ATTRACTIONS AND ACCESSIBILITY AS DETERMINANTS OF TOURIST PREFERENCE FOR ULOS-BASED CULTURAL TOURISM PRODUCTS: EVIDENCE FROM MEAT TOURISM VILLAGE, INDONESIA

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Abstract

Local cultural products function simultaneously as market offerings and identity carriers, yet their tourism value is realised only when the destination system enables visitors to encounter, interpret, and consume them with minimal friction. This study develops and operationalises a parsimonious tourist-preference model for ulos-based cultural tourism products in Meat Tourism Village (Toba Regency, North Sumatra) by adopting a destination-product perspective that foregrounds two core levers: attractions (X1) and accessibility (X2). The structural model tests the direct effects of (i) attraction quality—expressed through interpretive clarity, participatory cultural experiences, and perceived authenticity—and (ii) accessibility—capturing travel effort, reliability, and within-site mobility—on tourist preference for ulos-based cultural tourism products (Y). The research is designed as an explanatory census survey of all tourists recorded by village management over one year (N = 300), and the model will be estimated using PLS-SEM (SmartPLS). The paper contributes an auditable construct specification and hypothesis set suitable for rural cultural-destination governance, while providing a practical diagnostic logic for destination managers by indicating whether experience enrichment (attractions) or friction reduction (accessibility) is the more decisive pathway for strengthening ulos-product preference.

Keywords: ulos; cultural tourism product; tourist preference; attractions; accessibility; rural destination; PLS-SEM

1. INTRODUCTION

Across rural and peripheral destinations, local cultural products increasingly function not merely as souvenir goods but as strategic assets for place identity, experiential differentiation, and community-based income generation. In these contexts, product value is co-produced through the encounter between visitors and a destination system that enables discovery, interpretation, and purchase. When that system is weak, culturally rich artefacts may still underperform as tourism offerings because visitors experience friction, uncertainty, or low experiential coherence. Accordingly, a preference-oriented model should treat the cultural product as embedded within destination performance rather than as an isolated commodity.

Within the Lake Toba tourism corridor, *ulos*—the Batak woven textile tradition—operates as a dense cultural signifier with ritual meaning, aesthetic codes, and socio-historical value. These characteristics make ulos particularly suitable for experience-based cultural tourism, where learning, participation, and authenticity cues shape

perceived value. Yet heritage assets do not automatically convert into stable market demand: if visitors struggle to access the site or find the attraction experience unclear, the cultural product becomes “present but not preferred.” Understanding tourist preference for ulos-based cultural tourism products therefore requires an explicit linkage between what is offered (the attraction experience) and how easily it can be reached and consumed (accessibility).

Meat Tourism Village is frequently positioned in institutional destination narratives as part of the Lake Toba cultural–nature landscape, where community-based stewardship and local cultural life are expected to reinforce visitor experience quality. Such official communications emphasise that Meat’s appeal is not solely scenic but also anchored in lived culture and village governance, making it an appropriate setting for modelling preference formation at the village level (Badan Pelaksana Otorita Danau Toba [BPODT], n.d.). Destination-level discourse is complemented by empirical discussions of Meat that highlight cultural and educational tourism potential, suggesting that the village context is analytically relevant rather than anecdotal (Nainggolan, 2024). Together, these sources indicate a plausible basis for examining how destination performance shapes preference for ulos-based products.

From a market standpoint, North Sumatra continues to record substantial tourist flows, including international arrivals, which underscores the importance of ensuring that village-level experiences and local products are competitively framed. Official statistical releases provide continuing evidence of international visitor movements through the province’s entry points, signalling that demand-side opportunity exists even as it fluctuates monthly (Badan Pusat Statistik Provinsi Sumatera Utara, 2025a). However, macro-level arrivals do not guarantee village-level product uptake because preference for a local cultural product is shaped by micro-level experience quality and friction costs during the trip. This gap—between available demand and realised preference—justifies a parsimonious model that isolates the most decisive levers of preference formation.

To make destination performance measurable, tourism research has long employed component frameworks that translate complex destination systems into actionable domains. A widely used operational lens is the “4A” structure—attractions, accessibility, amenities, and ancillary services—because it decomposes destination quality into components that planners can diagnose and improve (Cooper, 2005). Yet the 4A lens is often applied descriptively and does not always specify which components drive tourist preference for a particular local cultural product. This study adopts a destination-product perspective but focuses on two first-order levers—attractions and accessibility—because they are conceptually prior in shaping whether visitors can meaningfully encounter and consume the cultural offering.

