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Developing Sustainable Cultural Tourism Attractions Based on Tourist Preferences: Evidence from Silalahi II Tourism Village, North Sumatra

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ABSTRACT

Silalahi II Tourism Village in Dairi Regency, North Sumatra, is a developing rural destination with significant cultural tourism potential. However, visitation to its cultural attractions remains relatively low. This study analyzed tourists' preferences for cultural tourism attractions and developed preference-based strategies to support sustainable cultural tourism. The study used a quantitative approach, distributing a questionnaire to 123 domestic tourists and analyzing the data through conjoint analysis to estimate part-worth utilities and the relative importance of attraction attributes. The study evaluated two context-specific attributes, namely something to do and something to see. The results show the strongest preference for photography activities and the traditional weaving stone at the Sopo Deang Namora Cultural Site. Something to do is the most influential attribute (54.530%), compared with something to see (45.470%). Pearson's r (0.915) and Kendall's Tau (0.708) indicate strong, significant agreement between observed and estimated preferences, supporting the conjoint model's predictive reliability. The study's novelty lies in linking attribute-level tourist preferences with sustainable cultural tourism development in a rural tourism-village context, showing how experiential preferences can guide the transformation of heritage resources into visitor-centered products while supporting cultural preservation and community participation. Accordingly, development should prioritize photography-based experiences, cultural storytelling, participatory activities, accessibility, digital promotion, and community involvement.

Keywords: Conjoint Analysis, Cultural Tourism, Sustainable Tourism, Tourist Preferences, & Tourism Development

1. Introduction

As destinations increasingly compete for visitors' attention, preserving cultural heritage is no longer merely a matter of conservation—it has become a strategic pathway to sustainable development (Nocca, 2017) (Mudana et al., 2025) (Beketova et al., 2025). As tourists become more aware of the social, cultural, and environmental impacts of their travel decisions, sustainable tourism has emerged as a key approach to ensuring that tourism development benefits both visitors and host communities over the long term (Mahmudin, 2024).

Tourism is widely recognized as a significant contributor to economic growth, employment creation, and regional development (K. X. Li et al., 2018) (Y. Li et al., 2024) (Elyanta et al., 2024) (Setyaningsih, 2025) (Sobczak & Chomać-Pierzecka, 2025) (Abdullah et al., 2025) (Sharma et al., 2025). Beyond its economic benefits, tourism has evolved into an important instrument for achieving sustainable development objectives.

Sustainable tourism emphasizes a balanced approach that considers economic viability, sociocultural preservation, and environmental responsibility while ensuring benefits for both present and future generations (Global Sustainable Tourism Council, n.d.) (UN Tourism, n.d.). Sustainable tourism principles suggest that tourism development should support local economic prosperity, preserve cultural authenticity, strengthen community participation, and improve residents' quality of life (Abdullah et al., 2025) (Sobczak & Chomać-Pierzecka, 2025) (Mahmudin, 2024) (UN Tourism, n.d.).

Among various tourism forms, cultural tourism plays a particularly important role in advancing sustainable tourism development (Sihombing et al., 2024). Cultural tourism enables visitors to experience local traditions, heritage sites, customs, arts, and ways of life while generating economic opportunities for host communities (Swiss Education Group, n.d.) (Surata et al., 2024) (Madania et al., 2025). At the same time, it encourages the preservation of tangible and intangible cultural heritage that might otherwise be vulnerable to modernization and globalization pressures (Surata et al., 2024) (Madania et al., 2025). Consequently, cultural tourism has become an essential strategy for many rural destinations seeking to balance tourism growth with cultural sustainability (Surata et al., 2024) (Eprilianto et al., 2025).

Dairi Regency, North Sumatra, has considerable potential for sustainable cultural tourism development. One emerging destination is Silalahi II Tourism Village, located in Silahisabungan District. The village was recognized among the Top 500 Tourism Villages in the 2023 Anugerah Desa Wisata Indonesia (ADWI), reflecting its rich cultural resources and tourism potential. Silalahi II Tourism Village offers a variety of cultural attractions associated with the history and legacy of Raja Silahisabungan, including Paranggiran Raja Silahisabungan, Passur Paranggiran Deang Namora/Aek Sima'las, Batu Partonunan Deang Namora, and Nauli Basa. These attractions represent valuable cultural assets that can support tourism development while preserving local identity and traditions.

