

Assessment of Variables in Measuring Tourist Infrastructure

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Key Words:

1. Tourism Development,
2. Tourist infrastructure,
3. Tourism Management,
4. Satara and Tourist
5. Services and Amenities.

Abstract

Tourism is one of the fastest mounting industries in India and Worldwide. Satara district is situated in the western India state of Maharashtra. It has a number of worth seeing tourist destinations but only prominent are noticed and visited by tourist. There is an opportunity to develop unexplored worth seen tourist destinations by giving cognizance to the tourist infrastructure. It was a task to structure the tourist amenities and facilities for exploring newer tourist destination. To probe into the depth of these connected amenities and facilities researchers have gone through the review and noticed 54 variables under 10 heads of tourist services and amenities. Of this researcher has selected 33 variables under nine heads for the present study. The one head 'Visa, Immigration and Custom' carrying 6 variables excluded as these facilities not at all required to tourist to visit the locations in Satara district. The researcher found only domestic respondents during the visit. This head may essential to a foreign visitor. An objective of this paper is to check the viability of these 33 variables under nine heads viz. Air facility, Rail facility, Road Connectivity, Civic Administration, Traffic and Transport Management, Tourist facilities, Taxes and permits, Maintenance and Management of Tourist Attraction and Other services. To check the viability of compilation of these variables i.e. tourist facilities and amenities of tourist destination responses taken towards the importance of tourist amenities on a five-point scale from 326 tourists of 10 destinations of Satara. Opinions were analysed by using factor analysis. Nine factors have been extracted using the principal component method, which explains 68.96% of the variance. Extracted nine factors were labelled as, 'Civic Infrastructure', 'Tourist Infrastructure', 'Accommodation and Taxes', 'Management of Tourist Attraction', 'Transportation Link', 'Quality And Convenience', 'Guidance And Conservation', 'Essential Service' and 'Peripheral Service'.

INTRODUCTION

Tourism is one of the fastest growing industries in India and Worldwide. This industry has encouraging economic impacts on the destination countries. Tourism is a powerful economic force providing employment, foreign exchange, income and tax revenue. Its multiplier effect for a city, a state, a province, a country, is becoming increasingly competitive as more and more destinations look at tourism to become the new economic generator replacing declining activity in agriculture, mining, and manufacturing (R. Goeldner, 2000). The district of Satara is located in the western Indian state of Maharashtra spread across an area of almost 10484 square kilometres. It has a rich heritage,

serene beauty, and vigorous climate, which have made a paradise for tourist. The district has a number of tourist destinations to attract tourist. Panchgani and Mahabaleshwar are the most popular hill stations of Maharashtra that drive good tourist flow. Tourism as a service industry comprises of several allied activities, which together produces tourism product. It is hard to determine the need of several allied activities for Satara district, which drives the tourist to the destination. This paper deals with an assessment of tourist infrastructure at Satara. Thirty-three variables of tourist infrastructure suitable owing to nature of destination were processed by using factor analysis and with a purpose to understand perquisites of destination.

REVIEW OF LITERATURE:

To check the viability of variables in measuring tourist infrastructure factor analysis methodology is executed. Therefore the methodological review of literature depicted to understand factor analysis to extract variables in tourism. Tsung Hung Lee (2009), Study examines a behavioral

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model of tourism by using variables of the destination image, attitudes, motivation, satisfaction and future behaviour for tourists. Exploratory factor analysis of the multi-item dimensions of attitude and satisfaction performed to reduce the number of variables in the overall model, principal axis factoring was used as recommended behavioural research.

Alberto A. Lopez-Toroa, Rocio Diaz-Munoz and Salvador Perez-Moreno (2010), Verifying the validity of the tool used, to identify the factors and dimensions of the quality of a tourist destination and their importance from the tourist's point of view, where perceived quality involved 72 items which summarized the tourist destination and elaborated with tourist value chain and SERVQUAL. Factorial analysis is the main component of this study due to multidimensional characteristics of tourist destinations.

