A Study on the Experience of Foreign Tourist’s Visit to Museum Based on Online Reviews—A Case Study of 14 Museums in Beijing

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Abstract: Under the background of deep integration of culture and tourism, museum tourism activities have developed rapidly. This study analyzes the order of tourists’ focus and their views and attitudes toward various aspects of the focusing points when carrying out museum tourism activities, by analyzing the Word Cloud figure and the topic figure that generated by NVivo. Data abstracted from TripAdvisor’s tourist reviews on 14 museums in Beijing for the past 5 years. According to the results of the analysis, suggestions are put forward to improve the facilities, environment and service level of the museum. Hope to provide a perspective and reference for the study of museum tourism.

Keywords: Museum Tourism, Tourist Experience, Network Content Analysis

1. Introduction

Museum tourism is a form of tourism activities based on museums. It is a new form of tourism gradually emerging at home and abroad in recent decades. It makes tourism activities rise from general sightseeing to recreational activities with high cultural content. There are many museums in China, which are the concentration of our history and culture, and become high-quality tourism resources to attract tourists, especially tourists from different cultures (Chen Anze, 2013).[1] Under the circumstance of deeply integrating of culture and tourism, museum tourism has swiftly developed. According to the 2021 statistical bulletin of the Ministry of Culture and Tourism of the People's Republic of China on the development of culture and tourism, by the end of 2021, China had 5772 museums, 46648300 pieces/set of museum cultural relics and 748504500 visitors, an increase of 42.2% over the previous year.[2] The museum attracts many Chinese and foreign tourists to visit, it plays a vital role in cultural communication and exchange.

With the development of the internet, people are accustomed to search the relevant contents of tourism destinations, tourism resources, surrounding facilities and other relevant information on the internet as a reference for their "travel plan" before carrying out tourism activities. After completing their tourism activities, tourists will also share their own feelings and experiences about the trip, and evaluate the whole process of travelling in case to make a reference to others and share information. Therefore, online reviews provide an important data source for the study of tourism behavior. Some attempts have been made at home and abroad to study tourist experience and perception based on network content data, Xu Feifei (2018) studied the dimensions and importance of Nanjing tourism destination image through the analysis of 10077 online visitors' comments on Mafengwo website[3]; He Mengyan (2017) studied the experience perception attributes of cruise tourists in China's home port and their satisfiction level through the analysis of 4572 tourist comments on Ctrip[4]; Li Ting (2021) analyzed the image perception and its mechanism of tourism destination of Wutai Mountain after trip through the tourist reviews on Ctrip[5]; Gong Jian, Yang Shuyue (2018) collected 23496 scenic spots in China by integrating the review data of domestic online tourism platforms, analyzed and studied the development level of provincial tourism destinations[6]; Diana Foris and others (2020) put forward practical countermeasures for improving the hotel environment by analyzing 31800 tourist reviews published on Booking.com[7]; Luli van der Does and others (2020) analyzed the relationship between tourists' comments and collective memory and explored the behavioral motivation of tourists' spontaneous sharing of their travel experience through observation of online tourists’ reviews at the Hiroshima Peace Memorial for ten consecutive years[8]; Yang Huimin and others (2022) analyzed the experience of Caribbean cruise tourists in Phoenix Island, Sanya, Hainan...
through online tourist reviews and put forward constructive suggestions\[9\]. There are few studies on the perception and experience of foreign tourists to China's museums based on network content. This thesis selects the tourists' feedback on 14 museums in Beijing on TripAdvisor in the past five years, analyzes the foreign tourists' perception and experience of visiting museums in Beijing, puts forward corresponding suggestions based on the research results, and provides a new perspective and reference for cross-cultural museum tourism research.

