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The Nexus Of Sustainability And Choice: A Factor Analysis Of Tourist Destination Selection In The Fragile Himalayan Region Of Uttarakhand

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Abstract: This study investigates the interplay between sustainable tourism dimensions and destination selection in Uttarakhand, a region of immense economic value yet extreme ecological fragility. A comprehensive review of recent literature highlights the severe challenges posed by mass tourism, including environmental degradation, infrastructural deficits, and the erosion of local cultural integrity. To understand the underlying structure of destination attractiveness, the study employed Factor Analysis on key sustainability indicators derived from the literature, grouping them into critical latent variables: Ecological Compliance, Community-Based Tourism and Empowerment, Infrastructural Quality, and Digital and Behavioural Trust.

The factor analysis results confirm that tourists' destination choices are multi-dimensionally driven, with these sustainability factors significantly influencing perceived attractiveness. Specifically, factors related to robust Ecological Compliance (e.g., adherence to carrying capacity and effective waste management) and the quality of Community-Based Tourism initiatives (e.g., homestay service quality and local participation) emerged as paramount determinants for securing a competitive advantage.

The findings underscore that the current mass tourism model is unsustainable and necessitates a paradigm shift. This paper concludes by advocating for a holistic governance framework. Key suggestions include prioritizing scientific regulation and decentralization of tourism, aggressive investment in core rural infrastructure and waste management systems, mainstreaming Community-Based Tourism by focusing on local empowerment and skills, and leveraging digital platforms to promote responsible tourist behaviour and build consumer trust. Implementing these measures is essential for transforming Uttarakhand's tourism sector into a resilient and viable model for future growth.

Keywords: Sustainable Tourism, Destination Selection, Ecological Compliance, Community-Based Tourism, Infrastructural Quality

1. Introduction

Sustainable tourism has emerged as a global imperative, particularly crucial in ecologically and culturally sensitive regions where the need to balance economic growth with environmental conservation and socio-cultural integrity is non-negotiable (Kumar & Sharma, 2025; Semwal & Tripathi, 2025). The state of Uttarakhand, often revered as "Dev Bhoomi" (Abode of god), embodies this dual identity. It is a vital tourism engine, contributing significantly to regional GDP and employment due to its immense natural beauty, spiritual sites, and cultural heritage (Sarkar et al., 2025; Mishra & Mishra, 2023; Kumar & Mosses, 2022). However, this rapid tourism growth has exposed the region's extreme fragility. Researchers consistently

highlight that uncontrolled influx and unplanned infrastructure construction are exacerbating environmental degradation, resource depletion, and vulnerability to natural calamities (Kumari et al., 2025; Jacob et al., 2024; Sharma, 2024; Jasrotia & Sharma, 2020). Dynamic modeling, as applied to destinations like Mussoorie, confirms that existing myopic policies frequently prioritize enhancement over environmental protection, consequently *emasculating* sustainable tourism objectives (Rawat et al., 2024; Chandra & Kumar, 2021).

The literature reviewed extensively maps the critical components shaping a tourist's decision to select Uttarakhand as a destination. Firstly, destination management is hindered by infrastructural deficits—such as poor roads, water, and waste management—and a critical lack of capacity planning, as evidenced by studies determining specific sustainable daily visitor limits for sites like the Char Dham shrines (Mishra & Mishra, 2023; Uniyal & Panwar, 2023; Kuniyal et al., 2025; Singh et al., 2024; Dutta, 2023). Secondly, Community-Based Tourism (CBT), particularly homestays, is championed as a core sustainable strategy to uplift rural livelihoods, mitigate youth migration, and preserve cultural identity (Kumar & Sharma, 2025; Prajapati et al., 2023; Rana & Bisht, 2023; Rautela & Joshi, 2023; Uniyal & Panwar, 2023). However, the success of CBT is conditional on providing locals with the necessary opportunity and ability to participate, rather than just abstract motivation (Verma et al., 2024).

Finally, tourist behaviour and experience are increasingly mediated by digital factors, where perceived security and quality build digital trust (TST), influencing purchase intention (Anuj et al., 2024; Pandey et al., 2025). Simultaneously, the promotion of responsible tourism is tied to fostering altruistic and biospheric values among tourists, particularly Generation Z (Walia et al., 2025). The attractiveness of the destination is thus a complex interplay of physical assets (natural beauty, heritage), service quality (Kumar et al., 2025), and perceived sustainability, making the latter not just an ethical concern but a prerequisite for competitive advantage (Kishore & Walia, 2023). This study seeks to synthesize these disparate findings to understand how sustainable attributes collectively influence destination selection in this highly vulnerable, yet economically vital, region.

1.1 Significance of the Study

This research holds paramount significance for multiple stakeholders. For Policymakers and Destination Management Organizations, it offers evidence-based guidance for strategic decentralization of tourism to lesser-known sites (Negi et al., 2025; Chaudhary et al., 2022) and provides justification for prioritizing infrastructure investment and regulatory enforcement to comply with carrying capacity limits (Kuniyal et al., 2025; Rawat et al., 2024). For Local Communities and Entrepreneurs, it validates the importance of focusing on service quality and cultural products within homestays to ensure tourist satisfaction and strengthen rural economies (Kumar et al., 2025; Sati & Banergee, 2025) while empowering local participation by emphasizing skill development and opportunities (Verma et al., 2024). For the Academic community, this study contributes to the literature by moving beyond descriptive problem identification (Sharma, 2024) to a synthesized model that clarifies the complex interaction of sustainability-related factors (economic, ecological, and socio-cultural) in shaping destination choice, thereby enhancing the theoretical understanding of sustainable tourism management in sensitive mountain environments.

1.2 Rationale of the Study

The rationale for this study is rooted in the critical and unsustainable trajectory of tourism development in Uttarakhand. Despite extensive documentation of ecological collapse (Dutta, 2023; Ramdas Lad, 2020) and policy shortcomings (Chandra & Kumar, 2021), the prevailing model remains one of mass tourism, which continually strains the very resources that attract visitors (Sarkar et al., 2025). There is an urgent need to transition from simply recognizing the problems to understanding the mechanisms by which sustainable attributes become the decisive factors in a tourist's choice. By focusing on destination selection, this research aims to identify the specific high-impact levers—from solid waste management practices (Bhattacharya et al., 2025) and geoheritage conservation (Pande et al., 2025) to digital trust and local engagement—that can be prioritized to secure a competitive and resilient tourism economy. The core justification is to move the dialogue from whether sustainability is necessary to how sustainability can be operationalized as a competitive advantage to secure the long-term viability of "Dev Bhoomi."

1.3 Research Objectives

The primary research objectives guiding this study were:

- To **identify and categorize** the underlying dimensions (factors) of tourist motivations, specifically focusing on **Internal and External Information Search** mechanisms, influencing travel decisions.
- To **delineate the key attributes** considered by tourists when choosing Uttarakhand as a destination, and to group these attributes into distinct, meaningful factors.
- To **determine the major problems or barriers** that negatively affect a tourist's decision to choose Uttarakhand, consolidating these issues into structural factors.
- To **statistically examine and predict** the overall **Level of Choice of Destination (Uttarakhand)** based on the identified factors of Information Search and Problems Affecting Choice Negatively. (This objective is based on the methodology section that mentions Multiple Linear Regression (MLR), although the results are not provided here).

2. Literature Review

The literature on tourism in Uttarakhand, often referred to as "Dev Bhoomi" (Abode of god), consistently affirms the region's immense economic potential, stemming from its rich natural beauty, spiritual significance, and cultural heritage, which attract both domestic and international visitors (Mishra & Mishra, 2023; Kumar & Mosses, 2022; Sarkar et al., 2025). However, this review identifies that the future viability and competitive advantage of Uttarakhand as a destination are critically dependent upon its capacity for sustainable management (Lohani, 2024; Chandra & Kumar, 2021). The impact of sustainability factors is therefore inextricably linked to the tourist's decision-making process.

2.1 The Himalayan Imperative: Ecological Vulnerability and Policy Failures

The Himalayan region’s highly sensitive ecology faces existential threats from intense tourism activities, a central theme in recent research (Sharma, 2024; Semwal & Tripathi, 2025). Studies identify numerous adverse impacts exacerbated by climate change and natural disasters (Adedara et al., 2024; Jasrotia & Sharma, 2020): environmental degradation, pollution, habitat loss, resource depletion, and cultural erosion (Kumari et al., 2025).

