Visitor Management at UNWHS — A Case study of Taj Mahal

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Abstract

Studies have shown a significant increase in the number of visitors to the site after being featured on the UNWHS list which leads to visitation pressure and impacts thereof on the site. Visitor management at the UNWHS is the need of the hour. The paper aims to critically analyse the existing visitor management plan at the selected UNWHS - Taj Mahal, the second-best UNWHS in the world with more than 8 million visitors every year (timesofindia.indiatimes.com, tribuneindia.com, indiatoday. in, hindustantimes.com, 2017), and to suggest numerous proactive and reactive measures to bring about an effective Visitor Management strategy for the Site. The descriptive and exploratory research methodology has been used along with a mixed approach of both Quantitative and Qualitative Methods. Literature review of Visitor Management practices followed at UNWHS globally and an in-depth study of opinion of different groups – Site Managers, Travel agents, Guides, Visitors visiting the site helped conclude, that to defy the harmful impact of the visitation and to give an enhanced experience, an effective marketing plan with strict

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conservation and preservation practices have to be implemented in collaboration with locals, stakeholders and the government agencies.

Keywords: UN World Heritage Sites, Cultural Heritage Tourism, Visitor Management, Stakeholders, Preservation & Conservation

1. Introduction

United Nations World Heritage Sites (UNWHS) list, a process resulting from a 1972 multilateral agreement involving 175 countries, mentions the best natural and cultural sites of the world. Inclusion on this list is a huge honour and the greatest accolade that a protected area can receive (Shackley, 1998; Timothy & Boyd, 2003 as cited in Ruggieri, G., Calderon Vazquez, F.J. 2017). Since all World Heritage sites are outstanding cultural and natural landscapes, they are some of tourism's main attraction. The event, therefore, receives great media attention in the country of the site (Frey, Pamini, & Steiner, 2013 as cited in Ruggieri, G., Calderon Vazquez, F.J. 2017) as well as broad coverage on the Internet and social networks. The tourism machinery starts promoting the site and destination through promotional events organised by the government as well as other stakeholders of the tourism industry on all fronts, all poised to attract tourists. Therefore, although the list was established to safeguard and protect the cultural and natural heritage of universal value, studies have shown a significant increase in the number of visitors to the site after being featured on the UNWHS list. This increase in number leads to visitation pressure and impacts thereof on the site.

Despite the idea of the UNESCO mark perhaps being an inducing element of touristic acquisition of a place and turning it into a destination, previous studies have documented (Rodwel (2002); Lai (2013); Poria et al. (2013) a different perspective as their study challenges the idea of stimulating tourist demand. Also, studies conducted by Rodwell (2002); Lai (2013); Poria et al. 2013) indicates that recognition of WHL has no significant ability to attract tourists. In addition to this, scholars also argue that there may be an indirect or passive inductor of tourism, especially in little known or simply unknown places (Timothy & Boyd, 2003; Leask &Fyall, 2006;

Arezki et, al. 2009; Cellini, 2011; Frey & Steiner, 2011). Although there are such scholarly arguments on the impact of WHL as a stimulating factor of forming a destination, researches indicate that the impact is more based on the context of the destination, the socio-economic conditions and touristic acquisition of the place and the overall destination image.

The heritage sites on the UNWHS list feature some of the outstanding natural and cultural heritage of the world which results in piquing the interest of the visitors. The increased visitation to these UNWHS make the sites more vulnerable leading to degradation and at times, even digressing some of them to the danger list of UNESCO.

It is a challenge for the tourism industry, to bring about synergy to maintain a proportionate visitor count for these UNWH sites which will help defy the harmful impact of the visitation. Visitors are one of the key stakeholders in tourism and thus the need to understand them is fundamental in achieving tourism that is sustainable and ethical, hence stakeholders in the tourism industry need to have an effective Visitor management plan that maintains the visitor interest and flow without causing degradation to the site ensures that the true and original purpose of the UNWHS list is taken care of i.e. preservation and conservation of a heritage of universal value.

2. Visitor Management

Visitor management helps examine the visitor impact balance carefully by designing appropriate strategies that take into account the visitors' desires and expectations for genuine representations of reality. The key issues dealt with in visitor management are: controlling tourist flow, displaying cultural content, guiding identification direction, preventing disaster and damage, gathering tourists' opinions, this study points out that we should diverge tourists, and classify utilisation, and share information through digital management.

Now the visitor management plan has been widely accepted as an efficient tool for promoting sustainable cultural tourism products in historical sites all over the world. This rising interest in heritage tourism as put by Leask & Yeoman, (2004) has brought the conflict between tourism and the conservation of heritage places into focus.