Despite its cultural richness and national recognition, tourism in Silalahi II Tourism Village has not yet fully realized its potential contribution to sustainable local development. Tourist visitation remains relatively limited, particularly to cultural attractions. Regional tourism statistics indicate that tourist arrivals in Dairi Regency declined from 264,865 visitors in 2023 to 251,622 visitors in 2024. This suggests a need for more effective tourism development strategies that enhance destination attractiveness while supporting local economic resilience and cultural preservation.

One important factor influencing tourism development success is understanding tourist preferences (Sari & Yudana, 2019). Tourism products and experiences that align with tourist preferences are more likely to increase tourist satisfaction, strengthen destination competitiveness, and generate sustainable economic benefits for local communities (Santos et al., 2025). Tourist preferences reflect visitors' attitudes and inclinations toward tourism products, shaped by their motivations, needs, and expectations (Sulaeman, 2022). While preferences generally include attractions, facilities, and accessibility, this study focuses specifically on preferences related to cultural tourism attractions. A tourist attraction should ideally fulfill three requirements: something to see, something to do, and something to buy (Wiharjokusumo et al., 2021). However, this research focuses on the something-to-see and something-to-do dimensions, as preliminary observations indicate that the cultural sites in Silalahi II currently lack developed something-to-buy facilities (commercial or souvenir outlets). By narrowing the focus, this study ensures that the analyzed attributes are grounded in the destination's current reality. Therefore, identifying tourist preferences is essential for designing tourism experiences that are both market-oriented and sustainable (Wicaksono & Marhadi, 2025).

Understanding tourist preferences extends beyond marketing considerations and destination competitiveness. Preece and Oosterzee (Mercado & Lassoie, 2002) argued that tourist preferences play a crucial role in designing tourism policies and planning strategies that satisfy visitor expectations while minimizing potential negative impacts on destination resources. They emphasized the need to understand tourist preferences better to determine effective ways to communicate sustainable tourism principles, generate returns that support environmental conservation, and identify destination attributes that attract visitors without compromising resource sustainability. Furthermore, tourists choose sustainable destinations by evaluating and weighting various destination attributes, including service quality, infrastructure, amenities, and overall visitor

experiences (Marines & Mercado, 2018). Together, these elements influence destination attractiveness and shape tourists' travel decisions. Consequently, understanding tourist preferences can help balance visitor satisfaction, destination competitiveness, and sustainable tourism development.

Previous studies show that tourist preferences matter for destination planning and product development. (Sulaeman, 2022) For example, studies identified domestic tourist preferences in Gili Trawangan, while Marines & Mercado (2018) used conjoint analysis to assess preferences for sustainable tourist attractions. Research on cultural and creative tourism further shows that contemporary visitors increasingly value interactive, participatory, and experience-based activities rather than passive sightseeing (Remoaldo et al., 2020; P. Q. Li & Kovacs, 2024; Yetgin Akgün, 2026). Collectively, these studies establish that visitor preferences can inform destination development; however, they tend to examine general destination attributes, sustainable destination choices, or creative-tourism participation separately. Limited empirical attention has examined how tourists evaluate specific cultural-attraction attributes at the level of a rural tourism village and how the resulting preference structure can be translated into strategies that simultaneously support visitor experience, heritage preservation, community participation, and local economic resilience. This unresolved link matters in North Sumatra, where culturally rich tourism villages need development priorities that are both market-responsive and culturally sustainable (Sulaeman, 2022; Yetgin Akgün, 2026).

This study addresses that gap by applying conjoint analysis to two context-specific dimensions of cultural attractions—something to do and something to see—in Silalahi II Tourism Village. Rather than treating tourist preferences only as a marketing indicator, the study interprets attribute-level preferences as evidence for sustainable cultural-tourism planning. The study's theoretical contribution links visitors' preference structure to the experiential orientation of contemporary cultural tourism: the relative importance assigned to active participation versus visual observation provides an empirical basis for understanding how visitor-centered experiences can be developed without separating market demand from heritage and community objectives. Methodologically, conjoint analysis is appropriate because cultural tourism experiences consist of multiple attributes that jointly influence tourist evaluations, allowing the study to estimate both the utility of individual attribute levels and their relative importance.