Uncontrolled tourist and pilgrim influx, coupled with unplanned infrastructure in eco-sensitive zones, leads to massive waste generation, ecosystem disruption, and biodiversity loss (Jacob et al., 2024; Ramdas Lad, 2020). Specific consequences include severe impacts on the Ganga River water quality in Haridwar (Dutta, 2023), intensified environmental strain from mass tourism and higher car ownership in zones like Nainital (Kumar et al., 2023), and negative consequences on local wildlife, such as altered dietary habits of Royle's pika due to anthropogenic food consumption (Maurya et al., 2025).

Critically, dynamic modeling confirms that existing tourism policies often prioritize short-term tourism enhancement at the expense of environmental quality (e.g., increased carbon emissions and water body loss), ultimately *emasculating* sustainable tourism objectives (Rawat et al., 2024). The consensus is that robust, eco-friendly practices are paramount for the long-term sustainability of this delicate environment (Sharma, 2024; Rawat et al., 2024).

2.2 Strategic Destination Management: Capacity, Planning, and Infrastructure

Effective destination management addresses both capacity constraints and infrastructural deficits, which currently form significant barriers to competitive destination selection (Roy & Saxena, 2020; Singh et al., 2023).

- **Capacity and Planning**

Scientific assessments of carrying capacity are crucial for regulated tourism. Kuniyal et al. (2025) provided specific sustainable daily visitor limits for the Char Dham shrines (e.g., 15,778 for Badrinath), demonstrating the necessity of managing huge inflows that have previously strained services and resulted in inadequate waste management in the Kedarnath Region (Singh et al., 2024).

Policy recommendations advocate for strategic decentralization, promoting lesser-known historical sites like prehistoric forts (Garh/Kot) to diffuse tourist concentration (Negi et al., 2025). Furthermore, researchers emphasize tools for scientific planning, such as using GIS and AHP techniques to map prospective ecotourism zones and identify potential sites in the Garhwal Himalayan region (Das et al., 2023; Chaudhary et al., 2022). Geotourism is also highlighted as a powerful tool for geoheritage conservation and sustainable development in geologically valuable areas (Pande et al., 2025). The need for panoramic management strategies, particularly for solid waste management beyond organic waste, is urgent, especially in high-tourism rural areas like Nainital (Bhattacharya et al., 2025).

- **Infrastructural Deficiencies**

Despite abundant eco-tourism resource bases (Sati, 2021), tourism promotion is constrained by remoteness, rugged terrain, and pervasive lack of essential infrastructure, including roads, electricity, water, and local conveyance (Mishra & Mishra, 2023; Uniyal & Panwar, 2023). This deficit, alongside insufficient safety and security, forms a significant barrier to competitive destination selection (Singh et al., 2023). Policy recommendations consistently emphasize the need for direct investment in infrastructural developmental activities and connectivity to address these major electoral and developmental issues and boost tourism (Kumar & Mosses, 2022).

2.3 Community-Based Tourism (CBT) and Rural Economic Resilience

Community-Based Tourism (CBT), primarily through the homestay sector, is consistently identified as the most viable strategy for balancing economic growth, environmental stewardship, and socio-cultural integrity in the Himalayan region (Kumar & Sharma, 2025; Prajapati et al., 2023).

- **Homestays and Livelihoods**

Homestay programs, such as the *Deen Dayal Upadhyay Homestay Scheme*, provide authentic cultural experiences, generate income, and uplift rural livelihoods, mitigating the mass migration of youth from abandoned farmlands (Uniyal & Panwar, 2023; Rana & Bisht, 2023; Chourasia, 2024). Studies confirm that homestay service quality, including cleanliness and staff responsiveness, directly correlates with tourist satisfaction, while cultural aspects positively influence the overall experience (Kumar et al., 2025). Integrating concepts like Agri-ecotourism and cultural performances reflecting regional heritage can further enhance rural livelihoods (Rana & Bisht, 2023; Sati & Banergee, 2025).

However, the expansion of homestays is challenged by economic instability, rising guest cleanliness demands, dependence on outside funding, and the persistent lack of basic services in rural areas (Rauthan & Pant, 2023; Prajapati et al., 2023). Furthermore, while revisit intention is positive for economic sustainability, it can negatively impact socio-cultural sustainability, underscoring the delicate balance required (Tiwana et al., 2025).

- **Local Participation and Empowerment**

The success of ecotourism initiatives is fundamentally linked to local participation (Dhaundhiyal et al., 2025; Patwal, 2022). Research confirms that the primary drivers of local involvement in sustainable tourism are opportunity and ability, not solely abstract motivation (Verma et al., 2024; Bagri & Kala, 2020). This highlights the need for capacity building, skill enhancement programs, and involving residents in decision-making to promote sustainability. Entrepreneurial success stories, such as the "Nayalap" ecotourism startup, demonstrate the sector's power to catalyze reverse migration and successful community-driven projects (Aggarwal & Ghorai, 2023).

2.4 Tourist Decision-Making: Behavioural, Cultural, and Digital Determinants

Tourist selection is driven by perceived destination attractiveness, which is heavily influenced by cultural identity, digital engagement, and responsible values (Singh et al., 2023).

- **Cultural and Gastronomic Appeal**

Host culture and community are essential factors for destination attractiveness (Singh et al., 2023). Local culture is not merely a backdrop but a marketable product, central to destination branding strategies that encompass festival tourism, food tourism, and local culture for regional economic development (Chauhan et al., 2023; Srivastava & Sinha, 2025). The region's diverse and healthy cuisine is a powerful marketing tool, with its quality directly influencing travelers' decisions to stay or go (Walia & Kukreti, 2023).

- **Digital Strategies and Trust**

Digital platforms, particularly social media (Facebook, Instagram, Twitter), are paramount for tourism promotion, information dissemination, and influencing destination finalization, often acting as the fastest source of first-hand information (Rawat & Dani, 2022; Pandey et al., 2025). For the tourism sector, building consumer confidence is vital. Anuj et al. (2024) confirmed that perceived security (PSEC), electronic word-of-mouth (eWOM), and perceived quality (PQ) all positively build **trust (TST)**, which, in turn, mediates and positively influences purchase intention (IB). This underscores the necessity for hotels and tourism operators to invest in well-designed digital marketing strategies and strong feedback mechanisms (Bedi & Sharma, 2023).

- **Responsible Behaviour and Values**

The sustainability of tourism is directly dependent on tourist behaviour. Studies on Generation Z reveal that altruistic and biospheric values positively impact ecologically conscious consumer behaviour, with Sustainable Intelligence acting as a significant moderator (Walia et al., 2025). The literature emphasizes using digital platforms to spread the right information and influence potential visitors' perceptions, thus fostering responsible tourism intentions and bolstering destination sustainability (Rawat & Dani, 2022).

2.5 Policy Implications for Competitive and Sustainable Destinations

The literature review confirms that while Uttarakhand possesses extraordinary natural and cultural assets, its ability to remain a desirable and competitive destination hinges on resolving significant systemic issues. The prevailing model of **mass tourism** poses a direct threat to the very resources that attract visitors (Sarkar et al., 2025).

The shift toward sustainability requires a multi-pronged, integrated policy approach, moving beyond myopic policies to implement long-term strategies (Chandra & Kumar, 2021):

1. Scientific Regulation: Implementing carrying capacity limits (Kuniyal et al., 2025) and using GIS/AHP for strategic development of Eco-Sensitive Zones (ESZs) and new ecotourism sites (Lohani, 2024; Chaudhary et al., 2022).
2. Integrated Infrastructure: Prioritizing investment in basic services (roads, water, electricity) and enhancing waste management/hygiene to dismantle the key barriers to tourism (Mishra & Mishra, 2023; Bhattacharya et al., 2025).
3. Community Empowerment: Mainstreaming CBT and homestays as a rural development tool by focusing on providing opportunity and ability to local youth, thereby strengthening community cohesion and mitigating migration (Kumar & Sharma, 2025; Verma et al., 2024).
4. Green Marketing and Behaviour: Utilizing digital platforms to promote green marketing (Kishore & Walia, 2023), build digital trust, and foster responsible tourist behaviour and values to ensure long-term ecological and cultural preservation (Walia et al., 2025; Anuj et al., 2024).

Adopting these integrated approaches is necessary to transform the region's incongruous tourism practices into a sustainable business model that safeguards its unique heritage while ensuring future developmental prospects (Chandra & Kumar, 2021).

