Tourism Destination Image of Uttarakhand

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ABSTRACT

A sample of 300 tourists who visited Uttarakhand was taken for identifying the key attributes that defined Uttarakhand as a tourist destination. A list of attributes was prepared for design of questionnaire. Exploratory analysis followed by Confirmatory factor analysis was carried out to ascertain the model of destination image. Natural attractions, religious places, sporty and adventurous, exciting and cosy were the latent factors that defined the cognitive and affective image components of the destination.

Keywords: destination image, Uttarakhand, confirmatory factor analysis.

INTRODUCTION:

Uttarakhand is a tourism state, means tourism is a major source of revenue for the state. Natural resources and limited industrialization in the state are the reasons for growth of tourism in Uttarakhand. The government is leaving no stone unturned to ensure a steady growth of tourism in Uttarakhand. The draft tourism policy launched in 2018 and giving the status of industry to tourism are some of the initiatives of the state government. Home stays are some of the schemes that have been launched to promote rural tourism and also to arrest the problem of migration.

The Uttarakhand Tourism Development Board (UTDB) is the prime agency for tourism planning and development. Market research is also one of the functions of the agency. Uttarakhand is being promoted as a destination. Researchers have established that tourist motivation to visit a destination is influenced by pull and push factors. Pull factors are the factors which attract the tourist, and push factors are internal to the tourist. Tourism destination image thus plays a role in selection of a destination. Understanding what perceptions tourists hold about Uttarakhand is crucial to proper planning and marketing.

REVIEW OF LITERATURE:

Echtner and Rithchie (1993) suggested to measure destination image, several components must be captured. These include attribute-based images, holistic impressions, and functional, psychological, unique and common characteristics.

MG Gallarza, IG Saura, HC García (2002) proposed a conceptual model featuring its complex, multiple, relativistic and dynamic nature as a more comprehensive framework of destination image.

Yuksel Ekinci, Sameer Hosany (2006) in their study utilized Aaker's brand personality scale, with the aim to identify whether tourists ascribed personality traits to tourism destinations. The findings of the study indicated that perception of destination personality is 3-dimensional: sincerity, excitement, and conviviality. The study also found that destination personality has positive impact on perceived destination image and intention to recommend. In particular, the conviviality dimension moderated the impact of cognitive image on tourists' intention to recommend.

CGQ Chi, H Qu (2008) conducted a study which concluded that destination image directly influenced attribute satisfaction; destination image and attribute satisfaction were both direct antecedents of overall satisfaction; and overall satisfaction and attribute satisfaction in turn had direct and positive impact on destination loyalty.

K Kaplanidou, C Vogt (2010) conducted a research to understand how active sport tourists perceive the meaning of a sport event experience and concluded that participants attribute meanings related to organizational, environmental, physical, social, and emotional aspects of the sport event experience

G Hankinson (2005) in his research found three underlying dimensions – overall destination attractiveness, functionality, and ambience of the d destination image. While all three were correlated with perceived quality, commercial criteria were dominated by a destination's functional rather than ambience attributes.

Arturo Molina , Mar Gómez1 and David Martín-Consuegra (2010) In their study indicated that a relationship existed between overall destination attractiveness and the image induced by tourism promotion brochures. The results also indicated the influence of functional attributes (quality of hotel accommodation) on consumers' perceptions.

Robert Govers, Frank M. Go, Kuldeep Kumar (2007) studied the role of tourism promotion and the findings suggested that tourism promotion does not have a major impact upon the perceptions of travelers and that other sources of information have a much greater bearing on the formation of destination image

Sameer Hosany, Yuksel Ekinci, Muzaffer Uysal (2007) in their study concluded that destination image and destination personality are related concepts.

DJ Walmsley, M Young (1998) in their research showed that, in terms of tourist destinations, there exists a basic schema according to which places were evaluated. People's appraisals of destination choices took a fairly standard form, except at the local level, where direct experience and firsthand knowledge caused evaluations to be made on a different basis from that used at the regional and international levels.