Accordingly, this study aims (1) to analyze tourist preferences for cultural tourism attractions in Silalahi II Tourism Village, Dairi Regency, using conjoint analysis and (2) to develop sustainable strategies for cultural tourism attraction development based on the identified preference structure. By directly linking these objectives to the identified research gap, the study seeks to contribute empirical evidence on how attribute-level visitor preferences can inform visitor-centered, community-sensitive, and heritage-oriented tourism development in a rural tourism-village context.

2. Methods

This study used a quantitative approach to analyze tourist preferences for cultural tourism attractions in Silalahi II Tourism Village, Dairi Regency, North Sumatra. Data were collected through an online questionnaire distributed to 123 domestic tourists. Convenience sampling was used because a complete sampling frame of actual and potential domestic visitors to the cultural attractions was unavailable, and the study aimed to identify exploratory preference patterns rather than produce population-level estimates. This approach allowed us to include respondents who were accessible during the survey period and represented the existing and prospective domestic market. Nevertheless, because convenience sampling is non-probability based, the resulting sample may be affected by self-selection and demographic concentration; therefore, interpret the findings as preference patterns within the study sample rather than as generalizable to all tourists. Respondents included both tourists who had previously visited and those who had not yet visited the cultural attractions of Silalahi II Tourism Village. This study examined Paranggiran Raja Silahisabungan, Passur Paranggiran Deang Namora/Aek Sima'las, Batu Partonunan Deang Namora, and Nauli Basa. The study included potential visitors and aimed to capture both existing and prospective market preferences, providing broader insights for future tourism development planning.

The primary analytical technique used in this study was conjoint analysis. Conjoint analysis is a multivariate technique that identifies the relative importance of product attributes and estimates the utility values associated

with each attribute level (Hair et al., 2010). The method was selected because cultural tourism experiences consist of multiple attributes that jointly influence tourists' decision-making processes.

This study evaluated two attributes: something to do and something to see. We began questionnaire development by reviewing tourism-attraction and tourist-preference literature, then observing existing cultural sites and consulting local tourism stakeholders to ensure the attributes and levels reflected the activities and heritage elements available at the destination. The something-to-do attribute included three levels: photography activities, bathing activities, and praying. The something-to-see attribute consisted of four levels: eight water spouts representing the descendants of Raja Silahisabungan, the Deang Namora bathing site, the traditional weaving stone of Deang Namora, and the king's final resting place. We did not include a something-to-buy dimension because preliminary observations indicated that commercial or souvenir offerings at the cultural sites were not yet sufficiently developed to constitute comparable conjoint levels. Thus, we selected the final attributes and levels using a combination of theoretical relevance, site-specific observation, and stakeholder input. We generated 12 stimulus profiles using an orthogonal design procedure in SPSS Statistics 22. Respondents evaluated each profile on a five-point scale from 1 (strongly disagree) to 5 (strongly agree). We analyzed the resulting preference scores to estimate part-worth utility values and attribute importance scores.

Before the main survey, we tested the questionnaire for validity and reliability. We assessed item validity using Pearson product-moment correlation, and evaluated internal consistency using Cronbach's alpha. All items met the study's acceptable validity and reliability criteria and were retained in the final instrument. The final questionnaire contained respondent-profile questions and the conjoint stimulus profiles, which respondents rated on a five-point scale. This sequence—literature review, field observation, stakeholder consultation, stimulus construction, and instrument testing—helped improve content relevance and methodological transparency.

