

Research on Tourists' Perceptions and Evaluations of Chongqing Hongyadong Based on Online Text Analysis

Yu Jiang, Guanghua Luo*, Yan Cui

School of Management, Chongqing University of Science and Technology, Chongqing 400038, China

**Author to whom correspondence should be addressed.*

Copyright: © 2026 Author(s). This is an open-access article distributed under the terms of the Creative Commons Attribution License (CC BY 4.0), permitting distribution and reproduction in any medium, provided the original work is cited.

Abstract: Online reviews provide large-scale data for measuring tourists' perceptions and evaluations of tourist destinations. Taking Hongyadong in Chongqing as a case study, this study collected tourist reviews from Ctrip from 2023 to 2026. After data cleaning, 492 valid reviews were obtained. Using word frequency statistics and sentiment analysis, it examined the main dimensions of tourist perception, score distribution, and textual sentiment, and manually reviewed and categorized complaint content in non-positive reviews. The findings are as follows: (1) Tourist perception centers on visual symbols, with words such as "night view," "mountain city," and "stilted buildings" appearing frequently; references to "culture" are closely associated with the perception of Bayu culture. (2) Platform ratings are generally positive, with 440 four- and five-star reviews accounting for 89.4% of the total; textual sentiment analysis was used as a supplementary analysis, and 83.3% of reviews were classified as positive by the model. (3) Among non-positive reviews, 70 reviews containing complaints were identified through manual review. Based on the primary complaint categories, crowding (25 items), vertical transportation (17 items), and order and wayfinding (16 items) constituted the main types of complaints. Accordingly, three suggestions are proposed: optimizing vertical transportation organization, improving guidance information and order management, and enriching cultural experience content.

Keywords: Destination image; Tourist perception; Online text analysis; Sentiment analysis; Hongyadong

Online publication: September 30, 2026

1. Introduction

In the era of social media, a short video can quickly propel a destination into the spotlight, while also prompting crowds of tourists to line up for the same photo spot. Yan described this phenomenon as "check-in travel," in which people visit specific destinations based on media recommendations and then share their experiences on social media platforms, providing travel references for subsequent tourists ^[1]. Within this cycle, Hongyadong in Chongqing is a notable example. Leveraging the nighttime lighting of its stilt-house complex, Hongyadong

gained widespread popularity on short-video platforms around 2018, transforming from a renovated scenic area developed more than a decade earlier into a nationally renowned check-in destination. During major holidays, its visitor numbers have consistently ranked among the highest of Chongqing's tourist attractions. Beyond traffic, what is more worth asking is the experience: tourists' post-trip perception is closer to the real fundamentals of operation than the image constructed by media. What tourists actually perceive, how they evaluate it, and where dissatisfaction is concentrated directly determine whether traffic can settle into reputation.

Regarding the phenomenon of internet-famous check-in sites, existing research has generally developed along two aspects. On the one hand, it focuses on the check-in phenomenon itself: Zhang *et al.* ^[2] compared differences in continued check-in willingness among different types of check-in sites; Kuang and Lin ^[3], and Yan *et al.* ^[4] explained check-in practices from the perspectives of spatial production and consumerism; Yin and Huang ^[5], and Zhou *et al.* ^[6] discussed word-of-mouth communication and the shaping of urban consumption space, respectively. On the other hand, there is research on destination image and online reviews: Wen *et al.* ^[7] summarized five themes of Hongyadong's image based on reviews from the early period of its popularity; Pan ^[8] compared the differences between the projected image and perceived image of Hongyadong; Li ^[9] and Zhao and Zheng ^[10] discussed image enhancement and business formats in the agglomeration area. Existing research focuses on summarizing image themes, whereas this paper further examines the content and distribution of specific complaints in the selected sample.

From the measurement path, destination image research usually develops along two dimensions: cognitive and affective ^[11,12], traditionally relying on questionnaire scales; the accumulation of online reviews provides a large-sample path based on authentic expression. Word frequency statistics and sentiment analysis have been applied to multi-source reviews and cross-platform comparisons ^[13,14] as well as scenic area review analysis ^[15,16], and the chain by which media content influences behavioral intention through image and emotion has also been tested ^[17]. Gong and Huang ^[18] reminded that there may be a "filter" gap between marketing image and on-site experience, and perception measurement based on post-trip reviews has greater verification value. This study uses word frequency statistics to describe the main concerns in reviews and combines ratings, textual sentiment, and review verification to analyze tourist evaluations.