2.6 Research Gap

The existing literature is comprehensive in identifying individual components of the sustainable tourism problem in Uttarakhand, ranging from environmental impacts (Kumari et al., 2025) and infrastructural deficits (Mishra & Mishra, 2023) to the potential of CBT (Kumar & Sharma, 2025) and the role of digital factors (Anuj et al., 2024). However, a significant research gap persists: the lack of a comprehensive, multi-dimensional structural model that quantitatively assesses the integrated interplay of ecological compliance (e.g., waste management and carrying capacity adherence), infrastructural quality, community empowerment metrics, and digital trust in concurrently shaping the tourist's overall perceived destination attractiveness and final selection decision in Uttarakhand. While studies address these factors in isolation, a unified, predictive framework for destination selection is currently missing. This gap hinders policymakers' ability to accurately prioritize and allocate scarce resources to the interventions that will yield the maximum return in terms of both environmental protection and sustained tourism competitiveness.

3. Research Methodology

The study employed a Quantitative, Descriptive, and Explanatory research design, aimed at statistically examining the underlying structure of destination attractiveness and the correlation among various sustainable tourism constructs. The primary objective was to reduce the dimensionality of the data and group individual survey items into meaningful latent variables (constructs) that influence the tourist's decision. The sampling frame comprised tourists and potential tourists of Uttarakhand. A total of 593 valid responses (N=593) were collected using a Purposive Sampling technique. This non-probability method was chosen to intentionally select respondents who possessed knowledge about the destination or had actively engaged in the decision-making process, ensuring the collected data was relevant to the study's specific variables (e.g., items related to Ecological Compliance, Community-Based Tourism, etc.).The data collection instrument was a structured survey questionnaire utilizing a 5-point Likert Scale (ranging from 1 = Strongly Disagree to 5 = Strongly Agree) to measure the "level" of each variable. All constructs were operationalized using multi-item scales adapted from established literature. For the analysis, the responses across the scale items for each construct were averaged to create a composite, quasi-interval "Level" score for the various constructs and the overall Choice of Destination. Data analysis was performed using SPSS 25. Analysis commenced with Demographic

Analysis (Frequencies and Percentages) to summarize the key characteristics of the sample. This was immediately followed by Factor Analysis (specifically Exploratory Factor Analysis, or EFA) to achieve dimensionality reduction and group the multi-item scales into the key latent constructs (such as Ecological Compliance, Community-Based Tourism, Infrastructural Quality, and Digital Trust). The reliability and construct validity of the measurement model were established, with the suitability of the data for Factor Analysis confirmed via tests like the Kaiser–Meyer–Olkin (KMO) Measure and Bartlett's Test of Sphericity. This focused approach was essential for establishing the robust, underlying factors that underpin tourist destination selection.

4. Results and Discussion

❖ Demographic Profile of Respondents

Based on the provided frequency tables (N=593), here is a summary table and a concise interpretation of the respondent demographics.

Table-1 Demographic Profile of Respondents

Demographic Variable	Category	Frequency (N)	Percentage (%)
Gender	Male	456	76.9%
	Female	137	23.1%
Age	**20-30 Years**	**227**	**38.3%**
	40-50 Years	172	29.0%
	30-40 Years	136	22.9%
Marital Status	Married	343	57.8%
	Single	250	42.2%
Educational Qualification	Post Graduation	255	43.0%
	Graduation	221	37.3%
Occupation	**Government Employee**	**295**	**49.7%**
	Student	222	37.4%
Gross Monthly Income (Rs)	56000 and above	224	37.8%
	Less than 25000	203	34.2%
State Preference	U.P	496	83.6%

The sample of 593 respondents is predominantly Male (76.9%) and skews towards middle age, with the largest single group falling Between 20-30 years (38.3%), followed closely by the 40-50 and 30-40 age brackets. In terms of life stage, the majority of respondents are Married (57.8%).

The educational profile is highly qualified, with Post-Graduation (43.0%) and Graduation (37.3%) accounting for over 80% of the sample. This high level of education is reflected in the occupation and income data: Government Employees constitute the largest occupational group (49.7%), followed by Students (37.4%). Income distribution shows concentration at the extremes, with the highest proportion earning Rs 56,000 and above (37.8%) and the second largest group earning Less than Rs 25,000 (34.2%). This bipolar income structure is likely due to the inclusion of salaried government professionals and students in the sample.

Crucially for the study context, the vast majority of respondents (83.6%) reported a preference for U.P., with a smaller proportion preferring Uttarakhand or both states.

❖ Factor Analysis: Internal and External Influences on Travel Decision

Factor analysis is used to identify the most important factors of Internal information search and External Information Search for travel decision.

The output presents the results of a **Principal Component Analysis (PCA)** on a set of nine variables, likely related to influence/motivation for tourism, as indicated by the variable names.

This output presents the results of a **PCA** on a set of nine variables, likely related to influence/motivation for tourism, as indicated by the variable names.

❖ **KMO and Bartlett's Test (Assessing Suitability)**

The KMO and Bartlett's Test determine whether the data is suitable for Factor Analysis or Principal Component Analysis.

Table-2: KMO and Bartlett's Test: Internal and External Influences on Travel Decision

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.896
Bartlett's Test of Sphericity	Approx. Chi-Square	3874.574
	df	36
	Sig.	.000

KMO Measure: The value of **0.896** is excellent (values above 0.8 are considered great, and above 0.9 are superb). This indicates that the amount of variance in the variables explained by the underlying factors is high, and the sample size is adequate for Factor Analysis.

Bartlett's Test of Sphericity: The test is **statistically significant** ($p < 0.001$), as indicated by $p = 0.000$. This confirms that the correlation matrix is significantly different from an identity matrix (meaning there are correlations between the variables), validating the need for dimensionality reduction techniques like PCA.

- **Conclusion:** The data is **highly suitable** for Principal Component Analysis.

❖ **Communalities (Shared Variance)**

Communalities indicate the proportion of variance in each variable that is accounted for by the extracted factor(s). High communalities (ideally > 0.5) are desirable.

Table-3: Communalities

Communalities		
	Initial	Extraction
Members of the family	1.000	.560
Choice of Children	1.000	.437
Friends	1.000	.501
Videos and advertisement on Social networking sites	1.000	.561
Other media of Advertisements	1.000	.515
My knowledge & experience	1.000	.772
My belief & values	1.000	.781
My Religious belief	1.000	.691
My cultural and traditional values	1.000	.722
Extraction Method: PCA.		

- **Interpretation:** Most variables have high extraction communalities (above 0.50), demonstrating that the extracted component effectively explains the majority of the variance in these items.
- **Low Communality:** The variable **Choice of Children (0.437)** has the lowest communality, suggesting that less than half of its variance is captured by the single extracted component. While acceptable, this indicates it shares the least common variance with the other factors.

Total Variance Explained (Determining the Number of Components)

This table shows how much variance in the original 9 variables is explained by each potential component (Initial Eigenvalues). The rule typically used is the **Kaiser Criterion**, retaining components with an Eigenvalue greater than 1.0.

Table-4: Total Variance Explained: Internal and External Influences on Travel Decision

Total Variance Explained						
Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	5.539	61.548	61.548	5.539	61.548	61.548
2	.971	10.794	72.342			
3	.712	7.906	80.249			
4	.517	5.740	85.989			
5	.402	4.465	90.454			
6	.319	3.547	94.001			
7	.236	2.622	96.622			

8	.162	1.798	98.421			
9	.142	1.579	100.000			
Extraction Method: Principal Component Analysis.						

- **Interpretation:** Only **one component** has an initial Eigenvalue greater than 1.0 (Component 1 = **5.539**).
- **Variance Explained:** This single component accounts for a substantial **61.548%** of the total variance across all nine variables.
- **Conclusion:** Based on the Kaiser criterion, the analysis strongly suggests the presence of only **one underlying factor** or dimension that represents all nine variables.

