

Problems Faced by the Tourism Industry in Andaman and Nicobar Islands – A Factor Analysis

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Abstract:

The tourism sector has become one of the major industrial sectors under the Indian economy. Like any other states and the Union Territories in India, Andaman and Nicobar Islands also contribute their part to the country's growth. It is one of the geographically special place and it contributes and enriches our country's tourism business. Besides fishing industry, agriculture, handicrafts industry, minerals and energy resources, tourism is a huge industry for the citizens of Andaman and Nicobar Islands. A heavy bulk of revenue received by the Government of Andaman is via the Tourism Industry. The inflow of tourist has been growing but not at the desired rate. An attempt has been made to analyse the problems faced by the tourism industry in AN Islands. Through factor analysis, six factors are explored such as infrastructure problems, tourism activity problems, human resource problems, investment problems, marketing problems and international flight problem.

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1. INTRODUCTION

India's tourism industry has prospered in the past few years, extensively contributing to the nation's development, foreign exchange earnings, gross domestic product and employment. In India, travel and tourism has contributed about 9.4 percent to GDP and has contributed about 8.0 percent to employment in 2017 (Travel and Tourism Economic Impact, 2018). India is one among the most well-liked destinations in Asia, surrounded on three sides with the Bay of Bengal, Indian Ocean and the Arabian Sea and surrounded with the Himalayan ranges at north, with an extended history and different culture. The Andaman and Nicobar Islands are a group of islands in the Bay of Bengal. About 38 islands are populated out of approximately 572 islands. The AN Islands are known for their

fascinating tropical rainforests, white sandy beaches, palm lined trees and magnificent mangroves. The flow of tourists doubled to nearly 4,00,018 in 2016 from 2,18,035 in 2011 (Tourism Statistics, 2016).

Endowed with excellent beaches, nature's kind gifts and scenic landscapes, the Andaman and Nicobar archipelago has miserably failed to realize its full potential as a tourism hub for India because of infrastructural inadequacies and no proper promotion techniques utilized by the destination marketers. Many of the Islands don't have proper communication facilities like internet and cell phone coverage. There is lack of power and roads are in bad condition. Poor physical infrastructure in places other than Port Blair and connectivity between Port Blair and islands is a major concern. The biggest hindrance in development of this place as a

favorable tourist destination is the poor image of these islands in the mindset of the commoners of mainland India. The person of mainland still thinks that the destination is hard to reach and under developed place.

2. OBJECTIVE OF THE STUDY

To assess the opinion of tourism service providers towards the problems faced by the tourism industry in AN Islands.

3. RESEARCH METHODOLOGY

The present study is analytical in nature and the paper is purely based on primary data. The primary data were collected from 200 tourism service providers with the help of structured interview schedule. The samples of 200 tourism service providers have been selected through proportionate stratified random sampling technique. Out of 200 samples, 136 samples have been selected from accommodation providers and 64 samples from tour operators and travel agents. Further, simple random sampling with lottery method has been adopted for selecting samples within each group.

4. PROBLEMS FACED BY THE TOURISM INDUSTRY IN ANDAMAN

In order to develop the destination for attracting more number of tourists and make Andaman one among the top destinations in India, the problems faced by the tourism industry in Andaman must be identified. The major problems are classified into 19 such as lack of international flights, lack of suitable land for new projects, lack of internet connectivity, lack of proper roads, lack of connectivity between Islands, lack of transport services, lack of electricity, lack of shopping malls, lack of communication, lack of skilled workers, inadequate eco friendly resorts, strict government

policies and procedures, insufficient adventure activities, inadequate ecotourism activities, lack of proper marketing and promotion, high tax rate, lack of systematic planning and implementation, non cooperation among various tour operators/travel agents and inadequate funds. The problems are recorded by the operators' level of agreement towards various problems in five point scale ranging from strongly agree to strongly disagree.

5. PROBLEMS FACED BY THE TOURISM INDUSTRY- FACTOR ANALYSIS

The researcher has identified 19 items regarding the problems of Tourism Industry in Andaman. But in order to find out the factors constituting these 19 problems faced by Tourism Industry in Andaman, the researcher has used factor analysis. Factor analysis is a multivariate technique that is used to reduce a large number of variables into fewer numbers of factors. Factor analysis extracts maximum common variance from all variables and puts them into a common score.

6. KAISER-MEYER-OLKIN (KMO) AND BARTLETT'S TEST

The Kaiser-Meyer-Olkin (KMO) and Bartlett's test is applied to measure the adequacy of the sampling. The problems in Andaman have been tested on nineteen variables. In order to test the significance level of the variables the correlation matrix has been calculated by using Bartlett test. As per sampling adequacy index, if the value lies between 0.5 and 1.0 the factor analysis can be applied. In case, the values lie below 0.5 the Factor analysis cannot be applied. Table 1 portrays the output of the two tests namely KMO measure of sampling adequacy and Bartlett's test of sphericity with chi-square value, degrees of freedom and the probability value.