2. Data Source and Research Methodology

The current study has collected 356 comments from 14 Beijing museums on TripAdvisor in the past five years, including Beijing Capital Museum, National Museum of China, The Antiquarium of The Palace Museum, National Art Museum Of China, The Chinese Museum of Women and Children, Military Museum of Chinese People's Revolution, China Science And Technology Museum, Geological Museum of China, Museum of Natural History, Ancient Observatory, Beijing Automobile Museum, Prince Kung's (Gong) Mansion, Beijing Planetarium, Art Museum of Stone Carvings. After preliminary collation, NVivo is used for analyze the network content. Network Content Analysis is a scientific analysis method, which organizes specific network text content and converts non-systematic and qualitative symbolic content into systematic, objective and quantitative data. This thesis mainly extracts the central idea through the analysis of the online text of the tourists’ comments, and analyzes the high-frequency words and topics of the content respectively, so as to obtain the tourists' experience of the museum more intuitively. Summarize and analyze the positive and negative feelings of tourists about the museum tourism experience from the data, and further propose corresponding strategies for the negative evaluation, providing reference for the improvement and promotion of the museum\[10\].

NVivo is a software that supports qualitative research methods and hybrid research methods\[11\]. Assist in the qualitative analysis of the content on the website by collecting, sorting and analyzing the tourist feedback content. In this study, NVivo is used to process data, Word Cloud figure and topic figure are generated through the analysis of high-frequency word and content. High-frequency word analysis mainly refers to the statistics of the number of words in the tourist reviews after word segmentation and filtering of meaningless words. The prominence of each high-frequency word can be seen through the high-frequency word cloud, so as to know the recognition and importance of the tourism image of the museum from the perspective of tourists; Select and analyze meaningful high-frequency words from the generated figure. Topic analysis refers to the classification of the online text content. The tourists’ comments are classified into different topics. Through the generated topic figure, the proportion and classification of different topics and categories in the overall comments can be seen. The relationship between each topic and sub-category can be clearly seen through the generated topic figure. There are several primary categories under each topic, and there are branches of secondary categories under some primary ones.

3. Focuses in Museum Tourist Feedback

The current study collects tourist comments from 14 museums in Beijing in the past five years on TripAdvisor, uses NVivo to process the data of online text content, and analyzes the tourist experience about the museum. The main findings include: tourists’ key concerns, the topics of tourists’ focuses, and some positive and negative experiences of tourists are reflected as well.

3.1. High-frequency Focuses in Tourist Feedback

The current study sorted and screened the high-frequency words in the tourists’ comments of 14 museums on TripAdvisor, nouns, verbs and adjectives are mainly included. High-frequency words can summarize the characteristics of museum image attributes and the emotional and behavioral characteristics of tourists.

The tourists’ attention to the specific contents of museums and exhibitions and their cognition of the history, characteristic and image of Beijing and China are frequently reflected in the tourist feedback. The most frequent words in tourist feedback are “museum”, followed by “China” and “Chinese”, then “visit”, “history”, “English” “ancient”, “Beijing”, “exhibit”, “worth”, “walk”, “spend”, etc. (see Figure 1). Words like “museum”, “China”, “Chinese”, “history”, “ancient”, “Beijing”, “exhibit”, “worth” and other words reflect the attributes, characteristics and functions of the museum. Many descriptions of the museum itself are included in the tourists’ comments, such as “The ancient China history part is
very well presented so I would say it gives a good overview of Chinese history.”, “Huge museum and full of interesting stuff especially the basement ‘ancient China’ exhibition.”, “This museum is by far the best museum in Beijing when it comes to Chinese History.”. This kind of words appears as the highest frequency in tourists’ comments, indicating that tourists pay most attention to the museum and exhibition itself when carrying out tourism activities[12].

There are also many descriptions of Beijing and Chinese history, characteristics, image recognition, such as “I enjoy the Beijing subway and the museum is the Tiananmen Square East exit.”, “A great place to visit to get a real flavor for Chinese history.”, “I found it easy to get to by subway. Exit at Military Museum Station of Line 1 or 9 (This is a cross-over station), and depart the station using Exit A or B.”, “You can take the metro to Forest Park South Gate, and walk for 10 - 15 minutes through the Beijing Olympic Park to get to the museum.”, “As Beijing is a starting point for many visits to China it is a good place to get your first overview of the various periods in Chinese industry (neolithic, Shang, Zhou, Han, Tang, Ming, Qing etc) through the surviving artefacts.”