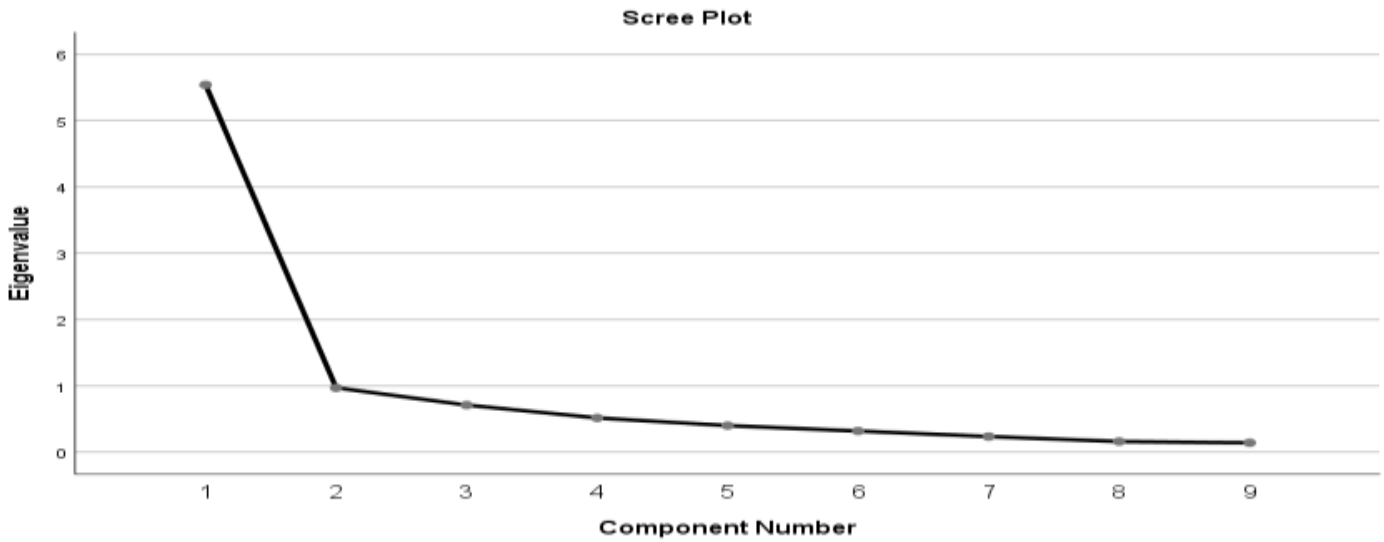

Figure-1: Scree plot: Internal and External Influences on Travel Decision

❖ **Component Matrix (Identifying Factor Loadings)**

Since only one component was extracted, this matrix shows the raw factor loadings for that component. Loadings indicate the correlation between the variable and the component.

Table-5: Component Matrix: Internal and External Influences on Travel Decision

Component Matrix[a]	
	Component
	1
My belief & values	.884
My knowledge & experience	.879
My cultural and traditional values	.849
My Religious belief	.831
Videos and advertisement on Social networking sites	.749
Members of the family	.748
Other media of Advertisements	.717
Friends	.707
Choice of Children	.661
Extraction Method: Principal Component Analysis.	
a. 1 components extracted.	

Interpretation: All variables load strongly onto the single extracted component (all loadings are viour> 0.65viour).

Component Composition: The variables with the highest loadings are those related to **personal and internal motivation** (Beliefs, Knowledge, Culture, Religion), all loading above **0.83**. This indicates that the extracted component is primarily defined by the respondent's intrinsic values and experience.

Given the strong clustering of internal motivations and social/media influences, this component can be named something like **"Internal and External Influences on Travel Decision."**

❖ **Factor Analysis: Attributes Considered When Choosing Uttarakhand as a Destination**

Factor analysis is used to identify the most important factors of Attributes Considered When Choosing Uttarakhand as a Destination.

❖ **KMO and Bartlett's Test (Assessing Suitability)**

The KMO and Bartlett's Test determine whether the data is suitable for Factor Analysis or Principal Component Analysis.

Table-6: KMO and Bartlett's Test: Attributes Considered When Choosing Uttarakhand as a Destination

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.971
Bartlett's Test of Sphericity	Approx. Chi-Square	18128.707
	df	253
	Sig.	.000

The Kaiser-Meyer-Olkin value is **0.971**, which is far above the accepted minimum of 0.60. This indicates **excellent sampling adequacy**, meaning the dataset is highly suitable for factor analysis.

Bartlett's Test of Sphericity is statistically significant (χ^2 **= 18,128.707, df = 253, p < 0.001**), indicating that the correlation matrix is not an identity matrix.

Conclusion:

The data is highly appropriate for applying Principal Component Analysis (PCA).

Table-7: Communalities

Communalities		
	Initial	Extraction
Scenic beauty (Unspoiled Nature)- Uttarakhand	1.000	.841
Amusement/Theme parks- Uttarakhand	1.000	.692
Historic sites & Artistic and architectural features- Uttarakhand	1.000	.791
Flora and fauna (e. g. animals, birds, forests)- Uttarakhand	1.000	.842
Pilgrimage - Uttarakhand	1.000	.810
Religious festival / events- Uttarakhand	1.000	.785
Cultural & traditional events- Uttarakhand	1.000	.801
Peace and mental satisfaction- Uttarakhand	1.000	.876
Stress free environment- Uttarakhand	1.000	.854
Spiritual Experience- Uttarakhand	1.000	.839
Adventure/ Adventure sport - Uttarakhand	1.000	.783
Freedom- Uttarakhand	1.000	.790
Night life (e. g. bars, discos, dancing, casinos etc)- Uttarakhand	1.000	.699
Recreation facilities (e. g. parks, leisure facilities, horse riding)- Uttarakhand	1.000	.801
Water based activities (e. g. swimming, surfing, boating, fishing)- Uttarakhand	1.000	.725
Winter based activities (skiing, skating)- Uttarakhand	1.000	.689
Easy Accessibility- Uttarakhand	1.000	.739
Value for money in destination tourism experiences - Uttarakhand	1.000	.728
Old memories associated with the place- Uttarakhand	1.000	.759
Status symbol associated with visiting the place- Uttarakhand	1.000	.768
Diversity of shopping experience- Uttarakhand	1.000	.799
Variety of cuisine- Uttarakhand	1.000	.759
I would surely recommend this destination to my friends and relatives- Uttarakhand	1.000	.787
Extraction Method: Principal Component Analysis.		

Communalities represent the proportion of each variable's variance explained by the extracted components.

- Most variables show **very high communalities (above .75)**.
- Highest values include:
  - *Peace and mental satisfaction* (.876)
  - *Flora and fauna* (.842)
  - *Scenic beauty* (.841)
- Even the lowest communalities, such as *Night life* (.699) and *Winter-based activities* (.689), fall

within acceptable limits.

Conclusion:

All attributes are well represented by the extracted factors, indicating a strong and reliable factor structure.

Table:8- Total Variance Explained

Total Variance Explained									
Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	16.636	72.332	72.332	16.636	72.332	72.332	10.572	45.967	45.967
2	1.320	5.741	78.073	1.320	5.741	78.073	7.384	32.106	78.073
3	.683	2.970	81.042						
4	.557	2.420	83.463						
5	.506	2.201	85.664						
6	.367	1.596	87.260						
7	.312	1.356	88.616						
8	.293	1.275	89.892						
9	.261	1.135	91.027						
10	.249	1.083	92.110						
11	.230	.998	93.108						
12	.196	.851	93.960						
13	.191	.831	94.790						
14	.171	.744	95.534						
15	.152	.662	96.196						
16	.147	.641	96.837						
17	.139	.603	97.440						
18	.124	.539	97.979						
19	.118	.514	98.493						
20	.105	.456	98.949						
21	.101	.439	99.389						
22	.077	.336	99.725						
23	.063	.275	100.000						
Extraction Method: Principal Component Analysis.									

Total Variance Explained

Two components have eigenvalues greater than 1 and are extracted.

- **Component 1** explains **72.332%** of the total variance.
- **Component 2** explains **5.741%** of the total variance.
- Combined, both factors explain **78.073%** of the variance**, which is exceptionally high in tourism and social science research.

After rotation, the distribution improves clarity:

- **Factor 1:** 45.967%
- **Factor 2:** 32.106%
- **Total explained variance: 78.073%**

Conclusion:

Tourists' preferences regarding Uttarakhand consolidate into **two strong and meaningful factors** accounting for more than three-fourths of total variation.

