Research on Tourism Experience of Tourists in Natural Resource-based Scenic Spots in the Context of Big Data

Yuanda Wu[*]

GuiZhou University of Finance and Economics, Guizhou, China

[*]E-mail: 1935309233@qq.com

Abstract. Exploring the optimization strategies of natural resource-based attractions from the Perspective of tourist experience, It is of great significance to enhance the quality of tourists' experience and promote the sustainable development of scenic spots. The article takes Huangguoshu Waterfall as the case location, adopts the network text analysis method, applies big data to analyze the online reviews and travelogues of Ctrip. The results show that the scenic area should be optimized and improved in three aspects: increasing the scenic experience projects, controlling the number of tourists and improving the quality of scenic services.

Keywords: tourism experience, natural resource-based scenic spot, big data

1   INTRODUCTION

Natural resource-based scenic spots have always been an important part of the tourism market. However, in the process of scenic area development, it will face the problem of poor tourists' experience, which limits the sustainable development of scenic areas. Existing studies on natural resource-based scenic spots are mostly explored from the supply-side perspective, Chen Jue et al. combined with the theory of front and back-stage structure of the service system, put forward the new structure of scenic spot space, and provide new ideas for scenic spot planning problems[1], while the research on the demand-side (tourist experience) perspective is obviously insufficient. Tourist experience is the evaluation made by tourists on their own tourism experience process, which is the object of demand-side research focus. There are quite a lot of research results discussing tourism experience in different scenarios. On heritage tourism, Li Man et al. use Pingyao Ancient City as a case study site to explore the influence of cognition, emotion and time of tourists in heritage tourism sites on the unforgettable experience of tourism[2]. On virtual tourism, Wang Xin takes emotional experience as the dependent variable and virtual tourism sense of presence, time distortion, and visual perception as the independent variables to explore how participants' emotional experience changes under the influence of the independent variables[3].

With the development of Internet technology and new media, tourists can post online reviews and travelogues with the help of online platforms to express their real feelings

about the trip after the travel line, and a large number of researches have been conducted to study tourists' perceptions, emotions, and behaviors through big data[4-5]. Zhang Hongchang analyzed inbound tourists' tourism image perception of ethnic villages by using online review data from Tripadvisor website and found that tourism cognitive image perception is mainly manifested in tourism destinations, tourism attractions, tourism facilities and services, and tourism environmental atmosphere[6]. Guo Tingting et al. analyzed online comments and categorized tourists' perceptions of the experiential value of Huangpu Old Harbor as perceptual, emotional, social, and spiritual[7].

From the perspective of tourists' active narratives, studying the tourists' experience in natural resource-based scenic spots is a topic worth exploring. Therefore, this paper takes Huangguoshu Scenic Area as an example, collects data with the help of network big data, adopts network text analysis method, analyzes tourists' evaluation of scenic area experience quality, and provides theoretical basis and practical basis for the design optimization of natural resource-based scenic area. It mainly explores the following issues: (1) to explore the visitor experience of natural resource-based scenic spots by analyzing the network text released by tourists; (2) to provide optimization strategies for scenic spots from the perspective of visitor experience.

2   LITERATURE REVIEW

2.1   Tourism experience

In the definition of tourism experience, MacCannell[8] and Graefe[9] explore the definition of tourism experience from the sociological and psychological perspectives, respectively, and believe that tourism experience is not only a real feeling, but also a combination of many factors. Cohen focuses on the tourist himself, defines the behavior of the tourist as the center, and believes that tourists have different experiences, and the specific meaning of tourism experience has different meanings in different tourists[10].

2.2   Network Text Analysis

The advantages of network text analysis method include the ability to obtain raw data quickly and rapidly, and a larger and more comprehensive sample size can be obtained. In recent years, the network text analysis method is also gradually used in the field of tourism.

3   RESEARCH METHODS

This study is mainly conducted using web-based text analysis. Using the network analysis method to analyze the text content of the collected online reviews and travelogues, ROSTCM6 was used to conduct basic text analysis of word division, word frequency statistics, and social network analysis, and to infer the amount of information and its changes through meaningful words and phrases. Using network analysis method to first analyze the text content helps to grasp the main content in a large amount of information

and understand the overall emotional attitude of tourists towards Huangguoshu scenic spot.

Huangguoshu scenic area has a large number of waterfalls and is characterized by karst landscape, so it is a typical natural resource-based scenic area, and there are a large number of travelogues, comments and other data about the scenic area on the network, which provide rich samples for the study of tourists' travel experience.

In this study, big data collection software was used to collect online reviews and travelogues about Huangguoshu Waterfall from Ctrip for the period from December 2018 to December 2023, and a total of 1,244 online reviews and 52 travelogues were collected after screening. The analyzed text contains 206,357 words.

4   DATA ANALYSIS

4.1   Huangguoshu Waterfall Visitor Experience Value Keyword Analysis

ROSTCM6 software was used to process the data and list the top thirty high-frequency words, as shown in Table 1.

