

Key Indicators Analysis for Visitor's Accommodation Facility Satisfaction in Ecotourism Destination in the Hilly Region of Chikmagalur

B. N. RAVIKUMAR, N. S. SATHISHA AND E. T. PUTTAIAH¹

*Department of Environmental Engineering, Adichunchanagiri Institute of Technology
 Chikmagalur 577102, India*

¹*Gulbarga University, Gulbarga, Karnataka, India*

Abstract

Visitors satisfaction on facilities provided at eco sites is essential to long-term viability and sustenance of ecotourism industry. In the present study among many facilities accommodation, a prime criteria was considered. The study was carried out for two years from March 2006 to March 2008 to assess the visitor's satisfaction towards accommodation facilities in the Western Ghat area of Chikmagalur district, Karnataka State. To study the visitors' satisfaction, seven indicators were considered and corresponding to these indicators data were collected from visitors which were analyzed using principal component factor analysis. Analysis reveals that visitors accommodation importance and visitors accommodation satisfaction can be measured by five indicators with four common indicators. The measured indicators were valid and reliable for both importance and satisfaction of visitors accommodation facilities.

Key words : Visitors satisfaction, Ecotourism, Chikmagalur, Accommodation facilities.

Ecotourism sometimes also referred to as nature tourism can be defined as travel to relatively undisturbed or historical areas to study, admire, and enjoy scenery, plants, animals, and cultural attractions (1). Urbanization, industrialization and the much polluted environment prevailing in that setup, always pushes the people towards stressful lifestyle. This suffocating atmosphere makes most of the people in the urban area to skip from their customary (routine) life and rush towards places where they will get stress relief. Ecotourism provides such a stress relieving atmosphere to the tourists. Because of this reason ecotourism markets are expanding faster than any other tourism market segment. Tourism to protected/natural areas can benefit rural, remote regions when other industries are centered on cities and towns, ports and transportation routes. There is a growing gap between the rural and urban areas in India, the former are missing out on many of the benefits and advancements of a more open economy. Ecotourism can assist in spreading the benefits of development, stimulating economic activity and growth and provide an opportunity for diversification of the economy (2). Although the origins of the term 'ecotourism' are

not entirely clear, one of the first to use it appears to have been Hetzer in 1965, who identified four 'pillars' or principles of responsible tourism : minimizing environmental impacts, respecting host cultures, maximizing the benefits to local people, and maximizing tourist satisfaction (2). Knowing what visitors value most can help tourism developers to tailor facilities, access, and support services so as to increase visitor satisfaction, encourage longer and repeat visits, and ultimately maximize the economic benefits of these sites (3). Ecotourists are always active and keen to participate in activities, generally considered affluent with higher education, increased income, and mostly living in major cities. They may be male or female, who may or may not be traveling with a group or with a companion. They usually stay for longer periods and are willing to pay more for facilities that are eco-friendly (2, 4—8). In addition, they expect ecotourist businesses to be environmentally friendly, and prefer services that are courteous, informative, and trustworthy (9). When a tourist is satisfied, the agency is then credited with providing an effective service opportunity (10). Western Ghats of Chikmagalur has immense potential for ecotourism development based

Table 1. Survey response details.

Respondents	Delivered questionnaires	No. of respondents	Response rate
Tourists	200	100	50%

on its spectacular natural landscapes and unique cultural heritage. Mother nature has spread a loving carpet of green over the entire district. Because of its excellent tourism resources, Chikmagalur can encash maximum benefits of ecotourism and emerge as the potential ecotourism place in this region. The ecotourists expect services like accessibility and transportation, accommodation, food, guiding and interpretation services which cause minimal damage to the biological and cultural environments and promote a better understanding of the natural and cultural history of an area. For the development of ecotourism in proper direction these services are very important. One such service, accommodation, has been selected in the hilly areas of Chikmagalur and sufficient data has been collected and analyzed to know about the expectations of the visitors and the existing condition of the accommodation facility at ecotourism places. When tourists feel that the services provided by the host community are above their level of expectation, they are more likely to return and recommend the destination to others. As a result of the importance of this facility a study has been undertaken to identify the most desired characteristics in accommo-

Table 2. Principal component factor analysis of accommodation facilities importance. 3* - Very important, 2* - Important, 1* - Not important. *Reliability coefficient (Cronbach's Alpha).

Indicators	3*	2*	1*
Appropriate interior, atmosphere	71	22	03
Cleannes	58	35	02
Prices/corresponding to the services	47	37	12
Good service	60	29	03
Good equipment in the rooms/television sets and others	49	42	03
Hygiene of the bathrooms	75	19	01
Others, please specify	18	11	06

	Loading	Eigen value	Variance explained
Importance of accommodation facilities	0.612*	2.23	69.125%
Appropriate interior, atmosphere	0.977		
Prices/corres, services	0.966		
Good equipment in the room	0.930		
Good service	0.904		
Cleanliness	0.877		
Kaiser Meyer-Olkin	0.629		
Bartlets test of Sphericity	0.001		

modation. Other research, such as the 2002 National Business Travel Monitor, identified that the three most important attributes sought by business travellers in lodging accommodation are clean, well-maintained rooms, friendly and efficient service, and a safe place to stay (9).