(Shraddha, 2009). The study identifies key forms of training using factor analysis and examines their managerial implications. (Bawa Summinder Kaur, 2012) and (Malika, 2014) Factor analysis used and drawn seven key factors and labelled the same using Principle Component Analysis. (Bandyopadhyay Prabir Kumar, 2014) This paper aims to demonstrate the application of the principal component analysis (PCA) in determining the relative weights of the attributes/compensable factors in job evaluation.

The Ministry of Tourism, Government of India conducted a study on 'Infrastructure Gaps in Tourism Sector at Five Tourist Destinations in India Based on Perception of Tourists', (2010) with an objective to ascertain infrastructure gaps in five tourist destinations in Kullu-Manali, Himachal Pradesh; Guwahati including Kaziranga, Assam; Badami-Pattadakal-Aihole, Karnataka; Nanded, Maharashtra; and Chitrakoot, Uttar Pradesh and Madhya Pradesh so that these gaps can be filled and volume of tourists can be increased. The study has used 54 variables (Referend note) under 10 heads viz. 'Air Connectivity', 'Road Connectivity', 'Rail Connectivity', 'Civic Administration', 'Traffic and Transport Management', 'Tourists' Facilities', 'Taxes/Permits' etc, 'Maintenance and Management of Monuments/Tourist Attraction', 'Other Services', 'Visa, Immigration and Customs' to measure the importance and satisfaction level with tourist facilities, services and other amenities so to identify the infrastructural gap. To measure the opinion of tourists towards the importance of tourist services and amenities the five-point Likert scale was used to collect the data. '1' assigned for least important and '5' for most important.

METHODOLOGY

The paper aims to check the viability of compilation of 33 variables under nine heads viz. Air facility, Rail facility, Road Connectivity, Civic Administration, Traffic and Transport Management, Tourist facilities, Taxes and permits, Maintenance and Management of Tourist Attraction and Other services in measuring tourist infrastructure in Satara district comparing with previous research. Present study carried out during 2012-13 in Satara, a district place of Maharashtra State of India. There is less scope to change the preference of infrastructure in a short period by tourist to said locations. Researcher has referred the report of Government of India, Tourism Ministry 2010; where 54 variables are used to prepare the list of tourist services and amenities under ten heads. Out of 54 variables, under ten heads, only 33 variables, fewer than nine heads were considered and rest i.e. 21 variables and 1 head is not considered for this study. One deleted head was 'Visa, Immigration, and Customs' has six variables but fully excluded due to its limited applications for Satara destination as foreigners rarely visit. Rest 15 variables, three variables each of 'Air Connectivity', 'Rail Connectivity', and 'Traffic, And Transport Management' are not considered since Satara being a small town Air connectivity not at all available and Rail connectivity is inconvenient to tourist compare to road so least or not at all preferred by tourist to visit the destinations in Satara district. Few transport management variables are not applicable to a small town like Satara. In 'Tourist Facility', four variables are not considered. One each variable of 'Maintenance and Management of Monuments/ Tourist Attraction' and 'Taxes/permits' are also not considered. The researcher has considered the only comprehensive title, 'Air Connectivity' because only one airstrip is available at Karad (Dist. Satara) and regular flights are not available. 'Rail Connectivity' only a comprehensive title is considered, as Satara railway station is not convenient so not preferred by the majority of the tourist. Variables viz. 'Availability of Mass Transit System', 'Availability of Metered Taxi,' 'Behaviour of Taxi Drivers', under the head of 'Traffic and Transport Management' are not taken into consideration as transport options are limited. Variables viz. 'Availability of A/C Tourist Coaches', 'Availability of Luxury Hotels', 'Availability of Budget Hotels', 'Behaviour of Officials Available at Tourist Reception Office', 'Level Knowledge of Officials at Reception Office', 'Quality of Help Provided By Reception Office' under the head of 'Tourist Facility' are not considered



because Satara is rural based district with limited scope for luxury hotel and budget hotel and there is no special tourist office available to look after the tourist reception counter for guidance. Variable 'Luxury taxes' under the head of 'Taxes and permits' are omitted by considering that very few services having luxury taxes are utilised by tourists. Variable 'Illumination of monument' under the head of 'Maintenance and Management' is not considered for the reason that any monument is illuminated to attract the tourist.