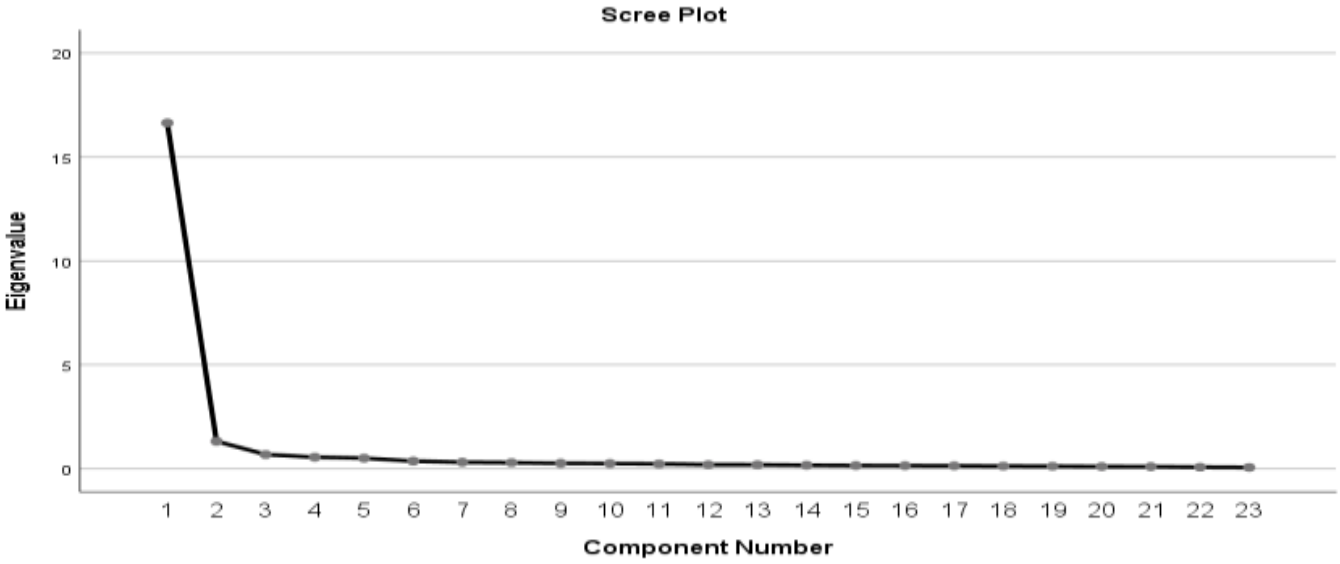

Figure-2: Scree plot: Internal and External Influences

Table-9: Rotated Component Matrix[a]

Rotated Component Matrix[a]		
	Component	
	1	2
Scenic beauty (Unspoiled Nature)- Uttarakhand	.877	.268
Peace and mental satisfaction- Uttarakhand	.873	.337
Flora and fauna (e. g. animals, birds, forests)- Uttarakhand	.857	.329
Stress free environment- Uttarakhand	.852	.358
Spiritual Experience- Uttarakhand	.809	.430
Pilgrimage - Uttarakhand	.808	.396
Historic sites & Artistic and architectural features- Uttarakhand	.787	.416
I would surely recommend this destination to my friends and relatives- Uttarakhand	.764	.451
Cultural & traditional events- Uttarakhand	.762	.469
Religious festival / events- Uttarakhand	.758	.458
Amusement/Theme parks- Uttarakhand	.703	.445
Freedom- Uttarakhand	.690	.560
Value for money in destination tourism experiences - Uttarakhand	.679	.516
Adventure/ Adventure sport - Uttarakhand	.643	.608
Easy Accessibility- Uttarakhand	.628	.588
Night life (e. g. bars, discos, dancing, casinos etc)- Uttarakhand	.081	.832
Diversity of shopping experience- Uttarakhand	.478	.755
Status symbol associated with visiting the place- Uttarakhand	.453	.750
Recreation facilities (e. g. parks, leisure facilities, horse riding)- Uttarakhand	.512	.734
Water based activities (e. g. swimming, surfing, boating, fishing)- Uttarakhand	.439	.730
Variety of cuisine- Uttarakhand	.507	.709
Old memories associated with the place- Uttarakhand	.533	.689
Winter based activities (skiing, skating)- Uttarakhand	.492	.669
Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization.[a]		
a. Rotation converged in 3 iterations.		

Rotated Component Matrix

Varimax rotation simplifies interpretation by grouping attributes under two distinct factors.

Factor 1: Natural–Spiritual–Cultural Experience
This factor includes attributes with high loadings related to nature, peace, spirituality, culture, and heritage.

Items include:

- Scenic beauty (.877)
- Peace and mental satisfaction (.873)
- Flora and fauna (.857)
- Stress-free environment (.852)
- Spiritual experience (.809)
- Pilgrimage (.808)
- Historic sites & architecture (.787)
- Cultural & traditional events (.762)
- Religious festivals (.758)
- Recommendation intention (.764)

Interpretation:
Tourists choose Uttarakhand primarily for its **natural beauty, spiritual sanctity, peaceful atmosphere, cultural richness, and emotional satisfaction**. This reflects the state's image as a **serene, spiritually significant, nature-driven destination**.

Factor 2: Modern Leisure, Adventure, and Lifestyle Amenities
The second factor captures tourism attributes related to **urban leisure, recreation, shopping, food, adventure sports, and accessibility**.

High-loading items include:

- Night life (.832)
- Diversity of shopping experience (.755)
- Status symbol (.750)
- Recreation facilities (.734)
- Water-based activities (.730)
- Variety of cuisine (.709)
- Old memories (.689)
- Winter-based activities (.669)
- Adventure sports (.608)
- Easy accessibility (.588)
- Freedom (.560)
- Value for money (.516)
- Theme parks (.445)

Interpretation:
This factor represents **modern tourism preferences** such as adventure activities, shopping, food diversity, recreation, nightlife, and ease of travel. It shows that visitors also value **comfort, entertainment, and lifestyle experiences** in Uttarakhand.

Overall Interpretation
The factor analysis clearly identifies **two major dimensions** that influence tourists' choice of Uttarakhand as a travel destination:

1. Natural–Spiritual–Cultural Appeal (Factor 1)
This is the most dominant factor and highlights Uttarakhand's strengths: **natural beauty, spirituality, peace, heritage, cultural traditions, and emotional satisfaction.**

2. Adventure–Recreation–Lifestyle Appeal (Factor 2)
The second factor reflects the modern side of tourism in Uttarakhand: **adventure sports, recreation facilities, nightlife, shopping, cuisine, accessibility, and status.**

Together, these two factors explain **78.073% of the total variance**, indicating an exceptionally strong model and meaningful structure for understanding tourist preferences.

❖ **Factor Analysis: Problems affecting the Choice of Uttarakhand as a Destination**

Factor analysis is used to identify the most important factors of Problems affecting the Choice of Uttarakhand as a Destination.

❖ **KMO and Bartlett's Test (Assessing Suitability)**

The KMO and Bartlett's Test determine whether the data is suitable for Factor Analysis or Principal Component Analysis.

Table-10: KMO and Bartlett's Test: Attributes Considered When Choosing U.P.. as a Destination

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.954
Bartlett's Test of Sphericity	Approx. Chi-Square	6548.600
	df	55
	Sig.	.000

Interpretation:

- A **KMO value of 0.954** indicates *excellent* sampling adequacy.
- Bartlett's Test is significant (**p < 0.001**), confirming that correlations among variables are sufficiently strong for factor analysis.

Hence, the dataset is highly suitable for Principal Component Analysis (PCA).

Table-11: Communalities

Communalities		
	Initial	Extraction
Local conveyance- Uttarakhand	1.000	.723
Safety & Security- Uttarakhand	1.000	.773
Language Barriers- Uttarakhand	1.000	.703
Lack of tourism related information- Uttarakhand	1.000	.702
Beggars- Uttarakhand	1.000	.454
Behaviour & Attitude issues of locals- Uttarakhand	1.000	.749
Hygiene- Uttarakhand	1.000	.777
Fraudsters - Uttarakhand	1.000	.578
Accommodation Availability- Uttarakhand	1.000	.817
Transportation- Uttarakhand	1.000	.816
Hospitality of residents towards tourists- Uttarakhand	1.000	.765
Extraction Method: Principal Component Analysis.		

Interpretation:

- Most variables show **high communalities (> 0.70)**, indicating strong representation in the extracted factor.
- "Beggars" (.454) has the lowest explanation but is still acceptable.
- The variables "Accommodation availability," "Transportation," "Hygiene," and "Safety & Security" have the highest explained variance.

Table:12- Total Variance Explained

Total Variance Explained						
Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	7.856	71.414	71.414	7.856	71.414	71.414
2	.890	8.093	79.507			
3	.479	4.351	83.858			
4	.323	2.938	86.797			
5	.282	2.566	89.363			
6	.255	2.314	91.676			
7	.245	2.229	93.906			
8	.200	1.821	95.727			
9	.179	1.624	97.350			
10	.155	1.407	98.758			
11	.137	1.242	100.000			
Extraction Method: Principal Component Analysis.						