Figure 1. Study area.

Study Area

Chikmagalur, surrounded by the Baba Budan Giri hills and dense forests, is in the Western Ghat area of south India. Malnad is located between 13⁰10' and 13⁰94' North and South, longitudes 75⁰30' and 76⁰85' East and West. The highest point in this region is Mullayanagiri, 1,926 m above sea level which is also the highest point in the state of Karnataka; 30% of the Chikmagalur district (2,108.62 km²) is covered with forests. The rivers Bhadra, Tunga, Hemavathi, Netravati, and Vedavathi flow all year round. Manikyadhara Falls, Kallathigiri Falls, Hebbe Falls, Shanti Falls, Kadambi Falls, Hanumana Gundi Falls are some of spots which beckon tourists with their cascading beauty (Fig. 1). The Western Ghats section of Chikmagalur has several breathtaking hill stations that are ideal for ecotourism projects (11).

Methods

Data Collection

To study the visitors' accommodation facilities satisfaction in the study area, data were collected from visitors. This type of data collection was fitting to the objectives, since it was a quick, one-time research to obtain relatively reliable information based on spontaneous answers. Questionnaire is the most popular method of extracting information from people. They are usually conducted by post, telephone or in person. Questionnaires are easy to administer and easy for respondents to deal with. They simplify the analysis of results, and can provide surprisingly detailed information. The visitors' questionnaires were completed at the place of their stay. The response rate was 50%. This was a two-stage procedure : Preliminary meeting with the visitors to clarify the importance of information and significance of their feedback ; they were requested to hand over the questionnaires to tourist entrepreneurs ; and collection of completed questionnaires from tourist destinations after a period of 7 days.

Data Analysis

A separate principal component analysis was conducted for each indicator to determine the appro-

Table 3. Principal component factor analysis of accommodation facilities satisfaction. 3* - Very important, 2* - Important, 1*- Not important.

Indicators	3*	2*	1*
Appropriate interior, atmosphere	50	34	04
Cleanness	42	23	04
Prices/corresponding to the services	33	35	23
Good service	49	32	06
Good equipment in the rooms/television sets and others	35	50	04
Hygiene of the bathrooms	50	32	07
Others, please specify	18	9	09
	Loading	Eigen value	Variance explained
Satisfaction of accommodation facilities	0.712*	2.48	65.45%
Cleanliness	0.995		
Hygiene of the bathrooms	0.990		
Appropriate interior	0.985		
Good service	0.937		
Prices	0.916		
Kaiser Meyer-Olkin	0.617		
Bartlets test of Sphericity	0.001		

priateness of factor analysis, the Kaiser-Meyer-Olkin measure of sampling adequacy and the Bartlett's test of sphericity were examined. A value of 0.60 or above from the Kaiser-Maiser-Meyer-Olkin measure of sampling adequacy test indicates that the data are adequate for exploratory factor analysis and that a significant Bartlett's test of sphericity is required (12). To make sure that each factor identified by EFA has only one dimension and that each attribute loads on only one factor, attributes that had factor loadings of lower than 0.4 and attributes loading on more than one factor with a loading score of equal to or greater than 0.40 on each factor were eliminated from the analysis (13). Results of statistical analysis have been presented in tables.

A total of seven indicators were used to measure the importance of visitors' accommodation facilities and satisfaction of accommodation facilities in the eco-tourism destinations. From a principal component factor analysis, results of the Kaiser-Meyer-Olkin measure of sampling adequacy test and the Bartlett's test of sphericity ($P < 0.001$) indicated that out of seven indicators five were acceptable for factor analysis.

Results and Discussion

Visitors' monitoring is always targeted at management of product quality by using indicators to determine the visitor's degree of satisfaction with the goods and services offered in any tourism locations. Monitoring visitors is an important element in the monitoring system. Visitors should be monitored continuously, and the data should serve as a basis for evaluating the quality of services, for making changes in services, for developing the tourist product, and for strategically planning tourism development at the destination.

The following indicators were considered to study the importance of visitors' accommodation facilities (Table 2) and satisfaction of accommodation facilities (Table 3) in the tourist facilities in the Western Ghat hilly areas of Chikmagalur district: Appropriate interior, atmosphere; cleanliness; prices/corresponding to the services; good service; good equipment in the rooms/television sets and others; hygiene of the bathrooms; others, please specify.

Table 2 gives the statistical analysis of data collected on the basis of visitors' accommodation facility importance. From the principal component factor analysis, results of the Kaiser Meyer-Olkin measure of sampling adequacy test (0.629) and the Bartlett's test of sphericity ($P < 0.001$) indicated that data were acceptable for factor analysis. All factor loadings were greater than 0.85 and loaded on only one factor. Cronbach's alpha reliability for accommodation facility importance in general was 0.612 and that the factor represented 69.125% of the explained variance of the scale. Therefore, accommodation facilities' importance can be measured by five items, and that all items are valid and reliable since the reliability is more than 0.87.

