

# INFRASTRUCTURAL GAP AT WORLD HERITAGE SITE 'KAS' IN MAHARASHTRA

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Kas of Satara district in state of Maharashtra in India is in World Heritage site getting trendy and attract large number of tourists from Maharashtra and from rest of India. Aim of paper is to indentify the infrastructural gap at Kas destination, to understand tourist profile and their travel pattern and to determine the tourist segment based on demographic profile. Two hypotheses are proposed to test H1: 'Lack of promotion hinders tourism development at Kas'. H2: There is significant difference in sample data for clusteration. Result of study shows the infrastructural gap in some of the services. Tourists are mainly from Pune, Mumbai, of the age group of 25- 45, self-employed and supervisor category. Most of them preferred personal car for transportation, vist with family and leisure was the purpose of visit. Their reliable source of information was Friends/relatives and preferred budgetary hotel for their stay. There is enough evidence to reject null hypotheses that 'lack of promotion, do not hinders tourist development of Kas'. Two clusters were sorted based on demographic Variable. The largest cluster consists male of 35-45 age group carrying officer/executive junior as an occupation. The ANOVA is significant with one variable occupation and not significant with gender and age group. So would accept null hypotheses that there is significant difference in collected sample at some extent at occupational category otherwise, they are identical.

**Keywords:** Tourism Development, Infrastructural gap, 'Tourist Services and Amenities', World Nature Heritage Site and Promotion

## INTRODUCTION

Kas is a destination in Satara district, state of Maharashtra in India with full of nature scenic beauty is now becoming popular among tourist. Figure of tourist's arrival confirms the same, i.e., in 2008-09, tourist arrival was 8972; 2009-10 it was 49,347, in 2010-11 was 129,927 and in 2011-12 tourist arrival rose up to 350,000. It shows the cumulative growth rate of tourist flow is in substantially high. Within short span Kas nature,

scenic beauty became popular and the United Nations Educational, Scientific, and Cultural Organization (UNESCO) considered in world heritage site.

Kas Plateau is one of the sites in the cluster of Sahyadri, which is spread in area of 1,142 ha. The site also has an exceptionally high level of biological diversity and endemism. It is known as one of the world's eighth "hottest hotspots" of biological diversity. The forests of the Kas include

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some of the best representatives of non-equatorial tropical evergreen forests, and are home to at least 325 globally threatened flora, fauna, bird, amphibian, reptile, and fish species. With its rare and rich natural and serene beauty, can attract large number of domestic as well as foreign tourist. Prime focus of study was to understand the infrastructural gap, to understand the tourist profile and tourist pattern who visit the destination. Researcher has set a two hypothesis to test,  $H_1$ : *Lack of promotion hinders tourism development at Kas* and  $H_2$ : *There is significant difference in collected samples*.

## REVIEW OF LITERATURE

There are opportunities, threats, and challenges to continue tourists' arrival growth speed. However, the need is to review quality of service experienced by tourism in the respective region and its contribution towards state. There is significant difference in the attitude rating in respect of various concessions, travel vehicle, and punctuality. (Mulla, 2003) In the case of opportunities, India has advantage of natural beauty, cheap labor, rich culture, different religions, festivals, heritage, ancient medical science Ayurveda, Yoga therapy, forts, palaces, museums, rich history, wild life sanctuaries, etc. Nevertheless, there is need to have a good marketing strategy for the growth of tourism industry (Patil, 1999).

Mahabaleshwar is well-known hill station of Maharashtra, which has secure place on the tourist map of India. There is substantial flow of tourist at weekends, summer and winter vacations. Panchgani which is in proximity to Mahabaleshwar is the hill station with number of residential schools, which are preferred by Bollywood stars and affluent people of adjacent

metros for their children's education. All these aspects make these hill stations prominent among the tourists. Research work orates on opportunity of destinations in tourism and hotel industry in respects of investment, purchasing power of local community, income and expenditure, development and growth of hotels, economical growth in hotels, and impact on employment. It shows the positive impact in economic growth and development of destinations. (Chaudhari, 1988). This evidence is sufficient to develop small hidden tourist site by improving infrastructure according the requirement of destination and not by the whims and fancy. Therefore, the most needful thing is to be focus by identifying infrastructural gap.

There was sizable increase in number of tourist at Panchgani, during a decade. Tourism development helped in development of economy of local people (Patil, 1991)

Mahabaleshwar and Panchagni hill stations drive good number of tourist flow, surroundings of Satara district has tourist destinations, viz., forts, dams, windmills, flora, bird sanctuary, Koyna wild life Sanctuary, etc. Kas Plateau currently addressed for its rare flora by UNESCO and the destination is added in World Heritage site list. Therefore the author thought to identify the infrastructure gap.

