

FACTORS INFLUENCING THE DESIGN OF AN ADVENTURE TOURISM PACKAGE FOR KERALA: PERCEPTIONS OF FOREIGN TOURISTS

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Abstract *The perceptions of foreign tourists are very important in designing a suitable adventure tour package for any potential destination. This study was undertaken with the objective of understanding the attributes the foreign tourists consider important in a Kerala based adventure tour package. Based on the data collected from 104 foreign tourists visiting Kerala, India, the important attributes expected in a Kerala based adventure tour package are identified. Exploratory factor analysis was used to get the underlying dimensions. The possible variation in the importance attached to these dimensions, based on demographic characteristics of the tourists, are also analyzed. The findings are discussed to draw conclusions on designing an appropriate adventure tour package for international tourists.*

Key Word *Adventure tourism, Kerala, tourist perception, factor analysis, ANOVA*

INTRODUCTION

The term 'Adventure' is an experience of some sort, providing a level of personal excitement (Khandari and Chandra, 2004). The Oxford Dictionary refers to adventure as an exciting experience, a risk or enterprising activity. Adventure Tourism is an emerging niche market and shows potential to be very popular and high yielding. Adventure Tourism represents one of the fastest growing market segments of today's travel market.

India, the land of nature, can easily be the new adventure tourism destination. Kerala is a hot tourism destination in India amongst nature lovers and adventure seekers. As an adventure destination, Kerala offers its visitors a range of options including backwater biking, bird tours, camping, jungle safaris, trekking, water sports and wildlife tours.

In spite of all these favorable factors, the adventure tourism in Kerala is only happening, not picking up. There are shortage of quality operators and packages on offer. Interaction with many tour operators indicates that most of them are unaware of what an adventure tourist expects out of his/her trip in Kerala.

The perception of foreign tourist about Kerala as an adventure destination is very important in designing a suitable adventure tour package. This study was undertaken with the objective of understanding what foreign tourists

look for in a Kerala based adventure tour package.

Specific objectives of this study include

- Identify the importance foreign tourists attach to various components of an adventure tourism package.
- Explore the major (underlying) factors contributing to the acceptance of an adventure tourism package.
- Identify the variation in the importance attached to these factors based on demographic characteristics of the tourists

LITERATURE REVIEW

Pearce (2000) defines tourism as the relationships and phenomena arising out of journeys and temporary stays of people travelling primarily for leisure or recreation purposes. The public is more amenable now to arranging time for participation in leisure activities in their daily lives while simultaneously being more circumspect in selecting the quantity and quality of these activities (Tseng, 2003).

Adventure tourism is one of the most talked about sub segment under the broad umbrella of tourism. The terms adventure travel and adventure tourism are many times discussed as synonyms. Addison(1999) defines adventure travel as any activity trip close to nature that is undertaken by someone who departs from known surroundings to encounter unfamiliar places and people, with the purpose

of exploration, study, business, communication, recreation, sport, or sightseeing and tourism. Adventure Tourism in turn has many sub segments such as sports tourism, nature based tourism, eco-tourism and indigenous tourism.

What adventure travelers look for is a million dollar question for marketers. Most of the travel package providers have taken a mass market approach to adventure travel. But there is a growing feeling that adventure tourism market is far from being homogenous and has to be customized based on the place and the person (Chieh-Wen Sheng et al., 2008). This calls for a different marketing approach and introduction of a range of tourism products.

Many studies have looked at understanding the differences in tour preferences based on differences in consumer age, educational background and culture (Mayo, 1975; Gladwell, 1990; Ryel and Grasse, 1991). Many researchers have used demographic variables to segment the tour market (Andereck and Galdwell, 1994; Zins, 1998). Trauer (2006) found out that the lifestyles of the tourists would affect the tourism topic, or the importance of the tourism topic for tourists. Special interest tours came out as a reaction to these differences in the preference for activities and places (Hall and Weiler, 1992; Trauer and Ryan, 2005). Consumers of different life styles often have different consumption choice behaviors (Loudon and Bitta, 1984). Ye's (1985) travel research indicated that different life style communities have significant variations in their preferences for travel destination.

For effective positioning of a destination, the strong attributes that are perceived as important by visitors should be first identified (Crompton et al., 1992). Relevant attributes that are unique to the destination and capable of differentiating it effectively from its competitors are also equally important (Ibrahim et al., 2005). Variation in the importance of these attributes based on socio-demographic variables should also be identified to design and promote an effective positioning strategy for a destination.