A traveler's choice of destination is influenced by a variety of personal and environmental factors. The organizations attempting to promote a particular destination need to have an understanding of the perceptions, attitudes and motivations of the market sector they address, and also of their image of that destination (Kaye Sung Chon, Abraham Pizam, Yoel mansfeld)

LaPage and Cormier (1977) tourism marketers have to take current images into consideration when developing marketing plans because it is the image more than the factual information that influences a tourist's decision on where to travel

For destinations with limited promotional budget, they could be better off concentrating on product improvement and utilizing organic image formation agents (e.g., previous visitors, friends, and relatives) to promote their products (Gartner, 1993).

S Pike (2004) in his research on reviewing destination image researches concluded that though attribute list method of measuring is criticized by some researcher but there was not yet an accepted theory to replace the multiattribute models.

Consumers' overall perceptions of a destination may be either favourable or un favourable (Milman and Pizam, 1995).

RESEARCH METHODOLOGY:

Research Objective:
To make an assessment of image of Uttarakhand as a tourist destination using confirmatory factor analysis.

Sample:
A sample of 300 tourists visiting Uttarakhand was collected.

Questionnaire preparation:
A preliminary study was conducted to generate a list of attributes that defined Uttarakhand as a tourist destination. These attributes were used to prepare a 26 item five point Likert scale.

Data collection:
Primary data was collected from Haridwar, Mussorrie, Nainital, Ramnagar and Ranikhet cities of Uttarakhand. A sample of tourists was rendered a structured questionnaire. The questionnaire had Likert scale questions.

ANALYSES AND FINDINGS:

By exploratory factor analysis initial solution was found, and then factors were loaded on five latent constructs. These constructs represented cognitive and affective components of the image.

Exploratory factor analysis:

Exploratory Factor analysis is a technique whose purpose is data reduction and summarization. Factor analysis helps in reducing the number of variables when there is a plethora of data. Factor analysis is centered on relationships involving the complete set of variables. By factor analysis strength of the overall association among variables may be examined. By this analysis it will be easy to describe the data. The factor model is based on linear relationship. It is a search technique. The analysis is able to identify a number of factors. The results are descriptive rather than inferential. Exploratory factor analysis was undertaken to uncover the attributes or extract elements. 26 items were used and the factor analysis reduced them to 20 items. The items which had factor loading coefficient greater value than 0.5 were retained for further analysis. About sixty percent variation was explained by these factors. The results of the EFA are presented in the tables that follow. The sample adequacy test revealed that the sample is adequate for running the Exploratory Factor Analysis.

Table 4.1: KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.897
Bartlett's Test of Sphericity	Approx. Chi-Square	3655.689
	df	325
	Sig.	.000

Communalities: This is the proportion of each variable's variance that can be explained by the factors. It can be defined as the sum of squared factor loadings for the variables. Each variable's communality might be thought of as showing the extent to which it is revealed by the system of factors.

Table 4.2: Communalities

	Initial	Extraction
Landscapes	1.000	.376
Scenic beauty	1.000	.689
Climate	1.000	.643
Weather	1.000	.364
Snowy mountains	1.000	.620
Holiday resort	1.000	.600
Hill stations	1.000	.541
Lakes and rivers	1.000	.649
Accommodation	1.000	.478
Variety of cuisine	1.000	.429
Language is not a barrier	1.000	.508
Fair, events and festivals	1.000	.565
Loving	1.000	.495
Water sports	1.000	.527
Warm	1.000	.700
Friendly	1.000	.661
Temples	1.000	.651
Pilgrimage	1.000	.756
Spiritual	1.000	.604
Joyful	1.000	.700
Arousing	1.000	.739
Cheerful	1.000	.695
Happening Place	1.000	.620
Mountaineering	1.000	.606
Trekking routes	1.000	.537
Wildlife parks	1.000	.470
Extraction Method: Principal Component Analysis.		

