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# Towards Foreign Tourist at Heritage Sites Using GIS: A Case Study of Lahore

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#### **Abstract**

Pakistan is potentially a good tourist destination for cultural and heritage overs because the Indus and Gandhara Civilizations, and a great Mughals heritage also exists in Pakistan particularly in Lahore city. Tourism is the fastest growing industry in modern world. This study is based on the number of foreign tourist who visited the heritage sites of Lahore. The purpose of the study is to examine the number of foreign tourist who visited the heritage sites of the Lahore at Shalimar Gardens, Lahore Fort and Lahore Museum and to find the tourism trend in Lahore whether it is declining or growing high. The secondary source of data was used and data was collected from archeology department, Lahore Museum and Pakistan Year Book of Statics 2014. Tools used for research purpose were Microsoft excel, Microsoft word and ARC GIS. The number of foreign tourists that visited Lahore fort were highest in 2006 i.e. 21,178 this is the highest number of tourists who visited Lahore Fort in 15 years and 2906 lowest number of foreign tourist who visited Lahore fort, at Shalimar Gardens highest number of foreign tourists was 8558 in 2000 and the lowest number was 309 in 2013 and at Lahore Museum in 7242 tourists is the highest number of Foreign tourist who visited museum in 2000 and the lowest number of foreign tourists that visited Lahore Museum was 1825 in 2010. The trend of foreign tourism in Lahore is declining after the incident of nine eleven due to terrorism. But now with the efforts of government and work of Walled city authority foreign tourism industry is growing in Lahore as it is the Queen of cities having major and attractive heritage places for tourist.

## **Keywords**

Temporal Analysis, foreign Tourism, Lahore Fort, Shalimar Gardens, Lahore

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Museum

## 1. Introduction

World tourism is considered as a significant factor in the economy of many nations. Today tourism related infrastructure in various parts of the country has improved the quality of life of the local people and helped to promote local arts and crafts. Tourism has contributed to increase awareness about conservation of the environment and the cultural heritage. At least 51,647 tourists, including 2350 foreigners, visited the Royal Trail inside Delhi Gate and other parts of the Lahore Walled City during 2015 [1].

People have always travelled to distant parts of the world to see monuments, arts and culture, taste new cuisine etc. The term tourist was firstly used as official term in 1937 by the League of Nations. Tourism was defined as people travelling abroad for period of over 24 hours. The word tour gained acceptance in the 18<sup>th</sup> century, when the Grand Tour of Europe became part of the upbringing of the educated and wealthy British noblemen. Tourism is a service industry, consisting of transportation, accommodation and hospitality [2].

Geographic statistics system (GIS) for the safety of countrywide cultural historical past and became accomplished a complete information base of the countrywide historical past homes that may be beneficial to the control process [3].

GIS software program permits spatial evaluation the usage of quite a few methods, the maximum famous include: overlay evaluation, spatial interpolation, spatial records exploration, warm spot evaluation, or kernel density estimation; this type of studies reveals utility in some of areas [4]. Using GIS software, the statistics may be visualized the use of many cartographic visualization methods, such as: cartogram, carto diagram, variety method, dot map, etc. [5].

GIS technology have played role for modernizing tourism based on applications using spatial maps and enables to query for desired information with unique way to visualize the data along with suitable analysis [6].

## 1.1. Tourism in Lahore

According to Punjab government website "Lahore is Queen of cities; others are like a golden ring, she the diamond. In the 12th century a poet imprisoned in Persia yearned for Lahore as for a woman: I want some velvet form which emanates the fragrance of Lahore. For longing for Lahore heart and soul faint within me". Lahore glory days started under the decree of Mughal emperor The Akbar, who ruled Indo-Pak subcontinent from 1556 to 1605. He shifted Mughal Empire capital from Delhi to Lahore in 1585 and afterward it remained the most important city of the Mughal Empire till mid eighteenth century [7]. Lahore is the second biggest city in Pakistan with a population of around 8 million. Lahore is a cultural hub of Pakistan and also called city of gardens, colleges and historical monuments [8]. The heritage of Lahore needs no portrayal.