Based on this, this study takes 492 Hongyadong tourist reviews from Ctrip from 2023 to 2026 as samples to answer three questions: What content is tourist perception of Hongyadong concentrated on? What is the state of score distribution and textual sentiment? In which links are complaints in non-positive reviews concentrated? Compared with existing research, this study supplements recent empirical evidence for this benchmark case with new samples several years after its popularity and conducts item-by-item review and categorization of complaint content.

2. Research design

2.1. Overview of the case site

The Hongyadong Folk Customs Scenic Area is located along the Jialing River Binjiang Road in Yuzhong District, Chongqing, within the Chaotianmen area where the Yangtze and Jialing Rivers converge. The scenic area is dominated by traditional Bayu stilted buildings, constructed according to the terrain and along the river. It comprises 11 stories from Binjiang Road to Cangbai Road, with a height difference of approximately 79 meters, forming a three-dimensional space in which "the first floor is a street, and the eleventh floor is also a street."

It is a National AAAA-level Tourist Attraction. According to traditional functional divisions, the scenic area consists of four parts: Zhiyanhe Bar Street, Tiancheng Lane Bayu Customs Street, Feast Food Street, and the Exotic-style City Balcony, integrating dining, shopping, sightseeing, and leisure. Around 2018, Hongyadong's night view became popular through short video platforms, making it one of Chongqing's most representative internet-famous check-in spots and an urban night tourism landmark.

2.2. Data sources and processing

The data for this study were obtained from tourist reviews on the Hongyadong attraction page of Ctrip. After web-based data collection, reviews containing advertising or promotional information, duplicate reviews, and invalid reviews with fewer than 15 characters were sequentially removed. Two reviews unrelated to the scenic area were also excluded (one concerning a hotel check-out dispute and one concerning a homestay accommodation review). The reviews were limited to those published in January 2023 or later. Ultimately, 492 valid reviews were obtained, covering the period from January 2023 to September 2026. The year distribution of the sample was 92 reviews in 2023, 65 in 2024, 245 in 2025, and 90 in 2026. The proportion of recent reviews is relatively high, which is related to the platform's recommendation ranking mechanism; caution is therefore maintained when generalizing the conclusions. The data were collected from publicly available content on the platform, anonymized (excluding usernames and personal identifiers), and used solely for academic research.

2.3. Analytical methods

- (1) Word frequency statistics. Using Jieba segmentation, word frequencies were calculated after removing stop words and case site names. High-frequency words were extracted to outline the main content of tourist perception.
- (2) Sentiment analysis. SnowNLP was used to output a sentiment score (0–1) for each review. A score >0.6 was classified as positive sentiment; otherwise, as non-positive sentiment. Alternative thresholds of 0.5 and 0.7 were also used to verify the stability of the proportion results. The tool determines textual sentiment tendency, and its results are used as auxiliary and exploratory analysis, not directly equated with the true emotional proportions of tourists.
- (3) Tool reliability test. From the review database covering the sample period of this study, 100 reviews were randomly selected for manual annotation. Manual labels were aligned with machine judgments using a binary “positive/non-positive” classification, and the results are shown in **Table 1**. Among the 28 manually labeled non-positive reviews, the machine identified 10 (recall 35.7%); among the 12 machine-judged non-positive reviews, 10 were consistent with manual annotation (precision 83.3%). The overall agreement rate was 80%, but the missed detection of non-positive reviews was relatively evident. Accordingly, this study does not treat machine judgment results as precise measurements but only as descriptive references.

Table 1. Consistency between sentiment judgment and manual annotation (100 reviews)

	Human: Positive (72)	Human: Non-positive (28)
Machine: Positive (88)	70	18
Machine: Non-positive (12)	2	10

- (4) Manual review of non-positive comments. Non-positive comments were read manually one by one to distinguish positive expressions missed by the automated tool, neutral descriptions assigned to the

non-positive category under the binary classification rules, and actual complaint content. Complaint content was classified into six categories: crowding, vertical transportation, order and wayfinding, price, environment and business mix, and overall negative statements. Each comment was assigned to a single category according to its primary complaint and was not counted more than once.