Interpretation:

- Only **one component** has an Eigenvalue > 1.
- This single factor explains **71.41%** of the total variance — an exceptionally high percentage for social science research.
- Therefore, all 11 variables converge strongly into **one dominant underlying factor**.

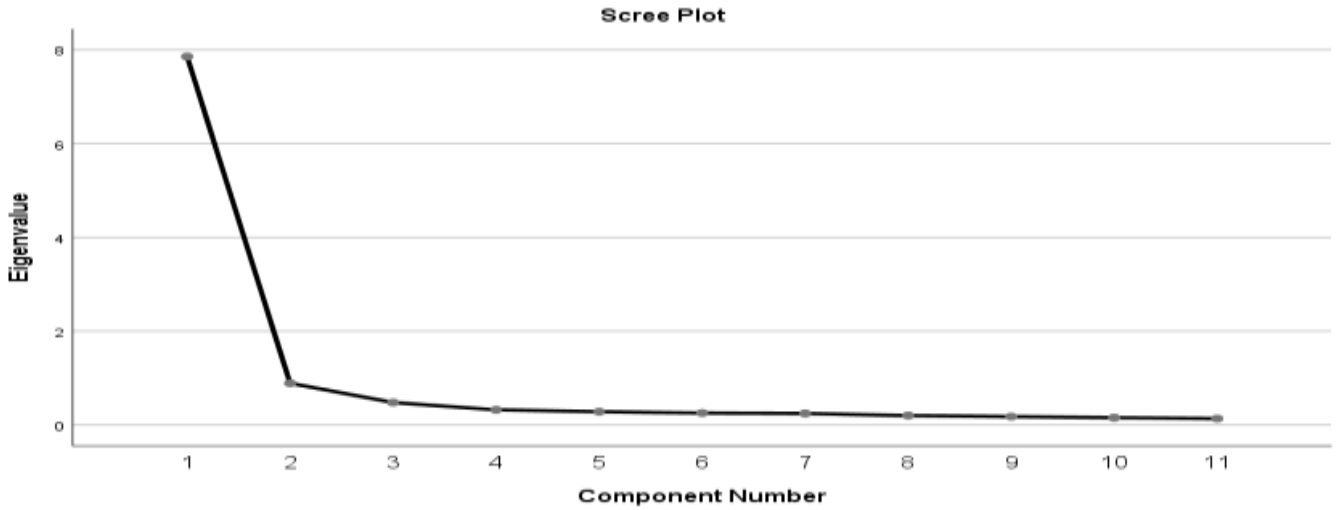

Figure-3: Scree plot: Internal and External Influences

Table-13: Rotated Component Matrix[a]

Component Matrix[a]	
	Component
	1
Accommodation Availability- Uttarakhand	.904
Transportation- Uttarakhand	.903
Hygiene- Uttarakhand	.881
Safety & Security- Uttarakhand	.879
Hospitality of residents towards tourists- Uttarakhand	.875
Behaviour & Attitude issues of locals- Uttarakhand	.865
Local conveyance- Uttarakhand	.850
Language Barriers- Uttarakhand	.838
Lack of tourism related information- Uttarakhand	.838
Fraudsters - Uttarakhand	.760
Beggars- Uttarakhand	.674
Extraction Method: Principal Component Analysis.	
a. 1 components extracted.	

Interpretation & Factor Naming:
All items load strongly on a single component, with loadings ranging from **0.674 to 0.904**.
The items represent multiple problem areas:

- Accessibility & transport issues
- Safety, hygiene, and hospitality concerns
- Local behaviour & communication barriers
- Fraud, beggary, and lack of information

Thus, the factor can be appropriately named:
Factor 1: Destination Management & Visitor Experience Barriers
This factor highlights the broad set of problems that negatively affect tourists' experiences and influence their decision to choose Uttarakhand as a destination.

Conclusion
The Factor Analysis reveals that **one strong, comprehensive factor** summarizes all the major problems influencing tourists' choice of Uttarakhand as a destination. This unified factor—Destination Management & Visitor Experience Barriers—captures operational, environmental, social, and safety-related concerns, suggesting the need for integrated policy and infrastructural improvements to enhance the overall tourist experience.

5. Discussion of Results

Factor Analysis of Tourist Influences and Destination Attributes
The highest loadings came from **Internal** items (*My belief & values*, *My knowledge & experience*, *My cultural and traditional values*, *My Religious belief*) followed closely by **External** items (*Social networking sites videos/advertisements*, *Family/Friends*). This suggests that the decision process is not separated into purely internal or external search, but rather is driven by a unified factor where **deep-seated personal beliefs and values** are the primary drivers, which are then reinforced by modern media and social influences.
B. Attributes Considered When Choosing Uttarakhand as a Destination (Destination Image)

- **Factor 1: Natural–Spiritual–Cultural Experience (Dominant Appeal)** This is the core, traditional image of Uttarakhand—a sanctuary for peace, spirituality, and nature. It confirms that the state's comparative advantage lies in its mountainous landscape and rich cultural-religious heritage.
- **Factor 2: Modern Leisure, Adventure, and Lifestyle Amenities** This factor highlights a significant secondary dimension of tourist expectation: the desire for contemporary, urbanized leisure experiences alongside nature. Tourists do not want to sacrifice modern comforts and entertainment (e.g., shopping, cuisine, nightlife, adventure) for spirituality and nature.
- **Factor Name: Destination Management & Visitor Experience Barriers** The unity of this factor indicates that problems are not isolated incidents but represent a systemic deficiency in **destination management and infrastructure**. A tourist who experiences poor transportation is likely to also perceive poor hygiene and low hospitality. This holistic barrier factor is critical for addressing the negative influence on destination choice.

6. Conclusion

The study successfully profiled the tourist decision process for Uttarakhand, yielding three robust factors representing the predictors and the destination image.

1. **Tourist Motivation** is characterized by a strong, unified factor of **Intrinsic Motivation & Mediated Influence**, suggesting that marketing efforts must target deep-seated values (e.g., spiritual fulfillment, connection with nature) rather than just fleeting external trends.
2. **Destination Image** is biphasic: its **primary appeal is Nature–Spiritual–Cultural**, but a strong segment also demands **Modern Leisure, Adventure, and Lifestyle Amenities**. This implies a bifurcated market that values both the sanctity of the mountains and modern recreational infrastructure.
3. The most significant deterrent is a single, unified factor of **Destination Management & Visitor Experience Barriers**, highlighting that infrastructural and service issues (Accommodation, Transport, Hygiene, Safety) collectively form the main obstacle to destination choice.

7. Suggestions

Based on the strong factor findings, the following suggestions are crucial for policymakers and tourism operators in Uttarakhand:

- **Integrate and Elevate Destination Management (Address the Barrier Factor):** Since the problems form a single barrier, policy should focus on comprehensive infrastructure improvement. Prioritize improving the quality and availability of **transportation/local conveyance** and enforcing strict **hygiene and safety** standards across all tourist zones. A unified "Swachh Uttarakhand, Surakshit Uttarakhand" campaign focusing on operational excellence is needed.
- **Differentiate the Dual Appeal:**
  - **Enhance Core Appeal:** Invest in the preservation of the **Scenic beauty, Flora and fauna**, and **Pilgrimage** sites (Factor 1), which are the state's primary competitive advantages.
  - **Strategically Develop Modern Amenities:** Develop specific tourist hubs (Factor 2) offering high-quality **Adventure sports, recreation facilities, and curated nightlife** in non-sensitive zones to cater to the modern leisure tourist, without compromising the core spiritual image of the main pilgrimage circuits.
- **Targeted Communication Strategy:** Since internal motivation is strong, marketing should leverage themes of **cultural heritage, spiritual peace, and personal discovery** rather than generic travel promotions. Utilize social media videos (high loading in Information Search) to showcase both the serene natural environment and high-quality visitor services.

8. Implications

Theoretical Implications

The study contributes to tourism literature by demonstrating the robust structural validity of tourist motivations and destination image in the specific context of a spiritual-natural destination. The finding of a **single, unified factor for Information Search** (Intrinsic Motivation & Mediated Influence) suggests that in culturally-rich and spiritually significant destinations, the distinction between internal and external search may be blurred, as external information is primarily sought to validate and inform pre-existing personal values and beliefs.

