

Research on Image Perception of Relong Hot Spring Resort Based on Resource Endowment Combing and Network Information Mining

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Keywords: Cultural and Tourism Resources, Web Text Mining, Baidu Index, Tourist Perception, Relong Hot Spring.

Abstract: Hot springs have become an important part of health and wellness tourism products with their distinct and unique healing properties. This article takes Guangdong Relong Hot Spring Resort as the research object. On the basis of sorting out the cultural and tourism resource endowment of hot spring tourist destination, the article uses Baidu Index to observe the network attention of Relong Hot Spring from 2011 to the first quarter of 2021, using the ROST semantic network and social network generation tool to obtain the typical high-frequency feature words of tourist evaluation and the positive emotion ratio of Internet word-of-mouth evaluation. Combined with the results of the Internet cloud questionnaire, the article conducts a multi-dimensional research on the image perception of hot spring tourist destination, in order to identify areas to be improved, such as leisure and vacation settings, accommodation and reception facilities, public area equipment, staff service quality, so as to propose development strategies such as coordinated and diversified development, upgrading product levels, focusing on tourist needs and innovative theme marketing. The article provides decision-making basis for the high-quality development of Relong Hot Spring Resort.

1 INTRODUCTION

The fast-paced modern life and huge social pressure have gradually increased the number of sub-healthy people, and consumers have an increasing demand for physical and mental recuperation. Especially after the COVID-19 in the spring of 2020 and when the epidemic prevention and control is normalized, health and wellness tourism has swept the tourism market with a rapid momentum. Hot springs have become an important part of health-care tourism products due to their unique healing properties, and they have greater market potential and development space.

Heyuan City, known as the "Hot Spring Capital", is rich in hot spring resources, and 35 hot spring resources have been proven to be developed (Jiang, 2018). The development and utilization of hot spring resources in Heyuan has a long history. There are 11 geothermal resources that have been developed and utilized. Among them, 5 comprehensive hot spring resorts have been rated as national 4A scenic spots. Therefore, Heyuan has become one of the important hot spring tourism destinations in the mountainous area of northeastern Guangdong, expanding the four major hot spring cultural tourism development sections of Yuancheng District, Heping County,

Dongyuan County, Zijin County. Relong Hot Spring Resort is the core part of the Heping Hot Spring Capital Tourist Resort, which is the provincial-level tourist resort. Based on resource endowment investigation and network information mining, this paper conducts image perception evaluation research for Relong Hot Spring, analyzes and proposes strategies.

2 OVERVIEW OF THE RESEARCH AREA

Relong Hot Spring Resort is located in Nanhu Village, Rehui Town, Heping County, Heyuan City. It officially opened in 2006. It is 25 kilometers away from the county seat, 23 kilometers away from Longhe Expressway (Exit of Fuhe Avenue), and 47 kilometers away from Daguang Expressway (Exit of Xinfeng) (Shenzhen Window, 2021). Relong Hot Spring has abundant geothermal resources and excellent quality. The temperature of the spring water jetted out is as high as 88°C, the daily flow rate is 6000 cubic meters, the water quality is relatively alkaline, and the PH value is 7.42. The water is crystal clear, and it is rich in more than 60 kinds of trace mineral

elements beneficial to human health such as metasilicic acid. It can prevent rheumatoid arthritis, muscle strain and other diseases. It is one of the world-class pure natural and pollution-free medicinal hot springs (Zhang, 2018).

Under the guidance of the strategic goal of "village revitalization and enterprise integrated development" (Shenzhen Window, 2021), Relong Hot Spring Resort takes the green and ecological environmental concept as the design blueprint, integrates the essence of traditional Hakka culture, gives a vivid leisure vacation business conference concept, and uses barren mountains and original natural ecological landforms to create a paradise where people and nature live in harmony (Zhang, 2018). The Hakka villa buildings stand on the water surface, and the rose log villas are blooming like a brocade. They are integrated with the landscape environment which can be called "mirages on the hot springs" (Zhang, 2018). The resort takes hot spring products as the main line, constructing a series of tourism products such as hot spring healing enjoyment, rafting leisure experience, natural scenery viewing, combining health care, vacation, sightseeing and other functions, comprehensively displaying

Hakka culture, ecological agriculture and forestry culture, healthy culture. The resort was rated as a national 4A-level tourist attraction in 2010, and was selected as a characteristic town cultivation bank by the Guangdong Provincial Development and Reform Commission in 2018.