Kerala which is betting highly on tourism, has to draw from the findings of these international studies. The tour operators in Kerala should be able to design and offer "special interest tours" for adventure travelers incorporating these diverse options the state offers. A key issue in this design would be to understand the perceptions of the foreign tourists in terms of what they expect from a Kerala based adventure tour package.

RESEARCH METHODOLOGY

Instrument Development

Based on the exhaustive study of the literature as well as on the practitioners, major components of adventure tourism packages were identified for the survey. An instrument was

developed to measure the importance the tourists attach to these components in an adventure tourism package. The data regarding the importance of an attribute had to be provided by the foreign tourist who has an interest in adventure tourism. The respondent was asked to read each attribute and indicate the level of importance he/she attaches to that attribute in an adventure tourism package. The response format for each item was developed using a five-point Likert-type scale ranging from "very important" to "not at all important".

The draft instrument was initially given to five senior tourism professionals working with leading companies in the tourism industry. The experts were requested to critically examine the list, and to give objective feedback and suggestions with regard to the comprehensiveness/coverage, redundancy level, consistency and number of items. They had to suggest necessary changes by simplifying, rewording, removing, replacing and supplementing the items. Based on the feedback from experts, the final questionnaire had 15 attributes mentioned in table (1).

Data was collected on the important demographic details like gender, nationality, age, and income level of the respondent.

Data Collection

The population is defined as the international travelers interested availing an adventure tourism package in Kerala. Tourists visiting major tourism destinations across the state of Kerala were approached for data collection. The research team, with the assistance of the tour operators, met the tourists in the hotels where they stayed. There was a qualifying question on their interest in adventure tourism. Only those foreign tourists who expressed their interest in adventure tourism were administered the rest of the questions. Care was taken to ensure representation for the important demographic subgroups. Data was collected from 142 respondents. Detailed examination of the data based on grossly missing or inappropriate values resulted in the deletion of 37 records. Thus the final data set had 105 usable records distributed across various categories. Respondents came mainly from USA, Europe and Australia. 46% of the respondents were aged between 18 and 29, 21% between 30 and 49 and 27% above 50.

DATA ANALYSIS AND RESULTS

Ranking the Attributes

The importance score was calculated for each of the fifteen attributes averaging the scores of the respondents. Table 1 shows the ranking of these attributes. The highest preference is for staying in the jungle. Activities like trekking and safaris found favour with the tourists.

Table 1 Importance of the Attribute in the Adventure Tourism Package

Attributes in the Package	Aggregate Score for the Attribute	Rank (in the Order of Importance)
Staying in jungle	396	1
The natural ambience of the place	382	2
Trekking and walking tours	371	3
Feeling of safety	368	4
Quality of accommodation	350	5
Jungle safari	324	6
Paragliding	311	7
Touristic information supply	307	8
Birding tour	287	9
Quality of Transportation	271	10
Quality of the Guide	263	11
Cycling holidays	256	12
Diving	243	13
Paddling holidays	231	14
Nature safari	220	15

Exploratory Factor Analysis

Exploratory Factor Analysis (EFA) is a procedure that can be used when data has been obtained on a large number of variables and the researcher wants to explore the nature of the underlying factor structure. Factor analysis refers to a class of procedures used for variable reduction and summarization. A large number of variables which are highly correlated can be reduced to a manageable level through this technique. The interrelationship among these variables are examined and used to define the underlying factors. The most popular technique used in EFA is Principal Component Analysis (PCA). PCA is a variable reduction procedure that results in a relatively small number of components that account for most of the variance in a set of observed variables (Hatcher, 1994).

Number of factors is another crucial decision to be taken in factor analysis. Hair et.al (2006) recommends that the number of factors may be decided looking into (a) percentage of variance explained (b) eigen values (c) interpretability of the factor structure.

The percentage of variance explained approach ensures that a minimum percentage of the total variance is explained by the factors. No absolute cut offs are prescribed for all applications. If the factor structure explains more than 50%, it is considered as satisfactory in social sciences (Hair et.al, 2006). An eigen value represents the amount of variance associated with a factor. In this approach only factors with eigen value more than 1.0 are to be retained. The

interpretability argument favours a factor solution which is easy to understand and explain (Thomas et.al, 2011)

An important output from factor analysis is that factor loading matrix, which represents the correlation between factors and variables. A large absolute value indicates closer relationship of the variable with the factor. To get a simpler structure which can be better explained, the factor matrix is subjected to a rotation. Different rotation methods such as Varimax, and Quartimax are used to get a simple structure.

