Guilin Tourism Image Perception Based on Web Text Analysis

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Abstract. Under the background of Guilin Municipal Government's proposal to build international tourism by 2020, this paper studies Guilin's tourism destination perception image, and puts forward the development direction of Guilin's tourism image in the future. In this paper, Octopus is used to customize the text review data from some popular tourism websites. A total of 14094 valid text review data are collected. Firstly, the data collected from Guilin tourism texts are pre-processed to remove duplication, word segmentation, stop words and invalid symbols. Subsequently, we use R to do word frequency statistics, draw word clouds, construct a three-tier Bayesian probability model, and use ROSTCM6 text review data to analyse emotional orientation. The results show that 78% of the tourists hold a positive attitude towards Guilin tourism. The factors affecting tourists experience are mainly divided into four aspects: natural scenery, tourism service, characteristic tourism products and commercialization degree, among which natural scenery is the most important factor. In the last, we put forward corresponding countermeasures from four aspects: increasing the propaganda of scenic spots, intensifying the development of tourism characteristic products, improving the quality of tourism service and strengthening the construction of commercial streets.

1. Introduction

In the early 1970s, some scholars found that the local tourism image was the main basis for attracting tourists. Guilin is a typical karst landform, forming a unique landscape, with a long history and culture. It is world-renowned and attracts many tourists every year. In November 2012, the "Guilin Outline for the Development and Development of Guilin International Tourist Resorts" was adopted to raise Guilin's development to a national strategy. By 2020, we will build a well-off society in an all-round way and basically build an international tourist destination. To this end, the Guilin Municipal Government has proposed a series of measures to promote the development of the tourism industry in Guilin, and has achieved significant results in the development of the tourism industry. According to incomplete statistics, the number of tourists in Guilin reached 79.714 million in 2018, a year-on-year increase of 22.41%. The total tourism consumption reached 101.22 billion yuan, a year-on-year increase of 34.02%. In the same year, Guilin became the first innovation demonstration zone in the national sustainable development agenda. Behind the growth of these data, how the tourist experience
is the main content of this article, and based on the current image of tourism perception, the future development model is proposed to provide corresponding countermeasures for the establishment of a sustainable development ecological demonstration zone in 2030.

At the same time, with the development of the economy and the advent of the era of big data, the Internet provides a platform for tourists to communicate and facilitate people's clothing, food, and shelter. Buying tickets online, ordering online, and paying online have become indispensable ways for tourists to travel. "Internet +" has penetrated the development of various industries, and many excellent tourism websites have emerged. For example: Quran, Crip Travel, Baidu Travel, etc. On these travel websites, tourists can get local play strategies, order scenic area tickets, order tickets and accommodation, etc. Tourists learn about the local tourism situation through the online platform. At the same time, tourists also recorded their travel experience to provide reference for other tourists. Therefore, there is a large amount of text review data on Guilin tourism on the tourism website, which is an important basis for studying tourists' perception of Guilin tourism.

Destination perception image refers to an individual's impression and evaluation of a travel destination. J.D. Hunt of the United States mentioned that the tourist image generated by tourists is the consciousness generated by the outside world acting on the human brain, and this consciousness is the decisive factor for tourists to make decisions [1]. Gartner believes that people always invest a lot of human, material and financial resources to enhance the tourist experience and promote the development of the tourism industry by establishing a tourism brand. Related scholars in China have similarly interpreted this concept [2]. Yu Dunwang mentioned in the book that tourists' tourism activities mainly include clothing, food, housing, transportation, shopping and other behaviours. Closely related to these behaviours are local tourism conditions. Tourists' views on tourism conditions directly affect their decision making. Improving the tourism image of Guilin can promote the development of tourism and increase the local economic income. With the improvement of people's living standards, competition in the tourism market is becoming increasingly fierce. How to build tourism destination brands and improve the perceived image of tourism in Guilin has become one of the key issues for the government.

In the era of big data, the Internet provides a reference for people's travel. Tourists can obtain relevant information by reading pictures and descriptions of attractions on the Internet. It also records what they have heard and want to provide reference for other tourists. Therefore, a large amount of text review data is generated on the Internet. Zeng Runxi believes that it is necessary to study Internet public opinion from the main body of information release [3]. Huang Xiaobin and others believed that Internet public opinion is an important form of social intelligence, and text mining plays an important role in the analysis process [4]. Zhou Zhaotao believes that text clustering is essentially to classify words with the same or similar semantics, and text clustering can be used to simplify the representation of text data [5]. Zhang Yuebing et al. used the classification method of the implicit dielectric distribution model to generate topics to solve the sparseness and dependence of the text in the analysis process [6]. The text analysis method is a common method for studying Internet public opinion.

