

ECOTOURISM Market Preferences in Region XI: A Conjoint Analysis STUDY

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ABSTRACT

Insufficient information and knowledge on ecotourism market preferences could restrain the potential growth and sustainability of ecotourism. This study explored the market preferences for ecotourism among tourists in Region XI, employing a conjoint analysis to determine the utility values and relative importance of various ecotourism attributes. The research surveyed 400 respondents to assess preferences across five key attributes: Natural Resources, Accessibility, Range of Activities, Accommodation, and Cultural Experiences. The results indicated that Accessibility, Accommodation, and Natural Resources were the most influential factors, with preferences favoring easily accessible destinations, basic eco-lodges, and preserved natural environments. Frequency analysis revealed a significant demographic segment of young, budget-conscious travelers, while cluster analysis further identified two distinct market groups - "Young, Budget-Conscious Travelers" and "Established, Professional Tourists." Moreover, accommodation emerged as the most critical attribute overall, with respondents prioritizing comfort and eco-friendliness, while moderate preservation of natural beauty and guided cultural tours were highlighted as key drivers of destination appeal. Additionally, the total utility score for an ideal attribute bundle underscores the importance of targeting accessibility, eco-friendly lodging, and structured cultural experiences to attract ecotourists, supporting strong and sustainable ecotourism strategies.

KEYWORDS: *business management, ecotourism, market preferences, attributes conjoint analysis, Region XI, Philippines*

INTRODUCTION

Ecotourism has seen significant global growth (United Nations World Tourism Organization, 2021); however, it faces challenges such as

environmental impacts from poorly managed tourism, leading to habitat degradation, pollution, and biodiversity loss (Erdoğan & Erdoğan, 2016). In the Philippines, these issues are compounded by unregulated tourism activities causing environmental degradation, particularly in popular destinations like Mount Apo and Samal Island (Amores & Borja, 2021). The Davao region specifically struggles with habitat destruction, waste accumulation, and coral reef damage due to tourism (Garces et al., 2017). Additionally, the unequal distribution of tourism benefits and the vulnerability of local communities to market fluctuations pose significant challenges, with profits often benefiting external operators rather than local communities (Camba, 2021). Socially, tourism can displace local and Indigenous communities, disrupting traditional lifestyles and cultural heritage (Duhaylungsod, 2016).

Examining market preferences in the tourism and ecotourism industry is crucial (Zong et al., 2017). Chaminuka et al. (2011) highlighted that ecotourism's potential is limited by a lack of information on tourist preferences, making sustainability and environmental conservation challenging without ecotourist involvement (Lu & Nepal, 2009). Understanding tourist values allows businesses to tailor offerings, enhancing satisfaction and loyalty (Dolnicar et al., 2018). Identifying preferences helps develop targeted products, attracting and retaining visitors (Prayag & Ryan, 2011). Market preference studies guide policymakers in balancing economic development with sustainability, supporting long-term viability (Boley & Green, 2015). Engaging with consumer preferences empowers local communities, aligning tourism development with their needs and values, fostering inclusive growth, and reducing resource use conflicts (López-Guzmán et al., 2018).

Tourists' preferences for ecotourism destinations are significantly shaped by the attributes of the destinations themselves. Key aspects such as accessibility, facilities, attractions, and environmental values are central in influencing these preferences. For instance, attributes like destination accessibility, natural beauty, and facilities have been identified as critical in shaping tourist choices (Purwanto, 2021). Moreover, the destination image, along with visitor satisfaction and loyalty, plays a pivotal role in guiding tourist decisions and their preference toward ecotourism destinations (Aniqoh et al., 2022). Additionally, demographic factors and personal values, such as environmental concern and the desire for cultural immersion, further refine tourist preferences for ecotourism destinations. These preferences are often moderated by variables like income and education, highlighting the nuanced

interaction between destination attributes and tourist choices (Strobl et al., 2015). Effective management of these attributes can lead to improved tourist satisfaction and repeat visitation, underscoring their importance in ecotourism marketing and development (Pham & Chen, 2015).

