

Research on tourism image perception in Shenyang National Forest Park, Liaoning Province, based on network text analysis

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Abstract

Based on the data of Ctrip Negative evaluations come from imperfect infrastructure, abandoned scenic spots, and inadequate development and utilisation of tourism resources. On this basis, five suggestions are put forward to give full play to the characteristics and advantages of scenic spots, improve traffic accessibility, rationally reduce the number of tourists, and increase the number of tourists. On this basis, five suggestions are put forward to give full play to the characteristics and advantages of scenic spots, improve traffic accessibility, rationally utilise high-quality resources, improve the management level of scenic spots, and improve the quality of facilities and services, improve the visibility of scenic spots, and break the seasonal restrictions on tourist projects. In this way, it strengthens the positive experience perception of tourists, improves the quality of scenic spot services, and meets the needs of tourists, thereby improving the re In this way it strengthens the positive experience perception of tourists, improves the quality of scenic spot services, and meets the needs of tourists, thereby improving the revisit rate and satisfaction of tourist groups.

Keywords

Web text analysis; Shenyang National Forest Park; Development recommendations; Tourism image perception

1. Introduction

With the implementation of the national development strategy of regional tourism, the total supply of tourist destination attractions is growing continuously, and the image perception of tourist destinations has a great influence on the decision-making process, tourist satisfaction and tourism motivation. Therefore, the influencing factors of tourism image perception have been the hotspot of academic research, and there are more qualitative and quantitative studies on tourism image perception both at home and abroad, but they are mainly focused on preset influ-

encing factors and designed data collection questionnaires [1].

With the rapid development of tourism big data, internet text analysis technology has been continuously applied to tourism research, and with its help, the study of tourist satisfaction is also an important and urgent topic. However, there are not many studies on tourist satisfaction in tourist and holiday forest parks using internet text. In order to provide tourists with richer and more accurate information, it is necessary to build a scientific and efficient tourist information database. Therefore, how to use big data technology to build a perfect tourism information system is one of the urgent problems to be solved.

2. Research Review

The concept of "tourism image" was put forward by Hunt in the 1970s, and scholars at home and abroad have carried out a lot of discussion and practice. In recent years, with the rapid development of information technology, scholars at home and abroad have carried out a lot of discussions on the application of network text in tourism image perception.

2.1. Status of Foreign Research

Foreign research on tourism image mainly focuses on the perception of tourism image, the influencing factors of tourism image, the types of tourism image, the behavioural patterns of tourism image and the marketing of tourism image. As a result, British tourists' perception of Spain's image and their perception of different regions are also different [2].

In terms of methodology, SPSS, GIS, MATHATIC, EPT, TSP and so on are the main technical methods, analysing both qualitatively and quantitatively, and quantitative analysis methods are gradually increasing. According to Crompton [3], the tourist's perceptions are made up of the synthesis of people's beliefs, opinions and impressions. In China, the perception of tourism image is still lagging behind, and in the late 1990s, scholars in China adopted a variety of methods on the basis of foreign cultures to study the image perception of tourists.

2.2. Current status of domestic research

Unlike foreign countries, our scholars' perception of tourism image perception is not deep enough, and there are more studies in planning and design. At present, China's tourism image perception theory, influencing factors, perception model, perception of empirical research, image perception assessment and other areas of more in-depth discussion. As for the models of tourism image planning, including Chen Chuankang's corporate image recognition system and Wu Bihu's technical process, the lack of participation of tourists and community residents makes it difficult to guarantee the scientificity and integrity of the whole planning programme.

Li Ping et al. [4] took Beijing as the research object and explored the image perception, overall perception and emotional tendency of urban tourism community. In

China, the perception of tourism image of Xi'an city was empirically analysed, and through the analysis of online text and questionnaire survey, the results of the study proved the correctness and scientificity of the two methods [5]; some scholars in China used Internet data for text mining and content analysis, and carried out research on the image perception of tourist attractions in cities such as Nanjing and Wuhan.

3. Research Design

This paper takes Shenyang National Forest Park as the object, uses the network text analysis method, with the help of ROST CM6 software, collates and analyses the network comments of tourists in Shenyang National Forest Park, so as to obtain tourists' preferences, perception level, and learns about the differences in tourists' experience, so as to provide a basis for the development and utilization of Shenyang Forest Park.

3.1. Overview of the study site

Shenyang National Forest Park is an urban forest park that consists of forests, water and mountains that are organically integrated and reflect each other. In summer, the forest is lush, and in winter, the sea of forests and snow, presenting the northern winter wonders. Shuangquan Temple, Leifeng Cave and other humanistic attractions add a unique charm to this forest park. Ninety-nine peaks, a collection of mountains, waterfalls, canyons and caves, collects tourist attractions such as Guanyin Terrace, South Heavenly Gate, Leifeng's period of war cave, Shuangquan Temple, Hidden Immortal Pavilion, Xianhe Pond and other tourist attractions, making it a good place for sightseeing, travelling, relaxation and holiday. There are many wild animal houses and children's play centres in the park. The forest is lush, the humidity of the air is high, the concentration of negative ions is also high, and the air is fresh, making it the best place for summer holidays.

