policymakers need to develop regulations and incentives that support sustainable tourism practices. This includes incentives for businesses adopting eco-friendly measures and regulations that preserve the authenticity of rural areas and cultural sites to ensure long-term sustainability.

Second, policymakers should collaborate with tourism organizations to enhance marketing and promotion efforts. Targeted campaigns can position Northern Vietnam as a leading destination for adventure and cultural tourism by highlighting the region's unique cultural experiences and natural beauty.

# 8. Conclusions

This study investigated tourist preferences for rural tourism in Northern Vietnam using a DCE, focusing on critical attributes including activity type, accommodation style, price sensitivity, cultural immersion, and sustainability. The results clearly indicate that activity type is the dominant factor influencing tourist choices, with trekking and cultural tours emerging as the most preferred activities. These findings highlight tourists' strong demand for adventure and culturally immersive experiences in rural settings, consistent with global trends favoring experiential travel.

Accommodation preferences further emphasize a desire for authenticity, with homestays and traditional ethnic minority houses significantly preferred over boutique hotels. This underscores the importance of culturally rooted lodging that offers genuine local engagement, rather than modern or luxury-oriented options. Although price sensitivity remains a relevant consideration—particularly among domestic and first-

time tourists—many respondents showed willingness to pay premium rates for high-quality, authentic experiences that offer cultural depth and sustainability.

Cultural immersion surfaced as a key motivator, with tourists favoring deep engagement with local traditions and communities. Conversely, sustainability, while increasingly recognized, played a more complementary role rather than a primary driver in decision-making. The heterogeneity analysis further revealed important variations in preferences by continent of origin, age, gender, and education level, underscoring the need for nuanced market segmentation and tailored tourism product development.

Despite these contributions, the study has limitations, including its geographic focus on Northern Vietnam, which may constrain the broader applicability of the findings. Additionally, the cross-sectional design limits its insights into how tourist preferences and behaviors evolve over time, or how rural tourism impacts local communities and ecosystems in the long run. Future research should consider expanding the geographic scope to encompass other rural destinations and incorporate longitudinal approaches to better understand changes in tourist behavior and the sustainability implications of rural tourism development. Moreover, future studies could also explore the role of policy interventions and community participation in enhancing sustainable rural tourism, as well as examine cross-cultural differences in tourists' sustainability perceptions and experiential priorities.

## Author Contributions

Conceptualization, N.M.H.; methodology, N.M.H., X.L.D. and L.X.H.; software, N.M.H.; validation, N.M.H.; formal analysis, N.M.H., X.L.D. and L.X.H.; investigation, N.M.H., X.L.D. and L.X.H.; resources, N.M.H.; data cu-ration, N.M.H.; writing—original draft preparation, N.M.H.; writing—review and editing, N.M.H., X.L.D. and L.X.H.; visualization, N.M.H. and X.L.D.; project administration, N.M.H. All authors have read and agreed to the published version of the manuscript.

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## Institutional Review Board Statement

Ethical review and approval were waived for this study due to its classification as minimal-risk, anonymous survey research with competent adult participants, conducted without any intervention, deception, or collection of directly identifying or sensitive personal data.

## Informed Consent Statement

Informed consent was obtained from all subjects involved in the study.

## Data Availability Statement

Data are available from the author upon reasonable request.

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## Conflict of Interest

The authors declare no conflict of interest.

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