2.1 Literature Review – Successful Visitor Management at WHS

To understand the significance of Visitor Management in UNWHS, extensive literature was reviewed to study the use of Visitor Management plans as introduced in UNWHS globally. The criteria of categorising the visitor management plan as successes and not a success story were dependent on the preservation and conservation status at the sites as well as satisfied visitor flow. Literature review put forward the good practices followed to save these sites as well as the vital role played by numerous proactive and reactive techniques of Visitor Management and conservation and preservation practices that were implemented in collaboration with locals, stakeholders and government agencies.

i.   **WHS Stonehenge in the U.K.**, a popular study by Young, Chadburn, & Bedu, (2009) suggested that to develop appropriate measures for traffic management, public transport network and associate facilities were designed, safety for pedestrians, motorists and cyclists at road junctions was increased, convenient pickup & drop off points were identified, speed limits next to the site were reviewed and parking was made free for pre-booked coaches.

ii. **UNWHS at Citadel of Salah El Dien at Cairo**, Egypt, in a study El-Barmelgy, (2013) cited that the start point of the visitation trip was changed to a defined point inside the Citadel, a building in the vicinity used as a Police museum was demolished as it had no historical and cultural value and access by private cars to the Citadel was banned, except in case of emergency cars.

iii. **At Vatican Church,** a state of art illumination and air conditioning system was unveiled to better show off the tourists the Sistine Chapel's frescoes and at the same time to

protect them from the dirt, breath and heat of nearly 6 million people who marvel at them every year (Times of India, 2014).

iv. **For WHS Petra in Jordan**, the measures recommended at the site were to make people aware of the accumulative slow effects caused by touching, stepping and random climbing. The signage and other interpretational material included statements for consequences for negative behaviour on the sites by the tourists and guides. To reduce congestion the group size was limited and limitations were also made on the length of stay at the site. Also, zoning of major biodiversity areas was initiated and stakeholders were involved in making tourists aware of ecotourism ethics.

v.   There are sites like Slovenia that include students from local schools in the management of the site and in Peru, where local inhabitants are trained as tour guides. At Sundarbans National Park in India, nylon fences have been put up to protect villagers from straying tigers and it is quoted as an example of Best practices.

vi. **Success Stories Mentioned by UNWHS on the website –**

a) **Angkor, Cambodia** is one of the most important archaeological sites in South-East Asia and was designated as the most popular UNWHS globally, ahead of India's Taj Mahal at number two (timesofindia.indiatimes.com, tribuneindia.com, indiatoday.in, hindustantimes.com, 2017). In 1993, UNESCO embarked upon an ambitious plan to safeguard and develop the historical site, carried out by the Division of Cultural Heritage in close cooperation with the World Heritage Centre. Illicit excavation, pillaging of archaeological sites and landmines were the main problems. These threats had been neutralised and now the site Angkor, Cambodia has removed the site from the List of World Heritage in Danger in 2004 (UNESCO, 2004).

b) **The Old City of Dubrovnik in Croatia** called the 'pearl of the Adriatic', dotted with beautiful Gothic, Renaissance and Baroque buildings was seriously damaged by artillery fire in November and December 1991. UNESCO provided technical advice and financial assistance, the Croatian Government restored the facades of the Franciscan and Dominican cloisters, repaired roofs and rebuilt palaces.

c) **The Wieliczka Salt Mine, near Cracow in Poland** has 300 kilometres of galleries containing famous works of art with altars and statues sculpted in salt, all of which were seriously threatened by humidity due to the introduction of artificial ventilation at the end of the 19th century. After nine years of joint efforts by both Poland and the international community, an efficient dehumidifying system was installed

d) **Cooperation at World Buffalo National Parks, Canada.** Parks at Canada has strengthened relationships with Aboriginal peoples by developing a network that engages Aboriginal communities in the planning and management of national parks, national historic sites and marine conservation areas.

3. Need of Visitor Management at Taj Mahal, a UNWHS of India

The Taj Mahal was declared a centrally protected monument of national importance in December 1920 (Management of World Heritage Sites, 2013). This UNWHS is a cultural heritage site of national importance, popular for its Indo-Islamic architecture; and has become more attractive to visitors because of its UN World Heritage designation. The tourist arrival at Taj Mahal is listed in Graph.1 (Data based on the total number of sold tickets taking into account that the children below 15 years and school-going children are free of charge)

Taj Mahal Tourist Arrival

Year	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18
No. Of Tourists DTV	5281560	5139640	5423990	4146313	5419608	5663136
No. Of Tourists FTV	743256	695702	648511	480008	668403	794556

Source: Compiled by Authors

Graph 1: Tourist Arrival at Taj Mahal

The data for visitor foot-fall at Taj Mahal reveals that the site stands at 1st position in India for receiving tourist for the last five years (years 2014-19) and hence shows the popularity of the monument. However, the trend shows that foreign tourists visit during the cooler months, from October to February, whereas Indian tourists were observed more during vacations in summer (May to June) and during Dusshera- Diwali- Christmas period (October to December).

- It has been observed that during the peak days, more than 50,000 Indian and foreign tourists visit the Taj Mahal (Dev, "Unruly hordes in Taj put a monument in danger", 2014). According to the Archaeological Survey of India figures, the site receives daily average footfall ranging between 30,000 – 50,000) and can be as high as 70,000 on holidays.