Thus, researcher had taken total 33 variables out of 54 variables, which were compiled under nine heads by Ministry of Tourism, Government of Report, viz. 'Air Connectivity', 'Rail Connectivity', 'Road Connectivity', 'Civic Administration', 'Traffic and Transport Management',

'Tourist Facilities', 'Taxes/Permits', 'Maintenance and Management of Tourist Attraction' and 'Other Services'. This study is conducted in Satara, the state of Maharashtra, India. 326 tourists' samples were selected from 10 destinations of Satara viz. Mahabaleshwar, Panchgani, Pratapgarh, Wai, Kas, Koyna, Sajjangarh, Thoseghar, Ajinkyatara and Aundh. Tourists were interviewed on the respective sites of destinations. The purposive sampling technique was used. Opinions were assessed on importance using five-point Likert scales. Data processed by using factor analysis, Principal Component Analysis, and rotation with Varimax. The criteria used for considering the factors was Eigenvalues which had to be more than 1 and the Factor Loading value had to have the Absolute value more than 0.5.

(n= 26)

Table 1: Reliability Statistics of the Study Variables

Sr.	Tourists' Satisfaction on following facility	Scale/ variable	Reliability	Items for final scale
1.	Air and rail connectivity	2	*	2
2.	Road Connectivity	2	0.617	2
3.	Civic administration	5	0.733	5
4.	Traffic and Transport Management	4	0.505	4
5.	Tourist Facilities	7	0.892	7
6.	Tariffs/Taxes/Permits	2	0.721	2
7.	Maintenance and Management of Tourist Attraction	5	0.763	8
8.	Other Services	2	0.578	2
Tourists' perception towards importance of following facility				
9.	Air and rail connectivity	2	0.770	2
10.	Road Connectivity	2	0.486	2
11.	Civic Administration	5	0.822	5
12.	Traffic and Transport Management	4	0.879	4
13.	Tourist Facilities	7	0.905	7
14.	Tariffs/Taxes/Permits	2	0.966	2
15.	Maintenance and Management of Tourist Attraction	8	0.763	8
16.	Other Services	2	0.510	2

Source (Compiled by Researcher)

* - Reliability cannot be calculated

From table 1, serial 1 to 8 shows the current satisfaction level of tourists' about tourist services and amenities. The researcher has calculated its reliability under various predetermined heads to get in-depth insight into the nature of facilities and amenities. The score lies in between 0.505 to 0.892 which mirror the validity of collected data. Similar to this, the researcher has observed importance

level about the same tourist facilities and amenities under different headings from serial 9 to 16 with 33 items. It confirms a reliability score in between 0.486 to 0.966 mirrors its strength of validity.

Data Presentation:

KMO and Bartlett's test has been used to find data adequacy for factor analysis, which comes to 0.784, shows data adequacy for factor analysis.



Table 2: Principal Component Analysis.

Total Variance Explained									
Comp onent	Initial Eigen values			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	7.129	21.604	21.604	7.129	21.604	21.604	4.728	14.327	14.327
2	3.938	11.933	33.536	3.938	11.933	33.536	3.291	9.972	24.299
3	2.523	7.644	41.181	2.523	7.644	41.181	3.132	9.491	33.790
4	2.208	6.692	47.872	2.208	6.692	47.872	2.702	8.189	41.979
5	1.702	5.158	53.031	1.702	5.158	53.031	2.029	6.149	48.129
6	1.606	4.867	57.898	1.606	4.867	57.898	1.995	6.046	54.174
7	1.389	4.209	62.106	1.389	4.209	62.106	1.765	5.349	59.523
8	1.243	3.766	65.872	1.243	3.766	65.872	1.680	5.092	64.615
9	1.021	3.093	68.965	1.021	3.093	68.965	1.436	4.350	68.965

Extraction Method: Principal Component Analysis.