The sample data was subjected to an exploratory factor analysis using principal component analysis with varimax rotation. This result gives a solution with five factors with Eigen values above 1.0. The proportion of the variance explained by the six factors together was 63%. Kaiser–Meyer–Oaklin measure of sampling adequacy (KMO value) obtained was 0.720 above the adequate value of 0.7 (Hair et al., 2006). Bartlett Test of Sphericity was significant at 1% level indicating that correlations exist among some of the response categories.

The factor-loading matrix was closely analyzed after subjecting it to varimax rotation. While interpreting the rotated factor pattern, an item was accepted as loading on a factor, if the factor loading is 0.50 or greater. Using this criterion, the rotated pattern matrix was examined thoroughly. Three items were seen to be cross loading on multiple factors. They were retained under the factor where the loading was highest.

The next step was to test the internal consistency, which is the degree of inter-correlation among the items that constitute the scale (Nunnally, 1978). The internal consistency can be estimated using a reliability coefficient called Cronbach's alpha (α) (Cronbach, 1951). An alpha value of 0.70 or above is considered to be the criterion for demonstrating strong internal consistency of established scales (Nunnally, 1978). The reliability of each factor as well as the total set was tested by computing Cronbach alpha (α) value. All the dimensions now had Cronbach alpha value above the cut off level 0.7, which testified the reliability of the set.

The factor loading matrix with suggested factor names, percentage of variance explained by each factor, Eigen Values and the Cronbach alpha values are reported in Table 2. Factor 1 contained items like accommodation, transportation, tourist information and quality of guide. They generally describe the quality of the tour arrangements. This factor was named **Tour Logistics**. Factor 2 contained staying in jungle, jungle safari and natural ambience. This showed the importance of jungle based tourism in Kerala context and this factor was called **the Jungle**. Adventure activities like diving and paragliding loaded on the third factor which was named **Hard Adventure**. The fourth factor contained items like cycling, paddling and birding tours. It was called **Soft**

Adventure. The last factor had two items loaded namely trekking and walking tours and Nature safari. It can be called as Nature Exploration Nature Exploration.

Table 2 Key Dimensions, Items and their Loadings

F1: Tour Logistics (Var = 24.9% , Eigen Value = 4.23, α = 0.901)	Loading
Feeling of safety	0.752
Quality of accommodation	0.583
Touristic information supply	0.545
Quality of Transportation	0.680
Quality of the Guide	0.845
F2: The jungle (Var = 12.2% , Eigen Value = 2.07, α = 0.892)	Loading
Staying in jungle	0.644
The natural ambience of the place	0.736
Jungle safaris	0.811
F3: Hard Adventure (Var = 10.9%, Eigen Value = 1.84, α = 0.846)	Loading
Diving	0.874
Paragliding	0.895
F4: Soft Adventure (Var = 7.9%, Eigen Value = 1.35, α = 0.716)	Loading
Cycling holidays	0.576
Birding tour	0.596
Paddling holidays	0.691
F5: Nature Exploration (Var = 7.1%, Eigen Value = 1.20, α = 0.709)	Loading
Nature safari	0.774
Trekking and walking tours	0.517

Analyzing for the Possible Variation Across Demographic Characteristics

After the factor structure identification and validation, the next step is to generate appropriate scores to represent these factors for further statistical analysis. From the different techniques available for generating factor scores, summated scales are recommended (Hair et. al 1998) from the following

considerations. (a) These scales are easily replicated across studies. (b) They are easy to interpret. (c) They represent multiple aspects of the concept under measure. Hence the researchers have decided to use summated scales for the study. The score was calculated for each factor (dimension) by taking the average of all items included under that factor analysis.

The next step was to check for the possible variation in factor scores across the demographic characteristics of the respondents. The following demographics were considered for analysis (a) Country of origin of the respondent (b) gender (c) age of the respondent. ANOVA/independent t-test (if there are only two subgroups) was used for testing for variation of the metric dependent variable factor scores across categories of the independent variables demographic characteristics.

Some key ANOVA/t- test assumptions are that the groups formed by the independent variable(s) are relatively equal in size and have similar variances on the dependent variable (“homogeneity of variances”). Like any other parametric tests, ANOVA also assumes normality. In the present study, though these assumptions are not fully met, ANOVA implemented in SPSS has built- in mechanism to support unequal group sizes of unequal variance. Hence this will not affect the interpretation very much.