However, infrastructure is the important area of tourism. More flaws were in international connectivity and condition of airports serving the destination/circuit, poor cleanliness in and around the tourist sites. The gaps in the traffic signals, availability of budget hotels for stay, traffic management, and conveniences along streets. They were also concerned about general cleanliness of monuments and area around it,

general upkeep of the hotels rooms, and public utilities at the monument/tourist attraction. (Government of Indian, Ministry of Tourism, Division, Marketing Research, 2010). Similar conclusions were experienced in following study (Ministry Tourism). Studies were undertaken on only developed and well-known tourist destinations. Need arises to work on unexplored tourist location like Satara and its surroundings. The infrastructural gap is considered in this paper. Tourist facilities and amenities are considered from reviewed research paper to measure the Tourists' importance and satisfaction for site. Natural scenic beauty and biodiversity did exist ages together but tourists did not pay any attention. Thus, hypothesis arose, 'lack of promotion hinders the development' of Satara district.

## RESEARCH METHODOLOGY

Aim of paper is to identify the infrastructural gap at Kas destination, to know the tourist profile, their travel pattern and to determine the tourist segment based on demographic profile. The schedule was designed with two sections and executed on 30 tourists at the site of destination. First section aims to understand the demographic profile of tourists and second relates with the opinions of tourists on tourism services and amenities at tourist destination. From the review researcher has come across 53 variables under 10 heads of tourist services and amenities but selected 33 variables of tourist services and amenities under nine heads to know the tourist perception about satisfaction and its importance to the tourist. Satisfaction levels was checked from poor to excellent and importance level from least important to most important on likert scale 1 to 5. Government documents have been considered to know the allotment and distribution of tourism funds.

Two hypotheses are proposed to test, i.e., 1. 'Lack of promotion hinders tourism development at Kas'. 2. There is significant difference in sample data for cluster.

The collected data was analyzed with the help of descriptive statistical tool and inferential statistics, i.e., percentage, mean, standard deviation, rank correlation, ANOVA. Set of hypothesis is tested with One Sample 't' test. Out of 33 variables, 29 variables applicable to destination are analyzed to check the reliability of the data. The reliability score is 0.723. In addition, made the efforts to determine the Clusters for the segmentation.

## DISCUSSION ON DATA ANALYSIS

### Kas as a World Nature Heritage Site-Background

United Nations Educational, Scientific, and Cultural Organization (UNESCO) considered 'Kas' in world heritage site. On Monday, July 2, 2012, the UNESCO had identified and added India's Western Ghats to its World Heritage List. Thirty-nine sites of the Western Ghats have been selected as heritage sites. The forests of the site include some of the best representatives of non-equatorial tropical evergreen forests anywhere and are home to at least 325 globally threatened flora, fauna, bird, amphibian, reptile, and fish species. The details of species consists plants 850, 10 animals, 19 reptiles, 30 birds, 32 butterflies and 39 other species exclusively found at Kas.

There was a proposal of Rs. 929.82 lakh for Kas Plateau in 2011-12 to District Forest Department by Indian Ministry of Tourism under Natural Bio-diversity Protection and Conservation. In 2010-11, Rs. 25 lakh was

budgeted for the construction of road, public toiletries and renovation at Kas, however, the actual amount spent was Rs. 15.8 lakh.

**Infrastructural Gap at Kas**

The perceptual satisfaction and importance of respondents towards infrastructure facilities is presented with the help of mean score, ranks and standard deviation (SD).

Table 1 depicts that tourists are satisfied with twenty-three facilities out of 33 as the mean score is more than 3 (quadrant 1<sup>st</sup> in the graph) and dissatisfied with ten services since the mean is less than 3. Among these facilities, tourists are strongly satisfied with the ‘telephone/mobile services’, ‘power supply’, ‘availability of petrol pump’, ‘behavior of driver of commercial transportation’ as they received first four ranks respectively. However tourist who visited to the destination are strongly dissatisfied with the services like ‘availability of trained tourist guide’, ‘air connectivity’, ‘condition of city roads’ and ‘public utilities at the tourist attraction’ as they received from 31 to 28 rank, respectively.