Source (Compiled by Researcher)

Reliability cannot be calculated

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2	3.938	11.933	33.536	3.938	11.933	33.536	3.291	9.972	24.299
3	2.523	7.644	41.181	2.523	7.644	41.181	3.132	9.491	33.790
4	2.208	6.692	47.872	2.208	6.692	47.872	2.702	8.189	41.979
5	1.702	5.158	53.031	1.702	5.158	53.031	2.029	6.149	48.129
6	1.606	4.867	57.898	1.606	4.867	57.898	1.995	6.046	54.174
7	1.389	4.209	62.106	1.389	4.209	62.106	1.765	5.349	59.523
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Extraction Method: Principal Component Analysis.

Source (Compiled by Researcher)

Table 2 depicts factor extraction by using Principal Component Analysis. Nine factors have been extracted using principal component methods, explains 68.96% of the variance. These results are matching with the report of

Government of India, Ministry of Tourism titled 'Infrastructure Gaps in Tourism Sector at Five Tourist Destinations in India Based on Perception of Tourists', June 2010.



Assessment of Variables

The rotated component matrix has been working out and find out the nine factors and the variables belong to every

factor. The factors have been derived and researcher has proposed the labels to those factors, which are mention in the following the table.

Table 3 Factor Structure of Assessed Variables (Tourist Services and Amenities)

Type of Variable	Factor Loading								
	F1	F2	F3	F4	F5	F6	F7	F8	F9
Factor 1: Civic Infrastructure									
Garbage Disposal	0.842								
Sewage and Drainage System	0.799								
Drinking Water Supply	0.795								
Traffic Management	0.780								
Condition of City Roads	0.746								
Condition of Traffic or Transport Signage	0.660								
Condition of Street Lighting	0.656								
Factor 2: Tourist Infrastructure									
Hygiene at Wayside Restaurants and Dhabas		0.806							
Availability of Petrol Pump		0.774							
Behaviour of Service Personnel at Wayside Restaurants and Dhabas		0.749							
Availability of Commercial Transportations		0.518							
Behaviour of the Drivers of Commercial Transportations		0.518							
Factor 3: Accommodation and Taxes									
Levels of Road Taxes on Vehicles (Tax Rates)			0.883						
Administration of the Road Taxes			0.875						
Availability of Hotels			0.634						
Behaviour of Service Staff at the Hotel			0.611						
Tariff Structure of the Hotel Rooms			0.559						
Factor 4: Maintenance and Management of Tourist Attraction									
Public Utilities at the Tourist Attraction			0.767						

General Cleanliness At Tourist Attraction and Area Around it				0.774					
Condition of Signage Within the Tourist Attraction				0.725					
Parking Facility at the Tourist Attraction				0.653					

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Condition of Signage Within the Tourist Attraction				0.725					
Parking Facility at the Tourist Attraction				0.653					

In Factor analysis, component first depicted the Eigenvalue, which is 7.129. It explains the variance of 14.33%.

Factor First comprises with variables 'Garbage Disposal, Sewage and Drainage System', 'Drinking Water Supply', 'traffic management,' 'Condition of City Roads', 'Condition of Traffic and Transport Signage' and 'Condition of Street Lighting'. Civic infrastructures are the first factor extracted from these seven variables

Component 2, the Eigenvalues is 3.938. It explains the variance of 9.97% including 'Hygiene at Wayside Restaurants and Dhabas', 'Availability of Petrol Pump', 'Behaviour of Service Personnel at Wayside Restaurants and Dhabas', 'Availability of Commercial Transportations' and 'behaviour of the Drivers of Commercial Transportations'. Tourist infrastructure is the factor extracted from these 5 variables.