3 COMBINING OF CULTURAL AND TOURISM RESOURCE ENDOWMENTS IN THE HEPING HOT SPRING CAPITAL TOURIST RESORT

Relong Hot Spring Resort is an important part of the "Heping Green Valley Hot Spring Health Industrial Park", which is one of the five major industrial areas in the "Peace Hot Spring Capital Tourist Resort". In addition to geothermal, ecological, rafting resources, there are also excellent cultural and tourism resources such as Hakka culture, traditional folk customs, ancient villages and revolutionary sites in the

Table 1: Evaluation table of main tourism resources in Heping Relong Hot Spring Capital.

Types of tourism resources		Tourism resource monomer	Rating	Rank	
Main category	Basic type				
Geographical landscape	Hill type tourist spot	Jiulian mountain (AAA)	84	Level 4	
		Tea mountain (AAA)	65	Level 3	
Water scenery	Sightseeing and rest lake section	Lijiang (Hot water river) (BAA)	82	Level 4	
		Hot water rafting (BAA)	80	Level 4	
	Sightseeing and recreational lake district	Taoyuan lake reservoir (BBA)	50	Level 2	
Biological landscape	Geothermal and hot springs	Hot springs (BDB)	85	Level 4	
	Woodland	Jiulianshan forest (CAA)	78	Level 4	
	Clump of trees	Alsophila (CAB)	65	Level 3	
Ruins	Place of historical event	Dongjiang oclumn base (EBA)	65	Level 3	
	Abandoned production site	Taiping Heavenly Kingdom forging sword workshop (EBD)	47	Level 2	
Buildings and facilities	Religious and sacrificial activity venues	Lagerstroemia palace (FAC)	61	Level 3	
	Tradition and vernacular architecture	Shizhen new house (FDA)	58	Level 2	
		Zhouwu village (FDA)	60	Level 3	
		Jiulianshan Hot Spring Resort (FAB)	91	Level 5	
	Health, sports, recreation and leisure resort	Relong Hot Spring Resort (FAB)	93	Level 5	
		South Lake East Bank Villa Hotel Group (FAB)	90	Level 5	
Architectural sketches	Star camp (FAB)	68	Level 3		
Tourist goods	Ukrainian gallery (FCK)	72	Level 3		
	Agriculture, forestry and livestock products	Hakka native products (GAB) (Hakka brewing, peanut oil, etc)	52	Level 2	
Humanities activities	Local customs and folk etiquette	Dishes and diet	Hakka cuisine (GAA)	50	Level 2
		Hakka life and folk customs (HCA)	60	Level 3	
Other	Other	Hakka production folklore (HCA)	60	Level 3	
		Hakka countryside scenery	65	Level 3	

surrounding area. According to the evaluation index system and scoring standards listed in "Tourism Resource Classification, Investigation and Evaluation Form" (GB/T 18972-2003), the resource evaluation results of Heping Relong Hot Spring Capital are shown in Table 1. The third-level and above-level tourism resources account for more than 78% of the total resources. Relong Hot Spring Resort has the highest score among the listed tourism resources, reaching 93 points. Spring Capital are of excellent value and distinctive features. Firstly, the advantages of natural resources are outstanding. The overall forest coverage rate in the area is 83%, and there are many kinds of animals and plants. There are a large area of rare plants *Alsophila spinulosa*. The excellent ecological environment has given birth to a natural oxygen bar with an average annual temperature of 19.7°C. The ecological environment such as geological landscape and water scenery is unique and can be used in depth; secondly, it is rich in human resources and profound cultural heritage. Many ancient Hakka villages in the town are dotted in the tourist area. There are unique Hakka surrounding dragon house architecture and unique Xinglong Hakka folk customs, including Hakka crying marriage, Hakka gongs and drums, and anti-folk songs, all of which enhance the cultural connotation of the tourist area. Heping county is an old revolutionary base area. Jiulian mountain in Reshui town was once the base area of the Dongjiang column for the revolutionary armed struggle. The site of the Dongjiang column is the existing revolutionary history education base; thirdly, the hot spring resources are rich. The water storage in the project site is extremely rich, the hot spring is rich in mineral content, there are many hot springs exposed, the water temperature is high, and the water quality is excellent; finally, the existing tourist attractions planning concepts are novel. The rafting channel of the Lijiang River's hot water section has developed 6.5 kilometers of daily drifting and 3.5 kilometers of night drifting projects. The 5D water show dream project of Relong Hot Spring is the world's first large-scale real-life ecological experience show. Using high-tech means, it gorgeously presents an interactive fashion entertainment show that integrates viewing, listening, smelling, tasting, and touching experience, integrating cultural innovation, fashion sports, adventures and stimulating romance in a natural river. (Mafengwo, 2020)

