



# From Tourist Destination Image Perception to Optimization of Scenic Area Operation and Management

## Taking Guilin Rongchuang International Tourism Resort as an Example

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**Abstract.** Nowadays, the rapid development of the internet has enabled the managers of scenic areas to use big data to know how tourists perceive the tourist image of scenic areas, so that they can optimise and adjust their own operation and management strategies. Therefore, the article adopts the content analysis method, with the help of Octopus collector and ROST CM6.0 software, and takes the tourists' reviews posted on Ctrip as the original data, based on the "cognitive-emotional" model, it analyzes the tourists' cognitive image, emotional image and composite image of Guilin Rongchuang International Tourism Resort in depth, and further analyses the reasons for the negative emotions of tourists, with a view to providing a reference for the optimization of the operation and management of this scenic area.

**Keywords:** Scenic area operation and management · Destination image perception · Rongchuang

## 1 Introduction

Tourism destination image perception is the expression of subjective impressions such as awareness and emotions that tourists have of the destination through information acquisition or personal experience. Relevant studies have shown that tourism destination image plays a vital role in the development of tourism destinations and is an important factor influencing the awareness and decision making of potential tourists [4]. This shows the importance of creating a good image of a tourist destination. To create a good image of a destination, it is important to understand how tourists perceive the image of the destination, to identify the problems and shortcomings of the destination as perceived by tourists and to improve it. With the rapid development of the Internet, social media and other Internet platforms have gradually become the mainstream forum for tourists to share their travel experiences and travel experiences, and the open and inclusive nature of the Internet also enables the views expressed by tourists to reflect

their true feelings about the image of tourism destinations in a more comprehensive manner, which undoubtedly provides a large amount of objective online text data for the study of tourists' perceptions of the image of tourism destinations, thus making the research in this area more comprehensive and scientific. Based on this, the article analyzes tourists' perceptions of Guilin Rongchuang International Tourism Resort's tourism image, using tourist reviews posted on the Ctrip website as raw data, and looks for the causes of tourists' negative emotions, in order to provide reference for the adjustment and optimization of the operation and management strategies of this scenic area.

## **2 Theoretical Foundations**

The "cognitive-emotional" theory, first used in psychological research by Michel and Shoda, suggests that cognition is the basis for emotion and emotion is the result of cognition. Baloglu and McCleary extend this theory by proposing a "cognitive-emotional" model of destination image perception, which classifies the perceived image of a tourism destination into cognitive, emotional and composite images. The cognitive image is the visitor's perception of the attributes of the destination, the affective image is the projection of the visitor's emotions towards the destination and the composite image is the visitor's perception of the overall image of the destination [2]. Currently, the "cognitive-emotional" model is widely used in the measurement of the perceived image of tourism destinations, which has strong theoretical implications for this study.

## **3 Study Design**

### **3.1 Case Site Selection**

Guilin Rongchuang International Tourism Resort is located in Yanshan District, Guilin City, Guangxi Zhuang Autonomous Region, and is a landmark project of Guilin City to "attract big and strong". The entire resort is inspired by Guilin's landscape culture and ethnic culture, and integrates many leisure elements such as "sea world", "water world", "happy tribe", "Rongchuang hotel group", "Lijiang Houhai commercial town", etc., which can meet the all-round needs of visitors in terms of "food, accommodation, transportation, tourism, shopping and entertainment". According to statistics, during the National Day Golden Week in 2021, Guilin Rongchuang International Tourism Resort received a total of 290,000 visitors, which has become a new growth pole of Guilin's tourism economy and a great boost to the development of Guilin tourism. Therefore, the study of Guilin Rongchuang International Tourism Resort as a case study is not only universal and representative, but also of great practical significance.

### **3.2 Data Acquisition and Pre-processing**

The visitor reviews of Guilin Rongchuang International Tourism Resort in Ctrip.com were selected as the original data. After eliminating invalid comments such as pure picture comments, system default comments and repeated comments by the same person, a total of 696 visitor comments were obtained. On this basis, the text data were processed as follows:

- The typo processing, i.e., the correction of the typos in the web text;
- The establishment of the merged word group table, i.e., the unification of words that indicate the same place or have similar meanings;
- The establishment of the filter word table, i.e., the filtering of some prepositions, pronouns and coronals that are not related to the research purpose, in order to exclude their influence on the output results.

Finally, the processed text data were saved in “txt.” format, which was used as the base data for this study.

### 3.3 Research Methods and Tools

In terms of research methodology, this study uses the content analysis method, an unstructured measure of tourism destination image. Content analysis is a literature research method that transforms non-systematic and non-quantitative symbolic content such as text and images into systematic and quantitative data before further quantitative analysis of the material content [3]. Since this study was conducted on the basis of online texts, specifically, this study uses the content analysis method of online text analysis, which is an objective, systematic and quantitative description of online texts disseminated in virtual cyberspace [1].

In terms of research tools, the research tools used in this study are Octopus Collector and ROST CM6.0 software. The Octopus Collector is a universal Internet data collection tool that simulates human web browsing behavior and generates an automated collection process through page tapping, thus converting the collected web data into structured data and storing it. And ROST CM6.0 software is a content mining system software developed and designed by Professor Shen Yang of Wuhan University, which can analyze the content of chat, web pages, microblogs, journals, etc., with functions such as word separation, word frequency statistics, social network and semantic network analysis, and sentiment analysis, which can deeply mine and process the text content [5].