- The number of visitors is a cause of worry since even the treads of feet as well as touching and feeling the marble can cause wear and tear of the marble (thehindu.com 2015; firstpost.com, 2015).

- Visitor expectation from a site on UNWHS is not always met since there have been many accidents due to lack of crowd management as well as incidents like a massive copper and bronze chandelier fell off its hook, the heavy metal pinnacle of one of the four minarets crashed, large chunks of red sandstone fell off rusted clamps and so on (asianews. it, 2018; indiatoday. in, 2018; bbc.com 2018)

- Preservation and conservation activities at the monument are not possible with the huge influx of crowd at all times. The Monument is closed only once a week, after the court order and that is not enough time to maintain and preserve a monument of this magnitude and size.

- Research shows that for every 30 new tourists to a destination, one new job is created (WTO-ILO, 2014). Therefore, closing down tourism and visitations for the preservation and conservation of the Taj Mahal is not possible. A viable visitor management strategy for the monument is the need of the time.

- Also, most importantly, the site is the chief revenue earner among other historic and UNWHS – sites in India. According to Minister –State for tourism and culture, the monument earned over Rs. 200 crore (Jaiswal, 2019) through ticket sales for three years (years2016-19).

3.1 Objectives of the Study

The objectives of this paper are:

1) To identify the Visitor expectations and motivation to visit the site;

2) To examine challenges faced by ASI in preservation and conservation of the site due to visitors; and

3) To suggest a road map of Visitor Management at the site.

3.2 Research Methodology

To be able to gather the necessary data, the authors utilised the exploratory descriptive method, using both qualitative and quantitative approaches; and therefore, data were analysed according to its type. The interview and questionnaire transcripts were central to data analysis from three different groups –

i.   Visitor's visiting Taj Mahal at Agra,

ii.   Stakeholders i.e. Travel Agents, Guides and Escorts

iii. The administrators and conservationists/ Site Managers i.e. ASI

iv.   Data was also collected from secondary sources that gave an insight into the current status of visitor management, preservation & conservation at the site.

3.3 Scope of the study

The Ministry of Tourism is responsible for the development and promotion of Heritage sites and WHS in collaboration with other stakeholders. These sites confront many challenges owing to the involvement of too many stakeholders and lack of corporation and support among them; lack of trained manpower; lack of Civic sense and sense of responsibility among people. Interviews with ASI staff helped identify the problem with crowd management and the existing gap of Visitor Management strategies at this UNWHS.

3.4 Limitations of the Study

The limitations encountered other than the high personal expenses involved in frequently visiting the site, are listed below:

i.   The chosen site is the World Heritage designated site and is a 'must-see tourist attraction and hence could have influenced the results, especially from the visitors.

ii.   The tourist season is usually concentrated in the months from April to June & December to January both among domestic tourists and latter among International tourists. Therefore, data collection was restricted to these specific months to carry out the survey process.

iii.   There is the involvement of too many stakeholders for the upkeep and running of the sites, which resulted in a mismatch of figures especially the visitor arrival count at Taj Mahal.

iv.   The response to the survey questionnaire from the travel agents, guides/escorts and NGO's related to the sites was difficult to obtain because of their busy agendas.

v.   Lastly, there was a lack of interest from ASI staff in revealing details on expenditure and revenue collection at the sites.

vi.   Further, the data was collected pre – covid times and the answers from tourists and stakeholders may vary in present times.

4. Analysis &Findings:

The analysis of the primary data is in three sections based on the three different groups of samples.

4.1 Visitors to Taj Mahal

A substantial visitor sample size (273 visitors) was chosen among the visitors visiting the site with due consideration given to select Domestic (165) and Foreign (108) travellers in an almost equal ratio (60:40) for reliable information. Primary data was collected from visitors to the Taj Mahal to

i.   explore the possible motivations of visitors' decision to visit the Taj Mahal

ii.   find out the interpretation tools and activities that visitors would prefer on-site, to find a suitable visitor management plan.

(a) The **motivating factors** as proposed on the questionnaire were based on a literature review and a pilot study on another UNWHS. The mean ranking of the motivational factors was evaluated (Table.1) to identify the most and least motivating factor among visitors to Taj.

Table 1: Mean rank of Motivational parameters of visitors at Taj Mahal

Sl No.	Motivational Factors	Taj Mahal (Mean)
1	Historical importance	4.79
2	Knowledge acquisition	4.00
3	Popular tourist attraction	3.71
4	Family vacation	3.71
5	Relaxation/leisure	3.71
6	Part of the tour package	3.57
7	Obligation to visit a heritage site	3.01
8	Visit to UNWHS	2.94

The prominent motivational factors (Table .1) impacting visitor's decision to visit Taj is the Historical importance with the highest mean of 4.79 and can be adjudged as the most important motivational factor pulling the visitors. Keenness to acquire knowledge (4.00) about rich past related to the site, King Shahjahan's rule and his love for his wife also stands as prominent motivational factor. The site is popular among tourists all over the world because of its popularity quotient for among Seven Wonders of the World. The site is frequented by tourists as a family holiday and for relaxation/ leisure (all three with a scale of 3.71) with family & friends. The site is visited as it forms a prominent attraction among the travel plans of the tour packages (3.57) designed by travel agents and is usually clubbed with other attractions like Agra Fort and Fatehpur Sikri. Obligation to visit the site being native of India and its WHS designation was among the least contributing factors to influence the decision making for visiting the site.