Existing literature on ecotourism primarily addresses general market trends, environmental impacts, and community benefits (Honey, 2008). However, there is a significant research gap regarding the distinct preferences, expectations, and decision-making processes of different segments within the ecotourism market in Region XI. While studies by Dolnicar (2008) and Tkaczynski et al., (2008) emphasize the importance of market segmentation in ecotourism, their findings do not specifically apply to Region XI. This gap limits the ability of planners and developers to formulate targeted and effective ecotourism strategies. Additionally, most ecotourism research has focused on well-established destinations like Costa Rica (Stem et al., 2003) and Australia (Weaver & Lawton, 2004), leaving a void in understanding the preferences of emerging or less-studied markets such as Region XI. The unique cultural, environmental, and socio-economic characteristics of Region XI may influence ecotourist preferences differently, underscoring the need for region-specific research.

Since this research aligns with the Davao Regional Development Research Agenda 2023- 2028 of the National Economic Development Authority (NEDA), specifically focusing on Market Preferences on Ecotourism Sites of Region XI, the findings will be invaluable for planners and developers in crafting targeted marketing strategies and developing appealing ecotourism products and services to ensure long-term viability. The results will be disseminated through various channels to reach stakeholders involved in tourism promotion and development in Region XI. The findings will be presented to NEDA and the Provincial Tourism Offices (PTO) in Region XI's provinces. The Davao Tourism Agency Association (DTAA) and Davao Association of Tourism Operators (DATO) will also access this study to guide their planning decisions. The researcher intends to disseminate the findings of this study through various academic and professional avenues. The results will be presented at relevant research conferences and fora to engage with and contribute to ongoing academic discourse in the field of ecotourism. Furthermore, the researcher aims to publish the findings in either local or international peer-reviewed journals to ensure broader accessibility and academic validation. A copy of the completed paper will also be made available to the UIC Library for future reference and to

the organization involved in the study, supporting institutional knowledge and practical applications.

METHODS

Research Design

The researcher employed a quantitative, descriptive-experimental research design, leveraging conjoint analysis (specifically an orthogonal design) to assess and evaluate ecotourism market preferences in Region XI. This approach is well-suited for providing a nuanced understanding of ecotourist preferences, as it combines descriptive methods to detail what ecotourists value and experimental methods to quantify the relative importance of various factors influencing those preferences. By integrating these methodologies, the study offers a comprehensive and detailed analysis of ecotourism demand, shedding light on key attributes that shape ecotourists' decisions.

Research Locale

The study comprehensively examined ecotourism market preferences across the four provinces of Region XI: Davao de Oro, Davao del Norte, Davao del Sur, and Davao Oriental. The inclusion of the four provinces ensures a broad and representative understanding of ecotourism preferences within this diverse Region.

Research Respondents

Thirty (30) tour operators constituted the Key Informant Interview (KII) participants and Four-hundred (400) ecotourists from Region XI as survey respondents, employing simple random sampling to ensure equal representation from each province. Through focus group discussions, tour operators helped identify key attributes influencing ecotourism preferences. These attributes were analyzed using the Statistical Package for Social Science (SPSS) software to summarize, interpret, and analyze the collected data, employing frequency counts and percentages to describe respondent profiles and identify patterns in their distribution.

Data Analysis

Conjoint analysis was used to assess ecotourist preferences, a multivariate technique that evaluates how respondents form preferences based on bundles of attributes. This method, rooted in consumer psychology and enhanced over decades, combines attribute utilities to determine trade-offs influencing overall preferences, with ratings assigned on a 10-point bipolar

Likert scale. Using an orthogonal factorial design, 39 profile cards were evaluated, estimating individual utilities (part-worths) for attribute levels and employing additive models to calculate total utility scores. Advanced statistical techniques like maximum utility, logit models, and Bradley-Terry- Luce (BTL) statistics further assessed market share potential for ecotourism in Region XI.

Additionally, a two-step cluster analysis was employed to identify natural groupings within the data, leveraging model selection criteria such as the Bayesian Information Criterion (BIC) and Akaike's Information Criterion (AIC) to optimize clustering. This comprehensive analytical approach ensured a rigorous evaluation of ecotourism preferences and market segmentation.