## 4 Tourism Destination Image Perception Analysis

### 4.1 Cognitive Image Analysis

With the help of ROST CM6.0 software, the text data was word-sorted using a custom word-sorting table, followed by a custom subsumed word grouping table and a filtered word table for the Chinese word frequency statistics of the text data, and finally the top 50 high-frequency words were extracted (Table 1) for the analysis of the cognitive image of visitors to Guilin Rongchuang International Tourism Resort.

Firstly, since this study uses Guilin Rongchuang International Tourism Resort as the case study, the frequency of “Guilin” and “Rongchuang International Tourism Resort” are much higher than other words, ranking in the top two. Secondly, the high frequency of the terms “sea world”, “ferris wheel”, “happy tribe” and “water world” indicates that the attractions in this destination are highly regarded by tourists, with “sea world” receiving the highest attention, ranking third only after “Guilin” and “Rongchuang International

**Table 1.** High-frequency words of Guilin Rongchuang International Tourism Resort web text

N	W	F	N	W	F
1	Guilin	269	26	exciting	25
2	Rongchuang	163	27	super	24
3	sea world	79	28	facilities	23
4	ferris wheel	77	29	karting	23
5	Travel	76	30	cute	23
6	Fun	73	31	time	23
7	Project	71	32	rafting	23
8	Children	71	33	feature	22
9	Hotel	70	34	Guangxi	22
10	Performance	64	35	value for money	21
11	Animals	53	36	scenery	21
12	happy tribe	51	37	Yangshuo	21
13	experience	50	38	room	20
14	play	48	39	admission	20
15	suitable	43	40	feeling	20
16	mountain and water	42	41	vacation	19
17	dolphin	41	42	Yanshan district	19
18	amusement park	40	43	mermaid	18
19	worth	36	44	nice	18
20	parent-child	31	45	suggest	17
21	friend	30	46	Surroundings	16
22	water world	29	47	By	16
23	good place	28	48	Next time	16
24	photo shoot	26	49	Queue	15
25	interactive	26	50	Li River	16

N = No. W = Words F = Frequency

Tourism Resort”. Thirdly, terms such as “children”, “parent-child” and “friend”, which denote groups of tourists, also appear more frequently, suggesting that tourists perceive the destination’s source market to be children and friends and relatives, which is a good indication that the destination has a broad source market in this area. Finally, words such as “fun”, “worthwhile”, “value for money” and “nice” also appear very frequently, indicating that visitors have a high overall opinion and impression of the destination.

**Table 2.** Sentiment analysis of Guilin Rongchuang International Tourism Resort web text

Emotion Type	Proportion	Strength	Percentage
Positive Emotion	60.36%	Fair	30.77%
		Moderate	15.68%
		High	13.91%
Neutral emotion	14.50%	/	/
Negative emotion	25.15%	Fair	13.31%
		Moderate	5.92%
		High	2.96%

## 4.2 Emotional Image Analysis

The sentiment analysis function of ROST CM6.0 software was used to analyse the sentiment of the collected and collated web text data in order to obtain the visitors' perception of the emotional image of the study case, and the results are shown in Table 2.

As can be seen from Table 2, the proportion of positive emotions of tourists is the highest, as high as 60.36%. It can be seen that tourists' emotional image perception of Guilin Rongchuang International Tourism Resort is generally more positive, which echoes the positive words that appear in high frequency earlier. However, in the results of the sentiment analysis, the proportion of negative emotions among tourists was 25.15%, which shows that there are still some shortcomings in Guilin Rongchuang International Tourism Resort that cause negative emotions among tourists. By analysing the online texts to which the negative sentiment belongs, four reasons for the negative sentiment of visitors can be summarised: (1) Price factors; for example, some visitors reflected in their comments that the prices of the tour programs were too high, and that the settings of concessionary fares, especially those for university students, were not reasonable enough, etc. (2) Service factors; for example, some visitors reflected in their reviews that the attitude of the service staff is not good and the service level needs to be improved, etc. (3) Weather factors; as the resort has more outdoor projects, the weather has caused more negative emotions among visitors, such as some visitors reported that they were forced to cancel their tour plans due to the rain, etc. (4) Passenger flow management factors; for example, some visitors expressed in their comments that the queues are long on holidays and the park is crowded resulting in a poor experience, etc.

## 4.3 Composite Image Analysis

As neither high-frequency words nor sentiment analysis can reflect the deeper connections and structural relationships between words in the online texts, they cannot present tourists' perceptions of composite images of tourism destinations in a more intuitive way. Therefore, the article makes use of the semantic network analysis function of ROST CM6.0 software to conduct semantic network analysis on the collated web text



composite image of Guilin Rongchuang International Tourism Resort can be generally summarised as “a place with interactive and experiential activities, with mountain and water features, suitable for family and friends and with a high degree of playability”.

## 6 Discussion

Based on the above conclusions, the following suggestions for the future operation and management of the scenic area can be provided: (1) Extract public opinion to optimize the fare structure, implement hierarchical fares for different groups of people, and provide official explanations on the fare settings, while the price unification between the official platform and various OTA marketing platforms should be realized to avoid negative emotions among tourists due to price issues. (2) Regularly carry out training for service staff to improve and optimise the overall service quality of the resort and enhance visitor satisfaction. (3) Build an online information sharing platform and implement visitor diversion management to improve the overall operational efficiency of the resort and reduce the negative impact caused by the large number of visitors. (4) Carry out diversified indoor play activities to weaken the impact of weather factors on visitor satisfaction. (5) The management of the currently well-recognised amusement programmes should continue to be strengthened in order to drive up the tourism image of the entire resort.

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