Component 3 the Eigenvalues is 2.523 explains the variance at 9.49% consists variables 'levels of road taxes on vehicles', 'administration of the road taxes', 'availability of hotels', 'behaviour of service staff at the hotel' and 'tariff structure of the hotel rooms'. Factor 'Accommodation and Taxes' extracted from these 5 variables.

Component 4 the Eigenvalues is 2.208. It explains the variance of 8.19% consists 'public utilities at the tourist attraction', 'general cleanliness at a tourist attraction and area around it', 'condition of signage within the tourist attraction' and 'parking facility at the tourist attraction'. 'Management of Tourist Attraction' variable extracted from these 4 variables.

Component 5 the Eigenvalues is 1.702. It explains the variance of 6.15% Including 'air connectivity' and 'rail connectivity'. Factor Transportation Link is extracted from

2 variables. Component 6 the Eigenvalues were 1.606. It explains the variance of 6.05% including 'quality of roads', 'quality of wayside amenities available on this road' and 'public convenience along roads/streets'. Factor quality and convenience have extracted from three variables.

Component 7 the Eigenvalues is 1.389. It explains the variance of 5.35% including 'availability of trained tourist guide', 'behaviour of the guide at tourist attraction' and 'conservation of heritage site'. Factor 'Guidance and Conservation' is extracted from these 3 variables.

Component 8 the Eigenvalues is 1.243. It explains the variance of 5.09% including 'power supply situation' and 'telephone/mobile services'. Factor Essential Services is extracted from 2 variables.

Component 9 the Eigenvalues is 1.021. It explains the variance of 4.35% including 'promptness of ticketing window of the monuments/tourist attraction' and 'availability of authorised tour operators.' Factor Peripheral Services is extracted from these 2 variables.

FINDINGS AND DISCUSSION

Nine factors were found which are labelled as 'civic infrastructure', 'tourist infrastructure', 'accommodation and taxes', 'management of tourist attraction', 'transportation link', 'quality and convenience', 'guidance and conservation', 'essential service' and 'peripheral service'.

Comparing with reviewed scale, it has found that reviewed structure contains 33 variables under 9 heads and after factor analysis, nine factors were extracted some of the variables have shifted their place from one group to another group. The details are as follows,



First and second head from reviewed scale 'Air Facility' and 'Rail Facility' combines with one head after factor analysis and is labelled as 'Transportation Link'. 3rd head, 'Road connectivity' adds one variable of 'Civic Administration' viz. Public Conveniences along Roads/Streets and is labelled as 2nd head 'Quality and Convenience'. Fourth head, 'Civic Administration' adds two variables of the 5th head 'Traffic and Transport Management' viz. 'Traffic Management and Condition of Traffic or Transport Signage' and its one variable as shifted and labelled 'Quality and Convenience' and rests of these variables labelled as 'Civic Infrastructure'.

Fifth head 'Traffic and Transport management' has removed its identity since two variables viz. 'Traffic Management' and 'Condition of Traffic or Transport Signage' entered in 3rd label 'Civic Infrastructure' and two variables viz. 'Availability of Commercial Transportation' and 'Behavior of The Drivers of Commercial Transportations' so labelled 'Tourist Infrastructure'.

Sixth head 'Tourist facility' out of 7 variables, one variable viz. 'Availability of Authorized Tour Operators' shifted into 4th labelled head 'Peripheral Services' and 3 variables viz. Availability of Hotels, 'Behavior of Service Staff At The Hotel' and 'Tariff Structure of The Hotel Rooms' entered in one group and labelled 'Accommodation and Taxes' and rest remained in another group so labelled 'Tourist Infrastructure'.

Seventh head 'Taxes and Permits' entered with its variable into 6th labelled head 'Accommodation and Taxes'. Eighth head 'Maintenance and Management of Tourist Attraction' out of 8 variables 3 variables viz. 'Availability of Trained Tourist Guides', 'Behavior of Guides At The Tourist Attraction' and 'Conservation of Heritage Sites' entered into one group titled 'Guidance and Conservation' and variable 'Promptness At The Ticketing Window Monument/Tourist Attraction' entered into labelled head 'Peripheral Services'. However, rests of the variables remained into seventh head labelled 'Management of Tourist Attraction'.