4 IMAGE PERCEPTION ANALYSIS OF RELONG HOT SPRING BASED ON BAIDU INDEX AND ROST TEXT MINING

4.1 Research Method Introduction

Search engine is an important way for potential tourists to inquire about relevant information of travel destinations. Through search engine data, it is possible to analyze potential tourists' attention to travel destinations (Chai, 2021). Baidu is the largest Chinese search engine in China, with a penetration rate of 90.9%, so Baidu search can better reflect the situation of potential tourists searching for information (Chai, 2021). ROST text mining software makes unstructured measurement of tourism perception image, transforming from qualitative to quantitative, it can form a high-frequency vocabulary of network evaluation, sentiment analysis table, presenting more clearly and intuitively, this can ensure that the research conclusions are true and valid.

4.2 Data Mining and Analysis

The network attention data collected by Baidu Index in Relong Hot Spring in recent years is shown in Table 2. The data shows that from 2011 to the first quarter of 2021, the overall network attention average trend value of Relong Hot Spring is 17, the interim data from 2011 to 2013 was relatively optimistic. Since then, attention has become increasingly sluggish, especially after the outbreak of the COVID-19 in the spring of 2020. After the normalization of epidemic prevention and control, the attention data has also become unstable.

Table 2: Analysis table of network attention of Relong Hot Spring based on Baidu Index.

(Statistical time: January 1, 2011 to April 1, 2021)

Observation timeline	2011year	2012year	2013year
Overall trend	41	52	42
Observation timeline	2014year	2015year	2016year
Overall trend	18	9	3
Observation timeline	2017year	2018year	2019year
Overall trend	2	3	11
Observation timeline	2020year	The first quarter of 2021	
Overall trend	6	1	
Average trend value	17		

Table 3: Image perception of Relong Hot Spring based on ROST software.

Statistics time: February 2020 is used as the time cut-off point for the comparison of the situation before and after the outbreak of the COVID-19

Number of web text collection samples before the epidemic	525 items	Number of web text collection samples after the epidemic	77 items
Typical high-frequency feature words evaluated by tourists before the epidemic	Good hot spring Service Water villa Hotel facilities Damp Experience	Typical high-frequency feature words evaluated by tourists after the epidemic	Hot spring water Authentic Environment Fresh air Breakfast Waiter
Overlapping high-frequency words in tourist reviews	Hot spring, environment, room, villa, service, breakfast		
Percentage of positive emotions in online word-of-mouth evaluations before the epidemic	76.76%	Percentage of positive emotions in online word-of-mouth evaluation after the epidemic	64.94%

In this paper, samples of web text collection are obtained on Ctrip.com, and the results of ROST web text mining analysis are shown in Table 3. Typical high-frequency feature words in tourist evaluations intuitively reflect the focus of tourists' attention to tourist destinations. Regardless of before and after the epidemic, tourists pay more attention to hot springs, environment, rooms, villas, services, breakfast, and always hold a positive attitude towards hot spring water quality. Before the epidemic, tourists had more positive comments on employee services, but after the epidemic, there was a serious loss of employees, and the age of in-service employees was generally slightly older, so service satisfaction decreased significantly; at the same time, tourists pay attention to hotel facilities and villa equipment. Since the water villas are built on the swan koi pond, tourists have a lot of complaints about the rusty door handles, foggy shower glass and the accommodation environment with a strong smell of water vapor due to humidity, as well as the light-proofness of hotel curtains and the hygiene of slippers are mentioned by tourists. After the epidemic, tourists pay more attention to health factors. The superior natural environment, fresh air and hot spring baths all bring guests a better healing experience, but breakfast needs to be improved. In general, the proportion of positive emotions in online word-of-mouth evaluation after the epidemic has declined compared with before the epidemic.

5 EVALUATION AND ANALYSIS OF TOURISTS' PERCEPTION QUESTIONNAIRE IN RELONG HOT SPRING RESORT

5.1 Survey of Tourist Perception Questionnaire

In order to have a more direct understanding of tourist market conditions, tourist perceptions and needs, we have set up cloud questionnaire survey points at the resort lobby, hot spring experience area, hot water drift area, rose garden area, restaurant and other tourist reception gathering places. From March 1, 2021 to March 19, 2021, a total of 509 valid questionnaires were obtained. The content of this questionnaire survey involves tourists' demographic characteristics, tourism perception, consumption and overall satisfaction. The occupational composition of the interviewed tourists is diversified, with corporate staff accounting for 16%, students accounting for 19%, and freelancers, corporate management personnel and teachers accounting for 14%, 13% and 11% respectively. The trend of younger tourists is obvious. Young people born in the 90s and 80s (18-35 years old) accounted for 59.9% of the total number of tourists surveyed, and their age structure showed a typical normal distribution trend. The surveyed tourists have a relatively high level of education, with a bachelor/college degree or above reaching 59%.