3. Research findings

3.1. Main content of tourist perceptions

High-frequency word statistics (see **Table 2**) show that tourists' perceptions of Hongyadong can be grouped into four word clusters.

The first is the time–light cluster. “Night view” (181 occurrences) ranked first by a clear margin, followed by “lighting” (99) and “night” (82); night-view-related words were relatively prominent in tourists' perceptions. The second is the space–landmark cluster. “Mountain city” (151), “stilted buildings” (136), “architecture” (119), “Jialing River” (107), “bridge” (99), and “two rivers” (84) appeared frequently. Tourists perceived Hongyadong within the overall configuration of the mountain-city terrain and the two-river landscape: stilted buildings offered architectural spectacle, while bridges and riverbanks provided viewing and photography spots. The third is the behavior–check-in cluster. “Check-in” (103), “photo-taking” (80), and “tourists” (80) indicate that photographing and sharing were common activities in the reviews, while “worthwhile” (86) suggests that recommendatory expressions were relatively common. The fourth is the culture–connotation cluster. The context of “culture” (108) was mostly related to Bayu culture and folk culture, such as “this is still a treasure trove of folk culture” and “strolling through the old streets of the mountain city and appreciating Bayu culture,” indicating that some tourists' perceptions reached the cultural level. Although “specialty” (86) also ranked high, its contexts were mostly commercial expressions such as “specialty snacks” and “specialty shops”; this study therefore does not treat it as evidence of cultural perception.

Table 2. Top 19 high-frequency words in Hongyadong reviews (2023–2026; case place names removed)

Rank	Word	Frequency	Rank	Word	Frequency
1	Night view	181	11	Bridge	99
2	Mountain city	151	12	Here	96
3	Stilted buildings	136	13	Specialty	86
4	Architecture	119	14	Worthwhile	86
5	Experience	112	15	Two Rivers	84
6	Very	108	16	Night	82
7	Culture	108	17	Tourists	80
8	Jialing River	107	18	Photo-taking	80
9	Check-in	103	19	Food	73
10	Lighting	99			

Viewed together, the four word clusters indicate that the perceived content of Hongyadong in this sample is dominated by visual symbols: the first three clusters cover the vast majority of high-frequency words, while the culture–connotation cluster is represented mainly by the single term “culture.”

3.2. Score distribution and text sentiment analysis

The sample score distribution was as follows: 360 reviews (73.2%) with 5 points, 80 (16.3%) with 4 points, 17 (3.5%) with 3 points, 7 (1.4%) with 2 points, and 28 (5.7%) with 1 point; four- and five-star reviews totaled 440, accounting for 89.4%. The platform score is the overall evaluation provided by tourists themselves, and the overall evaluation judgment in this study is mainly based on this indicator.

Text sentiment analysis was conducted as a supplementary and exploratory analysis: the model classified 410 reviews (83.3%) as positive and 82 (16.7%) as non-positive; under alternative thresholds of 0.5 and 0.7, the corresponding proportions were 84.1% and 83.1%, respectively, indicating little variation within the tested range.

Cross-checking between scores and text classification revealed a clear misalignment: among the 82 non-positive texts, 35 had scores ≤ 3 , while another 47 came from four- to five-point reviews. A case-by-case review of the latter found that 35 indeed contained complaint content (e.g., “The scenery is fine, but the service is terrible,” “So crowded you can’t even walk”), indicating that some high-score reviews still contained complaints. Conversely, among the 82 non-positive classifications, 8 were actually positive expressions (false negatives), and 4 were neutral descriptions (classified as non-positive under the binary classification rule, which is a rule-setting issue rather than a misjudgment). The fact that some high-score reviews still contained specific complaints suggests that the overall score fails to fully capture localized negative experiences.

3.3. Main complaints in non-positive reviews

After a case-by-case manual review of the 82 non-positive reviews, 70 contained complaint content, accounting for 14.2% of the total sample. The following analysis focuses only on these 70 reviews; each review was assigned to a single category according to its most prominent complaint, without double counting (see **Table 3**).