On this basis, many domestic scholars use mathematical statistical methods and data mining techniques to statistics text review data and study the tourist perception image of tourists. Zhang Chun'e used unstructured method-content analysis to collect word frequency statistics on the collected tourist travel notes, and extracted the main factors that affected the tourist image of Guangzhou by encoding high-frequency words [7]. Xueming Zhang and others used the LDA topic model and Python's SnowNLP module to perform topic classification and sentiment analysis on text data, and analyzed the perception factors that affect the tourism image of the ancient town of Xitang from the perspective of tourists [8]. Many scholars have proposed countermeasures for the development of tourism in Guilin. Zhao Yingxue and others put forward corresponding development suggestions from the three aspects of Guilin tourism products, resources, and status [10]. Jing Xiuli and others studied the perceived image of Guilin's tourism under government policy, and tested whether the government's leadership promoted tourism development [11]. Few scholars put forward countermeasures for future
development by understanding the existing tourism image. This article explores the current tourist perception image of Guilin from the perspective of tourists, and explores which tourism resources of Guilin can have a positive impact on tourists. It combines the existing but less influential characteristic tourism resources to grasp the development direction of Guilin tourism and build an international featured travel brand [12].

2. Data collection and pre-processing

2.1. Data collection

The octopus’s collector, based on the core of the distributed cloud computing platform, can quickly and effectively collect standardized data, which is the main reason for this article. First, create a new task in the collector, enter the URL of the travel website, and navigate to the page about travel in Guilin. Due to the huge amount of review data and its pagination, you need to customize the page rotation when crawling the data. Then, click on the comment data page, select the user name, comment time, comment content, and satisfaction as elements to collect data.

| Electronic business platform | Data volume (strip) | Electronic business platform       | Data volume (strip) |
|-----------------------------|--------------------|------------------------------------|--------------------|
| Baidu Travel Network        | 1928               | Where to travel                    | 2832               |
| Tuniu Travel                | 4113               | Ma honeycomb travel network        | 3242               |
| Crip Travel                 | 3079               | total                              | 15194              |

2.2. Data pre-processing

Text is duplicated. The reasons for the duplication of data: 1. Some tourists simply copy and paste the existing review data in order to save trouble. 2. If the visitors do not comment within the time set by the website, the website will automatically help the tourists to give a positive comment. Therefore, in order to improve the effectiveness of data analysis, we must first reduce costs. Most text deduplication methods compare texts by calculating the similarity between texts, delete text data with higher similarity, and retain only one piece of valid data. However, such text deduplication methods will delete valid data and affect the analysis results of the data. In order to retain more valid information, this article uses the comparative deletion method, comparing the review data pair by pair to remove completely duplicate review data. Implemented by R's unique function, 14094 pieces of valid data are retained after the duplicate review data is deleted.

Text segmentation. Most text segmentation algorithms assume that feature words are independent of each other, and each word is used as a feature during the operation. According to the Chinese writing rules, there is no obvious boundary between the characteristic words. Sentences should be segmented to form a reasonable feature word sequence. This article uses R to segment the data. In this process, the Reworded package and java package are used. Java provides a Java environment in which Reworded word segmentation packages can be called. Word segmentation using Reworded Chinese word segmentation tool has the advantages of accurate word segmentation, fast word segmentation, and customizable import of the word segmentation database. However, errors also occur in the process of word segmentation. For example: "Guilin Landscape" is divided into "Guilin" and "Landscape", and "Two Rivers and Four Lakes" are divided into "Two Rivers" and "Four Lakes". In order to correct the error of the word segmentation, it is necessary to modify it in the analysis result, and import the revised word into the thesaurus, and then segment the word again.