There are a bunch of contents reflecting the tourists’ experiences and feelings in the feedback, high-frequency words such as “visit”, “look”, “walk”, “amazing”, “best” and “impressive” reflect the tourists’ behaviors and emotional attitudes involved in the process of sightseeing. For example, “This is the best museum in China, and when China builds almost anything, it is world class best”. In this comment tourist expresses the love and recognition for the museum, satisfaction with the museum, exhibition and related facilities was fully reflected. “I spent 4 hours in the Ancient China exhibit. The artifacts were absolutely amazing!”, “We found this museum absolutely fascinating!”, “We also checked out the porcelain collection and paintings on the ground floor, the scale of some was mind-blowing”. This kind of words reflects the positive emotions and behavioral characteristics of tourists during the museum tour. At the same time, tourists also pay attention to the tourist service and admission related matters of the museum, which is reflected in high-frequency words such as “ticket”, “line”, “passport”, “free”, etc. It is presented in the comments like “No tickets needed! Just pass through security where they check your passports and then through a set of doors for a physical security scan like the subways.”, “You have to go through security, and I mean like a customs area where they scan bags and check ID's to enter which allows you to go to all those 3 areas.”, “There is no entrance fee, but you need to show them your passport. You need to go through 2 security checks and then you are in.”, tourists’ focus on admission and tourist service was well presented.

In general, the tourist feedback involves tourists’ attention to the exhibitions and museums, as well as the characteristics and history of Beijing and China, tourists’ experiences and feelings during and after their tours are also involved. From the feedback, tourists’ expectations of museums, exhibitions, supporting facilities and services and their actual situations of tourism activities can be seen, tourists’ experiences and satisfaction level were clearly reflected.

3.2. Topic Distribution of Focuses in Tourist Feedback

From the perspective of tourist experience, combining with the high-frequency words of online comments of 14 museums, the word frequency results are classified into two main topics, seven first-level categories and five second-level categories (see Figure 2). The two main topics are “Museum” and “Visitor”.

As mentioned earlier, tourists pay most attention to the museum and exhibition itself when carrying out tourism activities, first-level categories like “Exhibition”, “Tickets and Admission” and “Themes
and Classification” are included in the topic of “Museum”. It can be seen that tourists pay high attention to the exhibition, ticket and theme classification of the museum, among which “Exhibition” accounts for the largest proportion which drives the highest attention of tourists[13]. There are such representatives in tourist feedback, such as “The jade exhibition was excellent and the porcelain was pretty good too.”, “We were lucky enough to see an exhibition titled ‘100 Objects that Changed the World’, Fabulous! Don't miss this place if you love history.”, “The ancient China exhibition in the basement is worth seeing, especially since the museum is free.”, “The gem of this museum is the ancient China exhibits, from 3000 BC to the ching dynasty.”

![Figure 2: Topic distribution of online tourists' comments in Beijing museum.](image)

Under the first-level category “Exhibition”, there are five second-level categories-- “Facilities and Environment”, “Building”, “Collection”, “Location” and “Service”. “Facilities and Environment” is most mentioned by the tourists among the five, lots of comments are related, such as “And they have many facilities to help you gain more knowledge about universe” and “however unlike other attractions although the museum is massive, it was fairly quiet”. “Building” is the second most mentioned category in “Exhibition”, it is presented in the comments like “The building is architecturally interesting, particularly inside”, “The Beijing Automobile museum is housed in an amazing building” and so on. That is to say, when tourists visit an exhibition in the museum, they pay most attention to the facilities, environment and buildings of the venue, however, “Collection”, which is the core and key of an exhibition, is not the top focus of the tourists. That is an interesting phenomenon, which is caused by some realistic factors including small proportion of tourists who really pursue high-quality culture tour, some tourists commented like “The museum’s collections of ancient artifacts is worthy of a trip” and “After a while I started seeing some distinctly Chinese looking artifacts, like miniature terracotta warriors, small models of warriors, etc”. In the section of “Exhibition”, tourists also pay attention to “Location” and “Service”, it shows that these two are also important factors of tourists' experience. Take examples in the tourist feedback, “The location of the museum is easily accessible by the mrt and less than 3 minutes walk”, “The museum needs a refreshed modern look and service”.