Managerial and Policy Implications

1. **Resource Allocation:** The exceptionally high variance explained by the two image factors provides a clear roadmap for investment. Government and private sector funds should be primarily directed toward maintaining the **natural-spiritual appeal** while strategically enhancing **modern recreational capacity**.
2. **Service Training:** The high loading of **Hospitality of residents** and **Behaviour & Attitude issues of locals** within the Problem factor necessitates mandatory training programs for all service providers (hoteliers, guides, drivers) focused on soft skills, safety protocol, and communication to dismantle the "Visitor Experience Barrier."
3. **Market Segmentation:** The two image factors can be used for precise market segmentation: one segment seeking *Nirvana* (Peace/Spiritual) and another seeking *Adventure* (Leisure/Lifestyle). Marketing campaigns should be tailored to attract both high-value segments effectively.

References

1. Aggarwal, P., & Ghorai, S.(2023). 'NAYALAP': A case study on Sustainable Tourism and Socio-Economic growth of the village Salla Rautela, Uttarakhand. Volume 8, No. 4, 2022, 367-378 ISSN: 2413-9270
2. Anuj, Chauhan, J. S., Agarwal, P., Kumar, H., Sharma, M., & Thapliyal, M. (2024). Analyzing antecedent and consequences of trust in m-commerce for sustainability in tourism industry in Uttarakhand. International Journal of Electronic Business, 19(2), 139-155. DOI: https://doi.org/10.1504/IJEB.2024.137689
3. Bagri, S. C., & Kala, D. (2020). Identification and Assessment of Offbeat Destinations for Community-Based Ecotourism Development and Promotion in Uttarakhand, India. In Global Opportunities and Challenges for Rural and Mountain Tourism (pp. 59-77). IGI Global Scientific Publishing. DOI: 10.4018/978-1-7998-1302-6.ch004
4. Bedi, K., & Sharma, N.(2023). Role of Digital Marketing Strategies in Achieving Tourist Satisfaction of Star Category Hotels in Uttarakhand. European Economic Letters ISSN 2323-5233 Vol 13, Issue 1. DOI: https://doi.org/10.52783/eel.v13i1.220
5. Bhattacharya, A., Padmanaaban, P., Singh, C. V., & Rustagi, B. (2025). Solid Waste Management in Rural Tourism Areas in the Himalayas: A Case Study of Nainital, Uttarakhand. In Solid Waste Management and Disposal Practices in Rural Tourism (pp. 417-440). IGI Global. DOI: 10.4018/979-8-3693-9621-6.ch017
6. Chandra, P., & Kumar, J. (2021). Strategies for developing sustainable tourism business in the Indian Himalayan Region: Insights from Uttarakhand, the Northern Himalayan State of India. Journal of Destination Marketing & Management, 19, 100546. Volume 19. https://doi.org/10.1016/j.jdmm.2020.100546
7. Chaudhary, S., Kumar, A., Pramanik, M. (2022). Land evaluation and sustainable development of ecotourism in the Garhwal Himalayan region using geospatial technology and analytical hierarchy process. Environ Dev Sustain 24, 2225–2266. https://doi.org/10.1007/s10668-021-01528-4
8. Chauhan, H., Jain, V. K., & Verma, H. (2023). Destination branding as new tool for economic development: a qualitative approach with reference to Jaunsar Bawar Region, Uttarakhand. International Journal of Spa and Wellness, 6(1), 109–130. https://doi.org/10.1080/24721735.2022.2115331
9. Chourasia, B. (2024). Challenges and prospects of homestay in rural tourism: a study of Uttarakhand. Implementing Sustainable Development Goals in the Service Sector, 67-80. DOI: 10.4018/979-8-3693-2065-5.ch005
10. Das, R., Singh, M., Malhotra, V., Roy, S., Pandey, K., & Karnatak, H. (2023). Identification of suitable ecotourism sites in Himalayan Mountainous setting using Analytical Hierarchy Process (AHP) and GIS: A case study of Chamoli District, Uttrakhand. Journal of Geomatics, 17(1), 22-36. DOI-https://doi.org/10.58825/jog.2023.17.1.35
11. Dhaundhiyal, C., Dhaundiyal, N., Bisht, S. S., & Vinayak, S. (2025). Sustainable Tourism and Cultural Preservation in Uttarakhand: A Case Study of Community-Managed Ecotourism Initiatives in an Indian Himalayan Region State. In Balancing Mountain Tourism, Cultural Heritage, and Environmental Stability (pp. 495-512). IGI Global Scientific Publishing. DOI: 10.4018/979-8-3693-8764-1.ch033
12. Dr. Surendra Kumar, Shubham Goswami Giri, Dr. Mukesh Kumar, Dr. Sneha Maindola, Dr Manisha Srivastava, Dr. Anand Kumar Soni. (2025). Tourist satisfaction in homestay businesses in Uttarakhand: key drivers and implications for sustainable development. TPM – Testing, Psychometrics, Methodology in Applied Psychology, 32(S8 (2025): Posted 05 November), 1214–1221. Retrieved from https://tpmap.org/submission/index.php/tpm/article/view/2840
13. Dutta, R. K. (2023). Sustainable Development of Tourism in Haridwar, Uttarakhand. Ind. J. of Landscape Systems and Ecological Studies 44 (2). 100-116 ISSN 0971-4170.
    India. Tourism and travelling. 3(1), 3-15. doi:10.21511/tt.3(1).2021.02
14. Jacob, M., Chopra, A., Goel, A., Marwaha, A., & Sharma, B. (2024). Examining the Impact of Climate Change on Tourism Sector of Uttarakhand: An Exploratory Study. Atna Journal of Tourism Studies, 19(1), 35-68. DOI: https://doi.org/10.12727/ajts.31.2
15. Jasrotia, S., Sharma, M. (2020). Climate Change Impact on Tourism-Based Livelihood and Related Youth Migration—A Case Study for Nainital, Uttarakhand, India. In: Siddiqui, N., Tauseef, S., Dobhal, R. (eds) Advances in Water Pollution Monitoring and Control. Springer Transactions in Civil and Environmental Engineering. Springer, Singapore. https://doi.org/10.1007/978-981-32-9956-6_8
16. Kishore, N., & Walia, S. (2023). A Study of Green Practices Adopted by the Hospitality Sector in the Pauri Garhwal Region of Uttarakhand for Environmental Sustainability. International Journal of Hospitality, Management and Sciences | Volume 1, Issue 1.