3. Result & Discussions

3.1 Profile of Silalahi II Tourism Village

Silalahi II Tourism Village is located along Jl. Besar Silahisabungan in Silahisabungan District, Dairi Regency, North Sumatra, and is officially categorized as a “Desa Wisata Maju” as of 14 February 2023. The village is situated at an elevation of 500–700 feet above sea level. It spans a 12-kilometer shoreline of Lake Toba, offering a cool climate, scenic landscapes, and natural attractions such as Siringo Waterfall and Simartubi Waterfall. Beyond its natural assets, Silalahi II is distinguished by a strong cultural heritage rooted in the legacy of Raja Silahisabungan and his eight descendant clans. Key cultural attractions include several heritage sites, annual clan festivals, traditional ceremonial practices, ulos weaving traditions, the Raja Silahisabungan Cultural Site, the Deang Namora Cultural Site, and local culinary specialties such as naniura. Community hospitality and cultural authenticity further enhance the destination's visitor experience. The village also provides nature-based and recreational activities, including cycling tours facilitated by the village-owned enterprise (BUMDes). Visitor facilities include a meeting hall, cafeteria, jungle trekking routes, public restrooms, souvenir kiosks, culinary stalls, a prayer room, outbound activity areas, photo spots, dining facilities, and Wi-Fi access.



Figure 1. Deang Namora Cultural Site



Figure 2. Batu Paranggiran Raja Silahisabungan



Figure 3. Partonunan Deang Namora



Figure 4. Nauli Basa

3.2 Respondent Characteristics

A total of 123 respondents participated in the survey to identify their preferences regarding cultural tourism attractions in Silalahi II Tourism Village, Dairi Regency. The characteristics of the respondents are as follows:

Table 1. Respondent Characteristic

Characteristic	Category	Percentage (%)
Gender	Female	58.5
	Male	41.5
Age	17–25 years	96.7
	26–40 years	1.6
	41–55 years	1.6
Occupation	University Students	92.7
	High School Students	3.3
	Village Officials	1.6
	Private Employees	0.8
	Others	1.6
Educational Background	Senior High School/Vocational School (SMA/SMK)	82.1
	Diploma (D1/D2/D3)	10.6
	Bachelor's Degree (D4/S1)	5.7
	Others	1.6
Place of Residence	Medan City	46.3
	Deli Serdang Regency	17.9
	Karo Regency	1.6
	Dairi Regency	6.5
	Simalungun Regency	0.8
	Samosir Regency	4.1
	Humbang Hasundutan Regency	1.6
	North Tapanuli Regency	0.8
	Others	20.3

The respondent profile is predominantly young and student-based. Female respondents slightly outnumber males (58.5% vs. 41.5%), indicating a relatively balanced gender distribution. The age distribution is highly concentrated in the 17–25 years category (96.7%), indicating the sample is dominated by younger individuals. This aligns with the occupational profile, where most respondents are university students (92.7%). In terms of educational background, most respondents have a senior high school/vocational level (82.1%), reflecting their transitional stage toward higher education. Regarding domicile, nearly half of the respondents (46.3%) are from Medan City, with the rest coming from surrounding regencies in North Sumatra, indicating a regionally

concentrated sample. Overall, the findings represent the perspectives of young domestic tourists, particularly students from urban and nearby areas.

3.3 Tourist preferences toward cultural tourism attractions in Silalahi II Tourism Village, Dairi Regency

We used conjoint analysis to identify tourist preferences for cultural tourism attractions in Silalahi II Tourism Village. We evaluated two primary attributes—something to do and something to see—representing key experiential and visual components of tourist experiences. Each attribute had several levels, and we designed 12 stimuli accordingly. We distributed the questionnaire via Google Forms to 123 respondents and analyzed the data using SPSS Statistics 22.0. Based on the conjoint analysis run in SPSS, the first output is the utility estimates. Utility estimates represent the relative preference values respondents assigned to each attribute level.