In the topic of “Visitor”, emotional attitudes and behavioral characteristics of tourists are largely expressed. There are four first-level categories under this topic, “Experience the feeling”, “Play time”, “Visits Times” and “Travel Mode”[14]. Among them, “Experience the feeling” accounts for the largest proportion, and tourists attach the most importance to the experience and feeling of museum tour, it can be seen in the tourist feedback, “I really enjoyed the exhibitions on ancient Chinese culture”, “It was very interesting to see the eastern viewpoint of things”. Next, the “Play Time” is secondly most mentioned in this topic, it can be found in the tourist feedback such as “Of my four-hour visit, I spend about 2.5 hours going through this massive and very informative exhibit” and “Spent three hours in this museum, really worth the time to explore the exhibits”. Then shows the “Travel Mode” and “Visits Times”, in the tourist feedback presented as “This was my second time through this massive, 2.07 million square feet museum, the first being about 12 years ago”, “We travelled to the museum by subway and spent over 2 hours looking round the multi-storey Chinese collection, which was free, so a
very cheap morning's sightseeing” for instance.

Through the above high-frequency words and their topic analysis, tourist experience can be divided into “Museum” and “Visitor”. The “Museum” topic includes “Exhibition”, “Tickets and Administration” and “Themes and Classification”; The “Visitor” topic includes “Experience the feeling”, “Play Time”, “Visits Times” and “Travel Mode”.

In the topic of “Museum”, tourists are most concerned about the “Facilities and Environment” and “Building” in “Exhibition” section, not the “Collection” itself, which means that the most impressive thing for tourists is not the exhibits on display, but the more external buildings, environment and facilities. How to make the exhibits or the collection itself become the focus of tourists during the whole visit to the museum is a question worthy of our attention and consideration.

In the topic of “Visitor”, “Experience the feeling” is most frequently mentioned in tourists’ comments. When tourists share their experiences on the Internet, the feelings they had at their visits to the museum and exhibition were highly emphasized, which means that whether the overall experience of tourism activities is pleasant or not to some extent determines the quality of tourists’ evaluation of the museums and other related facilities. Therefore, it is very important and necessary to provide tourists with complete and high-quality facilities, equipment, services, guides and quiet and elegant environment during their visits so that they can have a pleasant travel experience.

4. Negative Experiences about the Museums in Tourist Feedback

Actually, there are various positive comments from tourists that commented on TripAdvisor, and these are the directions that the museums need to maintain and make efforts on, great examples such as “The National Museum of China is excellent, and in the design, there are a lot of architectural features, mainly reflected in the audience interactive experience area, the central hall theatre and cinema west hall eaves”, “I stayed in there for 3 hours. Everything was nice. If you have any question, you can ask the volunteers, they are friendly and kind” and “I think all of the exhibitions are worth seeing”. At the same time, some negative comments followed, which are exactly what the museums need to improve in the future, such as “No signage and poor customer service”, “The museum needs a refreshed modern look and service”, etc. These negative comments reflect the dissatisfaction of tourists. As a museum or any tourism enterprise or tourist attraction, positive response measures should be taken to improve the missing and insufficient parts, so that tourists can gain better experience while visiting, and the total quality of tourist experience will level-up. The negative comments of tourists in the feedback is now divided into two categories: the comment of museum and exhibition and the comment of tourist service.