17. Kumar, A., Mosses, B. (2022). Leadership for Sustainable Tourism Development. In: Anbanandam, R., Rangnekar, S. (eds) Flexibility, Innovation, and Sustainable Business. Flexible Systems Management. Springer, Singapore. https://doi.org/10.1007/978-981-19-1697-7_8
18. Kumar, A., Tamta, A., Pant, L. M., & Joshi, V. (2023). Tourist transport pollution and the environment in nainital township-an analysis of resident's perception. ISSN: 2278-4632 (UGC Care Group I Listed Journal) Vol-13, Issue-05, No.03.
19. Kumar, P., & Sharma, A. (2025). Community-based tourism for sustainable development in the Himalayan region: Opportunities, challenges, and future directions. Journal of Business and Tourism Management (JBTM), 1(1), 1-12. DOI: https://doi.org/10.64976/jbtm.2025.001
20. Kumari, M., Guleria, S., Kumar, S. (2025). Sustainable Development Practices in Tourism and Hospitality Industry: A Case Study of Garhwal Himalayan Region of Uttarakhand, India. In: Valeri, M. (eds) Contemporary Religious Tourism. Tourism, Hospitality & Event Management. Springer, Cham. https://doi.org/10.1007/978-3-031-79074-4_12
21. Kuniyal, J.C., Maiti, P., Kanwar, N. (2025). Carrying capacity and strategic planning for sustainable tourism practices in the Char Dham from the Western Himalaya, India. Sci Rep 15, 36340. https://doi.org/10.1038/s41598-025-20166-8
22. Lohani, N. (2024). Eco-Tourism and Conservation in Uttarakhand: Opportunities and Challenges in Eco-Sensitive Zones. International Journal of Science, Engineering and Technology, 12:5, ISSN (Online): 2348-4098 ISSN (Print): 2395-4752 © 2024
23. M. T. Adedara, S. Obinna Nwankwo, O. A. Christopher, A. Oluwole and A. J. Ademowo (2024). "Climate Change Impacts on Destination Choices: Shifts in Tourism Patterns and Hospitality Responses," 2024 International Conference on Science, Engineering and Business for Driving Sustainable Development Goals (SEB4SDG), Omu-Aran, Nigeria, 2024, pp. 1-8, doi: 10.1109/SEB4SDG60871.2024.10630245.
24. Maurya, V., Talreja, A., & Singh, A. A. (2025). Human Food in Royle's Pika (Ochotona roylei) Diets: A Side Effect of Tourism in the Nanda Devi Biosphere Reserve, Uttarakhand, India. Ecology, Environment & Conservation (0971765X), 31(2). DOI: https://doi.org/10.53550/EEC.2025.v31i02.012
25. Mishra, G., & Mishra, A. (2023). Problems and Prospects of Uttarakhand Tourism and Covid Effects on Tourists. Int. J. Agriworld, 4, 1. DOI: https://doi.org/10.51470/IJAW.2023.04.01.09
26. Negi, G.S., Bahuguna, S., Chandra, N., Kazmi, Y., Lingwal, S., Singh, G. (2025). Deciphering Prehistoric Forts of Uttarakhand, Western Himalaya: An Opportunity for Historical Tourism. In: Arya, D., Chandra, N., Kumar, R., Upadhayay, M.L., Mishra, A.P. (eds) Climate Change Impact on Himalayan Biodiversity. Environmental Science and Engineering. Springer, Cham. (pp. 21-48). https://doi.org/10.1007/978-3-031-77149-1_2
27. Pande, P.K. et al. (2025). A Sustainable Approach Towards Preservation of Geoheritage and Geodiversity: A Case Study of Patiya Village Cluster in Almora District of Uttarakhand. In: Tripathi, S.C., Pant, N.C., Rajora, S. (eds) Geoconservation and Geotourism Potential of India. Society of Earth Scientists Series. Springer, Cham. https://doi.org/10.1007/978-3-031-81017-6_7
28. Pandey, S., Joshi, K. C., Ghildiyal, A., & Dhodi, R. K. (2025). Impact of Social Media on Tourism Promotion: An Analytical Study on Uttarakhand (2025). J. Mountain Res. P-ISSN: 0974-3030, E-ISSN: 2582-5011, Vol. 20(1), 217-227 DOI: https://doi.org/10.51220/jmr.v20-i1.23
29. Patwal, A. S. (2022). Integrating Tourism with Rural Development Strategies in Uttarakhand. Advances in Economics and Business Management (AEBM) p-ISSN: 2394-1545; e-ISSN: 2394-1553; Volume 2, Issue 15; pp. 1472-1478.
30. Prajapati, V. P., Junaid, K. C., & Dhodi, R. K. (2023). Exploring the Current Status, Opportunities, and Challenges of the Homestays in Uttarakhand. J. Mountain Res. P-ISSN: 0974-3030, E-ISSN: 2582-5011, Vol. 18(2), 223-234. DOI: https://doi.org/10.51220/jmr.v18i2.23
31. Ramdas Lad (2020). Identifying the need and potential of ecotourism in Nainital. Tourism and travelling, 3(1), 3-15. DOI:10.21511/tt.3(1).2021.02
32. Rana, J. C., & Bisht, I. S. (2023). Reviving smallholder hill farming by involving rural youth in food system transformation and promoting community-based agri-ecotourism: A case of Uttarakhand state in north-western India. Sustainability, 15(11), 8816. DOI: https://doi.org/10.3390/su15118816
33. Rautela[1], B. M., & nandan Joshi, D. (2023). Community Perception Towards Sustainable Tourism in Almora, Uttarakhand. International Journal of Novel Research and Development, Volume 8, Issue 6 | ISSN: 2456-4184.
34. Rauthan, S., & Pant, V. (2023). Homestays an emerging trend in hospitality sector: a specific study of the Uttarakhand region. International Journal of Hospitality, Management and Sciences, 1, 87-96. International Journal of Hospitality, Management and Sciences ISSN: 2584-0045 (Online) 87 Volume 1, Issue 1 | Pg 87-96.

35. Rawat, A., Joshi, S. & Rai, S.K. (2024). Evaluating the issue of sustainable tourism with a system dynamic approach: evidence from Uttarakhand, India. Environ Dev Sustain **26**, 1–28 (2024). https://doi.org/10.1007/s10668-023-03711-1
36. Rawat, D. S., & Dani, R. (2022). Impact of social media in promoting sustainable tourism in Uttarakhand. Research in Tourism and Hospitality Management, 1(1), 102-111. DOI: https://doi.org/10.21467/books.134.13
37. Roy, B., & Saxena, A. K. (2020). Destination competitiveness, tourism facilities and problems in promoting Uttarakhand as a tourism destination. Journal of Tourism, Hospitality & Culinary Arts (JTHCA), 12(2), 1-20.
38. Sarkar, S., Chaudhury, S. K., & Pattnaik, C. S. (2025). Uttarakhand Tourism: A Vehicle for Economic Development by Gross Domestic Product Contribution. ISSN:3048-6505 (Online) Shodh Samarth-Research Journal of Commerce, Management & Economics Vol.2(2), August 2025, pp. 44-60.
39. Sati, V. P. (2021). Trends and potential of eco-tourism development in Uttarakhand Himalaya. Journal on Tourism & Sustainability, Vol. 5 No. 1 (2021): Journal on tourism & sustainability.
40. Sati, V. P., & Banergee, S. (2025). Sustainable Homestay Tourism for Enhancing Rural Livelihood in the Uttarakhand Himalaya: A Study of the Tons River Basin. In BIO Web of Conferences (Vol. 151, p. 03001). EDP Sciences. DOI: https://doi.org/10.1051/bioconf/202515103001
41. Semwal, R., & Tripathi, N. (2025). Fragile Peaks: Understanding the Environmental Consequences of Mountain Tourism in the Indian Himalayas. In Balancing Mountain Tourism, Cultural Heritage, and Environmental Stability (pp. 265-280). IGI Global Scientific Publishing. DOI: 10.4018/979-8-3693-8764-1.ch017
42. Sharma, R. (2024). Impact Of Intensive Tourism Activities on Fragile Ecosystem: A Study on Chamoli and Uttarkashi Districts of Garhwal Region of Uttarakhand. International Research Journal of Management Sociology & Humanities (IRJMSH) Vol 12 Issue 10 | ISSN 2277 – 9809
43. Singh, A., Melkani, A., & Bisht, N. S. (2024). Challenges of "Ecotourism" in Kedarnath: Some Insights from the Ground. Journal of East-West Thought (JET) ISSN (O): 2168-2259 UGC CARE I, 14(4), 1470-1494.DOI: https://doi.org/10.7492/9vr4k527
44. Singh, K., Sharma, R., & Singh, S. V. (2023). Analyzing Destination Attractiveness Through Importance-Performance Analysis: Comparative Analysis of Religious Sites Kedarnath and Omkareshwar. In Management and Practices of Pilgrimage Tourism and Hospitality (pp. 12-29). IGI Global. DOI: 10.4018/979-8-3693-1414-2.ch002
45. Srivastava, P., & Sinha, K. (2025). A Study of Sustainable Tourism Framework for Heritage Conservation: A Case Study of Varanasi's Five Heritage Zones. Planning, 20(2), 883-892. https://doi.org/10.18280/ijsdp.200236
46. Tiwana, R. K., Tandon, U., & Mittal, A. (2025). Exploring sustainable servicescape and geo-arbitrage to foster revisit intentions in rural homestays. Tourism Recreation Research, 1–21. https://doi.org/10.1080/02508281.2025.2521291
47. Uniyal, A., & Panwar, S. (2023). Potentials of Homestay Tourism for Rural Development in Uttarakhand Garhwal. A Message from the Editor-in-Chief/Editors, 60. Journal Global Values, Vol. XIV, Special Issue, April Part-1, 2023, ISSN: (P) 0976-9447, (e) 2454-8391.
48. Verma, K., Rawat, A., Dhodi, R. K., & Dhodi, R. (2024). Community participation in sustainable tourism development: an application of the MOA model in the Garhwal Himalayas of Uttarakhand, India. International Journal of Tourism Policy, 14(6), 545-561. DOI: https://doi.org/10.1504/IJTP.2024.142692
49. Walia, S. K., Tiwari, P., Choudhary, P., & Mandic, A. (2025). Does Gen Z's Responsible Tourism Intentions Impact Ecologically Conscious Consumer Behaviour? Investigating the Moderating Role of Sustainable Intelligence in Eighteen National Parks in India. Tourism Planning & Development, 22(5), 731–754. https://doi.org/10.1080/21568316.2025.2544848
50. Walia, S., & Kukreti, P. (2023). Role of Uttarakhand Cuisine in the Growth of Local Tourism. International Journal of Hospitality, Management and Sciences ISSN: 2584-0045 (Online)Volume 1, Issue 1.