Table 2. Utility Estimates

		Utility Estimate	Std. Error
Something to do	Engaging in photography activities	.217	.070
	Performing bathing activities	.155	.070
	Praying	-.372	.070
Something to see	Eight water spouts/sections representing the number of the king's children	-.006	.086
	Deang Namora bathing site	.034	.086
	Stone where Deang Namora used to weave	.091	.086
	The king's final resting place	-.119	.086
(Constant)		3.122	.050

The utility estimates indicate that tourists most prefer photography (0.217), while praying is the least preferred activity (-0.372). This pattern directly reflects the dominance of young respondents (17–25 years old), who tend to favor visually engaging and shareable experiences. This finding aligns with the view that photography has become an integral part of contemporary tourist behavior (Suminto & Suminto, 2023) (Kheiri, 2023) (Marjerison et al., 2024), driven largely by advances in digital technology and high social media engagement. Within this demographic, photography serves multiple strategic purposes, including personal documentation, social sharing, and constructing self-presentation (Kislinger & Kotschal, 2021) (Kheiri, 2023).

Regarding the something to see attribute, the stone Deang Namora uses for traditional weaving has the highest utility value (0.091). Sopo Deang Namora Cultural Site attracts more tourists than other cultural sites because of its proximity to the floating pier and adequate parking facilities. This finding aligns with previous research suggesting that tourist preference is influenced not only by cultural significance but also by accessibility and supporting infrastructure. These factors are widely recognized as key determinants of tourist visitation patterns, particularly in cultural destinations where ease of access and spatial convenience significantly enhance visitor engagement (Ortaleza & Mangali, 2021). In contrast, other visual elements, such as the king's final resting place and the eight water spouts, received negative utility values, indicating lower tourist interest. This may reflect limited visual appeal, restricted accessibility, or a lack of interactive and interpretive features. This aligns with prior studies showing that cultural attractions with stronger visual prominence or clearer storytelling elements tend to attract higher tourist engagement, particularly among younger visitors (Zhang et al., 2025).

After determining the utility values for each level within each factor, we calculated each factor's relative importance. We compared each factor's importance against the total importance across all factors for each respondent. This process ensures a comprehensive understanding of which attributes most significantly drive tourist decision-making.

Table 3. Relative Importance of “Do” and “See” Attributes

Attribute	Importance Values	Ranking
Do	54.530	1
See	45.470	2

The importance values further indicate that something to do (54.530) is a more influential attribute in shaping tourist preferences than something to see (45.470). This finding aligns with research emphasizing that modern tourists seek co-created experiences rather than passive sightseeing (Elyanta, 2020) (Yetgin Akgün, 2026) (Juliana et al., 2025). Interactive cultural activities also significantly enhance visitor satisfaction and perceptions of authenticity, making them essential for local cultural preservation and for generating memorable experiences that drive revenue growth.

The third output is correlation. Correlation reflects the degree of agreement between observed and estimated preferences and measures the model's predictive ability. The correlation results, including Pearson's R and Kendall's Tau, are as follows:

Table 4. Correlations

	Value	Sig.
Pearson's R	.915	.000
Kendall's tau	.708	.001

a. Correlations between observed and estimated preferences

The correlation results indicate strong and statistically significant relationships between observed and estimated preferences. Pearson's R (0.915) and Kendall's Tau (0.708) confirm the conjoint model's robustness and predictive reliability, indicating that the selected attributes effectively represent tourist decision-making behavior.

These coefficients should be interpreted as measures of agreement between the observed preference ratings and the preferences estimated by the conjoint model, rather than as correlations among the attributes themselves. Pearson's R of 0.915 indicates very strong agreement between observed and estimated metric preferences, while Kendall's Tau of 0.708 indicates strong rank-order agreement. Their statistical significance supports the adequacy of the selected attributes and levels for representing the preference structure captured in this sample. Accordingly, the model provides a sufficiently reliable empirical basis for identifying priority attribute levels and informing the subsequent development strategy.

3.4 Sustainable cultural tourism attraction development strategy based on tourist preferences in Silalahi II Tourism Village, Dairi Regency

The conjoint analysis results indicate that tourists value experiential activities (something to do) more than passive observation (something to see). Photography emerged as the most preferred activity, while the traditional weaving stone of Deang Namora was the most preferred cultural attraction. These findings suggest that future cultural tourism development in Silalahi II Tourism Village should prioritize interactive, visually appealing, experience-based products that align with contemporary tourist preferences while supporting sustainable tourism objectives.