(b) **Interpretation tools and On-site activities:** The visitor Preferences for interpretation tools and on-site activities already existing at the site and the new tools and activities they would like to introduce was measured. Their preference order helped to identify the expectation of visitor's visiting the Taj Mahal for an enhanced and better experience. To measure the visitor's preferences for

interpretation facilities and on-site activities, already existing at Taj Mahal, Independent samples "t" test was applied to measure the view for both DTV (Domestic Traveller) & FTV (Foreign Traveller). The mean rank for the preference for facilitators for interpretation and on-site activities for new was adjudged with Friedman's Rank test.

Part 1: Interpretation tools

(i) Tools already existing:

For Interpretation tools already existing, both DTV's & FTV's were found dissatisfied with interpretation facilities –

- like signage's(self-guided walks), as they felt that the signage's should be more elaborate and systematic giving more facts and figures about the monument e.g. the height of the dome, minarets, quantity of stones used, etc.

- Also, they were discontented with Audio guides and tourist licensed guides because of the repetitive content of audio guides, especially for repeat tourists and fear of being cheated and short of actual details and figures in their interpretation by the tourist guides.

- All visitors (DTV, FTV), however, were pleased with the facility of visitor centre depicting the Mughal Kings & Queens life through the display of objects originally used by them and paintings and availability and utility of guided books & brochures at the place were also found satisfying.

(ii): Preference for tools that visitors wish to have

Refer to table 2, The most preferred Interpretation tool of the visitors is the availability of a visitor centre (3.62) displaying exhibits from yesteryears, films and multimedia presentations showcasing the day-to-day life in past, what techniques were used to build Taj, from where and how the stone was brought, etc. Visitors have also given their preference to self-guided walks with the help of signage (3.27), over tourist licensed guides (2.19) and audio guides (2.87) as most visitors especially domestic and NRI's bring their extended families and children for repeat visits to iconic

Taj Mahal where they do not prefer a guided tour. Instead, they are keener to take their families on their own with the help of detailed information panels depicting the rich past of Mughals, the technicalities related to the monument in terms of height, weight, etc. The reason for showing less preference for licensed guide could also be attributed to the unavailability of trained guides, cheating and higher charges charged by them. Visitors have also shown a preference for the availability of guide books/ pamphlets (3.05).

Table.2: Friedman's Rank Test (for new Interpretation tools preference by visitors)

	Sl. No.	Interpretation Tool	Mean
Friedman's Rank Test	1.	Would like to have a Visitor centre?	3.62
	2.	Would like to have self-guided walk tours?	3.27
	3.	Would like to have guide books/brochures?	3.05
	4.	Would like to have Audio guides?	2.87
	5.	Would like to have a Tourist licensed guide?	2.19

Part 2: For onsite activities:

(i) On-site activities already existing

Only two activities (Light & sound shows and Viewpoints) are presently available at Taj Mahal, so preference for the same was found among domestic and foreign tourist through an independent sample – t-test.

The domestic visitors were happy with the light and sound show as they could link the activity with the history they have read and felt connected to, were as foreign tourists were not in favour of the show as they feel laser beam may affect the shine and colour of the marble building and hence preferred to see the monument in the moonlight. Also, both had a different opinion for viewpoint activity, where FTV's were happy as they said that these viewing points gave them a better chance to appreciate the magnificence of the site, whereas the study established that only a few domestic

tourists were aware of the spots from where Taj's beauty could be enjoyed. The fact can be attributed to lack of publicity among DTV's as against Foreigners who usually tend to take the services of Travel Agents who promote these exclusive viewpoints specifically among the foreign tourist who would prefer them and also keep them away from the crowd.