Huangguoshu Falls ranked first, indicating that the waterfall is the most attractive attraction. Tianxing Bridge, Water Curtain Cave and Steep Slope Pond appear in the top ten, reflecting that they have all succeeded in becoming scenic attractions; Time and hours reflect that tourists are very concerned about the time schedule of visiting the attractions. Queuing and crowded also reflect that tourists experience service facilities, service and management, indicating that Tourists are more concerned about the tourist services of the scenic spot, which has a certain impact on the tourists' experience. The words spectacular and shocking reflect the positive emotions of tourists.

Table 1. High-frequency words for Huangguoshu Waterfall

headword	frequency	headword	frequency	headword	frequency
Huangguoshu Waterfall	3094	Steep Pothole	351	nice	185
water-fall	2179	line up	322	go sightseeing	184
scenic	1171	timing	321	landscapes	177
sights	560	deserve	272	Guizhou	175
Tianxing Bridge	542	hourly	229	ladder	171
magnificent	425	service	216	ticket	169
scenery	394	suggestion	198	shocking	169
Shuilian Cave	390	all three	185	beautiful	168

4.2   Semantic Web Analysis

High-frequency words have limitations in the in-depth study of structural relationships and word connections. In order to understand the profound meaning behind the high-frequency words, this paper uses ROSTCM6 software to analyze the text after word division, eliminates the unrelated individual nodes, and generates the network structure

analysis graph of the high-frequency words of Huangguoshu Scenic Spot through the related nodes and lines, as shown in Figure 1.

The network semantic analysis of Huangguoshu scenic spot is divided into four layers, which are labeled with different colors in the diagram. The first layer is the core layer, labeled in red, with Huangguoshu Waterfall and waterfall reflecting tourists' image perception and experience elements of the destination. The second layer is the sub-core layer, labeled in green, Tianxing Bridge, Steep Pothole, Waterfall Cave also reflect the tourist attractions of the scenic area and tourists' preferences.   At the same time, it also points out that the status quo of queuing in the scenic spot is too serious. The third layer is the second outer circle layer, labeled in orange, suggestions indicates that tourists have their own ideas about the construction of scenic spots. The word spectacular corresponds to the high-frequency word in the previous section, and the attraction of the scenic spot is popular among tourists. The fourth layer is the outer circle, labeled in blue, which includes positive comments from tourists such as worthwhile and beautiful, as well as negative comments such as "too many people".
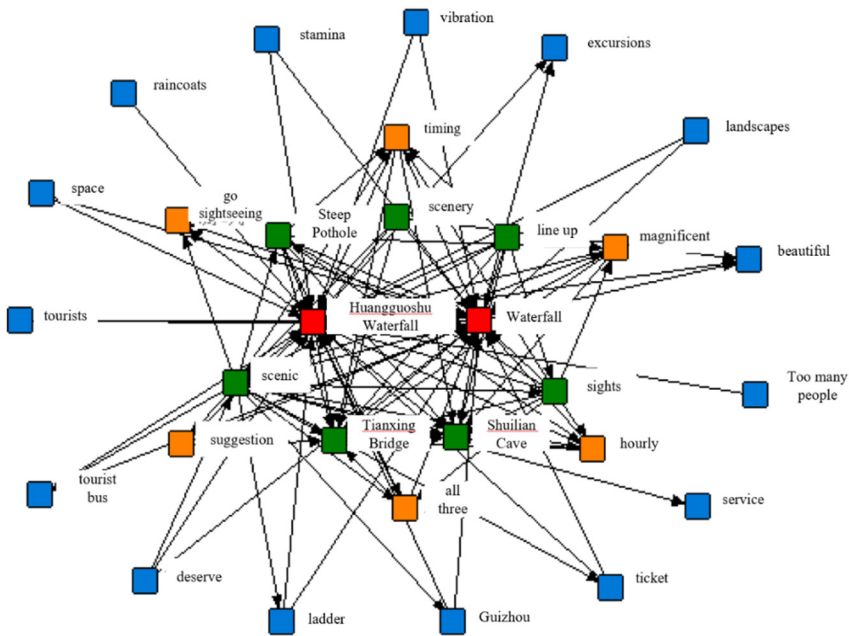

Fig. 1. Semantic analysis of Huangguoshu Waterfall on the web

5   CONCLUSIONS AND STRATEGIES

(1) Increase scenic experience programs to enhance the value of visitors' sensory experience.

In the sensory stimulation of tourists in Huangguoshu Scenic Area, vision ranks first, followed by touch and hearing. Huangguoshu Scenic Area belongs to natural resource-

based scenic spots, and these rankings of sensory stimulation show that the scenic spot has done a successful job in terms of tourist attractions. However, there are still tourists who say that there are no particularly famous and attractive food stores in the scenic area, which is the only shortcoming of the trip. Some tourists also said that food plus beautiful scenery can make travel happiness increase. Therefore, the scenic area can add Guizhou's food snacks in the rest area of tourists, increase the food experience program for tourists, stimulate their sense of taste and smell, and enhance the value of tourists' sensory experience. The addition of beverage stores at fixed points not only allows visitors to stop and rest, but also stimulates their sense of taste and enhances the value of their sensory experience.

(2) Control the number of visitors and ensure the value of the emotional experience.