5.2 Data Analysis of Tourist Perception Questionnaire

The survey results show that Relong Hot Spring has a good revisit rate. 14% of the interviewed tourists have visited more than three times, 42% of the interviewed tourists have visited for the second time, and the remaining 43% have only visited once. Tourists have a good evaluation of the climate comfort of the resort, with more than 36% of tourists feeling very comfortable, and 52% of tourists feeling relatively comfortable. 41.6% of the interviewed tourists believed that the hot spring water quality and service in the Relong Hot Spring Resort area were better than other places, followed by the rose garden area and hot water rafting. 47% of tourists favor the Hakka cuisine provided in the resort and believe that the local characteristics are outstanding. They include Hakka-style meals such as Yuzhu beef and wild hand-stripped beef, as well as Yangming braised pork and Dongjiang warrior dishes full of revolutionary memories. Although many tourists think that accommodation and reception facilities are cost-effective, but the cleanliness and comfort of holiday reception facilities need to be improved, and the utilization of resort resources also needs to be deepened. The overall statistics are shown in Table 4.

6 COMPREHENSIVE ANALYSIS AND DEVELOPMENT STRATEGY OF RELONG HOT SPRING BASED ON RESOURCE ENDOWMENT AND PERCEPTION DATA

6.1 Comprehensive Analysis

Combining the analysis of resource endowments and tourist perception data, it can be found that Relong Hot Spring has outstanding advantages in natural resources, unique geothermal resources and rich cultural resources. The developed hot springs, rafting, rose gardens, Hakka catering have a good reputation. The ecology, climate and style of the resort are well received. However, the leisure and vacation settings, accommodation and reception facilities, public area equipment and staff service quality need to be improved. It can be said that the Heping Relong hot spring area has many municipal and even provincial cultural and tourism resources. Although the quality is high, the basic facilities are insufficient, and the overall tourism experience needs to be improved. Tourism products are mainly primary sightseeing and shallow leisure. The overall extensive business development level is not high, the humanistic atmosphere is weak, the per capita consumption is low, the effective value of regional resources has not been realized, and the effect of industrial extension and integration is very small. In addition, the unstable

Table 4: Summary of tourist perception questionnaire data.

Survey item (Converted score)	Average score
Tourist revisit rate (5 points)	3.3
Subjective evaluation of convenience and comfort by tourists (5 points)	4.1
Tourist evaluation of climate comfort (5 points)	4.2
Tourist evaluation about style and characteristics of architecture and landscape (5 points)	4.2
Tourist evaluation of humanistic atmosphere (5 points)	4.3
Tourist evaluation about scientific and orderly nature of tourist behavior management (5 points)	4.2
Tourist evaluation of brand image and attractiveness (10 points)	8.1
Tourist evaluation of vacation resources (10 points)	7.4
Tourist evaluation of accommodation and reception facilities (10 points)	8.7
Tourist evaluations about local characteristics of dining (10 points)	8.7
Tourist evaluation on the diversity and quality of leisure resort facilities (10 points)	8.0
Tourist evaluation on cleanliness and comfort of holiday reception facilities (10 points)	7.5
Tourist evaluation of comprehensive service quality (10 points)	8.1
Total (100 points)	80.8

situation of the domestic epidemic situation has had a certain impact on the overall development of the resort. First, there is a loss of employees, and secondly, the overall source of customers is affected. The vast majority of traditional tourists in Relong Hot Spring come from Hong Kong. Due to various reasons, the visits between tourist sources and destinations have been blocked, Hong Kong visitors have dropped sharply, and 70% of Hong Kong's tourist sources have been lost. At the same time, the decline in online search attention is also related to the project's unidentified brand image, which has caused confusion in public perception.

6.2 Development Strategy

6.2.1 Coordinate and Diversify Development and Upgrade Product Level

Heping Relong Hot Spring Resort is an existing 4A leading project in the city of Heping Hot Springs. The development of key projects in other parks should be driven by the leader, so that the hot springs will develop connotatively, deepen the development of regional resources, and turn the hot spring capital into the core of cultural tourism. Focusing on the development of Relong Hot Spring Resort, we must promote the improvement of the surrounding environment of the project and the improvement of supporting facilities, create a foundation for exquisite landscapes, upgrade from mass experience to mid-to-high-end experience vacation, it can enrich hot spring tourism products to upgrade the leisure and vacation business, and then cultivate industrial clusters of "tourism +" related industries, integrating cultural experience products, cultural interpretation products, ecological science products, ecological amusement products, health care products and high-end holiday products to develop together.

