

# *Research on Tourism Development of Tianlong Tunbao Scenic Area in Anshun Based on Online Text Analysis*

Cizhen Yu, Shiwen Li, Qiongbing Xiong

*College of Tourism Management, Guizhou University of Commerce, Guiyang, Guizhou, 550014, China*

**Keywords:** Online text analysis; tourism development; Tianlong Tunbao Scenic Area

**Abstract:** In recent years, the deep integration and mutual promotion of culture and tourism in China have developed rapidly. As a significant cultural tourism resource in Anshun City, Guizhou Province, the Tianlong Tunbao Scenic Area plays a crucial role in promoting Guizhou's culture. Targeting a large group of netizens, this study collected relevant reviews from platforms such as Ctrip, Mafengwo, Meituan, Qunar, and Dianping using the "Octopus" software and analyzed them using the ROST CM6 software. The results show that tourists' most direct impression of the scenic area is its architecture, and the unique features of the area are the most deeply perceived aspects. Sentiment analysis indicates a high level of tourist satisfaction with the scenic area. Based on the main issues identified in tourist feedback, the study proposes recommendations such as setting reasonable ticket prices, optimizing supporting facilities, improving service quality and management levels, and innovating development models. These suggestions aim to further develop the Tianlong Tunbao Scenic Area and local cultural tourism.

## **1. Introduction**

With the development of the times, the Chinese government has introduced a series of policies to support the development of the cultural and tourism industries. The "14th Five-Year Plan for Tourism Development" emphasizes that tourism is an important carrier for the inheritance of Chinese culture[1]. As a representative of Tunbao culture, the Tianlong Tunbao Scenic Area in Anshun has multiple values, making its sustainable inheritance and development an important topic. With the rapid development of the internet in China, the number of netizens has reached 1.079 billion, with an internet penetration rate of 76.4%. The internet enables people to share their travel experiences and feelings at any time, and online travel reviews are disseminated through social media, travel websites, and other channels. Tianlong Tunbao Scenic Area in Pingba District, Anshun City, attracts a large number of tourists every year, and their feedback is crucial for the long-term development of the scenic area. Although Tunbao culture has a certain level of recognition, it is mainly concentrated in academic circles, leading to a gap between tourists' actual experiences and their expectations[2]. Through online text research, we can understand tourists' perceptions and needs of the scenic area, identify existing problems, and propose reasonable development strategies. By listening to the voices of tourists, constantly adapting and adjusting, the tourist experience can be enhanced, promoting the healthy development of the Tianlong Tunbao Scenic Area.

As an important cultural tourism resource in Guizhou Province, the Tianlong Tunbao Scenic Area is an essential part of the colorful Guizhou culture. Current research mainly focuses on property rights, community cultural governance, and residential decorations, with relatively few studies on the online text analysis of the scenic area. This paper employs online text analysis methods to study tourists' real feelings about the scenic area, including attractions, environment, and dining, to compensate for the shortcomings of traditional survey methods. By analyzing online reviews, we can understand tourists' psychological needs, enhance their experience, increase the scenic area's influence, and promote the inheritance and innovation of Tunbao culture. This study selects tourist reviews from platforms such as Meituan and Ctrip to analyze the satisfaction of Tianlong Tunbao Scenic Area, explore existing problems, and propose corresponding development suggestions to promote the sustainable development of local tourism and economy.

## 2. Literature Review

### 2.1 Research on Travel Motivation

Motivation refers to a psychological awareness that arises before people take certain actions. It is the intrinsic reason driving people to travel and a crucial psychological state in making travel decisions[3]. To better attract tourists and enhance the competitiveness of tourism enterprises, many scenic spots continuously improve service quality and emphasize the research and analysis of tourist satisfaction[4]. Katsikari Christina (2020) utilized the push-pull theory to deeply analyze the travel motivations affecting foreign tourists visiting the Greek market and suggested that marketing teams of tourist destinations should seek more efficient promotional strategies[5]. Hung V V (2021) found through a study in Hue, Vietnam, that tourists' experiences in scenic spots have a certain moderating effect on their travel motivation[6]. Domestic research on travel motivation began in the 1980s, with the publication of "A Preliminary Study of Travel Motivation" in 1985 marking the start of domestic research in this field[7]. Researchers believe that travel motivation is an important driving force for tourism activities and can bring pleasure to tourists. Another study, using the Time Museum as an example, explored factors influencing tourists' travel intentions through Weibo comments and constructed a "Attraction-Stimulation-Empathy-Motivation" travel drive path[8]. Additionally, a study conducted field research to construct a system of factors influencing tourists' travel motivations at the Inner Mongolia Museum and proposed suggestions for improving the quality of tourism products and service levels[9].