In the negative comments of museum and exhibition, the following two questions are mainly included:

First, the exhibition and exhibits have no English notes or the English translation quality is deficient. The most common negative comments are that the exhibition or exhibits have no English notes or introductions, which leads to foreign tourists not being able to understand the content, meaning and story behind the exhibits well. This has led to the inability of the exhibition to convey the meaning and connotation they want to express. Some tourists know Chinese language, so to a certain extent they can understand it through Chinese notes, but most of the foreign tourists can not use Chinese fluently, that forming a big barrier to understand the exhibition, and the history and the meaning behind it. Causing an ineffective dissemination of culture, the purpose of cultural exchange and communication cannot be achieved. It is described in the tourist feedback, “It's a nice, big orderly museum but without English explanations.”, “The exhibitions are mainly described and narrated in Chinese. Hence, foreigners may have difficulty understanding the history narrated in the museum.”, others mentioned “Only some of the exhibits have English notes, so don’t expect it throughout.”, “Some of the exhibitions are quite good, but unfortunately, some of it has no English signs or description eventhough the objects are interesting.”, “A year ago all exhibits were labelled in Chinese and English - now only Chinese.”, “As for the rest of the exhibits, many are without any English translations, and are subsequently difficult to enjoy.”, “It was not well designed for English speakers, several what looked to be interesting exhibits, did not have English explanations.”

For some exhibits with English introductions, tourists put forward that the introductions and translations are deficient, “English description is very much at the surface level but you should grasp the key things.”, “Some of the English translations aren't the best.”, “English notations are sporadic.”,
“It would have rated higher with me if there were more emphasis placed on interpretation”. Inaccurate or incomplete English translation will lead to the failure of complete presentation of the exhibitions, and will also lead to the ineffective dissemination of culture, which is not conducive to the development of Chinese culture and international cultural exchanges[15].

Second, no English signs in the venue. It has been complained that there are no English signs such as information desk, ticket office, floor layout, road signs, etc. in the venue, caused a series of problems like tourists don’t know where to go or not familiar with the floor layout, resulting in unpleasant experiences. In particular, no English ticket office sign is reflected in the tourist feedback as “Not very clear where you get a ticket.”, “No sign post for where to go.”, “Passports were ignored, with no signs or explanation of how to obtain a foreign-ID ‘free’ ticket”. No information desk sign was mentioned as “Information desk pointed to a part-building schematic that had no ‘this is what is where’ info on it whatsoever”. No floor layout was presented as “But having no clear plan, floor layout or directions is a pretty heinous crime for a supposedly world class museum”. No English road sign was mentioned as “I found out to late due to lack of English translations of directional signs.”, “After a coffee break we wandered in to the ‘Road to Rejuvenation’ exhibition, but we had done 2 or 3 rooms before we realised that we were doing it backwards.”, “There is not much directions for where to look for.”, “Nice museum just needs more English signs.”

In the negative comments of tourist services, there are mainly the following two problems:

First, lack of foreign language service personnel. Sometimes foreign tourists need to ask the staff for information or help during the tour. If there is no foreign language service staff in the venue, it will cause many inconveniences and embarrassments, which will lead to dissatisfaction of tourists and decrease the tourist experience level. It was highly mentioned in the tourist feedback, “No one can understand English.”, “Ask people at checkpoint or anyone that looks that that works there with your confirmation printed or on your phone, they will point to you where you can line up. Most of them cannot understand English.”, “Although no guards spoke a work of English, finally one pointed ‘brusquely to the right’ where 200+ meters away was another non-labeled doorway.”, “Not one English speaking person in the whole museum.”, “Oh, and nobody speaks english of course.”, “Very few people speak English so it's easy to get into the wrong line.”, “No one speaks English here”, depression and dissatisfaction can be sensed through these comments.

Second, no rest seats in the venue. When tourists visit the museum, it takes several hours to finish the tour due to the grandeur of the venue. Smaller museums or exhibitions take one to two hours to visit, and larger ones even take three to five hours, which requires a lot of physical consumption for tourists. However, it is common that there are no rest seats in the venue. When tourists feel tired and need a rest after several hours of visit, without a rest seat they can only choose to sit on the ground or end the visit in advance. On one hand, sitting on the ground may cause inconvenience to other tourists who are visiting, and it is also an inappropriate behavior. On the other hand, if tourists choose to end the visit in advance, part of the exhibition will be ignored, and tourists' satisfaction and sense of experience will be greatly reduced. It was mentioned in the feedback, “Woeful lack of seating.”, “At one stage we were totally flagging and couldn't find anywhere to sit.”, “My views of this grand museum were tarnished by the lack of facilities and resources for foreign people!”, “I do think it could do with more seating though, as many people were sat on the floor or the stairs.”, “There is no seating in all but one gallery.”