The architectural heritage of Lahore, luxurious in their utilization of colors, textures, constituents, highbrow in dynamic application of elaborate formal clienteles and mystical in essence at once seduce the art lovers [9]. The tangible heritage attractions situated in Lahore are Lahore Fort, Shalamar Garden, Badshahi Masjid, Emperor Jahnagir Tomb, Lahore Museum, Noor Jehan Tomb, Anarkali Bazar, Hiran Minar etc. Similarly the intangible heritage includes languages, dresses, traditions and festivals are also the trademark of this city. The quantity and quality of heritage attractions exist in this city make Lahore a very important heritage tourist destination [8].

At least 51,647 tourists, including 2350 foreigners, visited the Royal Trail inside Delhi Gate and other parts of the Lahore Walled City during 2015. "A marked increase of nine to ten-fold of foreign tourists to the city has been recorded during the last four to five years", said Shahid Nadeem, the Director Administration of the Walled City of Lahore Authority (WCLA). The tourists visited there by foot and Rangeela Rickshaw and also availed themselves of the Tonga Service, according to a spokesperson of the WCLA. The 17th century Royal Bath was also discovered, conserved and inaugurated in the same year. Since its opening, around 20,000 of the total 51,647 tourists visited there by year-end. The WCLA has started the Rangeela Rickshaw and Tonga service for the promotion of tourism. Three photo walks, Jashn-e-Shahi Guzargah, Wekh Lahore and heritage festivals were also held in 2015 [1].

Since, Lahore is a capital city of Punjab province of Pakistan that is why a huge number of visitors from all over Pakistan visit Lahore on daily basis. People visit Lahore with different aims e.g., business, medical, jobs and leisure. Regardless the purpose of their visit, most of the visitors end up their trip while visiting heritage places of Lahore. Most famous heritage attractions in Lahore include Lahore Fort, Shalimar Garden, Lahore Museum, Badshahi/Royal Mosque, Emperor Jahangir Tomb, Hiran Minar, Anarkali Bazar etc. Having said that the tourism sector in Pakistan in general and Lahore in particular is unheeded from public and private sectors. Due to lack of marketing the visitors particularly the international visitors are not well aware about the treasure of heritage attractions in Lahore. Furthermore there are infrastructural issues in Lahore. As noted that in Lahore infrastructural facilities are not good enough, which is a big challenge in development of tourism industry. It is a big hurdle in promoting heritage tourism in Lahore. The quantity and quality of heritage attractions in Lahore can make Lahore a best heritage tourist destination in Pakistan. That is why it is the time to take some serious actions for the betterment of heritage tourism and to make Lahore a better heritage tourist destination.

In recent past, tourism has become one of the leading industries of the world. Whereas, heritage tourism is one of the fastest growing sectors in tourism industry.

The tourist attractions especially heritage attractions play an important role in heritage destination development. Lahore is the cultural hub of Pakistan and home of great Mughal heritage. It is an important heritage tourist destination in Pakistan, because of the quantity and quality of heritage attractions.

The empirical data collected form TDCP officials (section 4.4.1) also shows that these five attractions are the top visited monuments in Lahore. These heritage attractions are playing an important role in providing jobs and recreation opportunities to the locals of Lahore. According to the data collected from tourists (section 4.4.2.2), 83% respondents agreed that due to these heritage attractions, the local people of Lahore are getting more jobs. The section (4.4.2.3) shows that 66% respondents agreed that these heritage attractions provide recreation opportunities. These findings demonstrate that people in Lahore consider heritage tourism as an important economic and recreational field. This might not be the same in other heritage tourist destinations.

## 1.2. Operational Definitions

The Definition of Tourism varies source by source, person by person. There is no consensus concerning the definition of tourism. Nearly every each institution defines "Tourism" differently. But when it comes to explain it with the basic terms, we can sum it up as follows:

- "Tourism is a collection of activities, services and industries which deliver a
  travel experience comprising transportation, accommodation, eating and drinking establishments, retail shops, entertainment businesses and other hospitality services provided for individuals or groups traveling away from home."
- "The sum of the phenomena and relationships arising from the interaction of tourists, business suppliers, host governments and host communities in the process of attracting and hosting these tourists and other visitors." (Macintosh and Goeldner)

In order to prevent the disaccords to define "Tourism", [9] defined it as indicated below:

"Tourism comprises the activities of persons traveling to and staying in places outside their usual environment for not more than one consecutive year for leisure, business and other purposes."

#### 1.3. Aims and Objectives

- To identify the most visited heritage sites by foreign tourist in Lahore (Lahore fort, Shalimar Gardens and Lahore Museum).
- To find foreign tourism trend in Lahore.
- To Evaluation of foreign tourism in Lahore since 2000-14.