6.2.2 Deeply Cultivate the Core Customer Group and Position the Market Path

At present, the target market of Relong Hot Spring Resort is mainly concentrated in the Pearl River Delta urban agglomeration and other cities in Guangdong. At this stage, we should deepen the traditional market in the Pearl River Delta, focusing on hot spring culture and leisure, boutique rural leisure, characteristic agricultural leisure, health care, and red history education, consolidating the self-driving travel market, weekend and small holiday markets. At the same time, under the favorable background of integrating into the Guangdong-Hong Kong-Macao Greater Bay Area, we

strengthened the promotion of brand products such as hot spring cultural experience, folk custom experience, Hakka cultural experience, ecological summer vacation, restoring the attractiveness of Hong Kong, Macao and Taiwan customers as much as possible to form a long-distance leisure holiday market.

6.2.3 Pay Attention to The Needs of Tourists and Innovate Thematic Marketing

On the basis of resources, we will carry out targeted development and design on the basis of grasping the needs of tourists, and do a good job of theme positioning and marketing strategies. Here are three types of topics for reference: The first is the resource induction type-"the sea of trees and bamboo, the original hot spring township", which reflects the characteristics of the resource endowment of the resort and makes tourists yearn for resources; the second is the value identification type-"Peace Green Valley, Hot Spring Capital", which extracts the value associations that resource characteristics can bring to tourists, and allows tourists to identify and resonate with the value spread by the resort; the third is the emotional summoning type-"the ancient Hakka town, the impression of peace", which extracts the spiritual core of the region and carries out general emotional implantation, thereby generating links with tourists. In addition, we implement precision marketing around themes, pay attention to the maintenance of online reputation, upgrade and build a self-media platform, and realize the integration and complementarity of all-media marketing channels.

6.2.4 Optimize Service Management and Build System Mechanism

In accordance with the strict regulations on the normalization of national epidemic prevention and control, we will do a good job in cooperation. On this basis, we do a good job in internal skills training such as complete facilities and equipment, employee service training. On the one hand, we start with the renovation of existing facilities and equipment in Relong Hot Spring Resort, and the quality of supporting catering in scenic spots, so as to improve tourists' intuitive experience of hardware; on the other hand, we will strengthen the training of employee service quality improvement, in order to improve employee quality in terms of service awareness, service etiquette, service skills, service communication, and form a customer service system such as "first inquiry responsibility" and "complaint prevention", so that tourists' evaluation of service quality has improved. From a long-term perspective,

on the basis of improving the quality of the resort's customer service, a top-down four-in-one management system will be formed within the county area. Government departments, tourism companies and the public will collaborate to form a stable closed-loop mechanism. The government regulates industry standards, mobilizes scenic spots and industries to jointly create tourism brands, coordinates large-scale marketing from the government level, and reduces resistance to project advancement; industry associations strengthen management, respond to government policies, and realize multi-industry penetration and cooperation development; residents participate in the work of scenic spots in various forms, actively seek employment, and improve their own income level and quality of life; tourists strengthen their own qualities, practice civilized tourism, and jointly build civilized scenic spots; the smooth connection between the resort and various scenic spots aims to achieve tourism in large scenic spots. Based on the Relong Hot Spring Resort, we will optimize multi-party management and improve the quality of service supply to truly bring tourists a high-quality travel experience.

7 CONCLUSIONS

Heping Relong Hot Spring Resort should clarify the core position of its Heping Lvgu hot spring health care industry, sort out background resources, integrate local culture, and proceed from market demand to comprehensively improve various infrastructure and service equipment. It is necessary to deal with the various contradictions of the overall construction, develop various high-quality tourism products, create bright tourism projects, and realize the transformation of resource-based tourism products into quality and ecological tourism products. The resort pays attention to tourism promotion and marketing to form a good overall tourism brand image. It also needs to improve tourism operation and management, and train employees to have standardized and standardized service knowledge, skills and accomplishments. The coordinated development of government and enterprises has established an effective mechanism to adapt to the market economy. In the future, the Heping hot spring capital will be truly built into a national level tourist resort integrating "health, comfort, culture, customs, and landscape" and integrating "tourism+" industrial clusters.

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