Table 4.3: Rotated Component Matrix[a]

	Component				
	1	**2**	**3**	**4**	**5**
Scenic beauty	.725				
Climate	.702				
Snowy mountains	.701				
Hill stations	.682				
Lakes and rivers	.636				
Holiday resort	.611				
Landscapes	.512				
Accommodation					
Pilgrimage		.820			
Temples		.776			
Spiritual		.639			
Fair, events and festivals		.569			
Language is not a barrier		.508			
Mountaineering			.767		
Wildlife parks			.625		
Trekking routes			.614		
Water sports			.605		
Weather			.540		
Variety of cuisine					
Joyful				.641	
Arousing				.633	
Cheerful				.613	
Happening Place					
Warm					.776
Friendly					.744
Loving					.503
Extraction Method: Principal Component Analysis. **Rotation Method:** Varimax with Kaiser Normalization.					
a. Rotation converged in 9 iterations.					

Factors having smaller loadings than 0.5 were suppressed from the final solution of exploratory analysis.

Confirmatory Factor Analysis:
After the initial solution of exploratory factor analysis, confirmatory factor analysis was used
In exploratory factor analysis (EFA), data is explored and provided the information that five factors are required to represent the data. In exploratory factor analysis, all measured variables are related to every latent variable. But in confirmatory factor analysis (CFA), five factors and each latent factors observed variables are specified beforehand. Destination image is a multi dimensional concept involving the cognitive and affective components. The cognitive components are the physical, functional, or other tangible attributes of a destination. Affective components are those which include feelings or emotions like feelings of happiness, excitement, etc. Thus accordingly the three concepts natural attractions, religious, and sporty and adventurous were used to define the cognitive components of the destination image, and exciting and cosy were used to define the affective component of the destination image. In total 5 latent factors were defined.

- Natural attractions
- Religious
- Sporty and adventurous

- Exciting
- Cosy

The model is developed with five latent factors. First factor had 6 manifest variables, second and third factors each had 4 manifest variables, and fourth and fifth variables each had 3 observed variables. Thus the requirement of at least four constructs and three items per constructs was met. All the measured variables had error variances specified. Two models were proposed, one with no covariance between all the latent factors and the second with covariance between factors.

Model validity is checked by convergent, construct and discriminant validity tests. The model fit validity is checked by Chi-square test and other goodness of fit statistics like RMR, GFI, NFI, RMSEA, SIC, BIC, etc., are some key indicators that help in measuring the model validity.

IBM AMOS (trial version) is used for analysis and ONYX for drawing the path diagram.

The confirmatory factor analysis required using the observed variables/items to define the latent constructs. The item loadings on the latent variables show significant p value in the table 4.4

Table 4.4: Indicator factor loading significantly on latent constructs

			Estimate	S.E.	C.R.	P	Label
Scenic Beauty	<---	Natural Attractions	1				
Climate	<---	Natural Attractions	0.972	0.062	15.637	***	Par_1
Snowy Mountains	<---	Natural Attractions	0.783	0.06	12.983	***	Par_2
Landscapes	<---	Natural Attractions	0.683	0.066	10.306	***	Par_3
Hill Stations	<---	Natural Attractions	0.676	0.071	9.555	***	Par_4
Lakes And Rivers	<---	Natural Attractions	0.553	0.061	9.094	***	Par_5
Pilgrimage	<---	Religious	1				
Spiritual	<---	Religious	0.91	0.075	12.202	***	Par_6
Temples	<---	Religious	0.755	0.056	13.498	***	Par_7
Fairs, Festive And Events	<---	Religious	0.61	0.054	11.25	***	Par_8
Mountaineering	<---	Sporty And Adventurous	1				
Trekking	<---	Sporty And Adventurous	1.281	0.151	8.458	***	Par_9
Water Sports	<---	Sporty And Adventurous	1.046	0.127	8.252	***	Par_10
Wildlife Parks	<---	Sporty And Adventurous	1.151	0.141	8.173	***	Par_11
Joyful	<---	Exciting	1				
Arousing	<---	Exciting	1.103	0.066	16.803	***	Par_12
Cheerful	<---	Exciting	1.043	0.067	15.636	***	Par_13
Friendly	<---	Cosy	1				
Warm	<---	Cosy	1.153	0.122	9.44	***	Par_14
Loving	<---	Cosy	0.429	0.076	5.677	***	Par_15