### 2.2 Research on Emotional Experience

The concept of tourism experience was introduced by Boorstin, who considered tourism to be a subjective and mass consumption behavior[10]. The emotional structure of tourists can be interpreted through dimensional methods. Robertson K. emphasized the impact of tourism experience on happiness and quality of life and proposed new tourism experience measurement indicators[11]. Jain P. K. studied consumer emotion analysis in online hotel and tourism reviews, predicting future purchase intentions based on customer satisfaction[12]. Emotional experience is one of the core topics in tourism research. Domestic research started relatively late; Xie Yanjun was the first to integrate it into tourism studies, emphasizing that tourism emotion is based on intrinsic psychological structures[13]. Liu Yi et al. studied the emotional comments of Chinese tourists in Australia, providing marketing strategy guidance for international tourist destinations[14]. Gao Huijun researched tourists' emotions in Xi'an, calculating and categorizing 48 basic vocabulary words[15]. Sun Lei et al. designed emotional experience products for the Cailun Bamboo Sea Tourist Area, combining the "point-line-plane" spatial structure[16]. Yang Luyu studied the

emotional experience and optimization strategies of tourists at Chengdu Wuhou Shrine[17].

## 2.3 Research on Online Text Analysis

With the development of internet technology, more researchers tend to use the internet for research, making online text analysis an important method. Tapachai et al. explored tourists' image perceptions of tourist destinations through high-frequency word analysis[18]. Huang Y analyzed tourists' perceptions of the Longji Terraced Fields in Guilin, Guangxi using ROST CM6 software, identifying issues in eco-tourism planning and proposing suggestions[19]. Cristina O extracted data from online reviews of hotels, restaurants, and attractions to conduct analysis[20]. Pei L conducted word frequency, semantic network, and sentiment analysis on Haizhu National Wetland Park based on online text analysis to improve the tourism experience[21]. These studies demonstrate that online text analysis is also applicable to the research of Anshun Tianlong Tunbao Scenic Area. Through this method, we can gain deep insights into tourists' true feelings and needs, providing scientific evidence for the improvement and development of the scenic area.

## 3. Research Design

### 3.1 Overview of the Research Destination

Anshun Tianlong Tunbao Tourist Area, a national 4A-level scenic spot, is located in Tianlong Town, Pingba District, Anshun City, Guizhou Province. With a history spanning 600 years, it preserves the traditions of the Tunbao culture. In recent years, the scenic area has received numerous accolades such as being named a "UN Rural Tourism Observation Point" and a "China Historical and Cultural Town." In 2008, the Anshun City established the Tunbao Cultural Scenic Area Management Office and implemented the "Guizhou Anshun Tunbao Heritage Protection Ordinance" in 2011 to promote cultural preservation. In 2017, Tianlong Tunbao Ancient Town was approved as a national research and study base, fostering the development of cultural study activities. In 2019, Anshun City conducted a field survey of Tunbao intangible cultural heritage, and in 2023 further explored Tunbao cultural resources. Through immersive performances, the integration of culture and tourism was promoted, leading to a significant increase in tourist reception and revenue in 2023. However, ensuring the long-term sustainable development of Tunbao cultural tourism remains an area for in-depth research.

### 3.2 Sample Collection and Data Preprocessing

In the internet age, tourists frequently share their travel experiences on travel websites, providing a wealth of real and effective data for research. These reviews not only influence other tourists' judgments and consumption decisions but also play an important role in the improvement and development of scenic spots. This study collected tourist review data from five major online travel platforms: Ctrip, Dianping, Qunar, Mafengwo, and Meituan. Using the Octoparse software to extract textual information, the data was preprocessed and analyzed using ROST CM6. Data processing included deleting irrelevant content, removing duplicate texts, and eliminating advertisement information. As shown in Table 1, a total of 1998 valid texts, consisting of 191,131 words, were ultimately selected. After format correction, synonym merging, and the addition of custom dictionaries, the data was subjected to in-depth analysis. The online text analysis method proved its applicability in the research of Tianlong Tunbao Scenic Area, providing valuable insights for the improvement of the scenic area.