Remove stop words and invalid symbols. The segmented text contains a lot of invalid information. For example: stop, you, can, very, special, etc. stop words and some numbers and letters, these data will affect the modelling results. This paper uses R to transform the analysis results into vectors, excluding letters, numbers, stop words, and words with a frequency of 1.
3. Data analysis

3.1. Word Frequency Statistics

The vocabulary used when removing stop words is not complete enough, and some non-reference words remain in the text. For example: None, One, Feeling, Many, Special, Certain, Inside, Everyone, Once, Once, etc. In the process of counting word frequencies, some similar words will appear. For example: night and night scenes, performances and shows, hotels and accommodations, scenic spots and scenery, etc. Therefore, some minor adjustments need to be made in the output data. This article selects the top 120 words for discussion and analysis, and the output is as follows:

| Rank | Entry             | Frequency | Rank | Entry             | Frequency |
|------|-------------------|-----------|------|-------------------|-----------|
| 1    | Guilin            | 3856      | 41   | Cruise           | 676       |
| 2    | Not bad           | 2651      | 42   | silver           | 657       |
| 3    | Tourist guide     | 2644      | 43   | satisfaction     | 642       |
| 4    | landscape         | 2573      | 44   | Experience       | 622       |
| 5    | Terraces          | 2547      | 45   | scene            | 589       |
| 6    | Li River           | 2507      | 46   | play             | 570       |
| 7    | Yangshuo          | 2295      | 47   | price            | 563       |
| 8    | show              | 2285      | 48   | select           | 562       |
| 9    | worth it           | 2262      | 49   | Feeling          | 547       |
| 10   | Attractions       | 2037      | 50   | entire           | 544       |
| 11   | rice flour        | 1982      | 51   | All the way      | 511       |
| 12   | at night          | 1879      | 52   | actor            | 492       |
| 13   | Scenic            | 1779      | 53   | know             | 490       |
| 14   | view              | 1666      | 54   | photo            | 486       |
| 15   | drifting          | 1621      | 55   | enthusiasm       | 477       |
| 16   | landscape         | 1488      | 56   | indeed           | 475       |
| 17   | pier              | 1299      | 57   | Real scene       | 472       |
| 18   | Performance       | 1242      | 58   | beautiful        | 465       |
| 19   | Bamboo raft       | 1184      | 59   | in fact          | 455       |
| 20   | Hotel             | 1121      | 60   | Go in            | 446       |
| 21   | Shocked           | 1059      | 61   | need             | 445       |
| 22   | tourism           | 1054      | 62   | Scenery          | 445       |
| 23   | light             | 1029      | 63   | Beauty           | 443       |
| 24   | East West Lane    | 997       | 64   | natural          | 439       |
| 25   | impression        | 983       | 65   | a little         | 438       |
| 26   | surroundings      | 268       | 66   | friend           | 438       |
| 27   | taste             | 263       | 67   | At last          | 436       |
| 28   | on site           | 262       | 68   | Cheap            | 432       |
| 29   | Clear             | 256       | 69   | Cave             | 430       |
| 30   | peach blossom     | 255       | 70   | Whole journey    | 428       |
| 31   | driver            | 248       | 71   | good looking     | 417       |
| 32   | nearby            | 246       | 72   | landscape        | 410       |
| 33   | Mountain song     | 245       | 73   | may              | 407       |
| 34   | Stalactites       | 242       | 74   | in advance       | 406       |
| 35   | air               | 242       | 75   | come out         | 405       |
| 36   | Urban area        | 240       | 76   | already          | 402       |
| 37   | Mountaintop       | 239       | 77   | Xanadu           | 400       |
| 38   | story             | 239       | 78   | night view       | 396       |
| 39   | Imagine           | 234       | 79   | the weather      | 392       |
| 40   | note              | 231       | 80   | Happy            | 391       |