In the analysis of high-frequency words and network semantics of Huangguoshu scenic spot, the word "queuing" is ranked in the top ten of high-frequency words, and at the same time, queuing derives from the words "timing" and "hourly" in the network semantics analysis. At the same time, the words "time" and "hours" are derived from queuing in the semantic analysis, which indicates that Huangguoshu Scenic Spot does not control the number of tourists well, so that tourists' playing time is spent on queuing, and tourists' emotional experience of traveling is greatly reduced. Some tourists said especially in the summer vacation peak season period and ticket discount period, Huangguoshu scenic area foot traffic rose, whether it is a brush ticket into the scenic area or various attractions of the tour, need to queue for a long time, which gives tourists a bad travel experience. So the scenic area can be appropriate to limit the flow, to provide tourists with a more comfortable travel space; in the summer peak season can be canceled scenic area ticket concessions, in a specific period of time to the corresponding population to implement ticket concessions, so that tourists staggered travel; at the same time in the off-season, you can frequently launch tickets and scenic areas within the consumption of concessions, so as to drive the tourism economy in the off-season.

(3) Improve the management and service quality to enhance the service experience value of tourists.

Most of the tourists said that the route planning of the three attractions in the scenic area is unreasonable, so visiting the three attractions need to consume a lot of physical strength, so the relevant departments of the scenic area can re-plan the tour routes between the three attractions to provide multiple tour routes for tourists to choose, so that tourists can have a neither time-consuming nor costly travel in many choices; at the same time, the scenic area should be a real-time monitoring of the foot traffic of each route, and actively provide the best tour routes for the tourists to guide the tourists. At the same time, the scenic spots should monitor the crowd flow of each route in real time, actively provide tourists with the best play routes and guide them to make choices. Some tourists said that the commercial street at the exit of each attraction is like some kind of hidden mandatory consumption, so the scenic area can increase the exit point of each attraction or shorten the length of the commercial street in the scenic area, so that the tourists can make selective consumption. In the service provider, Huangguoshu scenic spot can carry out corresponding service training for the staff in the scenic spot, such as training in communication skills, service attitude and etiquette. Improve the

management and service quality, not only can make to improve the scenic area operational efficiency, but also can improve the value of the service experience of tourists.

(4) Improve development constraints to increase the value of the visitor cost experience.

Tickets are the sub-category elements with low attention and actual experience of tourists, limiting the sustainable development of Huangguoshu Scenic Area, and at the same time, the drawbacks of the scenic area development process are revealed. Regarding the issue of tickets, the scenic spot should designate a reasonable ticket price, follow the law of the market, and reasonably price the ticket. Some tourists said that the price of the scenic ticket and the actual experience of the project does not match, so the scenic area in the reasonable pricing on the basis of the scenic area can increase the cultural and creative experience projects, while reasonable pricing scenic area within the price of other consumer prices, such as the price of the escalator and so on. In Huangguoshu also has a project, you can add some activities and performances on the basis of large-scale light show appropriately.

FUNDING

REFERENCES

1. Jue Chen. (2014) Research on new structure of scenic and application of decision-making model. Tourism Forum, Zhejiang. DOI: 10.15962/j.cnki.tourismforum.2014.03.017.
2. Manyao Li. (2024) A Study of the Formation and Evolution of Unforgettable Experiences in Tourism. Resources and Environment, Zhengzhou. DOI: 10.13448/j.cnki.jalre.2024.041.
3. Xin Wang, Kai Bai. (2023) The Effect of Presence on the Emotional Experience of Virtual Tour Participants. Tourism Science, Shanxi. DOI: 10.16323/j.cnki.lykx.2023.02.007.
4. Weimei Zhang. (2020) Study on the Influencing Factors of Tourism Image of Celebrity Residence. Consumer Economy, Hunan. https://kns.cnki.net/kcms/detail/43.1022.F.20201015.1416.004.html.
5. Hongri Tan, Peilin Liu. Dalian (2021) Image Perception of Tourist Destinations by Network Text Analysis. Economic Geography, Liaoning. DOI: 10.15957/j.cnki.jjdl.2021.03.024.
6. Hongchang Zhang, Boyang Shu. (2019) Research on International Tourism Image Perception of Ethnic Villages Based on Network Text Analysis. Journal of Northwest University for Nationalities, Hubei. DOI: 10.14084/j.cnki.cn62-1185/c.2019.03.019.
7. Tingting Guo, Heqing Zhang. (2021) Study on the Perceived Dimension of Experiential Value of Cultural Heritage and Tourism Development. Business Economy, Guangzhou. DOI: 10.19905/j.cnki.syjj1982.2021.07.013.
8. Maccannell, D. . (1973) Staged authenticity: arrangements of social space in tourist settings. American Journal of Sociology, California. DOI:10.1086/225585.
9. Graefe, A. R. (1987) A framework for managing quality in the tourist experience. Annals of Tourism Research, Municipality of Stetkolich. DOI: 10.1016/0160-7383(87)90110-1.
10. Cohen, & E. (1979) A phenomenology of tourist experiences. Sociology, Palestine. DOI: 10.1177/003803857901300203.