Ethical Statement

Data collection commenced following approval from the UIC Research Ethics Committee and formal clearance from the Graduate School Dean. The process strictly adhered to institutional guidelines to ensure integrity and respect for participants. Informed consent played a central role throughout. Participants, including those involved in Key Informant Interviews (KII) and survey respondents, were fully briefed on the study's purpose, procedures, and ethical safeguards.

Informed Consent Forms were shared in a clear and accessible manner, allowing participants ample time to review the information, ask questions, and make an informed decision about their involvement. Those who chose to participate signed informed consent forms, confirming their understanding and willingness to contribute. Participants were also assured that their responses would remain strictly confidential, reinforcing a sense of trust and security.

The study placed a strong emphasis on safeguarding the confidentiality and privacy of respondents, strictly adhering to the Data Privacy Act of 2012. Comprehensive measures were implemented to protect personally identifiable information, such as names and contact details. All data was stored securely in a password-protected database. The data was anonymized using unique codes and pseudonyms to further protect participants' identities. Collected data will be retained securely for one year following the completion of the study. After this period, digital files will be permanently deleted, and any physical documents will be shredded. These rigorous data management practices not only upheld respondents' confidentiality but also ensured compliance with all legal and ethical standards.

RESULTS

In Region XI, the preference structure of tourists toward ecotourism destinations is strongly shaped by the quality and type of natural resources, as highlighted in Table 1. Natural resources play a profound role in ecotourism by offering a unique connection to nature, which attracts visitors. Zong et al. (2017) emphasize the importance of providing immersive experiences in untouched areas, while Vitrianto and Rosani (2023) note that land suitability and natural beauty are key in attracting ecotourists, influencing site selection. This highlights the appeal of natural beauty in ecotourism and its role in shaping tourists' travel choices.

Accessibility is another crucial factor, with destinations ranging from easy to difficult access. Easy access, supported by reliable infrastructure, appeals to a broad range of tourists, including families and those with mobility concerns. Lin et al. (2021), Ivanova et al. (2022), and Wang et al. (2022) point out that easy access broadens a destination's appeal. In contrast, difficult access destinations attract a niche group valuing solitude, adventure, and ecological preservation. Yorganci (2022) and Sangadji et al., (2023) highlight that such destinations maintain biodiversity by limiting mass tourism.

Table 1
Top five most important attributes and their level

Attributes	Levels
1. Natural Resources	Untouched Nature
	Partially Developed Natural Areas
	Moderately Preserved Natural Beauty
	Urban-Adjacent Nature
2. Accessibility	Easy Access
	Moderate Access
	Difficult Access
3. Range of Activities	Recreational Activities
	Sports Activities
	Adventure Activities
4. Accommodation	Eco-Luxury Lodges
	Mid-Range Eco-Friendly Hotels
	Basic Eco-Lodges

	Rustic Accommodation
5. Cultural Experiences	Immersive Cultural Interaction
	Guided Cultural Tours
	Minimal Cultural Interactions
	Surfaced-level Cultural Exposure

The range of activities is the third key factor, encompassing recreational, sports, and adventure activities that strengthen the bond between tourists and the environment. Pathmanandakumar et al. (2023) emphasize that these activities foster environmental awareness. Sports and adventure activities like kayaking, snorkeling, and zip-lining, as highlighted by Vitrianto and Rosani (2023), cater to different tourist interests, creating memorable and competitive experiences.

Accommodation also plays a significant role, with options ranging from eco-luxury lodges to basic eco-lodges. Eco-luxury lodges attract affluent travelers by blending comfort with sustainability, as noted by Kokkhangplu et al. (2023). Midrange eco-friendly hotels balance affordability with sustainability, appealing to budget-conscious tourists (Wang et al., 2022; Saayman & Sangadji, 2023). Basic eco-lodges and rustic accommodations offer immersive cultural experiences, with homestays and camping promoting cultural exchange and environmental stewardship (Vitrianto & Rosani, 2023; Ibrahim et al., 2023). The importance of gender-sensitive environments is also growing, ensuring that ecotourism destinations cater to diverse travelers' needs.