The primary objective of this paper was to determine overall importance levels of visitors and determine specific indicators that contribute to their level of importance. The survey asked the question: on a scale of 1—3, about the level of satisfaction received at tourist destinations regarding quality of goods and services offered (three being very important and one being not important).

The relationship between satisfaction of visitors and eco-tourism region-specific indicators were analyzed by principal component factor analysis. A sum-

mary of responses relating to these eco-tourism region-specific indicators can be found in Table 2. All five of the identified indicators were significantly related to satisfaction levels. Appropriate interior, atmosphere ($\alpha = 0.977$), prices/corresponding to the services ($\alpha = 0.966$), good equipment in the room ($\alpha = 0.930$), good service ($\alpha = 0.904$), cleanliness ($\alpha = 0.877$), displayed especially high levels of satisfaction. The results of these tests are summarized in Table 2.

Table 3 gives the statistical analysis of data collected on the basis of visitors accommodation facility satisfaction. From the principal component factor analysis, results of the Kaiser Meyer-Olkin measure of sampling adequacy test (0.617) and the Bartlett's test of sphericity ($P < 0.001$) indicated that data were acceptable for factor analysis. All factor loadings were greater than 0.90 and loaded on only one factor. Cronbach's alpha reliability for accommodation facility satisfaction in general was 0.712 and that the factor represented 65.45% of the explained variance of the scale. Therefore accommodation facilities satisfaction can be measured by five items, and that all items are valid and reliable since the reliability is more than 0.90.

The factor analysis of visitors' accommodation facilities satisfaction yielded five factors: Cleanliness ($\alpha = 0.995$), hygiene of the bathrooms ($\alpha = 0.995$), hygiene of the bathrooms ($\alpha = 0.990$), appropriate interior ($\alpha = 0.985$), good service ($\alpha = 0.937$), prices ($\alpha = 0.916$), displayed especially high levels of satisfaction. The results of these tests are summarized in Table 3.

Conclusion

The indicators used to assess the visitors' accommodation facilities importance and visitors' accommodation facilities satisfaction in the Western Ghat areas of Chikmagalur was an instrument that assists in better understanding of the services provided to the visitors in the region. To define whether a given region is properly equipped with accommodation facilities to satisfy the visitors, seven indicators were subjected to factor analysis. Results revealed that the five most important attributes sought by visitors about accommodation facilities are cleanliness, hygiene of the bathrooms, appropriate interior, good service, prices.

Competition in the hospitality industry is intense, and it is evident customers seek accommodation that offers best value for money. But results revealed that visitors give given minimum attention to the price than cleanliness, hygiene of the bathrooms, appropriate interior and good service of the establishment.

Since ecotourists are generally highly affluent with higher education, higher income, and mostly living in major cities, their expectations on cleanliness, hygiene, appropriate interior and good service is very high. Visitors high revisit ratio (39%) in the beginning phase of the ecotourism development in this region clearly indicates that local community have performed very well in maintaining all these factors.

Reference

1. Ceballos-Lascurain. 1987. *Ecotourism : Potential and pitfalls*. World Wildlife Fund, Washington, DC, USA.
2. Boo E. 1990. *Ecotourism : The potentials and pitfalls*. Volume 1. Lancaster. World Wildlife Fund. Baltimore, USA.
3. Yuan M. S. and N. Moisey. 1992. *The characteristics and economic significance of visitors attracted to Montana wildlands*. Western Wildlands. 20—24 pp.
4. Eagles P. F. 1992. The travel motivations of Canadian ecotourists. *J. Travel Res.* 31 : 3—7.
5. Fennell D. A. 1999. *Ecotourism : An introduction*. Routledge, New York, USA.
6. Weaver D. 2001. *Ecotourism in context of other tourism types*. *Ecotourism*. 16—21 pp. John Wiley, Australia.
7. Whelan T. (ed). 1991. *Nature tourism : Managing for the environment*. Island Press, Washington, USA.
8. Wight P. A. 1996. North American ecotourists : market profile and trip characteristics. *J. Travel Res.* 34 : 2—10.
9. Khan M. M. 2003. ECOSERV : Service quality expectations. *Ann. Tourism Res.* 30 : 109—124.
10. Noe F. P. 1999. *Tourist service satisfaction : Hotel, transportation. and recreation*. Sagamore Publ., Champaign, IL
11. <http://www.karnatakaturism.org>.2006.
12. Tabachnick B. G. and F. S. Fidel. 1989. *Using multivariate statistics*. 2nd edition. Harper Collins Publ., New York, USA.
13. Chen J. and C. H. C. Hsu. 2001. Developing and validating a riverboat gaming impact scale. *Ann. Tourism.* 28 : 459—476.