3.2. Data Sources

Through the three major search engines of Baidu, Google and Sogou, Ctrip.com, Dianping.com, Antbee.com and other six sites with the most travel and comments about Shenyang National Forest Park were selected, and 696 pieces of travel information about Shenyang National Forest Park were centrally searched with the keyword "Shenyang National Forest Park". Among them, there are 400 articles on Dianping.com, 196 articles on Ma's nest, 35 articles on Ctrip, 10 articles on Meituan, 33 articles on Where to go, and 22 articles on Weibo; finally, a total of 452 effective reviews published by netizens from 4 October 2019 to 27 February 2022 were obtained. The distribution of the number of travel reviews on six websites is shown in Table 1.

Table 1. Distribution of the number of tourism reviews on six websites

Website name	Initial record		Valid Records	
	Number of	Percentage	Number of	Percentage

	records		records	
Popular Dianping.com	400 articles	57.47 per cent	350 Articles	77.44 per cent
MaBee's Nest	196 articles	28.16 per cent	26 articles	5.75 per cent
Ctrip	35 articles	5.03 per cent	35 articles	7.74 per cent
Meituan	10 articles	1.44 per cent	-	-
Where to go	33 articles	4.74 per cent	33 articles	7.3 per cent
Weibo	22 articles	3.16 per cent	8 articles	1.77
Total	696 articles	100.00 per cent	452 articles	100.00 per cent

3.3. Research Methods

The thesis uses the network text analysis method, with the help of ROST software, to study the tourism image perception of Shenyang National Forest Park in Liaoning Province. Network text analysis method is a processing method to symbolise, systematise and quantify network data. The thesis obtains tourists' tourism image perception of Shenyang National Forest Park by crawling the content of tourists' tourism network evaluation of Shenyang National Forest Park, and adopting ROST software to conduct word frequency analysis, semantic network analysis, and sentiment analysis [6].

4. Research results and analysis

Using ROST CM6 data analysis software, the valid review data collected in the review is imported into the text file, and the image perception characteristics of tourists are obtained by studying the high-frequency vocabulary, semantic network, and emotion analysis of tourists' evaluation of Shenyang National Forest Park.

4.1. Analysis of high-frequency vocabulary of scenic spots

Using the "word frequency analysis" function of ROST CM6 software, the frequency of 100 words in Shenyang National Forest Park was counted (see Table 2), and then manually eliminated "place", "located", "in" and "out"., "in", "on", "mountain", "free" and other words that are obviously not related to the research topic of this paper and will not affect the search results, and then selected 60 words with higher frequency.

Table 2. Statistics of high-frequency words in the network sample of Shenyang National Forest Park

Ranking	High-frequency words	Frequency	Ranking	High Frequency Words	Frequency	Ranking	High Frequency Words	Frequency
1	Forest	309	21	Landscape	47	41	Fresh	32
2	Shenyang	297	22	Mountaineering	47	42	Shenbei	32
3	By car	147	23	Worth it	46	43	NATURAL	32
4	National	124	24	Mountain tops	45	44	Southern Heavenly Gate	32
5	Tickets	120	25	Ranch	45	45	Walking	31
6	Suitable	102	26	Animal	43	46	Fire	30

7	Climbing	94	27	Picnic	43	47	Con- venience	30
8	Air	90	28	Selection	40	48	Fresh	29
9	Children	85	29	Not much	39	49	Fresh	29
10	Charges	70	30	Recom- mendation	37	50	Project	29
11	Ski re- sorts	68	31	Hiking	36	51	Kids	29
12	Scenic	67	32	kilometres	36	52	Aban- doned	29
13	Environ- ment	62	33	LOCATION	35	53	Happy	28
14	Facilities	57	34	Attractions	34	54	High- ways	28
15	Picking Garden	57	35	Winter	34	55	Peak	28
16	Scenery	56	36	Summer	34	56	Breath- ing	27
17	Plate Mountain	54	37	Traffic	33	57	Urban	26
18	Tents	53	38	Play	32	58	South Gate	26
19	Northeast Asia	52	39	Skiing	32	59	Trees	26
20	Weekend	49	40	Elevation	32	60	Chil- dren	26

In the frequency statistics of all online text words, the words "forest", "air", "fresh", "pasture" and "picking garden" reflect that tourists have a strong perception of the tourism image of Shenyang National Forest Park, which is mainly a natural landscape. "picking garden" and other words reflect that tourists have a strong perception of the tourism image of Shenyang National Forest Park, which is dominated by the natural landscape of the scenic area, while for tourists, "happy", "worthwhile" and "good place to go"., "good place to go" and other words are more reflective of their overall impression of this scenic spot is more satisfactory.

4.2. Visitor Sentiment Analysis

For the 452 valid comments of Shenyang National Forest Park, this paper classified them into high-frequency words with positive emotions, neutral high-frequency words, and high-frequency words with negative emotions using ROST CM6 software. Among them, 554 positive comments accounted for the highest proportion of 68.99%, 146 neutral comments accounted for a lower proportion of 18.18%, and 103 negative comments accounted for the least proportion of 12.83%. The results of the sentiment analysis of visitors to Shenyang National Forest Park are shown in Table 3.