Cultural experiences further influence tourist preferences. Immersive cultural engagement deepens understanding of local traditions, fostering support for local conservation and economies. Saragih et al. (2024) and Sangadji (2023) highlight the value of guided tours in enriching cultural experiences. However, passive cultural exposure, like attending festivals or visiting markets, provides limited insight, as pointed out by Sudiarta et al. (2022). To foster deeper engagement, Khadka and He et al. (2023) advocate for strategies that encourage more meaningful interactions.

These factors collectively shape the preference structure guiding tourists in selecting ecotourism destinations in Region XI, highlighting their motivations and expectations for a fulfilling travel experience.

Table 2.1

Overall Conjoint Correlation Results Between Observed and Estimated Preferences of Ecotourism Market in Region XI

Correlations	Value	Sig.
Pearson's R	.885	<.001**
Kendall's tau	.738	<.001**
Kendall's tau for Holdouts	.683	.017*

a. Correlations between observed and estimated preferences

**Significant at 0.05 level of significance*

***Significant at 0.01 level of significance*

The results shown in Table 2.1 indicate a strong positive correlation, with Pearson's R- value of .885, suggesting that the conjoint model effectively predicts the observed preferences. The significance level ($p < .001$) confirms this correlation is highly significant, with a very low probability of it being due to chance, thus validating the model. Additionally, Kendall's Tau value of .738 shows a robust positive association, meaning the predicted rankings closely align with the observed rankings. The significance level ($p < .001$) further supports the statistical significance of this correlation, reinforcing that the model accurately represents respondents' preferences.

Kendall's Tau for holdouts of .683 indicates a strong positive correlation for the holdout cases, suggesting that the model performs well on profiles it was not trained on ($p < .05$), highlighting its robustness and generalizability to new profiles. The high correlation values and statistical significance across Pearson's R, Kendall's Tau, and Kendall's Tau for Holdouts demonstrate that the conjoint model reliably predicts respondents' preferences and maintains predictive power for unseen data, making it suitable for analyzing ecotourism market preferences.

Table 2.2

Respondent's Overall Utility Estimates of Factor on Ecotourism Market Preferences

Attributes	Levels	Utility Estimate (Part-worths)	Std. Error
Natural Resources	Untouched Nature	.044	.075
	Moderately Preserved	.049	.075

	Natural Beauty		
	Partially Developed		
	Natural Areas	- .098	.075
	Urban-Adjacent Nature	.005	.075
Accessibility	Easy access	.326	.058
	Moderate Access	.074	.068
	Difficult Access	-.400	.068
Range of Activities	Recreational Activities	.035	.058
	Sport Activities	.008	.068
	Adventure Activities	-.042	.068
Accommodation	Eco-Luxury Lodges	-.064	.075
	Mid-Range	.046	.075
	Eco-Friendly Hotels		
	Basic Eco-Lodges	.216	.075
	Rustic Accommodation	-.198	.075
Cultural Experience	Immersive Cultural Interaction	.005	.075
	Guided Cultural Tours	.133	.075
	Surface-Level Cultural Exposure	-.074	.075
	Minimal Cultural Interaction	-.064	.075
	(Constant)	6.408	.048

The utility estimates shown in Table 2.2 reveal that respondents prioritize accessibility and accommodation in ecotourism destinations. Easy access has the highest utility (0.326), strongly influencing preferences, while difficult access has a significant negative utility (-0.400). Basic eco-lodges are preferred over rustic or eco-luxury accommodations, with a utility of 0.216 for basic lodges. Natural resources play a role, with moderately preserved natural beauty slightly preferred over untouched nature, while partially developed areas are least favored. Cultural experiences are important, with guided cultural tours having the highest utility (0.133), and minimal cultural interaction being less appealing. The range of activities has a minor influence, with recreational activities being slightly preferred over adventure activities. Overall, respondents

favor ecotourism destinations that are easily accessible, offer simple eco-friendly accommodations, and provide structured cultural experiences in well-preserved natural environments.