## 1.4. Delimitation

The data consisted of number of foreign tourists that visited the above mentioned sites in last fourteen years. Before the practice of data collection the researcher wanted to collect the data according to the national identities of the tourists arriving in Lahore but due to certain limitations the data collection was delimited to

the three major tourist's attractions. And the nationality vise record was not available in all the mention departments. The technique to record data according to the nationalities of foreigners is implemented from this very year so the data was incomplete and this year's data was not the requirement of the study.

# 2. Areas of the Study

#### 2.1. Lahore Fort

Lahore Fort is one of the most important tourist attractions of Lahore. It is situated in the north-west corner of old city of Lahore. Lahore Fort was built and demolished several times and its origin is still unknown. However the existing fort was built by the Emperor Akbar in 1566.

It was built on an area of 335 north-west and 335 meters north-south including covered area of 20 hectares, Lahore Fort reflects the zenith of the Mughals Architecture. Its art reveals a chain of memorials from Emperor Akbar (1556) to Emperor Aurangzeb (1707). Emperor Akbar used south-east area of the Fort as his official royal court. United Nations Educational, Scientific and Cultural Organization (UNESCO) enlisted it as world endangered heritage site along with Shalamar Garden in 1981 [10].

## 2.2. Shalimar/Shalamar Garden

Lahore is known as the city of gardens and one of the most significant gardens in Lahore city is Shalimar Garden (Asian Historical Architecture, 2015). The construction of Shalimar garden was completed in 1642, with record time of one and half year on orders of Mughal Emperor Shah Jahan and under the supervision of Khalilullah Khan. Shalamar Garden has three unique terraces which are descending from South to North. All three terraces are at 5 meters high one above the other with equal distance. These walkways have their own names like the upper terrace known as Farah Baksh which means "Bestower of Pleasure" in English, middle terrace is known as Faiz Baksh which means "Bestower of Goodness" in English and the lower terrace is known as Hayat Baksh which means "Bestower of Life" in English [10]. Another unique feature of Shalamar Garden is its fountains on all three terraces. These fountains mesmerize the viewers when they are in full swing. There are total 410 fountains in Shalamar garden and they get water from nearby canal, and discharge water into unbelievably grand white marble pools. The engineering of these fountains is its own kind and "even the contemporary engineers of today find it hard to comprehend the associated water system of the fountains even by referring the architectural blueprints of thermal engineering" (Pakistan Tours Guide, 2015). The fountains flowing give pleasant feelings to the tourists in really hot and long summer season of Pakistan. The upper terrace contains 105 fountains, the middle terrace is having 152 fountains and the lower terrace has the maximum number of fountains 153 [10].

Inside of Shalimar Garden there are many other buildings and each one of

them is unique in its own way. These structures were built for different purposes to serve the Royal family and the public. These buildings include Diwan-e-Kasho-Aam (halls of private and public audience), Hammam (Royal bathhouse), Aramgah (the resting hall), Begum Sahib Khawabgah (sleeping chamber of the Emperor's wife), Baradaries (the summer pavilions), two gateways and four Burj (towers). Shalimar garden is one of the best heritage attractions in Lahore to visit. UNESCO included Shalimar Garden in its world heritage site list along-with Lahore Fort in 1981 [10].

#### 2.3. Lahore Museum

The Lahore Museum was built during the times of British occupation and opened to the public in 1894. Its construction reflects Mughal-Gothic style and displays a complete cross section of the entire culture and history of the region. Several galleries display Mughal, Hindu, and British artifacts brought from various locations in Pakistan. Jam wood carvings, and Islamic works such as illustrated manuscripts, and Korans, as well as paintings, rugs, and metalwork are displayed. There are statutes of Buddha in various postures, including the priceless and intriguing Fasting Buddha. Various sculptures are exhibit from the Gandhara period, as well as a valuable collection of Mughal coins. Another unique feature is the collection of stamps issued by the Government of Pakistan during the past decades.

Most of the foreigners that visit Museum are from USA, Europe, Canada, China, Thailand Korea and Tibet. Museum displays the Gandhara civilization and life of Buddha (Archeology Department, 10.5.2016).

This article is aimed to identify the potential heritage attractions of Lahore for marketing of destination. Furthermore, the challenges being faced by heritage tourism in Lahore and on the basis of empirical data and theoretical discussion to suggest some measures to cope with these challenges to make Lahore a better heritage tourist destination.