Ninth, head, 'Other Services' remained into the only 9th head but labelled as 'Essential Services'.

In nutshell, seven variables are in the first factor, one variable of civic administration missed titled 'Public conveniences along roads/streets' and 2 variables of 'traffic and transport management' added into factor I. In the Second factor 5 variables are grouped out of these 3 variables are from tourist facilities and 2 from traffic and transport management. In the Third factor, 5 variables are grouped, out of these 2 are from taxes/permits category and 3 from tourist facilities. In Fourth factor, 4 variables are grouped all are from maintenance and management of tourist attraction. In Fifth factor, 2 variables are grouped and they are from the separate identity of air facility and rail facility. In Sixth factor 3 variables are grouped out of these 2 from road connectivity and one from public

convenience along roads/streets. In Seventh factor, 3 variables are grouped all from maintenance and management of tourist attraction. In Eighth factor, 2 variables are grouped they are from another service. In Ninth factor 2 variables are grouped out of these ones belong to tourist facility and one from maintenance and management of tourist attraction. Thus some of the variables remained in the groups and some of having shifted their place. The researcher has renamed group title as per nature of variables entitled into the group.

It is found that some of the variables are similar to earlier study but dissimilarity may be due to the difference in nature of destinations covered in the study. Ten destinations have been covered which belongs to different category viz. waterfall, pilgrimage, flora, hill station, forts, holy place, historical place etc. Most of the destinations are not developed and are at remote places so tourists' preferred their own vehicles. Some services and amenities like petrol pump and commercial transportation, wayside restaurant and Dhaba, staying arrangement were not available at all.

Earlier study conducted at developed tourist site (Kulu-Manali, Himachal Pradesh; Guwahati including Kaziranga, Assam; Badami-Pattadakal-Aihole, Karnataka; Nanded, Maharashtra; and Chitrakoot, Uttar Pradesh and Madhya Pradesh) matches with few variables of the developed tourist sites (Mahabaleshwar and Panchgani) in Satara district.

It concludes that importance of tourist services and amenities differs from nature of sites and their stage of development. It is depicted in the following table

CONCLUSION

Nine factors extracted through rotated component metric and labeled as factor one 'Civic Infra', factor two 'Tourist Infra', factor three 'Accommodation and Taxes', factor four 'Management of Tourist Attraction', factor five 'Transportation Link', factor six 'Quality and Convenience', factor seven 'Guidance and Conservation', factor eighth labeled as 'Essential Service' and the last ninth factor labeled as 'Peripheral Service'. It is found that drawn results are by and large matching with reviewed data but with minor differences in the variables that shifted from one head to another so these are labelled with new titles. These differences occurred due to the difference in nature of sites covered under study. It suggests that importance of tourist services and amenities differs from site to site, or as the nature of the site, it changes. This result raised some issues to design and develop the services and amenities suit to each destination, indispensable services and amenities to the developed and undeveloped tourist sites, factors influences for perceptual change in tourism and so on.

Managerial Implications

A result of the study proves that norms or standard of tourist services and amenities would not be applicable to



all to develop the tourist location. Therefore needs to verify these amenities time to time before designing tourist infrastructure to develop the site. It also finds out that tourists preference of amenities based on the nature of the sites viz. nature site, historical place, waterfall, hill station, pilgrimage centre, holy place, world heritage site etc. Thus, to tap tourist flow one has to plan tourist services and amenities accordingly. The study facilitates variables to the researcher to assess the importance of tourist services and amenities as per the nature of tourist sites. Also to understand their expectation from a similar type of tourist destination. Thus would help to develop tourist infrastructure as per the requirement of that specific nature of tourist sites. As time passes the need, taste and preference of customer may change so should have the flexibility in designing tourist infrastructure.