Based on the outcome presented, the Total Utility Score is computed as follows:

$$\begin{aligned}
 \text{Total Utility} &= \text{Utility (Easy Access)} + \text{Utility (Basic Ecolodges)} + \text{Utility} \\
 &(\text{Guided Cultural Tour}) + \text{Utility (Moderately Preserved Natural Beauty)} + \\
 &\text{Utility (Recreational Activities)} + \text{Constant} \\
 &= .326 + .216 + .133 + .049 + .035 + 6.408 \\
 &= 7.167
 \end{aligned}$$

Table 2.3

Preference Score on the Overall Utility Estimates of Factors Based on Ecotourism Attributes

Attribute Factor	Utility
Natural Resources: Moderately-Preserved Natural Beauty	.049
Accessibility: Easy Access	.326
Range of Activities: Recreational Activities	.035
Accommodation: Basic Eco-Lodges	.216
Cultural Experiences: Guided Cultural Tours	.133
Constant	6.408
Preference Score:	7.167

The preference Score of 7.167 as exhibited in Table 2.3 added by the constant (6.408) which serves as a baseline utility indicates that it is a highly attractive combination for potential tourists, driven mainly by ease of access and eco-friendly lodging options. Moderate natural beauty and cultural tours are additional appealing features. Hence, ecotourism destinations offering moderate natural preservation, easy access, basic eco-lodges, and guided cultural experiences will likely attract tourists who value these attributes. Managers and marketers who emphasize these qualities in promotional materials could attract a similar demographic interested in ecotourism.

On the other hand, the least preferred bundle of attributes is that of

difficult access (-.400), rustic accommodation (-.198), partially-developed natural areas (-.098), surface-level cultural exposure (-.074), and adventure activities (-.042).

Table 3

Respondent's Overall Average Importance Values on the Attributes of Ecotourism Market Preference

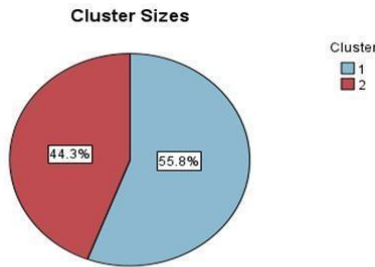
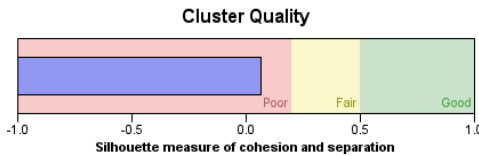
Attributes of Ecotourism Market Preference	Value
Natural Resources	21.989
Accessibility	19.316
Range of Activities	15.593
Accommodation	22.341
Cultural Experiences	20.761

The importance scores in Table 3 highlight how respondents prioritize different attributes in ecotourism destinations. Accommodation holds the highest importance (22.341), indicating that quality, comfort, and unique lodging are key factors in destination selection, aligning with Rosli (2023), who emphasize the critical role of accommodation quality in ecotourist choices. Natural resources follow closely with an importance score of 21.989, suggesting that scenic landscapes, biodiversity, and natural features strongly drive preferences, in line with Soare et al., (2024), who highlight the significance of natural resources in attracting ecotourists, especially younger travelers. Cultural experiences score 20.761, reflecting the value respondents place on exposure to local traditions and heritage, which matches the growing trend for immersive travel experiences, as discussed by Ribeiro et al. (2017). Accessibility, with an importance value of 19.316, is also significant, though less so than accommodation, natural resources, and cultural experiences, supporting the findings of Andrades and Dimanche (2017), who emphasize the role of transport and ease of access in tourists' destination choices. The range of activities has the lowest importance score (15.593), suggesting that while activities are important, they are less decisive in destination selection, which contrasts with Mehmetoglu's (2006) research on the importance of activity preferences in shaping tourist satisfaction and tourism management strategies.

Conjoint analysis, combined with cluster analysis, is used as a multivariate statistical tool to identify natural groupings within a dataset. The

goal is to classify related observations and uncover the structure of the data (Hair et al., 2019). Cluster analysis, particularly the Two-Step Clustering Method, helps identify respondents or groups with similarities. This method is effective for large datasets and mixed data types (continuous and categorical), allowing users to determine the optimal number of clusters and classify them through a non-hierarchical approach (Facca & Allen, 2011).