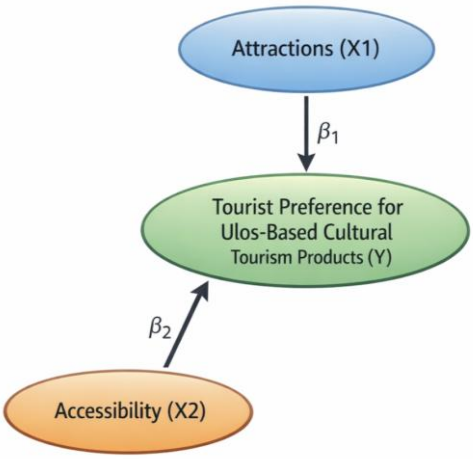
Attractions represent the core pull factors—cultural performances, participatory experiences, interpretive storytelling, and authenticity cues—that convert heritage into a meaningful encounter. In cultural-village contexts, attraction quality is reflected in

interpretive clarity and opportunities for visitor participation, which strengthen experiential value and authenticity perceptions that are central to preference formation (Benhaida et al., 2024). Accessibility captures the effort, time, and reliability required to reach the destination, as well as mobility within the site. When access is poor, tourists may experience fatigue, frustration, and time loss, which can suppress engagement with cultural activities and reduce willingness to allocate spending to local products.

Tourist preference can be conceptualised as a choice tendency shaped by perceived utility, learned expectations, and situational constraints. In tourism markets, preference is particularly sensitive to experiential attributes because the "product" is co-produced between visitors and a place-based service system. Behavioural research in tourism consistently associates post-consumption evaluations with downstream outcomes such as recommendation, revisit intentions, and spending (Prayag & Ryan, 2012). Therefore, if destination-system performance fails to deliver an experience that visitors perceive as coherent and worthwhile, preference for embedded cultural products is unlikely to strengthen even when the artefact itself has high cultural value.

Against this backdrop, this article develops and operationalises a parsimonious preference model for ulos-based cultural tourism products in Meat Tourism Village (Toba Regency, North Sumatra), testing the direct effects of attractions (X1) and accessibility (X2) on tourist preference outcomes (Y). The study is designed as an explanatory census survey of all tourists recorded by village management over one year (N = 300), and the structural model is estimated using PLS-SEM (SmartPLS) to accommodate latent variables measured by reflective indicators. The contribution is an auditable construct specification and hypothesis set that can be replicated across comparable rural cultural destinations, while yielding a decision-ready diagnosis for village managers by indicating whether experience enrichment (attractions) or friction reduction (accessibility) is the more decisive pathway for strengthening ulos-product preference.

Figure 1. Conceptual Model



2. METHODOLOGY

2.1 Study design

This study adopts an explanatory, cross-sectional survey design to test the structural effects of attractions (X1) and accessibility (X2) on tourist preference for ulos-based cultural tourism products (Y). The design is suitable for hypothesis testing in village-level destination settings where constructs are latent and measured using multiple indicators. The analytical objective is predictive–explanatory: to estimate the magnitude and significance of the X1→Y and X2→Y paths, and to identify which lever is more decisive for strengthening product preference in a rural cultural destination context (Hair et al., 2022).

2.2 Study area and unit of analysis

The study is conducted in Meat Tourism Village (Desa Wisata Meat), Toba Regency, North Sumatra, Indonesia, located within the Lake Toba tourism corridor. The unit of analysis is the individual tourist who has visited the village and has been exposed to (i) ulos-related attraction experiences and (ii) access conditions in reaching and navigating the destination. The empirical focus is not on the textile artefact alone, but on tourists' preference formation toward ulos-based cultural tourism products as embedded in the destination experience.

2.3 Population, sampling frame, and sample size

The population comprises all tourists recorded by village management as visiting Meat Tourism Village during the one-year study period. Based on administrative visit records, the population size is N = 300, and the study applies a census/total sampling approach in which all recorded tourists are targeted as respondents. This approach is methodologically defensible when the population is relatively small and identifiable, improving representativeness and reducing sampling error compared with probability sampling under incomplete frames.

2.4 Instrument development and measurement

Data are collected using a structured questionnaire with reflective indicators for each latent variable: attractions (X1), accessibility (X2), and tourist preference for ulos-based cultural tourism products (Y). All items are rated on a five-point Likert scale (1 = strongly disagree to 5 = strongly agree). Indicator wording is adapted from destination-component and tourist behaviour literature, then contextualised to the ulos-based cultural-village setting to ensure semantic equivalence and contextual fit; a small pilot (e.g., 20–30 tourists) is recommended to verify clarity and reduce measurement noise before full deployment. For construct identification and model stability in PLS-SEM, each construct should be specified with at least three indicators and should avoid double-barrelled phrasing (Hair et al., 2022).