Above graph, displays that except one variable (Number 31) viz. Promptness of ticketing Window of the monuments/Tourist Attraction all laid in between IV quadrant and I. No single variable was found in II quadrant. Twenty variables appeared in first quadrant, which reflect high satisfaction and high importance. Out of them three variables are on average importance side and higher satisfaction, viz., ‘tariff structure of the hotel rooms’ (18), ‘administration of the road taxes’ (23) and ‘availability of petrol pump’. The services like ‘quality of way side amenities available on this road’, ‘public convenience along roads/streets,’ ‘general cleanliness,’ ‘condition of signage within the tourist attraction’ and ‘traffic management’ are close towards the average satisfaction and higher importance level. ‘Power supply’ and ‘telephone/mobile’ services both appeared on higher side of satisfaction and importance level. Twenty variables appeared in the fourth quadrant that shows their high importance and low satisfaction. Among these, viz., ‘Air’, ‘Rail’ and ‘Quality of Roads’. ‘ Garbage Disposal’, ‘Sewage And Drainage System’, ‘Condition of City Roads’, ‘Level

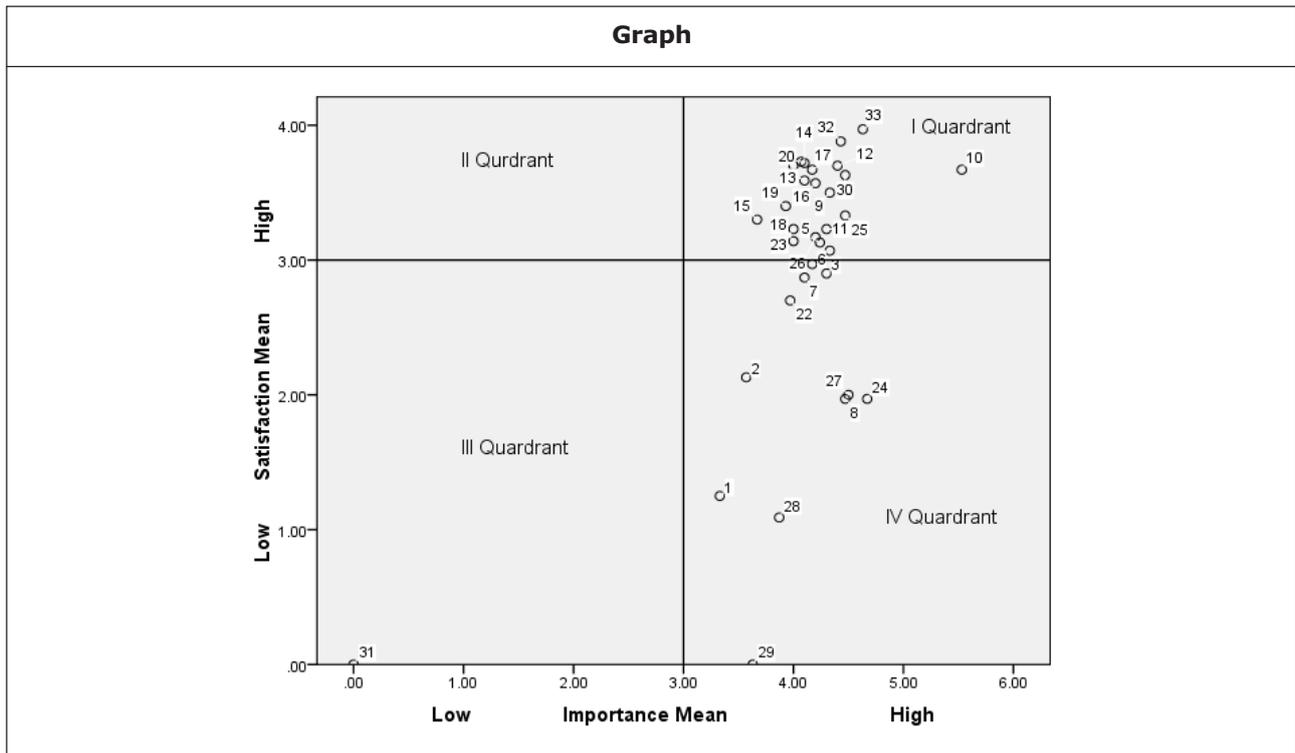
**Table 1: Tourist Profile and Travel Pattern**