Algorithm	TwoStep
Inputs	44
Clusters	2



Size of Smallest Cluster	177 (44.2%)
Size of Largest Cluster	223 (55.8%)
Ratio of Sizes: Largest Cluster to Smallest Cluster	1.26

Cluster 1 - Young Budget-Conscious Travelers
 Cluster 2 - Established Professional Tourists

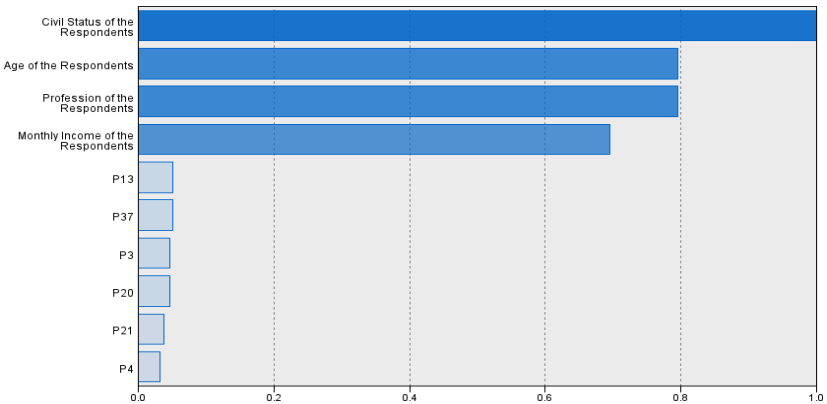


Figure 3. Model Summary View, Graphical Representation of Cluster Distribution and Predictor Importance

Figure 3 showed the clustering analysis of 44 cases resulted in two clusters, with the quality of the clusters assessed using the Silhouette measure. The measure, which ranges from -1 to +1, showed poor quality with values close to 0, indicating that the two clusters are not well-separated and may overlap. Despite this, the auto-clustering function determined that two clusters best represent the dataset based on the most significant distance ratio of 1.922.

Cluster 1, labeled "Young Budget-Conscious Travelers," includes 223 respondents (55.8% of the sample) aged 18-30, mostly students or individuals with lower incomes. This group prioritizes affordable, accessible ecotourism options, preferring basic eco-friendly accommodations, natural beauty, and structured cultural experiences. They seek cost-effective and convenient destinations, often with organized but not luxurious activities.

Cluster 2, "Established Professional Tourists," consists of 177 respondents (44.3% of the total sample), aged 31-60, mostly professionals with stable incomes ranging from P11,000.00 to P40,000.00, and predominantly married. They prioritize moderate-to-high accessibility, mid-range eco-friendly accommodations, and structured cultural experiences like guided tours. This cluster favors comfort, organized experiences, and moderate accessibility.

The predictor importance chart reveals that civil status (1.0) is the most significant factor in distinguishing between the clusters, highlighting its crucial role in shaping ecotourism preferences. Age and profession are also important

predictors (0.79), suggesting that different age groups and professions exhibit distinct preferences. Monthly income (0.7) influences cluster differentiation, particularly in terms of accommodation and activities. Other predictors, such as P13, P37, P3, P20, P21, and P4, are less significant in distinguishing the clusters.

In conclusion, in this clustering solution, civil status, age, profession, and income are the primary factors influencing the cluster formation. These variables are crucial to understanding the different ecotourism market segments, while other predictors like P13, P37, P3, P20, P21, and P4 play a minor role in the clustering solution. This information can help tailor ecotourism services to specific demographics based on their preferences.

DISCUSSION

The result emphasizes the importance of effective market segmentation in aligning product development and marketing strategies with the diverse needs of tourist groups. These findings suggest that businesses can tailor their offerings to each segment's unique preferences. For instance, younger travelers may be drawn to budget accommodations and recreational activities, while professionals might prefer eco-lodges or culturally immersive experiences.

Further insights from conjoint analysis provide a deeper understanding of the relative importance of specific ecotourism attributes, such as accessibility and accommodation, which were highly valued across segments. This information can guide tourism operators in resource allocation and messaging strategies to create packages that resonate with each group's preferences. By integrating these findings, businesses and planners can design customized products and targeted marketing campaigns that enhance the appeal and relevance of their offerings. Ultimately, this approach not only meets tourists' specific expectations but also increases customer satisfaction, loyalty, and word-of-mouth promotion, as supported by the research of Dolnicar et al. (2017) and Keller & Kotler (2015).