All the above problems will lead to unpleasant experiences and feelings of tourists during the tour. They are not conducive to the sustainable development of the museum, but also hinder the spread of Chinese culture and the communication between different cultural backgrounds.

5. Strategies

First of all, deficiency of English annotation should be filled, and the poor quality of English translation need to be improved. When foreign tourists are visiting museums and exhibitions, English introduction is the main source for them to obtain information. To solve the problem of insufficient English annotations, firstly, make up for the deficiencies and check for the omissions, so as to ensure that every museum, exhibition, and exhibit have English introductions and annotations, so that visitors have something to read while visiting. To be specific, besides the textual introduction, the museum can provide visitors with an English version of the viewing manual, including the exhibition theme, background significance, main exhibits and other overview information, so that visitors can see at a glance. The museum can also provide online instructions in different languages for each exhibit through the QR code. When tourists scan the QR code, more information about the exhibits will be
presented. Intelligent voice interpretation and other measures which can greatly solve the problems are non-negligible\[16\].

While ensuring the quantity of English introductions, museum should pay more attention to the improvement of the quality of English translations. Low quality translation neither express the cultural connotation of the exhibits, nor spread the image of the exhibits and their culture. In the process of translation, special attention should be paid to the translation of poems and culture loaded words, which are the key and essence of translation.

Museums need to add English signs to ensure that visitors can be familiar with the venue. Foreign tourists often rely on road signs or navigation to guide their movement in museums. In view of the lack of English signs, the museum can improve it by adding various English signs, English floor layout and so on. Let tourists know their location and viewing route clearly during the tour, which can make the whole process more smooth, and reduce the time wasted by tourists wandering aimlessly in the venue, so as to improve the experience level of tourists. The museum will also get a smoother and orderly viewing environment.

Secondly, after solving the problem of English introductions and signs, museums should pay more attention to the training of foreign language talents in tourism. The lack of foreign language service personnel should be filled and their foreign language service capabilities should be optimized. In response to such problems, museums can focus on foreign language service talents training, or give reference to stronger foreign language ability when selecting staff, and incorporate foreign language ability into the evaluation criteria and consideration.

Third, add more rest seats in the venue. When tourists shuttle through the huge museum, they will inevitably feel tired and hungry because of the crowd, long-time movement and other factors, the absence of rest seats will make tourists feel irritable and bored. In order to create a comfortable and pleasant viewing environment, museums can add some facilities for tourists to rest in the appropriate places, such as rest seats, rest areas, cafes, water bars, etc. On one hand, tourists can get proper rest and adjustment in time when they feel tired, so as to get a better physical and mental state and continue their visits. On the other hand, tourists can spend more time in the museum, which is beneficial for tourists to gain more in-depth viewing experience. This is a healthy improvement for both tourists and museums\[17\].

6. Conclusion

Based on the analysis of the high-frequency words and topics of the online reviews of museum visitors, this thesis concludes that tourist feedback mainly involves two major topics, “Museum” and “Visitor”. In the topic of “Museum”, exhibition is the most important content for tourists. When we discuss the tourist experience of the museum, exhibition, as the core content presented by the museum, is the most important part for tourists. It requires the careful design and planning of the museum and the exhibition staff, not only the exhibits, the design of exhibition boards and halls, the application of multimedia technology, the penetration of interactive experience, the setting of supporting services, etc. are all included, so that a complete exhibition can be presented to the visitors. In actual tourism activities, tourists' experiences and feelings are the key influencing factors to evaluate the quality of their tours. Only when the negative part mentioned in the tourist feedback is improved, can tourists have a pleasant travel experience. When the museum takes a series of measures to improve its exhibition quality, service level, facilities and other issues, the development of the museum is healthy and sustainable. This is not only conducive to the construction and development of the museum, but also promote tourists to visit museums. Meanwhile, it promotes cultural exchange and dissemination.

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