Table 3. Sentiment analysis of visitors in Shenyang National Forest Park

Emotional evaluation	Frequency	Segmentation of emotional evaluation	Frequency	Frequency
Positive Emotion	68.99 per cent	General (0~10)	236 Articles	29.39 per cent
		Moderate (10~20)	156 Articles	19.43 per cent
		High (20+)	162 bars	20.17%
Neutral Mood	18.18 per	--	--	--

	cent			
Negative mood	12.83 per cent	General (-10 to 0)	74	9.22 per cent
		Moderate (-20~-10)	15 bars	1.87 per cent
		High (below -20)	7 bars	0.87 per cent

The types of emotions are divided into three main categories: positive, neutral and negative emotions. Positive emotions are a reflection of tourists' satisfaction with the tourist attractions, while negative emotions reflect areas of dissatisfaction with the scenic spots. Based on such analyses, the scenic spots can be adjusted and improved accordingly. The results of the ROST CM6 "Sentiment Analysis" study show that tourists in Shenyang National Forest Park have a high degree of overall recognition of the scenic spots, while neutral and negative emotions are relatively low.

5. Deficiencies in the tourism development of shenyang national forest park

At present, although the Shenyang National Forest Park tourism development has made certain achievements, but there are still some deficiencies, restricting the further high-quality development of the scenic area.

5.1. Low level of tourism product development, lack of reasonable planning

Tourism product is a comprehensive concept composed of a variety of different tourism factors, it plays a pivotal role in promoting tourism supply and consumer demand. After the completion of Shenyang National Forest Park, due to the lack of sufficient development and construction space, has not yet formed a good atmosphere of forest tourism, similar to other forest parks in China, the level of tourism product development is in a low state, resulting in scenic spots and scenic spots of poor relevance. The function of tourism products is relatively single, with mass and sightseeing products such as summer coolness, winter snow watching, etc. as the main products, lacking market competitiveness.

5.2. Shading effect of surrounding large scenic spots obvious

The tourism development of Shenyang National Forest Park faces a special problem, which is surrounded by the international scenic area of Qipanshan, Shenyang World Horticultural Expo Park, Shenyang Underwater World and so on. In such a big background, both the Qipanshan Scenic Area and the Shenyang World Expo Park are under the jurisdiction of the Qipanshan Scenic Area.

5.3. Outdated infrastructure, service management to be improved

The organic combination of the six elements of a tourist destination can effectively increase the number of tourists, improve tourism productivity, and promote the development and construction of tourist attractions. Shenyang National Forest Park

covers a vast area and is far away from the city centre, so some tourists will choose to travel by public transport or choose to drive to the attraction, and only on foot.

6. Shenyang national forest park tourism development suggestions

For the existing problems in Shenyang National Forest Park, based on the results of the text analysis of the tourists' network comments, Shenyang National Forest Park in the future development, should focus on the following aspects of work.

6.1. Give play to the characteristic advantages of scenic spots

Forest tourism resources are an important part in the development of the National Forest Park. Priority is given to the development of primitive forests, botanical gardens and other natural landscape experience quality; the development of special projects, such as oxygen absorption area, forest bathing, forest health walking belt and other activities.

6.2. Enhance traffic accessibility

In the absence of obvious geographical advantages, Shenyang National Forest Park should improve the accessibility of tourist attractions from multiple angles. Most of the forest park is located in mountainous areas with rugged highways and poor road conditions, so it is necessary to strengthen and update roadside protection measures to improve the safety and comfort of road traffic.

6.3. Rational use of quality resources

Shenyang National Forest Park has great attraction to tourists because of its unique ecological environment and rich human resources, and as long as the right approach is taken, it can make its cyclic development and generate great economic benefits, therefore, Shenyang National Forest Park should carry out recreational activities in moderation under the premise of maintaining ecological balance.

Therefore, Shenyang National Forest Park should improve its internal infrastructure construction in a timely manner, and strengthen its supporting services, and strengthen the humane management of forest tourism and management focusing on experience; through the operation and management of tourism enterprises.

7. Conclusion

This paper analyses 60 typical tourism images of Shenyang National Forest Park empirically, and the results show that tourists' perceptions of the scenic area are mainly manifested in five aspects: natural environment, scenic spots, recreational activities, facilities and services, transportation and so on. Negative perceptions are mainly manifested in: ① natural environment: artificial landscape will have a certain impact on the natural landscape, while tourists are not satisfied with the degree of use of natural resources in the park; ② tourist attractions of scenic spots: the de-

gree of perception of humanistic landscapes is low, and the original activities of feeding small animals for free are now turned into chargeable items; ③ recreational activities: the scenery along the hiking routes is not rich enough, Infrastructure construction is not in place. On this basis, this paper puts forward three suggestions to give full play to the characteristic advantages of the scenic spots, so as to increase the satisfaction and revisit rate of tourist groups.

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