

Image Perception of Guilin Tourist Destination Based on Web Text Analysis

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Abstract: With the advent of the era of big data, collecting online travel notes to establish a text database can obtain the comprehensive perception image of tourists on tourist destinations, and provide new ideas for the research on image perception of urban tourist destinations. Tourist travel texts collected from Ctrip.com and Mafengwo are used as research samples. Based on the "cognition-emotion" model of tourist destination image perception, the high-frequency feature words of Guilin image perception are extracted by text analysis method. The results show that: (1) Yangshuo, Li River, and Yulong River are the basic cognitive images of tourists for Guilin's tourism image. (2) Tourists are highly satisfied with tourism resources and tourism activities, and the evaluation is mainly based on neutral emotions. (3) The overall image perception is a landscape tourist attraction, the overall image perception is positive, and the overall positive perception accounts for a high proportion. (4) The travel notes semantic network diagram takes Guilin as the core, and Guilin-Yangshuo, Guilin-Lijiang, and Guilin-Yulonghe are closely related relation chains in the network diagram.

Keywords: text analysis method; tourist destination; "cognitive-affective" model

1 Introduction

In recent years, tourism has become an important way for people to improve and improve their quality of life. As of March 2020, the number of Internet users in China has reached 904 million, and the average weekly time spent online is 32.8 hours. In this digital age, tourism destination marketers need to better understand the various images extracted from the attributes of the destination, and enhance the competitive advantage of the destination by formulating various marketing strategies, especially the need to establish a highly recognizable Destination image to influence potential tourists' perception of the destination to meet the needs or expectations of potential tourists, which in turn affects their destination choice motivation [1-2].

The emergence of online travel data not only provides a reference for the formulation of the tourism process, but also provides an important channel for the dissemination of urban tourism images. Its characteristics of freedom, openness and sharing can fully reflect tourists' perception of destination image, and can provide more comprehensive and scientific research data for the study of urban tourism image perception. At the same time, online travel notes have a feedback effect on tourism destinations, and their tourism products or resource advantages spread very quickly, which can quickly give birth to "Internet celebrity tourism cities", but the problems of tourism products or urban tourism images will also be to a certain extent. Therefore, the problem of the image of the tourist destination reflected behind the online travel notes has certain practical significance for the analysis, rectification and improvement of the image of the tourist destination.

At present, there is no unified concept of tourism destination image in academic circles. The destination image has multi-dimensional characteristics. Deng and Li (2018) can divide the destination image into the projected image of the supply side and the perceived image of the demand side according to different subjects [3]. Scholars such as Dunning (2018) divide the destination image into two dimensions, cognitive image and emotional image, according to the perception level [4]. At present, the academic research on the perception of tourist destination image is hot, and it is found that there are many influencing factors, such as tourists' age, education level, tourists' emotions [5], etc.

2 Research methods and data

This paper chooses Guilin as the research area for two reasons. First, as a tourist city, Guilin has not changed much in terms of tourism resources in recent years, the data is stable, and it is easy to carry out analysis. Second, experience tourism has become a trend in recent years, and the tourism image of Guilin with acting skills has better practical significance for Guilin to change its marketing strategy.

The data collected in this paper comes from Mafengwo and Ctrip, two well-known travel social networking sites in China. There are a large number of guide texts on these two websites, which can provide users with travel information online, such as travel guides, travel questions and answers, and travel reviews, the user's real travel data can also be published on the platform. Search "Guilin" related travel notes on Ctrip and Mafengwo, and filter them according to the following principles: (1) The text is detailed and detailed, with more than 50 likes and comments; (2) Eliminate duplicate and invalid content; (3) Published from 2016 to 2021 between. A total of 492 online travel texts were obtained after processing.

Content analysis is an important method of literature research. It converts non-systematic and non-quantitative symbolic content (such as text, images, pictures, etc.) into quantitative data, and uses these data to quantitatively analyze, judge, and reason about the content of the material [6]. In the current era of big data, content analysis with network text and coordinate information as the research objects has become a hot spot in the research on image perception of tourist destinations. This research relies on the ROST Content Mining6 text analysis software, which has functions such as custom vocabulary, filtered vocabulary, Chinese word segmentation, Chinese word frequency statistics, social network and semantic analysis, and sentiment

analysis. First, collect relevant online travel texts, then perform high-frequency word segmentation processing, and then perform word frequency statistics to filter out some meaningless words such as function words that are not related to tourism images in the thesaurus. After adding unique custom words, perform word frequency analysis on the text. [7]. Finally, through statistical high-frequency words to analyze the basic cognitive image of tourists to each element of the tourism image of the destination, to explore the emotional image and overall perception image of tourists to the tourism destination.