Table 2. Word frequency statistics.
According to the results, we can see that the term "Guilin" appears most often, with a frequency of 3856. In the process of crawling the amount of data, Guilin was used as a keyword to search, so "Guilin" had the highest frequency of words. Secondly, there are "terraces", "landscapes", "Lijiang", "Yangshuo", "performances", etc. It shows that the scenery of Guilin is an important factor to attract tourists to play. Guilin forms a unique landscape with its typical karst landforms. The stone mountains stand up one by one, and they are arranged in an overlapping manner. The Li River meanders around the stone mountains, looking at it like an ink painting. After this beautiful scenery was printed on 20 yuan, many people came here to visit Guilin. In terms of natural scenery, tourists like Lijiang River, Longsheng Terraces, and Yangshuo West Street. It can be seen from the word cloud diagram that the term "guide" has a larger weight, with a frequency of 2644. Tour guide services play an important role in tourists' travel experience. In recent years, many travel agencies have emerged in Guilin, forming a healthy competition in the tourism service industry. Each travel agency attracts tourists from all over the country with its affordable prices, reasonable formation arrangements, and interesting explanations. The enthusiastic service of tour guides can bring positive emotions to tourists and produce a good impression. In addition to the beautiful scenery, some scenic entertainment programs also enhance the sense of experience for tourists. In terms of entertainment projects, terms such as "bamboo raft", "drifting", and "impression of the performance of three sisters Liu" are more frequent. "Shock," "light," "performance," and "impression" are all entries related to Impression Liu Sanjie's performance. These entertainment projects not only show the customs and customs of Guilin, but also enrich the itinerary for tourists. Local special diets can reflect the local food culture and an important factor that affects tourists' experience. Therefore, the term "rice flour" appears 1982, ranking 11th among all entries. Guilin rice noodles are mainly wet powders, with barbecued pork, brine, sour bamboo shoots and sour beans, the locals especially like its hot and sour taste, which represents the taste of a city. In terms of accommodation, the term "hotel" appears frequently, and a clean and tidy accommodation environment can leave a good impression on tourists. Generally speaking, "happy", "like", "worthy", "good", and "satisfactory" indicate that the overall impression of tourists is relatively good.

### 3.2. Emotional tendency analysis

Data were analyzed using ROSTCM6. First use the R software to extract the review data in the form, and eliminate completely duplicate review data. Subsequently, the sentiment analysis option in the functional analysis is performed, and the document excluding duplicate review data is entered into ROSTCM6, and the following analysis results can be obtained.

| Affective tendency | Frequency | Percentage (%) |
|--------------------|-----------|----------------|
| positive           | 10670     | 75.71%         |
| negative           | 2484      | 17.63%         |

Tourist review data is emotional. Judging the emotional colour of people by detecting the part-of-speech, ambiguity, derogatory, and intensity of words in a sentence. The results of sentiment analysis are divided into positive attitude, negative attitude, and neutral attitude. It is difficult to distinguish sentences with a neutral attitude in the analysis process. The neutral attitude is relatively vague and the value of reference is low. According to the analysis results in the above table, we can see that the overall text review data contains more positive review data, with a frequency of 10,670, accounting for 75.71% of the total review data. From this we can judge that most tourists have a positive attitude. The negative review data was 2484, accounting for 17.63% of the total review data. Overall, tourists have a more positive attitude towards Guilin tourism. The beautiful natural scenery, pleasant climate, attentive tour guide service, clean and tidy accommodation views leave a good impression on tourists. However, some tourists still have a negative attitude. The terms "can't", "queue", "regret", "weather", and "shopping" appear more often. From this, it can be inferred that the inefficient ticket sales in the
scenic area, the long rainy season in Guilin, the underdeveloped commercial streets, and the unreasonable itinerary of travel agencies may be the reasons for the negative attitudes of tourists.

3.3. Building the LDA Topic Model
The LDA topic model, also known as a three-layer Bayesian probability model, is divided into a three-layer structure of documents, topics, and words. Each word in the document is selected with a certain probability and then a certain degree is selected from each topic. Probability selects some terms that have representatives. This paper uses R statistical software to construct the LDA theme model based on the text review data of tourists. The results are as follows:

Table 4. Thematic Classification of Guilin Tourist Comment Data.

| Theme one       | Theme two     | Theme Three    | Theme Four                   |
|-----------------|---------------|----------------|------------------------------|
| Natural scenery | Travel services | Tourism characteristics | Degree of commercialization |
| landscape       | Tickets       | show           | East West Lane               |
| Terraces        | stroke        | Shocked        | shopping                     |
| Li River        | service       | Bamboo raft    | A bit                        |
| Yangshuo        | explain       | night view     | price                        |
| pier            | Convenience   | drifting       | city                         |
| Cave            | queue         | Features       | bar                          |
| Jingjiang Palace| master        | Cruise         | Walking street               |
| natural         | fare          | Nation         | Urban area                   |
| Beauty          | driver        | rice flour     | Accommodation                |