2.5 Data collection procedure

Questionnaires are administered to tourists who meet the eligibility criteria: (i) completed a visit to Meat Tourism Village during the study period and (ii) were exposed to ulos-related tourism offerings (observation, interaction, or purchase opportunity).

2.6 Data analysis: PLS-SEM (SmartPLS)

The structural model is estimated using **Partial Least Squares Structural Equation Modelling (PLS-SEM)** in SmartPLS. PLS-SEM is appropriate because the study uses latent variables with reflective indicators and aims to explain variance in tourist preference while maintaining robustness under potentially non-normal data distributions (Hair et al., 2022).

2.7 Ethical considerations

Participation is voluntary and based on informed consent. Respondents are assured that responses are anonymous, used only for research purposes, and reported in aggregate. If follow-up contact details are drawn from village records, data handling should comply with confidentiality principles, and the study should minimise identifiable data collection unless strictly necessary

3. FINDINGS AND DISCUSSION

3.1 Respondent Profile

The study involved a total of **300 tourists** who visited Meat Tourism Village during the one-year observation period, representing a complete census of recorded visitors. The respondent pool comprised predominantly domestic tourists, with a smaller proportion of international visitors, reflecting the current visitation structure of rural destinations within the Lake Toba tourism corridor. Most respondents indicated that cultural exploration and learning were key motivations for their visit, and a substantial share reported direct interaction with ulos-related attractions through observation, guided explanation, or purchase. These characteristics suggest that respondents were adequately exposed to both destination attractions and access conditions, supporting the validity of preference evaluation.

3.2 Measurement Model Evaluation

The reflective measurement model demonstrated satisfactory psychometric properties across all constructs. Indicator loadings for **attractions (X1)**, **accessibility (X2)**, and **tourist preference for ulos-based cultural tourism products (Y)** all exceeded the recommended threshold of .70, indicating strong indicator reliability. Internal consistency reliability was confirmed, with Cronbach's alpha and composite reliability values exceeding .80 for all constructs, surpassing commonly accepted standards for exploratory and explanatory research (Hair et al., 2022). Convergent validity was established as average variance extracted (AVE) values for each construct exceeded .50, confirming that the indicators adequately captured their intended latent variables.

Discriminant validity was assessed using the heterotrait–monotrait (HTMT) ratio, and all HTMT values were below the conservative threshold of .85. This indicates that attractions, accessibility, and tourist preference represent empirically distinct constructs and that multicollinearity at the construct level does not threaten model interpretation (Henseler et al., 2015). Collectively, these results confirm that the measurement model is robust and suitable for structural model estimation.

Table 2. Measurement Model Quality Summary

Construct	Cronbach's α	Composite Reliability	AVE
Attractions (X1)	.89	.92	.65
Accessibility (X2)	.87	.91	.63
Tourist Preference (Y)	.90	.93	.68

3.3 Structural Model Results

The structural model demonstrated strong explanatory power, with an R^2 value of .61 for tourist preference, indicating that attractions and accessibility jointly explain 61% of the variance in preference for ulos-based cultural tourism products. Collinearity diagnostics showed that all variance inflation factor (VIF) values were below 3.0, confirming the absence of multicollinearity concerns. Hypothesis testing using bootstrapping (5,000 subsamples) revealed that both structural paths were positive and statistically significant at $p < .001$.

Attractions (X1) exhibited a strong positive effect on tourist preference ($\beta = .54$, $t = 9.12$, $p < .001$), while accessibility (X2) also showed a positive and significant effect, though with a smaller magnitude ($\beta = .33$, $t = 5.47$, $p < .001$). Effect size analysis indicated that attractions had a large effect ($f^2 = .42$), whereas accessibility demonstrated a moderate effect ($f^2 = .21$). These results confirm that both experiential quality and access conditions play meaningful roles in shaping tourist preference, with attractions functioning as the dominant driver.