Table 4.5: Standardized regression weights

			Estimate
Scenic Beauty	<---	Natural Attractions	0.835
Climate	<---	Natural Attractions	0.822
Snowy Mountains	<---	Natural Attractions	0.706
Landscapes	<---	Natural Attractions	0.584
Hill Stations	<---	Natural Attractions	0.547
Lakes And Rivers	<---	Natural Attractions	0.524
Pilgrimage	<---	Religious	0.824
Spiritual	<---	Religious	0.693
Temples	<---	Religious	0.757

Fairs, Festive And Events	<---	Religious	0.646
Mountaineering	<---	Sporty And Adventurous	0.599
Trekking	<---	Sporty And Adventurous	0.672
Water Sports	<---	Sporty And Adventurous	0.646
Wildlife Parks	<---	Sporty And Adventurous	0.636
Joyful	<---	Exciting	0.815
Arousing	<---	Exciting	0.868
Cheerful	<---	Exciting	0.816
Friendly	<---	Cosy	0.773
Warm	<---	Cosy	0.842
Loving	<---	Cosy	0.366

Convergent validity:

Table 4.6: Loading greater than 0.5 show convergent validity

Latent variables	Item	Standardized regression weights
Natural Attractions	Scenic beauty	0.835
Natural Attractions	Climate	0.822
Natural Attractions	Snowy mountains	0.706
Natural Attractions	Landscapes	0.584
Natural Attractions	Hill stations	0.547
Natural Attractions	Lakes and rivers	0.524
Religious	Pilgrimage	0.824
Religious	Spiritual	0.693
Religious	Temples	0.757
Religious	Fairs, festive and events	0.646
Sporty And Adventurous	mountaineering	0.599
Sporty And Adventurous	Trekking routes	0.672
Sporty And Adventurous	water sports	0.646
Sporty And Adventurous	wildlife parks	0.636
Exciting	Joyful	0.815
Exciting	Arousing	0.868
Exciting	Cheerful	0.816
Cosy	Friendly	0.773
Cosy	Warm	0.842
Cosy	Loving	0.366

Composite Reliability:
It measures the overall reliability of a latent construct of all the items loaded in the construct.

$$\text{Composite Reliability } (\rho) = \frac{(\sum \lambda_i)^2}{[\ (\sum \lambda_i)^2 \ + \ \sum(\delta_i)\ ]}$$

Where λ= standardized factor loadings
       δ = measured indicator error

Table 4.7: Composite reliability of latent constructs

Latent constructs	Composite Reliability (CR)	Standard CR
Natural Attractions	0.833981243	
Religious	0.821678339	
Sporty & Adventurous	0.733523926	> 0.7
Exciting	0.872024644	
Cosy	0.715613416	

All the factors show higher composite reliability than 0.7

Construct validity:

Average variance extracted is the average percentage of variance explained by the indicators in the construct. For construct validity, average variance should be above 0.5 but some researchers suggest value above 0.45. the latent factors religious and exciting have AVE value greater than 0.5, and factor natural attractions have AVE value greater than 0.45, and sporty and adventurous have values greater than 0.40. Thus all the latent variables show moderate to good construct validity. The formula for AVE is

$$AVE = \frac{(\sum_{i=1}^{n} \lambda_i^2)}{(\sum_{i=1}^{n} \lambda_i^2) + (\sum_{i=1}^{n} \delta_i)}$$

Where λ= standardized factor loadings
  δ = measured indicator error

Table 4.8: Average Variance extracted and factor loadings comparison

Factors		Squared Correlations	AVE
Natural Attractions	0.835	0.697225	0.464364
Natural Attractions	0.822	0.675684	
Natural Attractions	0.706	0.498436	
Natural Attractions	0.584	0.341056	
Natural Attractions	0.547	0.299209	
Natural Attractions	0.524	0.274576	
Religious	0.824	0.678976	0.537398
Religious	0.693	0.480249	
Religious	0.757	0.573049	
Religious	0.646	0.417316	
Sporty And Adventurous	0.599	0.358801	0.408049
Sporty And Adventurous	0.672	0.451584	
Sporty And Adventurous	0.646	0.417316	
Sporty And Adventurous	0.636	0.404496	
Exciting	0.815	0.664225	0.694502
Exciting	0.868	0.753424	