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Annexure

1. Tourist Services and Amenities												
2. Kindly rate the following services, tourist facilities and other amenities of the tourist destination on the scale of 1 to 5 based on the satisfaction levels; 1 for Poor, 2 for Unsatisfactory, 3 for Average, 4 for Good and 5 for Excellent as well as importance levels; Importance level; depicts to what extent these services and amenities are important to tourist 1 for least important, 2 for somewhat important, 3 for not so important, 4 for very important												
Type of Facilities (If applicable register the response)	Q.No.	Facility	Kindly tick the appropriate column									
			Satisfaction Level					Importance Level				
			Poor	Unsatisfactory	Average	Good	Excellent	Least important	Somewhat important	Not so important	Very important	Most important
			1	2	3	4	5	1	2	3	4	5

How do you rate the level of satisfaction with its current status and importance levels in tourism?												
Air facility	1. 3.	Air connectivity Status	1	2	3	4	5	1	2	3	4	5
	Rail facility	2. 5.	Rail Connectivity Status	1	2	3	4	5	1	2	3	4
Road Connectivity	3. 7.	Quality of the Roads	1	2	3	4	5	1	2	3	4	5
	4. 8.	Quality of way side amenities available on this road	1	2	3	4	5	1	2	3	4	5
Civic Administration	5. 10.	Public conveniences along roads/streets	1	2	3	4	5	1	2	3	4	5
	6.	Sewage and drainage system	1	2	3	4	5	1	2	3	4	5
	7.	Garbage disposal	1	2	3	4	5	1	2	3	4	5
	8.	Condition of city roads	1	2	3	4	5	1	2	3	4	5
	9.	Drinking Water supply	1	2	3	4	5	1	2	3	4	5
	10.	Condition of Street lighting	1	2	3	4	5	1	2	3	4	5
11. Traffic and Transport Management	11.	Traffic Management	1	2	3	4	5	1	2	3	4	5
	12.	Condition of traffic or transport Signage	1	2	3	4	5	1	2	3	4	5
	13.	A availability of commercial transportations	1	2	3	4	5		2	3	4	5
	14.	Behaviour of the drivers of commercial transportations	1	2	3	4	5	1	2	3	4	5
Tourist Facilities	15.	A availability of authorized tour operators	1	2	3	4	5	1	2	3	4	5
	16.	Availability of hotels	1	2	3	4	5	1	2	3	4	5
	17.	Behavior of service staff at the hotel	1	2	3	4	5	1	2	3	4	5
	18.	Tariff Structure of the hotel rooms	1	2	3	4	5	1	2	3	4	5
	19.	Hygiene at wayside restaurants and dhabas	1	2	3	4	5	1	2	3	4	5
	20.	Availability of petrol pump	1	2	3	4	5	1	2	3	4	5

	21.	Behaviour of service personnel at wayside restaurants and dhabas	1	2	3	4	5	1	2	3	4	5
taxes/Permits	22.	Levels of road taxes on vehicles(tax rates)	1	2	3	4	5	1	2	3	4	5
	23.	Administration of the road taxes	1	2	3	4	5	1	2	3	4	5
Maintenance and management of tourist attraction	24.	Public utilities at the tourist attraction	1	2	3	4	5	1	2	3	4	5
	25.	General cleanliness tourist attraction and area around it	1	2	3	4	5	1	2	3	4	5
	26.	Condition of signage within the tourist attraction	1	2	3	4	5	1	2	3	4	5
	27.	Parking facility at the tourist attraction	1	2	3	4	5	1	2	3	4	5
	28.	Availabilty of trained tourist guides	1	2	3	4	5	1	2	3	4	5
	29.	Behaviour of the guides at the tourist attraction	1	2	3	4	5	1	2	3	4	5
	30.	Conservation of heritage sites	1	2	3	4	5	1	2	3	4	5
	31.	Promptness at the ticketing window of the monument/tourist attraction	1	2	3	4	5	1	2	3		
Other Services	32.	Power supply situation										
	33.	Telephone/mobile services	1	2	3	4	5	2	3	4		