1.	Tourist State of Origin	Maharashtra	86.67%	Other than Maharashtra	13.33%				
2.	Gender	Male	70%	Female	30%				
3.	Age Group	25-45	80%						
4.	Occupation	Self Employed	30%	Supervisory Level	23.33%	Middle Semi Officer and Executive	16.67%		
5.	Tourist Pattern	With Family	86.67%	Alone	3.33%	Group	10%		
6.	Size of Group	Up to 8							
7.	Purpose of Visit	Leisure	56.67%	Tourism	43.33%				
8.	Mode of Travel	Personal Car	73.33%	Train	16.67%	Bus	3.33%	Other	6.67%
9.	Type of Visitors	Overnight	50%	Day Visit/Excursion	50%				
10.	Expenses incurred	Rs. 500 to 1000 per person(93.33% of tourist)							
11.	Type of Hotel Preference	Budgetary Hotel	46.67%	Friends and Relatives	10%	Not Applicable	43.33%		
12.	Source Used to Know	Friends and Relatives (73.33%)							
13.	Type of Visit	1 <sup>st</sup> Time	93.33%	Repeat	6.67%				

**Table 2: Perception of Sample Tourist towards Importance and Satisfaction of Tourist Services and Amenities available at Kas**

S.No. Tourist Services and Amenities	Satisfaction			Importance		
	Mean	Rank	SD	Mean	Rank	SD
1. Air Connectivity Status	1.25	30	0.44	3.33	33	0.96
2. Rail Connectivity Status	2.13	26	0.68	3.57	32	0.86
3. Quality of the Roads	2.90	23	0.84	4.30	11	0.47
4. Quality of Way Side Amenities Available on This Road	3.07	21	0.91	4.33	9	0.48
5. Public Conveniences Along Roads/Streets	3.13	20	0.94	4.24	13	0.51
6. Sewage and Drainage System	2.97	22	0.89	4.17	18	0.46
7. Garbage Disposal	2.87	24	0.73	4.10	20	0.40
8. Condition of City Roads	1.97	28	1.13	4.47	4	0.57
9. Drinking Water Supply	3.50	12	0.51	4.33	9	0.48
10. Condition of Street Lighting	3.67	7	0.48	4.20	14	0.41
11. Traffic Management	3.23	16	1.14	4.30	11	0.47
12. Condition of Traffic or Transport Signage	3.70	5	0.84	4.40	8	0.50
13. Availability of Commercial Transportations	3.59	9	0.50	4.10	20	0.40
14. Behaviour of the Drivers of Commercial Transportations	3.72	4	0.70	4.10	20	0.48
15. Availability of Authorized Tour Operators	3.30	15	0.47	3.67	30	0.84
16. Availability of Hotels	3.57	10	0.73	4.20	14	0.41
17. Behaviour of Service Staff at the Hotel	3.67	7	0.55	4.17	18	0.38
18. Tariff Structure of the Hotel Rooms	3.17	18	0.65	4.00	24	0.26
19. Hygiene at Wayside Restaurants and Dhabas	3.40	13	0.67	3.93	28	0.25
20. Availability of Petrol Pump	3.73	3	0.64	4.07	23	0.45
21. Behaviour of Service Personnel at Wayside Restaurants and Dhabas	3.70	5	0.47	4.00	24	0.26
22. Levels of Road Taxes on Vehicles(Tax Rates)	2.70	25	1.06	3.97	27	0.18
23. Administration of the Road Taxes	3.23	16	0.57	4.00	24	0.26
24. Public Utilities at the Tourist Attraction	1.97	28	1.33	4.67	1	0.48
25. General Cleanliness Tourist Attraction and Area Around it	3.33	14	0.92	4.47	4	0.57
26. Condition of Signage Within the Tourist Attraction	3.17	18	0.87	4.20	14	0.48
27. Parking Facility at the Tourist Attraction	2.00	27	1.20	4.50	3	0.51
28. Availability of Trained Tourist Guides	1.09	31	0.30	3.87	29	0.97
29. Behaviour of the Guides at the Tourist Attraction	*	*	*	*	31	0.93
30. Conservation of Heritage Sites	3.57	10	0.50	4.47	4	0.68
31. Promptness at the Ticketing Window of the Monument/Tourist Attraction	*	*	*	4.20	14	0.41
32. Power Supply Situation	3.88	2	0.50	4.43	7	0.50
33. Telephone/Mobile Services	3.97	1	0.49	4.63	2	0.49

Note: \*As there were no facilities, so there was no response.



of Road Taxes On Vehicle’, ‘Public Utilities At The Tourist Attraction’ ‘General Cleanliness At Tourist Attraction’, And ‘Parking Facility At The Tourist Attraction’ and ‘ Availability of Trained Tourist Guide’ like facilities reflects higher gap, i.e., more dissatisfaction and high importance level. These facilities are needed to be developed.