The strong preference for photography activities shows that visitors, particularly younger tourists, seek visually engaging experiences they can document and share on digital platforms. This finding supports Kislinger & Kotrschal (2021), who argued that photography has become an integral part of tourist experiences and self-expression in contemporary tourism. Similarly, Kheiri (2023) found that visual engagement significantly influences tourist participation and emotional attachment to cultural attractions. Therefore, tourism stakeholders should strengthen the visual appeal of cultural sites by developing designated photo spots, thematic cultural landscapes, and culturally themed photography routes. The Deang Namora Cultural Site can become the village's flagship cultural photography attraction by integrating interpretation panels, traditional Batak architectural elements, and scenic viewpoints overlooking Lake Toba. These initiatives can boost visitor engagement and increase destination visibility through user-generated social media content. This strategy also aligns with findings by Alif Fahmi Rizki et al. (2023), Batabyal et al. (2025), and Wibowo et al. (2025), who showed that travel photographs significantly increase online engagement and destination exposure.

However, visual attractiveness alone cannot create meaningful cultural tourism experiences. The preference for Deang Namora's weaving stone suggests that visitors are attracted not only to visually appealing attractions

but also to cultural heritage elements with strong narratives and symbolic meanings. This finding is consistent with Purike et al. (2023) and Andiansyah et al. (2024), who emphasized that tourists are more likely to engage with heritage attractions when they understand their historical and cultural significance. Likewise, Elyanta (2019) and Zhang et al. (2025) found that storytelling and interpretation enhance visitor engagement and strengthen emotional connections with heritage sites. Therefore, interpretive storytelling should be strengthened through multilingual information boards, guided cultural tours, digital interpretation tools, and audio-visual content explaining Deang Namora's history, traditional weaving practices, and the cultural significance of the Silahisabungan community. By enriching cultural interpretation, heritage sites can shift from passive attractions to engaging educational experiences that support cultural preservation and visitor learning.

The importance-value analysis further reinforces the theoretical shift from passive cultural consumption to participatory, co-created tourism experiences. Something to do (54.530%) is more influential than something to see (45.470%), indicating that respondents value opportunities to act within the cultural setting more than merely observing heritage objects. This pattern is consistent with creative-tourism and co-creation research, which positions tourists as active participants in experience production (Remoaldo et al., 2020) (Lončarić et al., 2017) (P. Q. Li & Kovacs, 2024). In the context of sustainable cultural tourism, this finding is important because participation can create a functional connection between visitor satisfaction and cultural continuity: activities such as ulos-weaving demonstrations, traditional craft workshops, storytelling sessions, culinary experiences, and appropriately managed participation in local ceremonies can increase experiential value while creating opportunities for local knowledge transmission and community-based economic benefits. Thus, the preference for something to do is not only a product-development signal but also an empirical basis for designing tourism experiences in which visitor engagement, cultural interpretation, and local participation are mutually reinforcing (Juicharoen & Tresirichod, 2025) (Remoaldo et al., 2020) (Lončarić et al., 2017) (P. Q. Li & Kovacs, 2024).

The popularity of the Deang Namora Cultural Site may also be explained by its relatively better accessibility and supporting facilities. This finding indicates that tourist preferences are influenced not only by cultural significance but also by the ease and comfort of visiting a destination. The result supports the systematic review by Ortaleza & Mangali (2021), which identified accessibility, infrastructure, and supporting facilities as major determinants of tourist destination choice. Consequently, tourism managers should improve access roads, directional signage, parking, sanitation, rest areas, and visitor information systems at other cultural attractions, including the King's Final Resting Place and the Eight Water Spouts Site. Improved accessibility and visitor convenience can enhance the overall visitor experience and distribute tourist flows more evenly across attractions.

Given that most respondents are young tourists aged 17–25 years, digital promotion should become an integral part of tourism development. Young tourists are highly influenced by digital media when making travel decisions and are more likely to share tourism experiences through social networking platforms. This finding aligns with the work of Ray et al. (2025), Tan et al. (2025), and Wu & Yu (2024), who highlighted the growing influence of digital technologies on tourist behavior, as well as Stepaniuk (2015), Wibowo et al. (2025), and Kholilah et al. (2025), who demonstrated that visual content significantly affects destination image and user engagement. Therefore, tourism stakeholders should develop digital marketing campaigns that highlight cultural experiences, photo opportunities, and authentic local stories. Collaboration with travel influencers, content creators, educational institutions, and youth communities can further expand destination awareness and attract new visitor segments.