Table 1: Summary of Review Counts

Platform Name	Total Reviews	Valid Reviews
Dianping	327	310
Mafengwo	155	143
Meituan	1233	785
Ctrip	425	424
Qunar	595	336
Total	2735	1998

#### 4. Analysis of Online Text Data from Tourist Reviews

##### 4.1 Content Analysis of Online Text

Table 2: Word Frequency Analysis (Top 60 High-Frequency Words)

No.	Term	Frequency	No.	Term	Frequency	No.	Term	Frequency
1	Tianlong Tunpu	1307	21	hour	105	41	next time	58
2	ancient town	652	22	garrison	97	42	preservation	54
3	place	629	23	Tunpu culture	88	43	sightseeing bus	52
4	characteristic	434	24	average	86	44	century-old	52
5	ticket	327	25	deeply impressed	85	45	specially	51
6	architecture	301	26	many years	79	46	famous	51
7	Dixi opera	279	27	scenery	78	47	ancient	51
8	local	268	28	Shen Wansan	77	48	Wulong Temple	49
9	culture	263	29	ancient	74	49	throat	48
10	Anshun	254	30	guide	72	50	intentional	48
11	Ming dynasty	248	31	minute	72	51	large amount	47
12	Guizhou	226	32	kilometer	71	52	Shunyuan post road	46
13	Tiantai Mountain	208	33	Guiyang	68	53	living fossil	46
14	commerce	180	34	quaint	68	54	suggestion	46
15	Han ethnicity	149	35	not big	66	55	past	44
16	performance	134	36	playing	64	56	come over	43
17	preservation	131	37	quiet	64	57	self-driving	42
18	Zhu Yuanzhang	120	38	post station	63	58	back then	41
19	Tianlong	112	39	six hundred years	59	59	Nanjing	41
20	ethnicity	110	40	convenient	59	60	embroidered shoes	41

Word frequency analysis, which calculates the occurrence frequency of characteristic words in

online texts, reveals the core information in the texts. In this study, ROST CM6 software was used for word segmentation of the texts, and the top 60 high-frequency words were selected to investigate tourists' main impressions of the Tianlong Tunpu Scenic Area. As shown in Table 2, nouns such as "Tianlong Tunpu," "ancient town," "architecture," "Dixi opera," and "Anshun" frequently appear, indicating that tourists are deeply impressed by the ancient town's appearance and architecture, with Dixi opera being a distinctive attraction. However, terms like "Wulong Temple" and "Tianlong School" rank lower, suggesting these attractions have insufficient appeal, and relevant management departments need to enhance promotion and explore their cultural value. Nouns such as "ancient town," "architecture," "Dixi opera," "local," and "culture" reflect tourists' strong impressions of the scenic area's buildings and Dixi opera performances. Additionally, words like "ticket," "guide," "staff," and "sightseeing bus" indicate tourists' concern for travel convenience and service quality, suggesting that the scenic area should enhance its services to improve satisfaction. Adjectives like "average," "many years," "ancient," "quaint," "not big," "convenient," and "quiet" reveal that while tourists' expectations were not entirely exceeded, the relaxed and quiet atmosphere of the ancient town is still appreciated. The scenic area should promote its unique cultural and natural environment to attract more visitors. Among verbs, terms like "performance," "preserve," and "deeply impressed" show that tourists primarily come to experience the Tunpu culture, with a particular interest in Dixi opera performances and the preservation of the ancient town. The lower frequency of verbs indicates the limited variety of activities in the scenic area. The management department should innovate and develop new activities, integrate related products, increase the variety of activities, and enhance tourists' enthusiasm and satisfaction, thereby increasing the scenic area's revenue.