The results presented are congruent with the Theory of Planned Behavior (TPB), which posits that behavior is influenced by attitudes, subjective norms, and perceived behavioral control and provides a framework for interpreting the observed preferences in ecotourism.

Accessibility emerged as a critical attribute in ecotourism preferences, with tourists favoring destinations perceived as easy to access. Within the

framework of the Theory of Planned Behavior (TPB), perceived behavioral control significantly impacts both intentions and actual behaviors. Enhancing accessibility at ecotourism sites empowers tourists by increasing their sense of control, thereby boosting the likelihood of visits. Similarly, accommodation plays a vital role by influencing subjective norms, as the quality and uniqueness of lodging shape perceptions of what is valued and socially approved. Comfortable and unique accommodations contribute to positive expectations, encouraging alignment with these norms.

Guided cultural tours, emphasizing local traditions and heritage, enhance attitudes toward ecotourism by enriching the perceived value of the experience. They also strengthen subjective norms by aligning with trends that prioritize authentic and immersive travel. Natural resources, including scenic landscapes and biodiversity, foster positive attitudes by directly appealing to tourists' appreciation for ecological beauty and conservation. Lastly, the range of activities affects perceived behavioral control by offering diverse options that cater to different preferences, empowering tourists to tailor their experiences to their interests. Together, these attributes interconnect within the TPB framework, shaping tourists' attitudes, subjective norms, and perceived control, which collectively drive intentions and actual ecotourism behaviors.

This finding underscores the importance of developing infrastructure that supports convenient access, particularly for younger, budget-conscious travelers who may rely on public transport or budget options.

CONCLUSION

Based on the findings of the study, several conclusions are drawn regarding tourist preferences and the attributes that shape the appeal of ecotourism destinations:

Among the evaluated attributes, accessibility emerged as the most preferred, underscoring its critical role in attracting tourists. Destinations that are easy to reach are highly valued, making accessibility a key focus for marketing and development strategies. In contrast, additional luxury amenities ranked as the least preferred attribute, particularly among younger, budget-conscious travelers, who prioritize practicality over luxury. This finding suggests that tourism operators should emphasize essential, impactful features rather than investing heavily in luxury offerings.

The study also highlighted the importance of other attributes emphasizing accommodation and natural resources which significantly influence destination appeal. Tourists favor basic eco- lodges that offer comfort without excess and preserved natural areas that provide authentic and sustainable experiences. Culturally immersive offerings also enhance destination attractiveness, emphasizing the need to integrate local cultural elements into tourism products.

Individual preference models revealed that demographic and psychographic factors play a significant role in shaping tourist choices. On the other hand, younger travelers prioritize affordability, easy access, and simpler accommodations, reflecting their income constraints and preference for adventurous experiences. Conversely, established professional tourists prefer destinations that provide comfort, cultural depth, and moderate accessibility, aligning with their higher disposable income and interest in enrichment. At an aggregate level, the preference model demonstrates a consistent emphasis on practical and sustainable attributes, such as accessibility, basic yet comfortable accommodations, and preserved natural resources. These attributes appeal to both primary market segments, though with varying degrees of priority.

The findings aligned with the Theory of Planned Behavior, which explains how social norms and perceived behavioral control influence travel choices. For younger travelers, the growing trend of eco-friendly, budget-conscious travel is perceived as a normative behavior within their social circles, making it an appealing and viable option. In contrast, established professional tourists perceive ecotourism as a realistic choice when it meets their expectations for comfort and cultural depth. These insights underscore the importance of tailoring marketing strategies and product offerings to reflect the psychological and situational factors that drive decision-making in their choice for tourist destinations.

Recommendations

Based on the findings and conclusions, several strategic recommendations are proposed to enhance the development of ecotourism in Region XI. Investment in reliable public transportation and maintenance of roads may be prioritized to improve the accessibility leading to ecotourism sites. This would make remote natural areas more appealing to younger, budget- conscious travelers while addressing the market's preference for easily accessible destinations. Simultaneously, the development of basic and eco-friendly

accommodations in collaboration with local communities and businesses may also be considered. Putting-up simple yet sustainable lodges can attract budget travelers while maintaining a low environmental impact, ensuring alignment with the principles of responsible tourism.