TABLE 1
Problems Faced by the Tourism Industry - KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.761
Bartlett's Test of Sphericity	Approx. Chi-Square	1109.63
	Df	171
	Sig.	.000

Source: Primary Data

Table 1 shows that the KMO value is 0.761, which indicates that the degree of variance among the variables is quite high. Hence it is concluded that the factor analysis can be applied.

7. PRINCIPAL COMPONENT ANALYSIS

The principal component analysis has been administered for grouping the factor of the problems of tourism industry in Andaman. It is a method of data reduction. Moreover, the proportion of variance of the particular item becomes a common factor and

the factor is called communalities. As per principal component analysis the value of the communality is one. Variables of the problems are placed in compound column. The extraction column poses the value of communalities. The variables which have the value of less than 0.5 indicate that the variables are not fit for the factor solution and if it is possible it may be dropped from the analysis. Table 2 explains the problems faced by Tourism Industry in Andaman.

TABLE 2
Problems Faced by the Tourism Industry - Principal Component Analysis

<i>Communalities</i>			
<i>Sl.No.</i>	<i>Problems</i>	<i>Initial</i>	<i>Extraction</i>
1	Lack of International Flights	1.000	.821
2	Lack of suitable land	1.000	.566
3	Lack of internet connectivity	1.000	.610
4	Lack of proper roads	1.000	.688
5	Lack of connectivity	1.000	.544
6	Lack of transport services	1.000	.547
7	Lack of electricity	1.000	.586
8	Lack of shopping malls	1.000	.544
9	Lack of communication	1.000	.684
10	Lack of skilled workers	1.000	.765
11	Inadequate eco friendly resort	1.000	.668
12	Strict Government policies	1.000	.610
13	Insufficient adventure activities	1.000	.697
14	Inadequate ecotourism activities	1.000	.742
15	Lack of proper marketing	1.000	.676
16	High tax rate	1.000	.509
17	Lack of systematic planning	1.000	.514
18	Non cooperation among operators	1.000	.577
19	Inadequate funds	1.000	.660

Extraction Method: Principal Component Analysis.

Table 2 shows the variance of the nineteen variables ranging from 0.509 to 0.821. It shows that the nineteen variables exhibit considerable variance. Hence, it could be concluded that all these nineteen variables are capable of segmenting themselves based on the predominant value and with respect to problems faced by Tourism Industry in Andaman.

The next step in the process decides about the number of factors to be derived. The rule of thumb is applied to choose the number of factors for which 'Eigen values' with greater than unity is taken by using Principal Component Analysis method. The Component matrix so formed is further rotated orthogonally using Varimax rotation algorithm which is the standard rotation method.

TOTAL VARIANCE EXPLAINED

TABLE 3
Problems Faced by the Tourism Industry - Total Variance Explained

Component	Initial Eigen values			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	4.259	22.414	22.414	2.846	14.977	14.977
2	2.871	15.112	37.525	2.509	13.203	28.181
3	1.564	8.233	45.759	2.082	10.959	39.140
4	1.129	5.943	51.702	1.693	8.911	48.050
5	1.059	5.572	57.274	1.690	8.894	56.944
6	1.025	5.394	62.668	1.088	5.724	62.668
7	0.821	4.323	66.991			
8	0.811	4.268	71.259			
9	0.777	4.090	75.349			
10	0.678	3.569	78.918			
11	0.661	3.477	82.395			
12	0.627	3.301	85.696			
13	0.598	3.146	88.842			
14	0.513	2.701	91.543			
15	0.451	2.373	93.915			
16	0.354	1.862	95.778			
17	0.298	1.568	97.345			
18	0.293	1.543	98.889			
19	0.211	1.111	100.000			

Extraction Method: Principal Component Analysis.

Source: Primary Data

Table 3 shows that the nineteen variables are reduced into six predominant factors with the individual variances of 14.977, 13.203, 10.959, 8.911, 8.894 and 5.724. Cumulative variable of the nineteen variables is 62.668 percent. It is more than the benchmark of the variant which is 50 percent. Moreover, it confirms that the factor segment is meaningful.

8. ROTATED COMPONENT MATRIX

The cumulative percentage of rotation's sum of square for the various facilities and services is 62.668. Hence the factorization is more suitable for the problems. Table 4 displays the values of the rotated component matrix for the problems faced by Tourism Industry in Andaman.

TABLE 4
Problems Faced by the Tourism Industry - Rotated Component Matrix

Factors	Component					
	1	2	3	4	5	6
Lack of proper roads	.758					
Lack of internet connectivity	.709					
Lack of connectivity	.694					
Lack of transport services	.680					
Lack of suitable land	.575					
Inadequate ecotourism activities		.839				
Insufficient adventure activities		.816				
Lack of systematic planning		.617				
Non cooperation among operators		.536				
Lack of skilled workers			.771			
Lack of communication			.740			
Lack of electricity			.542			
Lack of shopping malls				.613		
Inadequate funds				.588		
High tax rate				.566		
Strict Government policies				.515		
Lack of proper marketing					.796	
Inadequate eco friendly resort					.686	
Lack of International Flights						.900
Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization.						