#### 4.2 Sentiment Analysis of Online Text

Sentiment analysis processes and analyzes online texts with emotional coloring to summarize tourists' emotional attitudes, measure their satisfaction, and guide managers in improving services. Using ROST CM6 text mining software, sentiment analysis of Tianlong Tunpu scenic area visitor reviews resulted in Table 3. The results show that overall tourist sentiment is positive, with negative or neutral emotions accounting for a smaller proportion, indicating high satisfaction. After importing the data into the software, 317 sentiment tendencies were recorded, including 243 positive sentiments (76.66%), of which 82 were highly positive (25.87% of positive sentiments); 62 negative sentiments (19.56%), with 3 highly negative (0.95% of negative sentiments); and 58 neutral sentiments (18.30%). Although most tourists hold a positive attitude towards the scenic area, there are still some dissatisfied evaluations. To further enhance the tourist experience, the management of the scenic area needs to be strengthened. High-frequency word analysis of negative sentiment reviews revealed that negative emotions accounted for 19.56%, with relatively low word frequency. High-frequency word analysis indicated that terms like "not worth it," "disappointed," and "boring" directly expressed negative emotions; words such as "ticket," "attraction," "performance," and "architecture" had high frequency, reflecting disappointment with ticket prices, attraction development, performance content, and architectural expectations. Words like "residents" and "villagers" indicated dissatisfaction with the service quality, with some tourists reporting being deceived, exposing service quality and supervision deficiencies. Terms like "parking lot" and "sightseeing bus" suggested that infrastructure needs improvement. Therefore, the scenic area should optimize management, enhance service quality and infrastructure, and promote the healthy development of tourism.

Tourists' overall satisfaction with Tianlong Tunpu's image perception is relatively high, with the most profound impressions being of the ancient town's scenery and a particular focus on local

cultural characteristics. Semantic network analysis revealed that culture is a central theme throughout the Tunpu tourism experience. As an essential part of tourism, the scenic area's services showed high attention from tourists to ticket prices, recreational activities, and infrastructure. Sentiment analysis indicated that cultural and natural environments scored the highest among positive emotions. Dissatisfaction mainly concentrated on consumption, facilities, services, and entertainment environments, particularly notable in negative sentiments towards consumption and entertainment, reflecting some shortcomings in Tianlong Tunpu's overall services.

Table 3: Tourist Sentiment Distribution

entiment Category	Number of Comments	Percentage	Intensity	Number of Comments	Percentage
Positive Sentimen	243	76.66%	General (5~<15)	82	25.87%
			Moderate (15~<25)	58	18.30%
			High(25+)	103	32.49%
Neutral Sentiment	12	3.79%	——		
Negative Sentiment	62	19.56%	General (-15~<5)	37	11.67%
			Moderate (-25~<-15)	11	3.47%
			High(-25-)	3	0.95%

#### 4.3 Strategies to Enhance Tourist Satisfaction at Tianlong Tunpu Scenic Area

Tianlong Tunpu Scenic Area boasts rich cultural resources and natural environments. To promote its sustainable development, this study performed word segmentation, high-frequency word extraction, word cloud, and semantic network analysis on tourists' online reviews, identifying issues affecting visitor experience and satisfaction. Firstly, setting reasonable ticket prices is crucial. Although the current ticket price of 60 RMB is relatively reasonable, a lack of attractiveness necessitates exploring new strategies, such as reducing or eliminating ticket fees to attract more visitors. Secondly, optimizing the scenic area's supporting facilities is essential. Enhancing the quality of vacation, leisure, entertainment, and health facilities, increasing dining and accommodation options, and strengthening infrastructure are imperative. Thirdly, improving overall service quality involves standardizing management and professional training for staff to enhance service levels. Fourthly, innovative development models for the scenic area should include summer retreats, leisure, health activities, specialty foods, and cultural festivals, integrating ancient architectural complexes and Tunpu culture to create a unique tourism brand. Finally, enhancing comprehensive management levels involves establishing unified regulations, clarifying responsibilities, continuously supervising departmental work, and setting up a visitor feedback department to strengthen oversight and management through internet platforms, ensuring the long-term stable development of the scenic area.

#### 5. Research Conclusions and Prospects

This study focused on Tianlong Tunpu Scenic Area in Anshun City, evaluating tourist satisfaction and development status through in-depth analysis of reviews on platforms such as Meituan, Ctrip, Dianping, Qunar, and Mafengwo. The findings revealed that tourists generally gave positive reviews of the scenic area's natural environment, cultural atmosphere, local theater performances, and folk customs, indicating high overall satisfaction. However, the study also



highlighted issues such as low ticket cost-effectiveness, inadequate facilities, insufficient service quality, limited recreational activities, and an underdeveloped management system. To address these issues, the research proposed five key recommendations: setting reasonable ticket prices, optimizing supporting facilities, improving service quality, innovating development models, and strengthening management levels. Although this study has certain limitations due to the nature of online text analysis, such as incomplete data sources and potential differences in results across different analysis software, future developments in tourism text analysis software will enhance research accuracy and effectiveness.