Factors		Squared Correlations	AVE
Exciting	0.816	0.665856	
Cosy	0.773	0.597529	0.48015
Cosy	0.842	0.708964	
Cosy	0.366	0.133956	

Average variance extracted values should be > 0.5 but values >0.4 are also acceptable. So two factors have AVE > 0.5 and two factors have AVE > 0.45 and one factor AVE>0.4. Thus we may say that the factors measure the construct adequately.

Discriminant validity:
Discriminant validity is achieved when Average variance extracted (AVE) is greater than Maximum Shared Squared Variance (MSV)

**Table 4.9: Comparing Average Variance Extracted and Squared correlation between factors**

	Natural Attractions	Religious	Sporty And Adventurous	Exciting	Cosy
Natural Attractions	0.464364				
Religious	0.3364	0.5374			
Sporty And Adventurous	0.2401	0.354025	0.40805		
Exciting	0.374544	0.497025	0.561001	0.6945	
Cosy	0.0729	0.241081	0.189225	0.179776	0.48015

For discriminant validity for all the factors the MSV should be less than AVE, from the table it is seen that MSV of all latent variables is less than AVE. Therefore the latent variables have high discriminant validity. The Maximum Shared Variance (MSV) between variables 'Sporty and Adventurous' and 'Exciting' is higher than AVE of variable 'Sporty & Adventurous'. The other latent variables show high discriminant validity.

Table 4.10: Correlation between latent factors (shown by double arrows between latent factors)

CORRELATION			Estimate
Natural Attractions	<-->	Religious	.580
Natural Attractions	<-->	Sporty & Adventurous	.490
Natural Attractions	<-->	Exciting	.612
Natural Attractions	<-->	Cosy	.270
Religious	<-->	Sporty & Adventurous	.595
Religious	<-->	Exciting	.705
Religious	<-->	Cosy	.491
Sporty & Adventurous	<-->	Exciting	.749
Sporty & Adventurous	<-->	Cosy	.435
Exciting	<-->	Cosy	.424