3 Results and Discussion

3.1 Analysis of high frequency feature words of Guilin tourism image

The ROST Content Mining6 software is used to analyze the secondary word frequency of the collected and organized online travel texts. After data analysis, the results in Table 1 are obtained. Due to the limited space, this paper only displays the top 20 high-frequency words. The higher the word frequency, the higher the tourists' awareness and attention to the image elements [8]. Through the analysis of high-frequency vocabulary, it can be seen that tourist attractions such as Lijiang River, Yulong River, West Street, and Elephant Trunk Hill are ranked 4th, 5th, 6th, and 10th respectively, indicating that tourists pay more attention to the above-mentioned attractions. Among the above-mentioned scenic spots, Lijiang River and Elephant Trunk Hill have a relatively high annual reception, which fully reflects the positioning of Guilin's tourism image as the best in the world. At the same time, in terms of tourism experience, positive adjectives such as beauty, cheapness and convenience can appear in high-frequency words, and no derogatory adjectives appear in high-frequency words, indicating that tourists are satisfied with Guilin's tourism evaluation and have a good tourism impression. In terms of transportation modes, words such as airports, trains, buses, and walking are ranked higher in the table, indicating the preference of tourists for traveling to or within Guilin. A large number of tourists choose to travel to Guilin by train or plane for tourism activities. Therefore, the convenience and geographical location of train stations, high-speed railway stations, airports, bus stations and other travel modes affect tourists' first impression of Guilin's tourism image; in terms of tourism specialties, Guilin specialties such as beer fish and rice noodles are in the impression of tourists. This is determined by Guilin's long-term eating habits, which to a certain extent reflects the importance of tourists on diet. From the perspective of time dimension, tourists' perception of tourism landscape and tourism activities includes three stages of perception before, during and after travel. Tourists will design travel routes and itinerary in advance, and tourism perception presents obvious stage characteristics. From the analysis of the spatial structure, the main areas of tourists' perception of tourism are mainly distributed in Yangshuo-Guilin City-Longsheng and other areas. Tourists' overall perception of Guilin shows the differentiation characteristics of Yangshuo-Guilin urban area-Longsheng in descending order. The related tourist attractions and natural landscapes with landscape as the main factor are the main factors that make tourists have tourism motivation. At the same time, with the increasing development of Guilin, the derived rural tourism and commercial streets have been recognized by tourists.

Table 1 High Frequency Table

| Sequence Number | keywords | word frequency |
|-----------------|------------------------------|----------------|
| 1 | Guilin | 8090 |
| 2 | Yangshou | 6366 |
| 3 | Hotel | 3707 |
| 4 | The Lijiang River | 3564 |
| 5 | Yulong River | 1941 |
| 6 | Vesey | 1849 |
| 7 | raft | 1625 |
| 8 | Ancient Towns | 1408 |
| 9 | Pier | 1313 |
| 10 | Elephant Trunk Hill | 1272 |
| 11 | The Ancient Town of Xingping | 1267 |
| 12 | Public parks | 1173 |
| 13 | Third sister liu | 1232 |
| 14 | rice flour | 1114 |
| 15 | inn | 1111 |
| 16 | ticket | 1099 |
| 17 | Landscape | 1093 |
| 18 | Ten-mile Gallery | 1021 |
| 19 | scenery | 963 |
| 20 | drift | 942 |

3.2 Analysis on the image attributes of tourism perception in Guilin

From the introduction of the previous research area, it can be seen that Guilin's tourism resources are mainly landscape resources and human resources. From the analysis results, it can be seen that the tourism resources of Guilin are mainly landscape tourism resources, supplemented by human landscapes. Lijiang River, Elephant Trunk Hill, Shili Gallery, Yinziyan and other words fully reflect the prominence of Guilin's tourism resources. At the same time, the tourist attractions involved. Mountains and water are frequently mentioned in the high-frequency vocabulary of Guilin, which shows that Guilin's image as a tourist city with the best landscapes in the country is deeply rooted in the hearts of the people. Standing out among the tourist cities is a problem that Guilin urgently needs to solve. As the background of RMB 20 yuan, the landscape of Lijiang River has great attraction in the hearts of many tourists. It is an important "check-in place" for tourists in Guilin. Therefore, the Lijiang River ranks first in the high-frequency vocabulary of tourism resources. Among the counties under the jurisdiction of Guilin City, Yangshuo, Longsheng, Xing'an and other tourism resources have high attraction force. Longji Terraced Fields, West Street, Impression Liu Sanjie, Shili Gallery, etc. are still popular tourist attractions around Guilin City. The development level of tourism in Yongfu County and Quanzhou County is still lower than that of Yangshuo County. In the later stage, scientific tourism marketing needs to be carried out for Yongfu County, Quanzhou County and other counties to achieve coordinated development. The Two Rivers and Four Lakes Scenic Spot, Pedestrian Street and Jingjiang Palace in Guilin have also been mentioned

many times. The Two Rivers and Four Lakes Scenic Spot, as one of the representatives of the water system around the city and Guilin's landscape, also plays a pivotal role in the construction of Guilin's tourism image. A large number of tourism activities are carried out in Guilin, so Guilin should build a modern comprehensive business community to enhance the perception image of Guilin's tourism resources.