The promotion of Region XI's natural and cultural attractions is another crucial strategy. Unique destinations such as Mt. Apo, Samal Island's beaches, and Compostela Valley's forests may be highlighted along with their accessibility and pristine condition to enhance the region's appeal. Additionally, guided cultural tours and interactive experiences, such as traditional craft workshops and culinary classes may be created to attract tourists seeking meaningful engagement with local heritage. Establishing a strong, recognizable brand for Region XI as a sustainable ecotourism hub is equally important. Marketing campaigns may be emphasized on environmental conservation and community-centered tourism, appealing to both younger, environmentally conscious travelers and older professionals who value comfort and cultural richness.

To integrate these attributes into tourism operations, accessibility enhancements should include shuttle services and guided tours from central hubs to make travel seamless for tourists. Accommodation should cater to varied preferences by offering both basic eco-lodges and mid-tier options that balance comfort with sustainability. Activities highlighting the region's natural resources, such as trekking, marine exploration, and birdwatching should be designed to minimize environmental impact while showcasing the area's unique biodiversity.

The government entity, specifically NEDA may adopt actionable solutions reflective of the study's findings include developing infrastructure to support sustainable tourism and fostering partnerships between local communities and tourism operators to co-create authentic cultural and ecological experiences. Targeted marketing campaigns promote affordability, cultural richness, and environmental stewardship, leveraging digital platforms to connect with younger demographics. Additionally, policy advocacy can ensure the implementation of sustainable practices, such as regulating visitor numbers to sensitive areas and incentivizing eco-friendly tourism operations. These integrated strategies position Region XI to cater effectively to diverse tourist preferences while fostering sustainable growth in the ecotourism sector.

In addition, the said government agency may consider these relevant

recommendations of the researcher, in line with the results of the study on ecotourism preferences in Region XI would be allocate funding for infrastructure improvements in targeted ecotourism areas, ensuring they remain sustainable and aligned with environmental standards and support local government units and small-to-medium enterprises (SMEs) through grants and capacity-building initiatives for ecotourism development.

NEDA in coordination with other government and private institutions concerning tourism activities that would boost local economy may also consider the recommendation directly supporting the research findings, that geared towards which emphasizing the importance of accessibility, natural resources, and local experiences. By focusing on sustainable infrastructure improvements and supporting SMEs, this approach addresses key elements of tourists' preferences for ecotourism destinations. It fosters both environmental and economic sustainability while encouraging local community engagement—critical factors for developing a competitive ecotourism market in the region.

It also ties in with the goal of promoting inclusive growth and reducing the economic leakage often associated with large-scale tourism. Furthermore, it aligns with national goals for sustainable growth and offers long-term benefits for the region's ecotourism ecosystem.

Future researchers could build on this study by exploring psychographic factors such as tourists' environmental values, motivations, and personal preferences to better understand the underlying reasons behind ecotourism choices. Additionally, examining behavioral segmentation within the ecotourism market would allow for a more refined approach to identifying and catering to different consumer behaviors. The growing influence of digital media and social platforms on travel decisions warrants investigation into how social media, online reviews, and influencers shape tourists' preferences for ecotourism destinations. Longitudinal studies would also be valuable to track changes in preferences over time, especially in relation to income, lifestyle, and emerging environmental concerns.

Future researcher may also assess the socio-economic impact of ecotourism on local communities by evaluating the effect of tourism on employment, business development, and cultural preservation. A monitoring mechanism could be set-up to continually assess the long-term effectiveness of

sustainable practices in ecotourism sites to ensure that these practices remain responsible and beneficial to both the environment and local communities. Finally, cross-regional comparisons could offer insights into the unique characteristics of Region XI's ecotourism offerings, identifying best practices and areas for improvement. These avenues of research will contribute to a more comprehensive understanding of ecotourism preferences and support the sustainable development of the industry in Region XI.

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