Table 3: Friedman's Rank test (On-site activities visitors will prefer)

	S. No.	On-site Activities	Mean
	1.	Would like to visit for designated viewpoints	7.00
	2.	Would like to buy personalised souvenirs	6.57
Friedman's	3.	Would like to watch plays/theatre	6.00
Rank test	4.	Would like to have Storytelling sessions	4.43
	5.	Would like to visit the light & sound show	3.86
	6.	Would like to dress up in Royal style	3.14
	7.	Would want a replica	2.86
	8.	Would like to have puppet shows	2.14

(ii) Preference for on-site activities visitors wish to have

Refer to table # 3, Tourists visiting the Taj Mahal preferred to view Taj at its best from designated viewpoints (7.00), highlighting the fact that people wanted to look at the magnificence and splendour of the memorial from all angles. The next choices being the availability of souvenir shops (6.57) selling personalised tokens and memento which is a nice way to carry the remembrances back home and cherish for a long time. Most tourists were in favour of organising plays/theatre (6.00) depicting stories of times of yore, which can be enjoyed by families with kids as tourism is a family affair and invariably in the company of children. Narrating stories (4.43) was preferred over puppet shows (2.14) and dressing up in royal style scored low (3.14) as tourist felt that such royal enactments, may be visually intrusive and might hamper the beauty of the monument. Less emphasis was also laid on having a replica of the monument (2.86), simply because visitors wanted to

visit Taj because of its beauty, grandeur and symbolism, which could not be achieved by looking at the replica. One of the other activities was the light & sound show (3.86) which showed partial satisfaction with the current shows being held in the evenings.

(a) Visitor Satisfaction:

This section measures and gauges the overall satisfaction of visitors and their interest to revisit and recommend the monument to others. Refer to table 4, when respondents were inquired about their intention to revisit the attractions in future, almost all of them were in favour of visiting Taj Mahal again (98%) while only a small portion of 2% was not inclined to come again. The inference (Reference table. 4) proves that respondents intent to revisit the Taj Mahal as they were among those who were satisfied with their trip (100%). Also, most repeat tourists had found tremendous changes as compared to their last visits and were happy with the same. Since no respondents were dissatisfied with their trip, almost all respondents intended to recommend the site (99%) to others as their travel destination.

Table: 4 Measures the overall satisfaction / intention to re-visit/ recommendation

Recommendation to others	273(99%)
Intention to revisit	273(98%)
Overall satisfaction	273(100%)

4. 2: Travel Agents (IATA)

The sample consists of 57 IATA approved Travel Agents at Agra and tourist licensed guides. There is a significant growth in case of domestic tourist arrivals, to an extent of reaching unmanageable figures on certain peak days. It is therefore, important to underline the role of travel agents and guides in promoting the site while finding possible visitor management solutions for the site. Due to the descriptive nature of this study, the exploratory technique of Factor Analysis was employed based on the assumption that the factors may be correlated.

Table 5: Factor Table

FACTOR 1 Heritage Significance	FACTOR 2 Distinct Significance	FACTOR 3 Majestic Significance
Architectural Importance of the site - .893	Wonder of the world - .772	Blend of Taj Mahal with charms of Agra city - .770
Mughal Heritage - .747	Incomparability of site - .421	Beauty of the site - .766
UNESCO WHS designation - .727	Symbol of love - .163	Magnificence of the monument-. 658

Part 1: The factor analysis identified three main factors for travel agents and guides as attributes to select Taj Mahal for their tourists. The first factor termed "Heritage significance" composed of other selection aspects related to the Architectural marvel of Taj which is considered as one of the most noteworthy factors engrossing both agents and the guides to recommend the site and to actively include it in their itinerary. The architectural aspect of the Mughal building popular for the inlay work, stunning design balance and noted for perfect symmetry, its elegant domes and intricately carved screens was another aspect along with the fact that the site is UNESCO World Heritage Site. The second factor termed as "Distinct significance" included the facts like the popularity of site for being a Seven Wonders of the World and a site which has no other match and is incomparable and lastly, is considered a symbol of love for people all over the world and stands testimony to the timeless love story of the 17th century Mughal Emperor, Shah Jahan and his wife - Queen Mumtaz Mahal. The third factor is the "Majestic significance" of the site as it is well-liked by agents and guides for the blend of its daintiness with the lively environment of Agra city, and the fact that the site is popular for its beauty and magnificence.

Part2: The recommendation parameter for Taj among agents and guides was found 100%.

4.3: Analysis & Findings of existing & plans of ASI

Interviews were conducted to provide qualitative information on current and future management projects and negative impacts caused by tourism.

(i) Status of preservation & conservation at the site (Performance Audit of Preservation and conservation of monuments & antiquities, 2013):

- Parts of Taj Mahal Agra closed to the public (with special reference to the burial chamber).

- Encroachment and unauthorised construction in and around the Taj Mahal as the Circle office failed to preserve the outer boundary of the Taj complex; specifically, some of the souvenir shops and houses share their boundary with Taj at the southern gate.

- Large nails dug into the wall and also cracks are noticeable in the outer walls,

- Broken stones fixed, missing designs, use of cement in the wall, seepage, fixing of plastic pipes, and broken jalis of the outer wall are evident reasons, depicting the preservation and conservation of the site has to be augmented.

- The status of solid waste management around the Taj Mahal is affecting its heritage value as reported by NEERI, in their study (2016) titled "Taj Mahal tourist impact assessment and carrying capacity". The study reveals a very dismal picture of sanitary facilities around the monument and added that open burning and dumping of waste by Agra Municipal Corporation (AMC) should be immediately curbed.