While enhancing visitor experiences is important, the long-term sustainability of cultural tourism development depends on active community participation. This finding supports Scheyvens's (2002) concept of community-based tourism, which emphasizes local empowerment as a key element of sustainable tourism development. Strengthening community capacity is also essential to ensure tourism benefits are distributed equitably and contribute to local development (Ardhiatma, 2025). Therefore, local communities should be directly involved in tourism planning, operation, and interpretation activities through local guide programs, cultural performance

groups, handicraft production, and tourism entrepreneurship initiatives. Such involvement can strengthen local ownership of cultural resources while generating sustainable economic opportunities.

From a sustainable-tourism perspective, the preference results should not be interpreted as a mandate to modify heritage resources solely for visitor appeal. Sustainable tourism theory emphasizes that sustainability requires integrating economic, social, cultural, and environmental objectives, while community-based tourism stresses local empowerment and control over tourism development (Scheyvens, 2002). Accordingly, this study shows how evidence on visitor preferences can inform development decisions. At the same time, cultural authenticity, heritage protection, and community interests remain governing constraints. In Silalahi II, photography opportunities and participatory products should therefore be designed through community involvement, cultural interpretation, and site-sensitive management. This preference-based but community-sensitive approach can strengthen destination competitiveness and visitor satisfaction without reducing cultural heritage to a purely commercial tourism product (Sharpley, 2020).

Overall, the findings suggest that future development of cultural tourism attractions in Silalahi II Tourism Village should focus on transforming cultural heritage resources into interactive, memorable experiences. By emphasizing photography-based experiences, cultural storytelling, participatory activities, improved accessibility, digital promotion, and community involvement, the village can develop a visitor-centered cultural tourism model that supports sustainable tourism development, strengthens local cultural identity, and enhances community welfare.

3.5 Study Limitations and Future Research

This study has several limitations. First, convenience sampling and an online questionnaire limit the statistical generalizability of the findings. Second, the sample is highly concentrated among respondents aged 17–25 years (96.7%) and university students (92.7%), so the estimated preferences primarily reflect a young domestic market segment. Third, the study combines respondents who visited the cultural attractions with potential visitors; consequently, some evaluations may reflect anticipated rather than post-visit experiences. Fourth, the conjoint model includes only something to do and something to see because something to buy was not sufficiently developed at the study sites. Future research should employ probability-based or stratified sampling where feasible, include more diverse age and occupational groups, compare actual visitors with potential visitors, and test additional attributes such as interpretation quality, accessibility, price, facilities, and locally produced souvenirs. Replicating the study in other cultural tourism villages would also help assess the transferability of the preference structure and strengthen the broader theoretical understanding of preference-based sustainable cultural tourism development.

4. Conclusion

This study examined tourist preferences for cultural tourism attractions in Silalahi II Tourism Village, Dairi Regency, using conjoint analysis to inform sustainable cultural tourism development strategies. Within the study sample, photography activities generated the highest utility for something to do, while the traditional weaving stone of Deang Namora generated the highest utility for something to see. Something to do was the more important attribute (54.530%), indicating a stronger orientation toward active, experience-based cultural engagement than passive observation. Pearson's r (0.915) and Kendall's Tau (0.708) show strong, significant agreement between observed and estimated preferences, supporting the conjoint model's predictive reliability.

The findings contribute to sustainable cultural-tourism research by showing how attribute-level visitor preferences can translate into development priorities while remaining connected to heritage preservation and community participation. For Silalahi II Tourism Village, development should prioritize photography-based experiences, cultural storytelling, participatory activities, improved accessibility, digital promotion, and community involvement. Implement these priorities while safeguarding cultural authenticity and local control. Given the non-probability sampling approach and the strong concentration of young student respondents, interpret the results as evidence of this sample's preference structure rather than as population-wide estimates.

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6. Conflict of Interest

The authors declare no conflict of interest.

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