From the subject classification results in the table above, it can be inferred that the factors affecting the perceived image of Guilin's tourist destinations are four aspects: natural scenery, tourism services, tourism characteristics, and degree of commercialization. The impact of these factors on the visitor experience is specific and complex. Among them, natural scenery is the most important factor. Among the many scenic spots, Lijiang River, terraced fields, Yangshuo, karst caves, Jingjiang Wangfu and other scenic spots are more popular. In terms of tourism services, tourists pay more attention to the explanations of tour guides, itinerary arrangements, and tickets to scenic spots. Guilin has many attractions. Reasonably arranging travel in a limited time is the key to increasing the tourist experience. In addition, service attitude and ticket prices have a significant impact on the visitor experience. Tourism characteristics can enhance the impression of tourists. Guangxi's Zhuang, Yao, and Dai nationalities have good songs and dances. Under this ethnic cultural background, the folk legend of Sister Liu Xian is naturally spread. The movie "Sister Liu" made many people hear about Guangxi's minority culture. Tourists traveling to Guilin want to experience the folk song culture of Guangxi. Performances, nationalities, and shocks reflect tourists' impressions of the local national culture. Local specialty food Guilin rice noodles are popular with tourists. However, compared with the construction of tourist attractions, the development of commercial tourism in Guilin is lagging. The consumption of tourists is mainly directed to West Street bars and East and West Lanes of commercial streets.

4. Future development countermeasures
In recent years, the tourism construction in Guilin has improved the sense of experience for tourists. More than three-quarters of tourists have a positive attitude towards Guilin's tourism. Guilin's natural scenery and national characteristics have brought a deep impression on tourists. This article proposes the following countermeasures based on the existing tourism resources and the current image of tourists:

4.1. Increase publicity for scenic spots
The research results show that Guilin's Lijiang River, Yangshuo, and terraced fields are popular with tourists. However, there are many beautiful scenic spots in Guilin. For example: "Maoer Mountain" at
the top of South China, Lingqu of Xing'an County, the scenery of Shili Gallery, and the strange cave landscape. In order to improve tourists' understanding of Guilin, the publicity of the less well-known scenic spots should be increased. And most of the travel website information is scattered, the introduction of attractions is not comprehensive enough. A tourist exchange platform can be established, tourists can share travel notes for a fee, and can ask questions and exchange with each other, so that the content of the tourism official website is more abundant and comprehensive.

4.2. **In-depth development of Guilin tourism specialty products**

In terms of food culture. It is necessary to dig deep into Guilin's special food and build a special food brand. For example: Guilin Rice Noodle, Yangshuo Beer Fish, Gongcheng Camellia Tea, Quanzhou Vinegar Blood Duck, etc. These local specialties are not active in the tourism market, and they are not competitive enough in the face of the impact of foreign food. To enhance the cultural charm of food and strengthen the promotion of special diets, food exhibitions can be held during the tourist season. At the same time, Guilin tourism did not give full play to Guilin's wine culture. Most of the bars in Yangshuo West Street are modern bars, lacking local characteristics. "Guilin Sanhua Wine" is one of the "Guilin Three Treasures". Guilin has formed a natural wine storage cellar, the Chuanshan Wine Cellar, with its unique karst cave landforms. In order to allow tourists to experience the local wine culture, the theme bar of "Guilin Sanhua Wine" can be opened. You can also set the "sealed rice wine" in the natural wine cellar as a tour schedule, giving the journey a meaning.

In terms of national culture. It is necessary to enrich the special activities of ethnic minorities. In addition to browsing the natural scenery, tourists also want to experience the local ethnic customs. Impression Liu San's performance shows the folk song culture of Guangxi, but the form of the performance is not enough for tourists to understand the national culture of Guangxi deeply. On this basis, some ethnic games can be added, such as: folk songs, throwing hydrangea, bamboo pole dance, etc., to enhance tourists' understanding of the ethnic minorities in Guangxi.

In terms of vacation and leisure, we can develop pension resorts and build human-friendly livable tourism brand labels. The aging of the population is a trend of contemporary social development, and the development potential of the elderly service industry is great. A good living environment is an important factor in building an elderly care system. Guilin's mountains and clear water show its climate, environment and lifestyle in line with the elderly's pursuit of life. Here you can unload the busyness and pressure of big cities, slow down the pace of life, and have a close contact with nature, and feel comfortable.