5. Observation & Findings:

In recent years, growing cultural-historical tourism has led to an enormous increase in visitation numbers at Taj Mahal, creating a whole series of conservation and management issues to be dealt with by site management. Since the site receives excessive visitors,

ASI projects their limitation for not getting adequate time and access for the conservation and preservation of the monument.

During the last three years (2016-19), ASI has earned more than 200 crores as revenue from the visitors. However, despite generating maximum resources amongst all the ASI monuments, the maintenance of the site is inadequate and the total expenditure incurred on the preservation and conservation of the Taj Mahal for the above said period has been only 13.36 crore.

5.1 Findings

Keeping in view the above data analysis and inferences following findings or critical issues need to be addressed on priority, as follows:

Sl. No.	Inferences from data	Findings
1.	Based on secondary data of tourist arrival statistics	Due to heavy crowd especially of DTV all year round and the specifically unmanageable crowd on festivals, holidays and weekends have resulted in the loss of open space, degradation of the historic site & loss of aesthetic value of attraction. The downward trend among FTV by 13% could be because of the above arising problems and is a matter of immediate concern for the authorities.
2.	Based on the Motivation pattern of visitors	Though Taj is a UNESCO WHS, most tourist's motivational pull towards the attraction was because of its historic importance, the knowledge they wanted to gain about the site's past and its architecture. Also, many visited because to relax and enjoy themselves with their family and friends.
3.	Based on visitors' preference for interpretation tools for the site	Interestingly, for interpretation tools both DTV & FTV had the same opinion for signage's, Audio and Tourist guides and felt the tools need to be made superior quality-wise by elaborate signage's, enhanced script of audios and provision of trained licensed guides.

		However, all visitors were pleased with a visitor centre and brochures availability and felt that visitor centre and self-guided walks with the help of signage's are the best way to interpret tales of Taj Mahal.
4.	Based on the visitor's preference for on-site activities at the site	Viewpoints to look at the opulence & richness of Taj Mahal and plays /theatre at the site premises were considered best preferred on-site activities along with carrying personalised (with one self's picture with Taj) mugs, t-shirts, key chains, etc as souvenirs back home. The satisfaction of FTV's for viewpoints and Taj at night experience reveals that both activities are not popular among DTV's and they still go by traditional ways of visiting and revisiting.
5.	Based on the visitor's intention to revisit, recommending the site to peer groups and overall satisfaction post-visit	The majority of visitors chose the site as a repeat destination, recommended the site to their near and dear ones and were overall contented with their trip to Taj Mahal.
6.	Based on travel agents and guides/escorts view	The recommendation parameters by travel agents and guides for Taj were the architectural marvel, grandeur of Mughal heritage, UNESCO World Heritage Site status and the site being a seven Wonders of the World and symbol of love. Apart from the site's visual values, travel agents included the site in their travel plan to showcase the life and culture of Agra city.
7.	Based on existing and plans of the management for amenities, preservation & conservation and the	Ever-increasing footfall has created serious preservation and management issues as site managers claim not getting adequate time to carry out the work. Also, ASI authorities were whipped (Dev, "Black spots on Taj, house panel

	overall status of the site	cracks whip on ASI", 2015)26 by the house panel for not playing their part. The money spent on conservation, preservation and management is negligible as compared to the revenue earned by the site.
		Even with ASI, CISF and Uttar Pradesh police deployed for maintenance, safety and security, the visitors are scared of being duped by touts especially foreigners travelling alone. Also, the entry of unapproved guides and photographers and touts in and around the Taj Mahal poses threat to the tourists.
		Encroachments, unauthorised Construction in and around the Taj Mahal, broken stones and jalis, seepage and Cracks on walls, Faded plaster and missing inlay designs, non-maintenance of fountain channels etc are few issues that have put the conservation of the site in danger.
		Since parts of the site are closed for the public, the satisfaction of visiting the complete monument is not there.
8.	Motivational parameters of tourists for visiting Taj Mahal	Top Reason: Historical Importance & Knowledge Acquisition Least Reason: Part of package & obligation to visit & WHS status

6 Suggestions and Conclusion

Visitor management at any Heritage site is as much about attracting visitors and managing their presence in and around the site; as it is about preserving and conserving the site while generating the finance for the same. Few suggestions for improving visitor experience while maintaining the UNWHS motto of preservation and conservation are given below:

1) **By issuing Permit only to licensed guides and photographers in & around the site premises by single**

government department: The entry of unapproved guides and photographers and touts in and around the sites should be banned. Further, Soni, Vardhan, Amruta, Swapnil, & Rao, (2016) reports that the Taj entrance is occupied by nearly 2,000 unauthorised photographers and touts who accost the visitors on the street and in the monument. It threatens the complex security, hence it is recommended to reintroduce a fixed number of allotments of licenses by the concerned authority to professional photographers and license of guides to be done by a single government department.