Thus, it infers that quadrant IV is important to address in view of the fact that these parameters are most important and carries dissatisfaction in the perception of sample tourists. Variable number 8, 6, 2, 3, 1, 7, 22, 25, 27 and 28 need to be address, viz., Public Utility, Parking and Condition of City roads need to focus to remove infrastructural barrier in tourist development at Kas since it infers high importance and low satisfaction level to the tourist.

**Hypothesis**

*H<sub>0</sub>1: Lack of promotion hinders the tourist development at Kas.*

To test the set hypothesis researcher has constructed three statements, as there were no any promotional efforts for Kas. Opinion of the tourists have been collected and analyzed in following manner.

Result of descriptive statistics, i.e., perception of tourist orate that lack of advertisement restrict tourism development as the mean score is 3.87. Samples highly argue with that advertisement plays important role in tourism and need of promotional activities, as the mean score is 4.13. First two statements mean is above four with little Standard Deviation.

Following table shows one sample ‘t’ test of three statements.

The ‘t’ score of above three statements are 8.50, 9.87 and 7.54, respectively with a ‘P’ value 0.00, here the test is significant. It is sufficient evident to reject the null hypothesis. Hence, the null hypothesis is rejected, i.e., lack of promotion

**Table 3: Sample Tourist Opinion on Promotion at Kas**

One-Sample Statistics					
S.No.	Perception about promotion of Tourism	N	Mean	S.D.	Std. Error Mean
1.	Advertisement play important role in tourism	30	4.13	.73	.13
2.	Felt need of promotional activities	30	4.13	.63	.11
3.	Lack of advertisement restrict tourism development	30	3.87	.63	.11

**Table 4: Hypothesis Test of Kas Sample Tourist Opinion on Promotion**

One-Sample Statistics							
S.No.	Perception about promotion of Tourism	Test Value = 3					
		t	df	Sig. (2-tailed)	Mean Difference 95%	Confidence Interval of the Difference	
						Lower	Upper
1.	Advertisement play important role in tourism	8.50	29	.000	1.13	.86	1.40
2.	Felt need of promotional activities	9.87	29	.000	1.13	.90	1.37
3.	Lack of advertisement restrict tourism development	7.54	29	.000	.87	.63	1.10

**Table 5: Final Cluster Centers for Kas**

S. No.	Variable	Cluster	
		1	2
1	Gender	1	1
2	Age group	4	4
3	Occupation	8	11

destination hinders the development of tourism sector in Satara district.

In Tourism marketing at world heritage site, a Kas need to do the segments of tourist market. In cluster analysis, two clusters based on demographic have been sorted out. The details are as follows:

**Cluster Analysis**

Above table displays final cluster centers of two clusters per variable.

do not hinders the development of tourism sector in Satara district and the alternative hypothesis is accepted, i.e., lack of promotion of tourism

**Table 6: ANOVA for Kas**

S. No.	Variable	Cluster		Error		F	Sig.
		Mean Square	df	Mean Square	df		
1	Gender	.050	1	.223	28	.224	.640
2	Age group	.022	1	.605	28	.037	.849
3	Occupation	89.606	1	1.596	28	56.136	.000

Cluster One-consists of male belongs to 35-45 age group and occupied as self-employed professionals.

Cluster Two-male belongs to 35-45 age groups and occupied as officer/executive juniors.

$H_0: 2$  There is Significant Difference in Collected Samples.

To check the variation in sample tourist the ANOVA is used to test the proposed hypotheses. The presentation is as follows:

It shows that with 28 degree of freedom there is significant difference into the samples belongs to different clusters with respect to occupation and the insignificant with gender and age group.

## CONCLUSION

To the conclusion, Kas destination a world heritage site is fetching popularity among the tourist from Pune, Mumbai and its suburbs. Male tourists were more compared to female and all categories of people irrespective of their occupation have visited the site. Family tourists preferred more and have used personal car for their travel. They spent budget of Rs. 100 to 1,000 per person given that there were no accommodation and boarding facility available. Those who stayed preferred budget hotels of Satara. There were more first time visitors to repeaters. Tourist profile and Travel pattern indicates that Kas site is seen as 'Economical Tourist site', to attract large tourist flow from rest of India and foreign tourist there is need to meet the major infrastructural gap. Tourist services and amenities like condition of city roads, parking facility and public utilities at the tourist attraction. Hypothesis proved that lack of promotion hinders the tourism development at Kas. Two clusters were sorted based on demographic variables and

second Cluster carries highest percentage, i.e., 60% cases. Areas like How to develop Kas as a Nature Heritage brand, Motivators to attract world heritage site, Psychological influence to attract world heritage site gives scope for further study.

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