## 3. Research Methodology

Research methodology is defined as the set of methodologies and procedures that are used for the collection of relevant data and information that is helpful for the researcher in building and developing his research work.

The topic of this study was "an evaluation of temporal patterns of foreign tourism in famous historical sites of Lahore (Lahore Fort, Shalimar Gardens and Archeology museum) from 2000-2014".

Study was a temporal analysis. Three famous heritage sites of Lahore and the number of foreign tourists were the researchable variables.

The study is descriptive in nature. The quantitative approach is used and no survey is conducted.

Research method is purely quantitative no qualitative method is used. All the data for the study is collected using secondary sources through cluster random

sampling.

# 3.1. Sampling Method

Researcher used convenient sampling in this study. In social science research one cannot study the entire population because of time and cost. That is why the researcher has to choose a "representative sample from the population of interest for observation and analysis" (Bhattacherjee, 2012 p. 65).

All the Heritage sites of Lahore were the population of the study. Lahore fort, Shalimar Gardens and Lahore museum were the sample of the study.

The data for the study was collected using secondary sources. Required Information was collected from government officials and departments. No data collection tool was used. The data was directly taken from the relevant departments and was analyzed. Therefore, source of data is secondary the data was collected from the Archeology department, Lahore Fort and Archeology museum Lahore. Yearly statistical book of Pakistan was also consulted in order to collect data. This statistical report is published by Pakistan bureau of statistics on annual basis.

Numbers of foreigners who visit the above mentioned sites purely for the purpose of tourism is approximately 5000 to 6000 per annum. Besides the tourists the number of foreigners that visits the mentioned sites is 4000 to 5000 per annum, these are those foreigners who come as official delegations. This information was given by the director of Archeology Department.

## 3.2. Data Visualization

To analyze the data researcher used Microsoft Excel and Arc GIS. Inductive method is used as the scientific approach of this study. The results of the data are presented through line graphs, pie charts, tables and maps. Mean is also calculated through excel to represents the highest and lowest value of data. With the help of trend line show the trends of foreign tourism in Lahore at Lahore Fort, Shalimar Gardens and Lahore Museum.

## 4. Results of the Study

The results are given in the form of graphs and tables. Result shows us the number of foreign tourists that visited three major tourist attractions of Lahore from 2000-2014. **Table 1** shows the number of foreign tourists who visited the three sites of tourism during year 2000-2014.

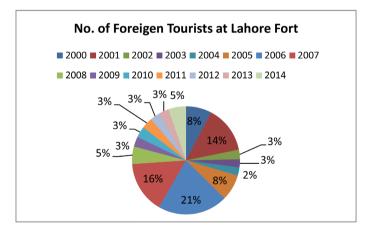
In **Figure 1**, pie graph shows percentages of foreign tourist in Lahore fort from 2000-2014. In 2006 there is the highest percentage 21 percent of foreign tourist that visit Lahore Fort and the lowest value is 3 percent.

In Figure 2, pie graph shows percentages of foreign tourist in Shalamar Gardens from 2000-2014. In 2000 there is the highest percentage 26 percent of foreign tourist that visit Lahore Fort and the lowest value is 1 percent in 2009 and 2013.

In **Figure 3**, pie graph shows percentages of foreign tourist in Lahore Museum from 2000-2014. In 2000 to 2001 there is the highest percentage 12 percent of

**Table 1.** No. of foreign tourist at Lahore Fort, Shalimar Gardens and Lahore Museum from 2000-2014.

Years	Lahore Museum	Lahore Fort	Shalimar Gardens
2000	7242	7706	8558
2001	7234	14280	3204
2002	2529	2906	319
2003	3285	2457	532
2004	5498	2457	672
2005	5741	7888	5957
2006	5625	21178	2374
2007	5564	15661	4648
2008	3107	5312	1711
2009	2023	3009	327
2010	1825	3305	359
2011	1944	3377	629
2012	2039	3068	525
2013	2577	2912	309
2014	2677	5350	2675
Mean	3927.33	6724.4	2186.6

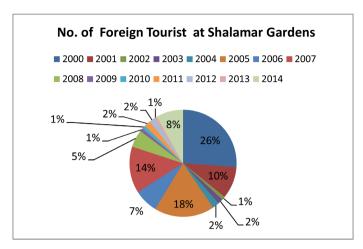


**Figure 1.** Percentages of foreign tourist at Lahore Fort from 2000-2014 (Source: Pakistan Year Book of Statistics 2014).

foreign tourist that visit Lahore Museum and the lowest value is 3 percent in 2011, 2010 and 2009. Number of tourists fall drastically during 2009 to 2014.