From the analysis results, it can be seen that "hotel" is the most frequently mentioned word in supporting services, with a word frequency as high as 3703 times. A comfortable cooked hotel can provide tourists with high-quality rest services, and it will also affect tourists' overall evaluation of tourist destinations. From the content analysis, it can be seen that tourists have more and most positive perceptions of most hotels and homestays in Guilin. The clean star-rated hotels have won the favor of most tourists, and the warm and characteristic homestays have improved tourists' image recognition of Guilin. Tourists are quite satisfied with Guilin's consumption level. From the high-frequency vocabulary, we can see that the tourist evaluations of "free" and "cheap" are ranked 42nd and 47th in the high-frequency vocabulary.

Guilin is rich in mountains and water resources, has a relatively profound historical and cultural background, and has superior natural conditions. For example, tourist landscapes such as "Li River", "Ancient Town", and "Park" are in the top ranks of the high-frequency tourism, ranking 4th and 8th respectively. , 12, the number of times mentioned by tourists is more, it can be seen that tourism landscape occupies the core position in Guilin's tourism competitiveness; tourism projects such as "bamboo raft", "rafting" and "cruise boat" are ranked 7th in the high-frequency vocabulary , 20, and 45. These projects were developed relatively early in the Guilin tourism system, the source market is stable, and the tourists have a good perception of experience, so tourists have a strong perception of tourism activities.

Tourists' emotional perception is an important part of Guilin's tourism image perception. Tourists' cognitive image of the destination is the basis of emotional image, and emotional response comes from the recognition of the object. Using the sentiment analysis function in ROST Content Mining 6 to analyze the online travel notes of Guilin tourists (Table 2), it can be seen from the results that tourists' neutral emotions account for the highest proportion, reaching 63.68%; followed by positive emotions, accounting for 29.90%; negative emotions The proportion is the least at 6.42%.

It can be seen from this that although the emotional components generated by tourists after visiting the destination are mainly neutral emotions, the overall emotions of tourists towards Guilin are positive emotions. Feeding back on Guilin's tourism image still yields better feedback from tourists, which is also in the previous high-frequency analysis results, I would like to echo the conclusion that the positive words are mainly used, but the negative emotions in some of the tourists' evaluations still need to be paid attention to by managers. A large part of the reason why tourists give negative reviews is that the experience in tourism activities is not satisfactory to tourists. From the results of sentiment analysis, we can see that the main factors for marketing the (negative) image of Guilin's online tourism are as follows: (1) Ticket prices for scenic spots. "Ticket" ranks 16th in the high-frequency vocabulary of Guilin's tourism image perception, indicating that the ticket problem is more prominent in tourism emotional problems. Tourists are dissatisfied with the tickets of representative scenic spots mainly because of high ticket prices and bundled sales. (2) Scenic spot management and service. Due to the particularity of the development of tourism activities, the level of tourism management

and the level of knowledge and skills of tourism service personnel will directly affect the travel experience of tourists. Therefore, the level of management personnel occupies an important position when tourists evaluate tourism experience. From the analysis results, it can be seen that the negative perception in management and service mainly comes from the problems of low skill level and poor service attitude of some tourism practitioners.

Table 2 Tourist Comment Sentiment Analysis Form

| emotion category | Proportion | strength | Proportion |
|-------------------------|-------------------|-----------------|-------------------|
| positive emotion | 0.2990 | generally | 0.2540 |
| | | Moderate | 0.0425 |
| | | high | 0.0030 |
| neutral emotion | 0.6368 | | 0.6368 |
| negative emotion | 0.0642 | generally | 0.0603 |
| | | Moderate | 0.0038 |
| | | high | 0.0001 |
| total | 1 | | 1 |

3.3 Semantic Network Analysis

Based on the "cognitive-emotional" model constructed by the destination image, the perceptual image of the destination is systematically explored from three aspects: cognitive image, emotional image and overall perceptual image, and the semantic network analysis function is used to analyze the visual graphics (figure 1). In Figure 1, various words are related to each other. "Guilin" is located at the core of the network diagram, and the connection spreads based on this point. The second most connected are "Yangshuo", "Lijiang" and "Yulong River". The most direct embodiment of Guilin's tourism image. "Ancient Town", "West Street", "Liu Sanjie" and other words are in the secondary circle, which further complements and improves the tourism image of Guilin, and at the same time shows that tourists pay more attention to the above scenic spots. Through the three-level circle structure of the semantic network, the hierarchical system of Guilin's tourism resources is relatively completely expressed, which provides a reference for the extraction and construction of Guilin's tourism image.