## References

- [1] State Council. "Development Plan for the Tourism Industry during the '14th Five-Year Plan' Period." *China Collective Economy*, 2022(05): 6-7.
- [2] Liao Hongquan, Yang Jianchun. "Strategies to Enhance the Cultural Tourism Attraction of Tunpu Culture in Guizhong." *Journal of Anshun College*, 2020, 22(05): 13-18.
- [3] DANNG M S. Tourist motivation and appraisal[J]. *Annals of Tourism Research*, 1981, 8(2): 187.
- [4] Dann G M S. Anomie, ego-enhancement and tourism[J]. *Annals of tourism research*, 1977, 4(4): 184-194.
- [5] Katsikari C, Hatzithomas L, Fotiadis T, et al. Push and pull travel motivation: Segmentation of the greek market for social media marketing in tourism[J]. *Sustainability*, 2020, 12(11): 4770.
- [6] Hung V V, Dey S K, Vaculcikova Z, et al. The influence of tourists' experience on destination loyalty: A case study of Hue City, Vietnam[J]. *Sustainability*, 2021, 13(16): 8889.
- [7] Shen Yuqing. "Preliminary Exploration of Tourism Motivation." *Journal of Northwest University (Philosophy and Social Sciences Edition)*, 1985(03): 78-85.
- [8] Cheng Ruxia, Huang Anmin. "Factors and Generation Paths of Tourist Motivation in the Time Museum." *Resource Development & Market*, 2021, 37(07): 877-882.
- [9] Han Fei. "Research on Tourist Motivation in Inner Mongolia Museum Based on Push-Pull Theory." *Inner Mongolia Normal University*, 2023.
- [10] Boorstin D J. *The image: A Guide to Pseudo-Events in American*[M]. New York: Haxper&Row. 1964, 25: 45—67.
- [11] Knobloch U, Robertson K, Aitken R. Experience, emotion, and eudaimonia: A consideration of tourist experiences and well-being[J]. *Journal of Travel Research*, 2017, 56(5): 651-662.
- [12] Jain P K, Pamula R, Srivastava G. A systematic literature review on machine learning applications for consumer sentiment analysis using online reviews[J]. *Computer science review*, 2021, 41: 100413.
- [13] Xie Yanjun. "Fundamental Tourism Studies." Beijing: China Tourism Press, 1999.
- [14] Liu Yi, Bao Jigang, Chen Kaiqi. "Emotional Characteristics of Chinese Tourists to Australia: A Text Analysis Based on Big Data." *Tourism Tribune*, 2017, 32(05): 46-58.
- [15] Gao Huijun. "Study on Emotional-Satisfaction Extension Model of Historical and Cultural Scenic Spots." *Shaanxi Normal University*, 2018.
- [16] Sun Lei, Chen Qiao, Huang Chiqin, et al. "Design and Development of Bamboo Culture Tourism Products in Cailun Bamboo Sea Based on Emotional Experience." *Packaging Engineering*, 2019, 40(24): 315-320.
- [17] Yang Luyu. "Research on Temporal and Spatial Changes and Optimization Strategies of Visitor Emotional Experience in Wuhou Shrine, Chengdu." *Chengdu University of Technology*, 2021.
- [18] Tapachai N, Waryszak R. An examination of the role of beneficial image in tourist destination selection[J]. *Journal of travel research*, 2000, 39(1): 37-44.
- [19] Miao Y, Huang Y, Luo S, et al. Research on landscape planning of rural eco-tourism area based on network text analysis—Take the Longji Terrace Scenic Spot as an example[J]. *E3S Web of Conferences*, 2020, 194.
- [20] Cristina O, Paulo R, Sérgio M. Unveiling Island Tourism in Cape Verde through Online Reviews[J]. *Sustainability*, 2021, 13(15).
- [21] Pei L, Lili C, Zeshun L. Analysis of Tourism Experience in Haizhu National Wetland Park Based on Web Text[J]. *Sustainability*, 2022, 14(5).