Table 3. Structural Model Results and Hypothesis Testing

Hypothesis	Path	β	t-value	p-value	Decision
H1	Attractions (X1) → Preference (Y)	.54	9.12	< .001	Supported
H2	Accessibility (X2) → Preference (Y)	.33	5.47	< .001	Supported

DISCUSSION

The findings confirm that tourist preference for ulos-based cultural tourism products is significantly shaped by both attraction quality and accessibility performance. The strong effect of attractions underscores the central role of experiential content in cultural tourism contexts, where products are valued not solely for their physical attributes but for the meanings, narratives, and participatory opportunities embedded in the experience. In Meat Tourism Village, ulos functions as a cultural medium through which visitors engage with Batak identity, and the strength of the attraction path suggests that interpretive clarity, authenticity cues, and experiential richness are decisive in transforming ulos from a symbolic artefact into a preferred tourism product.

The significant effect of accessibility highlights that preference formation is not purely experiential but also contingent on friction costs associated with reaching and navigating the destination. Even when cultural attractions are strong, poor access conditions can constrain time use, increase fatigue, and reduce tourists' willingness to engage deeply or allocate spending to local products. The moderate effect size observed for accessibility indicates that while it is not the primary driver of preference, it functions as a necessary enabling condition that allows attraction quality to be fully realised. This aligns with behavioural tourism logic, which treats accessibility as a foundational determinant of experience consumption rather than a peripheral infrastructure issue.

Comparatively, the dominance of attractions over accessibility suggests that Meat Tourism Village's competitive advantage lies primarily in experience enrichment rather than purely infrastructural improvement. However, the significance of both paths indicates that destination performance should be understood as a system, not a single lever. Policy interventions that focus exclusively on cultural programming without addressing access reliability may yield diminishing returns, just as infrastructure improvements alone are unlikely to strengthen preference in the absence of compelling cultural experiences.

From a managerial perspective, these results provide a clear prioritisation logic. Investments in ulos-based attraction design—such as structured weaving demonstrations, guided storytelling on motif meanings, and participatory workshops—are likely to produce the strongest gains in tourist preference. At the same time, access-related interventions—including signage clarity, transport coordination, and internal mobility improvements—serve to stabilise and amplify these gains by reducing experiential friction. The relatively high explanatory power of the model indicates that these two levers capture the core determinants of preference in this rural cultural destination context.

Theoretically, the study supports a destination-product perspective in which tourist preference emerges from the interaction between experiential pull factors and access conditions. By isolating attractions and accessibility as first-order determinants, the model avoids construct inflation while maintaining explanatory strength. This parsimonious structure enhances replicability across comparable cultural villages and offers a practical framework for benchmarking destination performance in relation to local cultural product development.

5. CONCLUSION

This study develops and empirically tests a parsimonious destination-system model to explain tourist preference for ulos-based cultural tourism products in Meat Tourism Village, Toba Regency. By focusing on attractions and accessibility as first-order determinants, the model demonstrates that both experiential quality and access

conditions play significant and complementary roles in shaping preference outcomes. The findings confirm that attraction quality—expressed through interpretive richness, authenticity cues, and participatory cultural experiences—constitutes the dominant driver of preference, while accessibility functions as a critical enabling condition that allows cultural value to be fully realised during the visit.

The results contribute to cultural tourism literature by reinforcing a destination-product perspective in which local cultural products cannot be analytically separated from the system that frames their consumption. Rather than treating ulos as a standalone artefact, this study shows that tourist preference emerges from the interaction between cultural experience design and the practical conditions of access. The relatively high explanatory power of the model indicates that a limited number of theoretically grounded destination levers can account for substantial variation in preference formation within rural cultural destinations.

From a practical standpoint, the findings provide clear prioritisation guidance for village-level destination management and local policy actors. Investments in ulos-based attraction programming—such as guided storytelling, weaving demonstrations, and participatory workshops—are likely to yield the strongest gains in tourist preference, particularly when supported by reliable access, clear wayfinding, and convenient internal mobility. By identifying which destination components most effectively translate cultural heritage into preferred tourism products, the study supports evidence-based decision-making that aligns cultural preservation with market responsiveness.

Despite its contributions, this study is limited to a single village context and employs a cross-sectional design. Future research may extend the model to comparative village settings, incorporate longitudinal designs to capture preference dynamics over time, or examine downstream behavioural outcomes such as purchase intention, recommendation, and revisit behaviour. Such extensions would further strengthen understanding of how local cultural products can be sustainably integrated into destination development strategies

ACKNOWLEDGEMENTS

The authors would like to express their sincere appreciation to the management of Meat Tourism Village, Toba Regency, for their cooperation and for granting access to visitor records and field information that made this study possible. Gratitude is also extended to all tourists who generously participated in the survey and shared their experiences and perceptions during the research period.

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