4.3. **Improve the quality of tourism services**

Strengthen the management of various travel agencies, make travel agencies more professional and standardized, and eliminate "jammers" and "deceivers". Strengthen the management and training of tour guides to make the explanations of tour guides more vivid and interesting. In the high season, it is necessary to add ticket sales staff to the ticket offices of some popular scenic spots to shorten the time for tourists to queue for tickets. At the same time, by adding electronic ticket checking facilities, tourists can purchase electronic tickets online and enter the scenic area by scanning QR codes to improve work efficiency. The scenic spot should adjust the ticket price according to different periods to make the scenic spot price more reasonable.

4.4. **Strengthen the construction of commercial streets**

Guilin's characteristic east-west lane commercial street has attracted many tourists since its opening. The shops on the commercial street are relatively modern, mainly some tea shops, barbecue shops and specialty shops. You can add some local ethnic minority specialty food shops and show the unique Guilin ethnic customs commercial street.
5. Summary
This article uses LDA theme model, sentiment analysis and word frequency statistics to extract the perception image of Guilin tourist destination from the collected tourist review data. Through the Internet platform, the octopus data collector was used for deep excavation to extract the text review data of tourists and improve the validity of the analysis results. Tourists generally have a good impression of Guilin, and 78% of tourists have a positive attitude. The factors affecting the image perception of Guilin's tourist destinations are mainly divided into four aspects: natural scenery, tourism services, tourism specialty products, and degree of commercialization. In the text data of tourists' comments, the frequent occurrence of entries such as Li River, landscape, and Yangshuo shows that the natural scenery of Guilin is the main factor that attracts tourists to visit Guilin. On the other hand, some tourists have a negative attitude. From the word frequency statistics, it can be inferred that it is caused by weather reasons, itinerary arrangements are not reasonable, and the shopping street consumer experience is low. Based on this, this article puts forward countermeasures from four aspects: increasing the publicity of the scenic spot, in-depth development of tourism characteristic products, improving the service quality to tourists, and strengthening the construction of commercial streets.

Acknowledgments
The authors would like to thank the Editor and reviewers for their useful comments and insightful suggestions, which have improved the paper significantly. This research is supported in part by grants from the National Natural Science Foundation of China (11901124, 11701109, 11861017), the Guangxi Science Foundation (2018GXNSFAA138164), Key Project of Guangxi Normal University (2016ZD002).

References
[1] Diao Zhizhua, Wang Huan, Song Yinmao, et al. Segmentation method for cotton mite disease image under complex background. Transactions of the Chinese Society of Agricultural Engineering (Transactions of the CSAE), 29 (5) (2013) 147-152.
[2] Hunt, J. D., A Factor in Tourism. Fort Collins: Colorado State University, 1971, pp.154-186.
[3] Uysal, M., & Fesenmaier, D. Communication and channel systems in tourism marketing. Journal of Travel & Tourism Marketing, 26 (1) (1993) 31-38.
[4] Yu Dunwang. Travel psychology. Beijing: University of Science and Technology Press, 2006, pp.224-236.
[5] Zeng Runxi. Analysis of China's Internet Public Opinion Research and Development. Library Science Research 25 (8) (2009) 2-6.
[6] Huang Xiaobin, Zhao Chao. Application of text mining in the analysis of network public opinion information. Information Science 27 (01) (2009) 96-101.
[7] Zhou Zhaotao. Evaluation of text clustering analysis and text representation research. Graduate School of Chinese Academy of Sciences (Institute of Computing Technology) 2005, pp.87-93.
[8] Zhang Yuebing, Miao Duoqian, & Zhang Zhifei. Multi-granular text sentiment classification model based on three branch decision. Computer Science 44 (12) (2017) 194-199 + 221.
[9] Zhang Chun'e. Research on Guangzhou Tourism Destination Image Perception: Based on Web Text Analysis. Journal of South China University of Technology (Social Science Edition) 17 (4) (2015) 25-32.
[10] Zhang Xuemin, Zhao Mingyu. Study on Tourism Image of Xitang Ancient Town Based on LDA and Emotion Analysis 25 (7) (2018) 58-69.
[11] Zhao Yingxue, & Hou Yuxia. Research on Popular Science Tourism Development in Guilin City Based on RMP Analysis. Journal of Guangxi Radio and TV University, 29 (06) (2018) 80-85.
[12] Jing Xiuli, & Tan Fang. Tourism Destination Image Perception Analysis and Government-led
Strategies: A Case Study of Guilin Tourism. Journal of Liaoning University (Philosophy and Social Sciences Edition) 46 (06) (2018) 88-96.