It can be seen from Figure 1 that with Guilin as the core, Guilin-Yangshuo, Guilin-Lijiang, and Guilin-Yulonghe are relatively closely related relationship chains in the network diagram, which reflect the important position of the above image in the perception image of Guilin tourism. The airport, train, wharf, bus, and bus station have strong connections with the core, which reflects that the main ways to travel in Guilin are air, train, and bus.

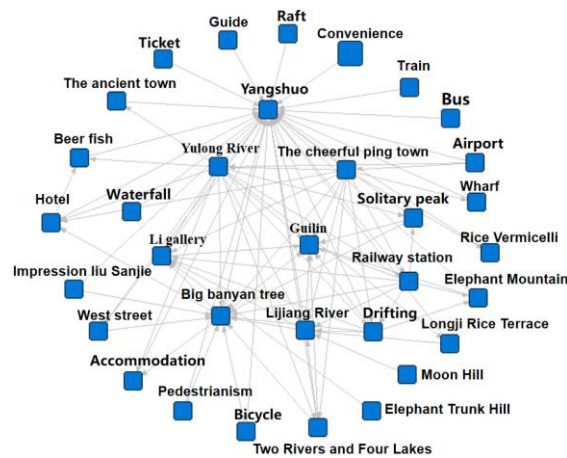


Figure 1 Semantic network analysis diagram

4 Conclusion & Suggestion

This paper adopts text analysis, semantic network and sentiment analysis methods, and uses the tourism destination image "cognition-emotion" model to explore tourists' perception of Guilin's tourism destination image. The conclusions are as follows: (1) Yangshuo, Li River and Yulong River are the basic cognitive images of tourists for Guilin's tourism image. Landscape tourism resources are abundant and prominent, and various natural landscapes developed based on landscapes have become the most basic cognitive image for tourists. (2) Tourists are highly satisfied with tourism resources and tourism activities, and their evaluations are mainly neutral emotions, but overall they show positive emotions. All kinds of natural tourism resources are mature, and the beautiful natural landscape is the main source of tourists' positive emotional perception. The main source of negative perception is reflected in the scenic spot (spot) tickets and the attitude of tourism service. (3) In terms of overall image perception, Guilin's overall image perception is a landscape tourist attraction, the overall image perception is positive, and the overall positive perception accounts for a high proportion. Tourists form an overall evaluation of the image of Guilin's tourism destination based on the physical and functional elements such as natural and cultural landscapes, tourism infrastructure, and their substantive attributes, as well as their psychological positive or negative emotional tendencies towards Guilin. The research conclusions are basically consistent with the "cognition-emotion" three-dimensional model of the destination image. (4) The semantic network diagram of travel notes has a "core-sub-core-periphery" circle structure, with Guilin as the core, Guilin-Yangshuo, Guilin-Lijiang, Guilin-Yulonghe are the relatively closely related relationship chains in the network diagram, and the outer circles The main elements are the main tourist attractions in Guilin and the mode of transportation.

Based on the research conclusions drawn above, this study puts forward the following feasible suggestions. Guilin's construction of a world-class tourist city needs to optimize the city's tourist image on the basis of quality management. The management and service of scenic spots

staff, scenic spot charges and tickets are the concentrated aspects of tourists' negative emotions, and they are also one of the core factors affecting the tourism image of a city. Therefore, it is necessary to improve the service quality of scenic spots, strengthen centralized training on service levels, and dilute the ticket economy. Scenic spots should regularly conduct business training for park staff, improve attendance and service supervision systems, and at the same time conduct online or offline service return visits to customers, pay attention to tourists' negative comments and dissatisfaction, and strive to eliminate existing management through various means. In order to improve the service level of management personnel, improve the tourist satisfaction of tourists, and improve the comfort of urban tourism; the scenic spot ticket setting follows the principle of "taking into account both finance and people's livelihood", and it is necessary to ensure various services in the scenic spot. The daily maintenance and upgrade costs of facilities should also consider the universal inclusiveness of scenic spot tickets.

The deficiency of this paper is that only two service websites are selected to study the image perception of Guilin tourist destination, which has certain data limitations and spatial geographic limitations. Future research should focus on multi-channel data sources and select multiple case sites to support research conclusions.

Acknowledgment

This project is supported by the Fund for “Destination Tourism Image Evolution and ‘Internet Celebrity’ Label Construction Based on ‘Host-Guest’ Interaction”. (YCSW2022305)

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