Figure 4.1: Path Diagram Showing Confirmatory Analysis for Destination Image
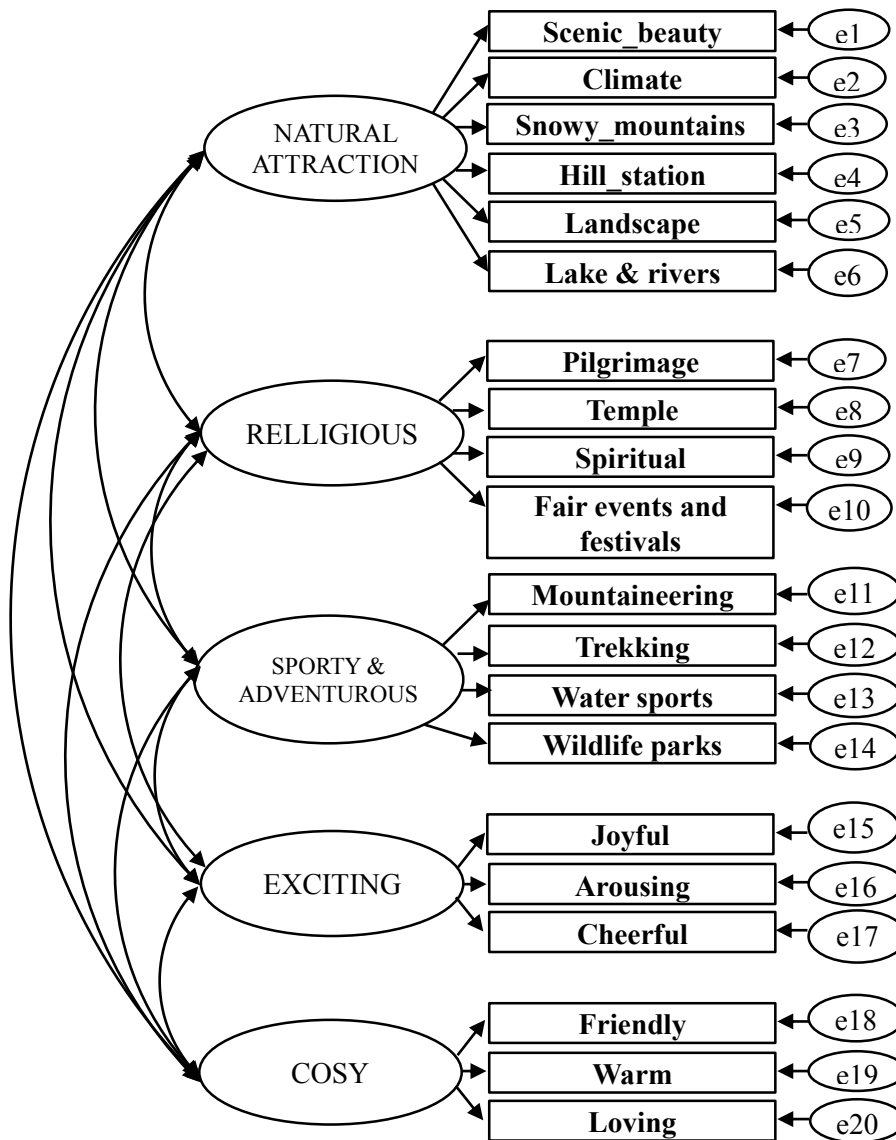
Covariance	– 10 (double side arrows), values depicted in table 4.10
Latent factors	– 5 (Round shaped)
Error variances	– 20 (small round shaped labeled as e1 to e20)
Observed variables	-20 (rectangular)
Factor loadings	-20 (single side arrows) values depicted in table 4.5

Table 4.11: Tourism destination Image components

Scenic beauty	Natural attractions	Cognitive	Destination Image
Climate			
Snowy mountains			
Landscapes			
Hill stations			
Lakes and rivers			
Pilgrimage	Religious		
Spiritual			
Temples			
Fairs, festive and events			
Mountaineering	Sporty and adventurous		
Trekking routes			
water sports			
wildlife parks			
Joyful	Exciting	Affective	
Arousing			
Cheerful			
Friendly	Cosy		
Warm			
Loving			

Confirmatory Factor Analysis a multivariate analysis technique is used to test whether the latent constructs are measuring the construct. The model fit justified the model. Another model which had the same latent constructs but no covariance between latent factors was also analyzed but that model did not fit. Therefore this model with covariance between latent factors is suggested for defining the constructs.

Model Fit Summary:

Table 4.12: The different tests of model fit for confirmatory factor analysis

Measure	Standard	Obtained	
CMIN/DF	<5	2.76	Good
GFI	≥0.90	0.873	Acceptable
AGFI	≥0.95	0.864	Acceptable
RMR	<0.08	0.058	Good
RMSEA	< 0.08	.077	Good
SRMR	<0.08	0.0666	Good
CFI	≥ 0.9	0.893	Acceptable

CONCLUSION AND FUTURE RESEARCH:

A research study was undertaken with the aim of finding the destination image of Uttarakhand. Natural attractions, religious, sporty and adventurous, exciting and cosy were the factors that defined Uttarakhand as tourism destination. Destination image plays an important role in marketing. Therefore these factors should be included in the promotion activities of the state. Future research could focus on niche areas of tourism in Uttarakhand, analyzing the different tourism behaviors like their spending behavior, their attitude towards hosts, sustainable tourism models, new dimensions of tourism like medical tourism, education tourism, MICE (meeting, incentives, conference and exhibitions) tourism, etc.

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