## 5. Discussion

The number of foreign tourism at Lahore in past fifteen years from 2000-2015 was not same. According to Ashfaq Khan; Tourism Officer (sales and tour promotion) the number of foreign tourist that arrived Lahore was approximately



**Figure 2.** Percentages of foreign tourist Shalamar Gardens from 2000-2014 (Source: Pakistan Year Book of Statistics 2014).



**Figure 3.** Percentages of foreign tourist Lahore Museum from 2000-2014 (Source: Pakistan Year Book of Statistics 2014).

7000 per year but the number of foreign tourists suddenly fell in 2011 due to terrorism threats. Tourism trends declined in 2001 due to the incident of 9/11 in USA. The trend of tourism improved after 2 to 3 years but again declined due to terrorists' activities and the negligence of government to invest in the field of tourism. But after that number of foreign tourist increased due to government efforts and WCLA works.

The Walled City of Lahore Authority (WCLA) has been promoting tourism and creating awareness on the heritage of the city through various activities for the last one year or so, creating a soft image of Pakistan. Tourism, particularly in the context of the arrival of foreign tourists, looks to be improving as a result Of these activities. About two years ago, less number of foreign tourists were visiting the Walled City. But the number jumped up in the six months, comprising tourism season October, 2015, to March, 2016, claimed WCLA Director (marketing and tourism) Asif Zaheer. A majority of these tourists consists of official delegates from foreign countries, including the United States. During the last 15

days alone, 50 independent foreign tourists other than the officials visited various parts of the Walled City. The number of local tourists also increased in the last season [1].

Since, Lahore is a capital city of Punjab province of Pakistan that is why a huge number of visitors from all over Pakistan visit Lahore on daily basis. People visit Lahore with different aims e.g., business, medical, jobs and leisure. Regardless the purpose of their visit, most of the visitors end up their trip while visiting heritage places of Lahore. Most famous heritage attractions in Lahore include Lahore Fort, Shalimar Garden, Lahore Museum, Badshahi/Royal Mosque, Emperor Jahangir Tomb, Hiran Minar, Anarkali Bazar etc. Having said that the tourism sector in Pakistan in general and Lahore in particular is unheeded from public and private sectors. Due to lack of marketing the visitors particularly the international visitors are not well aware about the treasure of heritage attractions in Lahore. Furthermore there are infrastructural issues in Lahore. As noted that in Lahore infrastructural facilities are not good enough, which is a big challenge in development of tourism industry. It is a big hurdle in promoting heritage tourism in Lahore. The quantity and quality of heritage attractions in Lahore can make Lahore a best heritage tourist destination in Pakistan. That is why it is the time to take some serious actions for the betterment of heritage tourism and to make Lahore a better heritage tourist destination.

#### 6. Conclusions

Findings of the study revealed that a large number of tourists visit the sites that are the object of this study. It shows that we can promote other objects of cultural and heritage importance just by putting some extra efforts and innovations. This will attract the foreigners towards other attractions in city and it will benefit the economy.

It is concluded from the research that some extra efforts in right direction will provide new horizons to the tourism industry in Lahore. In the annexure one the month wise data of Lahore Museum from 2003-2014 was being collected by The Lahore Museum shows that in month of august there were 570 tourist in 2005 and lower no of tourist 85 in 2011. The result of the current study suggests that there should be a serious efforts needed to align in facilities being provided must be improved accordingly. This study shows how latest techniques like GIS were employed to have clear insight about the future of foreign tourist in Lahore. It will help to improve management of tourist site in Lahore depending upon the quantum of attendance.

But there is a dire need to take serious and affective actions to promote the tourism in Lahore as Lahore is a city with a blend of tradition and modernity it spell bounds the person who tries to discover its hidden treasures. Lahore has rich culture and heritage associated with it. There are many sites that are worth seeing and attractive these sites allure the foreigners if government take some rightful and appropriate steps and provide attractive packages to the foreign vis-

itors our tourist industry will flourish by leaps and bounds and will support our economy.

## **Conflicts of Interest**

The authors declare no conflicts of interest regarding the publication of this paper.

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