2) **Emphasis on the publicity of the sites highlighting their historic importance and UNESCO WHS designation:** Visiting heritage sites brings in individual satisfaction and enlightens them on their rich past. This amalgamation of ethnicity is the prime motivational factor in attracting visitors to find their legacy/ inheritance (Deci & Ryan, 2008). Marketing of the sites should be done as an emotional experience for those who understand its universal value as UN –WHS and to enrich visitors' knowledge of historical events or for those who seek an educational experience.

3) **Improvement of basic facilities at par with international standards**: There is a critical need to provide hygienic toilets at Taj Mahal, as the site offers a raw deal in case of facilities and they can be best described as 'basic'. It was found that toilet facilities maintained and run by private companies like "Sulab Sochalyas" are better maintained than the ones run by the Archaeological Survey of India. It is suggested by Aggarwal & Suklabaidya, (2016) that such facilities should be run on PPP (public-private partnership) mode for better maintenance and upkeep.

4) **Adding & customising the interpretational tools:** Interpretation adds value benefit to the total site visit, hence there is a need to customise the interpretation tools by marketers and heritage site operators to meet visitor preferences and motives and to have different experiences.

This, as reflected by the current research, could be achieved by providing visitors with different and new innovative approaches and gears of interpretation and facilities during the visit, as follows:

o **Use of Smartphones as Digital guides:** One of the prominent motivation factors for visitors to travel to WHS is to learn new things and to satisfy their inquisitiveness about distinct destinations as remarked by (Dallen J. Timothy, 2003). Also, WTO states that cultural tourism in form of study tours gives rise to new experiences and knowledge and is a major source of motivation and new technologies like the introduction of digitisation can make these processes more effective and beneficial -

  ▪ The authorities can save both cost and money in setting up and maintaining an in-house audio guide system

  ▪ Save visitors from hiring expensive apparatus by paying huge security deposits

  ▪ The facility is simple to set up, easy to use and includes features not available in standard audio guide systems

  ▪ Mobile phones being prime communication device nowadays will appeal to a large cross-section of visitors and can be easily put in sync with the Audio guide facility

  ▪ The authorities can also use the facility for putting bar code readers for defining time slots for visitors.

o **Installation of Visitor Centres**: The existing visitor centre at Taj should be made extensive keeping in mind the international and domestic tourist figures, their interest and for dispersing the ever-increasing crowd. The historic sites are vulnerable so through visitor centres, virtual tours can be created by showing visitors past of the sites without the physical presence of the visitors at the sites for longer durations (Guttentag, 2010), and simultaneously preserving

them. Taj Mahal has already introduced two-step entry fees due to which a visitor needs to pay an extra amount of 200/- in addition to the entry ticket to visit the main mausoleum; to restrict the visitors' footfall and wear & tear through touching of the walls of the mausoleum. Introduction of Virtual Tour of the mausoleum in the visitor centre or a centre specifically built for the virtual tour of the mausoleum for a price will ensure the protection of the monument while not affecting the visitor satisfaction associated with visiting a heritage monument. Virtual Tour can be similar to the one for Ajanta caves, made by IIT. Virtual Reality can prove to be the new age heritage preservation tool that can be of help in the conservation of WHS while meeting the goals of visitor satisfaction.

5) **Introduction of Historical enactments and activities at the sites**: Combining experiences at historic sites with either paid or complimentary attractions is an effective strategy by dispersing them all over the site and results in earning more revenue.

   o **Dressing up in Royal style:** Historical enactments like dressing up in royal style would give a better feel of the yesteryears to the tourist. Therefore, areas to be identified where such activity can be started without losing the sanctity of the monument.

   o **Plays/theatre and storytelling sessions for kids**: Organising plays or theatrical performances will help depict the history associated with the site which will be a good and easy way of learning about the bygone eras and at the same time would provide entertainment by introducing an element of variety in the visitors' itinerary. Also, through story sessions and plays the audience can be educated against graffiti, vandalism, touching and climbing the artefacts and structures.

   o **Light & sound show:** The light & sound show organised in the evening allows the visitors to see the monument lit up in the dark giving a glimpse of major

historical events of the past and projects the true magnificence of the structure.

o   Also, the Illumination of the monument, an activity initiated by ASI at Taj, where Taj can be viewed at night (www.tajmahal.gov.in/faq-taj.html)28 "Taj At Night" every month on a full moon. Visitor planning can be initiated at other places or for introducing new activities e.g. to begin Romantic view at Mehtab Bagh (Aditya.Dev@timesgroup.com, 2015). Hence, such professionally organised activities can result in a good historical feel for visitors and simultaneously give them a chance to feel the monument in its real sense.

o   **Availability of Souvenir shops:** By offering souvenirs in form of personalised mugs, t-shirts, key chains, bookmarks etc can give them a reason to involve themselves in an activity at a site along with carrying a fond remembrance of the attraction with them.

o   **Marking of designated viewpoints:** To enjoy the picturesque sight of the monument, the viewpoints provide the tourist with a unique experience. Many organisations like "Agra Beat", "Viator" (Lonely Planet, 2016), et al have come up with a solution by identifying places from where visitors can have a wonderful view of the Taj Mahal. Such organisations need to be highlighted by the stakeholders.