Source: Primary Data

Infrastructure problems

Table 4 represents the factor classification. Out of six factors the first factor consists of five variables namely lack of proper roads (0.758), lack of internet connectivity (0.709), lack of connectivity between islands (0.694), lack of transport services (0.680) and lack of suitable land (0.575) and all these factors are termed as “Infrastructure problems.”

Tourism activity problems

Factor two consists of four variables such as lack of inadequate ecotourism activities (0.839), insufficient adventure activities (0.816), lack of systematic planning (0.617) and non-cooperation among operators (0.536). All these factors are known as “Tourism activity problems”.

Human Resource problems

Factor three constitutes three variables such as lack of skilled workers (0.771), lack of communication (0.740) and lack of electricity (0.542). All these factors are known as “Human Resource problems”.

Investment problems

The fourth factor is generated with four variables namely lack of shopping malls (0.613), inadequate funds (0.588), high tax rate (0.566) and strict government policies (0.515). All these factors may be called “Investment problems”.

Marketing problems

Fifth factor comprises of two factors such as lack of proper marketing (0.796) and inadequate eco-

friendly resort (0.686). These two factors may be called “Marketing problems.”

International flight problem

The factor six consists of only one variable that is lack of international flights (0.900) which can be named as “International flight problem”.

It is concluded that there are nineteen variables that have been identified by the researcher as the problems faced by tourism industry in Andaman and the opinion has been collected from the operators. In this way, it could be seen that each factor is correlated with the common factors and it has been proved through the factor analysis. This analysis brought out six factors namely infrastructure problems, tourism activity problems, human resource problems, investment problems, marketing problems and international flight problem.

9. SUGGESTIONS

The following are the suggestions based on the findings of the study for the development of the Tourism Industry in AN Islands.

1. The major problem is the lack of international flights. Despite its international tag, the Port Blair airport currently gets no overseas flights. So, the Airport Authority of India should speed up the process for getting international flights in the Islands. The airport after receiving a complete makeover will definitely draw more and more foreign tourists apart from domestic tourists.

2. Airtel, BSNL and Vodafone are the only three major telecom networks in Andaman. The tourists can expect mobile connectivity in Port Blair, but it is very weak in other islands like Havelock, Neil and so on. Mobile signal can only be obtained outside on the roads or restaurants in Havelock. The department of telecommunications needs to work on this issue and resolve the problem of weak or no signal at many tourist places in Andaman and Nicobar by installing mobile towers.

3. Lack of internet connectivity remains as a major problem for the Tourism Industry. Internet connectivity is bad even in Port Blair. Even if the hotels say free wifi, the connection is very slow. The government has planned to build an optical submarine cable system between Chennai and the AN Islands. The work should be completed fast as it will enable much needed high capacity connectivity with the Andaman Islands and lead to a new era of development for Tourism Industry.

4. Surrounding roads of Port Blair such as Sippighat, Wandoor, Prothrapur and other parts in the Andaman Trunk Road are damaged with large and small pot holes. The APWD should construct and maintain the road as many tourists visit the Lime stone caves of Baratang and also the beautiful Ross and Smith Island. Seeing the bad road conditions the tourists take bitter memories back home and may affect the tourism potential in the long run.

5. The beaches should not be littered. The authorities need to take steps to keep beaches clean and pollution free by disposing off the garbage at proper places or dustbins, organizing beach cleanup events, by placing theme boards on beaches such as ‘No Plastic – No Pollution’, ‘Beat plastic pollution’ and so on to help to make the tourists aware of the problem and stop single use plastics such as straws, cups, plates, spoon at beaches. The shopkeepers can replace use and throw plastic drinking straws with bamboo straw.

6. Lack of skilled workers is a concern for the industry. Promoting hospitality education should be an area of priority for development of Tourism Industry. At present, only one Institute in Andaman offers Diploma in Hotel Management and Catering Technology and one College offers BBA in Tourism and Travel Management. The government must introduce Andaman Institute of Tourism and Travel Management.

10. CONCLUSION

The AN Islands are popular among tourists for undertaking adventure activities like sea walk, snorkeling, scuba diving and so on. It is among the best tourist destinations in India for honeymoon and nature lovers. Andaman is emerging into a main tourism hub in India competing with other states in India like Goa, Kerala and Tamil Nadu. For the expansion of tourism industry, the destination requires to be marketed effectively by undertaking advanced promotional techniques. Apart from marketing, the government must also look into the development of the Islands with the purpose to increase the number of visitors.

REFERENCES:

1. 1. Travel and Tourism Economic Impact 2018-India, World Travel and Tourism Council, pg.1. Retrieved from:
2. <https://www.wttc.org/-/media/files/reports/economic-impact-research/countries-2018/india2018.pdf>
3. 2. Tourism Statistics - 2016, Directorate of Tourism, Andaman and Nicobar Administration.