Variation in perception factor scores across categories of country of origin

Table 3 shows the ANOVA results for the variation in factor scores across categories of country of origin. As seen, no significant difference was seen in the scores. This implies that what the tourist expect from a Kerala based adventure tour package doesn’t vary based on the country of origin of the tourist. This Points towards a homogenous view of expectation from the respondents.

Variation in perception factor scores across categories of gender

Independent t-test was conducted comparing means of the factor scores across the two gender categories. The results

Table 3 ANOVA on Factor Scores Across Categories of Country of Origin

Adventure Tour Dimension	Europe		USA		Australia		Others		F-value	P-Value
	Mean	SD	Mean	SD	Mean	SD	Mean	SD		
Logistics	1.76	.47	1.53	.43	1.60	.35	1.67	.45	2.2	.112
Jungle	1.41	.50	1.17	.22	1.24	.29	1.31	.42	2.7	.076
Hard	1.31	.40	1.30	.41	1.20	.40	1.29	.40	0.43	.652
Soft	2.27	.52	2.16	.50	1.80	.38	2.16	.49	2.3	.07
Explore	1.74	.48	1.67	.31	1.77	.46	1.73	.43	.24	.785

are presented in table 4. As seen the significant difference is seen with respect to the hard adventure dimension. Male respondents were seen to have a higher preference for this dimension compared to their female counterparts. There is no significant difference with respect to other dimensions.

Table 4 T-test on Factor Scores Across Categories of Gender

Adventure Tour Dimensions	Male Vs Female Respondents	
	t-stat	P Value
Logistics	.70	.484
Jungle	.08	.937
Hard	1.8	.047
Soft	-.30	.768
Explore	-.466	.642

Variation in perception factor scores across categories of age

Respondents were classified as children (below 15), youth (16-30) and middle aged (30-50) ANOVA was used to check for possible difference in the score among the three categories. Results are reproduced in table 5. Significant differences were seen on the dimensions of tour logistics and hard adventure. As seen from the mean scores, the importance of the tour logistics increased with respect to the age. Old people have more concern on this factor compared to youngsters. Also, the reference for hard adventures decreased with age.

Table 5 ANOVA on Factor Scores Across Categories of Age

Adventure Tour Dimensions	<15 yrs		16- 30 yrs		30-50 yrs		F-Value	P-Value
	Mean	SD	Mean	SD	Mean	SD		
Logistics	1.45	.37	1.69	.46	1.92	.46	3.18	.04
Jungle	1.31	.24	1.31	.43	1.41	.60	.285	.75
Hard	1.39	.36	1.29	.48	1.10	.15	3.8	.03
Soft	2.29	.26	2.13	.54	2.05	.55	.49	.61
Explore	1.90	.34	1.82	.39	1.63	.39	2.1	.12

DISCUSSION

The study was undertaken with the objective of understanding the importance given by foreign tourists for various attributes in a Kerala based adventure tour package. Based on a survey of foreign tourists, the study identified the ranking of 15 attributes on their level of importance in an adventure

tourism product. These attributes were factor analyzed to delineate the underlying dimensions for better understanding and analysis. The data analysis showed presence of five major factors around which the adventure tour package can be designed.

Tour logistics was seen to be the most important factor highlighting the importance of attributes like quality of accommodation, transportation and guide. It is an area requiring joint efforts from the government agencies and private tour operators. We have to provide the tourists with cost effective high quality accommodation in places of attractions. Lack of quality roads, absence of certified guides etc are matters of concern.

Jungle was seen to be the major attraction for tourists around which they expect packages to be designed. This is good news for the Kerala tourism industry given the fact that the state is home to a rich wildlife. There are many rare animals, bird and marine lives that are present in Kerala. The tropical evergreen rain forests in Kerala like the famous Silent Valley National Park offer scope for a variety of exciting adventurous activities for travel enthusiasts.

There are two groups of tourists with one preferring hard adventures like diving and paragliding. Ladies and old prefer more of soft adventures like cycling and birding tours. The tour providers should be able to give them customized packages. Kerala being the land of rivers, lakes and mountains, it can be an ideal destination for those inclined to indulge in water sports or mountaineering. It is a

land blessed with natural beauty as well as with hundreds of species of birds making cycling, safaris and bird tours very pleasurable.

It is high time the state cashes in on its high potential for Adventure tourism. Adventure tourism has to become part of the mainstream tourism of Kerala, rather than something

on the periphery of the tourism industry. The governmental agencies and the private operators should work hand in hand to achieve this objective.

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