6) Monitoring visitor flow:

By controlling visitor numbers and visitor flows the sites will be able to take a scientific approach to be organised and managed site thereby reducing the impacts.

o   **Proposing time limits during peak seasons or round the year:** Specific time limit of visitors' utilisation of the site needs to be determined either per day or per certain period (the present study reveals that average time taken by a tourist at Taj is between 3-4 hours). However, the sites already provide annual, monthly and daily

visitor statistics where such reports are compiled into a general report for comparative purposes. Also, peak visitation days are calculated (weekends, Diwali and Christmas holidays in the case of Taj) based on which a certain warning should be issued and measures can be taken to reduce visitor flows. Aspects to be monitored on daily basis are entry/exit time of visitors to put a cap on the stay period inside the site premises.

7) **Economic Measures:** The steps to have financial ease for the visitors are as follows:

o **Implementing differential pricing:** By lowering and raising admission fees as per off-season or peak season and during major festivals can be a feasible scientific operational method to decrease the visitor footfall on peak days and to increase visitors in lean season or on weekdays.

o **Introducing new walking trails to earn extra revenue:** Various activities can be kick-started at unutilised and open areas to help accentuate visitor's experience by providing on-site activities like by organising exhibitions featuring rich past of the monument and other such exhibits which projects the culture and social life of India, for example, textiles, sculptures and souvenirs from different states, and so on. This can be further augmented by creating a royal diorama by laying yester year's furniture pieces, textile, running water channels and fountains and lying down of dining and bedroom area in traditional style. Hence the open and unutilised area of the site can be divided into specific zones to facilitate tourism-related visitor activities to disperse tourists in a wider area and to help impart knowledge on the site and the importance of preservation of such sites.

8) **By optimisation of fees charged for various facilities:** Already ASI has initiated differential ticket fees by increasing the price of a ticket for domestic tourists as against the price earlier. Staggered pricing based on access to different parts of the monument is also introduced.

Along with it Pricing the tickets at the entrance, parking and for audio guides *based on time slots,* longer the duration used by the visitor, bigger the cost of the tickets. These *time-based slots can be as per the metro rail token or RTCs.* This will be an added initiative for visitors to spend less time inside, thus controlling the crowding problem inside the premises.

9) **Heritage for all:** Some cannot afford the higher-priced tickets and at the same time we have visitors, especially local who visit the monument often. In deference to the idea that culture and heritage belong to all, a digital and online monitoring system can be initiated wherein, one can visit the monument as many times as they wish but the ticket price will be increased on each visit. This will deter the locals and people nearby to treat this WHS as a picnic or outing spot to be visited often. The digital booking based on the passport for foreign tourists and any identification card for the domestic visitor will ensure that culture and heritage become accessible to all and not just the one with economical means.

10) Joint working by ASI, U.P.T.D.C, Agra Municipal Corporation (AMC), Uttar Pradesh Police force and Tourism Associations is utmost for effective visitor management and to evaluate the best potentials for sustainable tourism at each site, by applying visitor management tactics.

Concluding Points

A review of literature has brought forth the fact that the tag of the UN World Heritage Site usually adds to the number of tourist footfalls at a heritage site. In the case of the Taj Mahal, the tag of UNWHS does not play a major role in visitor's motivation for visiting the monument. In this case, at least, being on the UNWHS list is of less concern and being one of the 7 wonders of the Old World is more important. The site is on UNWHS and the concept of the same needs to be promoted among the potential visitors, not to value the Taj Mahal more but to promote other monuments in

India who are on the list and not known or as popular among the visitors and tourists. The concentrated effort of promoting all the UNWHS monuments might be one way of spreading the visitors who motivated to visit UNWHS.

Taj Mahal remains popular in the mind of the visitors for its outstanding universal values featuring the architecture, artistic blend, and stories of love and promise. Although differential pricing as a method of visitor management strategy as well as a cap on the number of domestic tourists visiting Taj Mahal per day has been put in place, there is still more scope to make heritage accessible to all by making differential pricing time-bound and linked to identity card through digital ticketing.

Visitors prefer self-guided tours with the help of signages for the fear of being cheated or missing out on something. This also leads to a lot of people moving within the premises for a long time without any guidance. Visitor management needs that tourist's inflow and outflow continues so that there is never too many visitors at the same time and for that building trust for the licensed guides is essential. The fear of missing out can be managed by providing the tourists with a printed tour plan before the guide starts the tour. The best initiative of visitor management at the site would be through responsible tourism wherein the travel agents, tour operators, as well as officials, educate tourists before they enter about acceptable behaviour and the amount of time that can be spent. In the case of digital ticket booking, information can be shared online. Preserving this heritage monument is as much the job of the visitors as it is of all other stakeholders

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