Table 3. Classification of complaint content in non-positive reviews (70 reviews, single-category assignment)

Category	Number of reviews	Representative expressions
Crowding	25	“So crowded you can’t even walk” “Not to mention it’s all people during National Day”
Vertical transportation	17	“Can’t get on the elevators, they’re always full” “Climbed up and down more than twenty floors”
Order and wayfinding	16	“Every two steps someone asks if you want a photo” “Signs at the entrance aren’t very clear” “After free tasting, they charge 1.2 yuan per gram”
Pricing	5	“Charged me 25 yuan for less than five minutes” “Everything requires VIP and extra payment”
Environment and business mix	4	“The stench from the ditch in the commercial area is overwhelming” “Nothing but snack stalls and souvenir shops”
Overall negative statements	3	“Avoid at all costs” “Not worth visiting”

The structure of complaint content exhibits three characteristics. First, crowding, vertical transportation, and order and wayfinding together account for 58 reviews, constituting the main body of complaints; among these, crowding and vertical transportation together account for 42 reviews, with 5 reviews mentioning both simultaneously (e.g., “Commercialization is quite serious, too many people, can’t get on the elevator, often fully loaded”). Second, complaints about order and wayfinding point to specific issues: harassment from commercial photography solicitation, missing wayfinding information (entrance signage, lighting schedules, misleading navigation), and fee-charging practices by individual vendors—all of which are directly reported by tourists. Third, complaints about price and environment account for a limited proportion and mostly appear alongside

perceptions of crowding and commercialization; independent “too expensive” style complaints are not common.

This section covers only the non-positive reviews that were screened and reviewed. Complaining expressions also exist in positive reviews (e.g., “The night view is beautiful, but there are too many people”), which were not included in the statistics. Therefore, this section presents the complaint structure of non-positive reviews and does not represent the dissatisfaction of all tourists. In addition, some complaining reviews still give positive evaluations of the night view (e.g., “The scenery is nice but very crowded”).

4. Discussion and recommendations

4.1. Main findings

This study found the following: First, in the selected sample, tourists’ perception of Hongyadong is centered on visual symbols, forming four word clusters: time-light cluster, space-landmark, behavior-check-in, and culture-connotation. The context of “culture” is indeed related to the perception of Bayu culture, but the above structure was not compared with other periods, and no diachronic change judgment is involved. Second, platform scores were generally positive, with four- to five-star reviews accounting for 89.4%; some high-score reviews still contained complaining expressions upon review, indicating that overall scores cannot fully present localized negative experiences. Third, after case-by-case review, 70 of the 82 non-positive reviews contained complaint content. Crowding (25 reviews), vertical transportation (17 reviews), and order and wayfinding (16 reviews) constituted the main body of complaints. Some complaining reviews still gave positive evaluations of the night view, and complaint content was concentrated in the touring process and commercial operations.

4.2. Management recommendations

First, regarding transportation and crowding. Among the 70 complaint reviews screened by the model and reviewed, crowding and vertical transportation were the more prominent main complaint categories, with some reviews mentioning both simultaneously. It is recommended that scenic area management address this from three aspects: investigate congestion nodes during peak hours, particularly the intersections of pedestrian flow at elevator halls and stairway junctions; improve diversion guidance at external viewing spots and entrances/exits on each floor; and evaluate the applicability of diversion schemes such as entering on the 11th floor and exiting on the 1st floor, as well as elevator scheduling schemes, such as layered stops during peak hours. If connecting pedestrian nodes between floors is involved, it must be premised on building structure and fire safety assessments, and feasibility requires on-site verification.

Second, regarding wayfinding and commercial order. Complaints about order and wayfinding point to clear issues, including unclear entrance and route signage, lighting schedules not uniformly publicized, disturbances from commercial photography solicitation, and fee disputes with individual vendors. It is recommended that management unify information on entrances, touring routes, lighting schedules, and fees, and publicize them at key nodes; improve complaint channels so that issues reported by tourists have a clear feedback pathway; and investigate and address solicitation behavior and fee disputes on a case-by-case basis. The above arrangements constitute improvements to management processes, and their effects require post-implementation verification.

Third, regarding cultural experience and internal environment. Some reviews mentioned “culture” and related it to Bayu culture, but word frequency itself cannot prove that tourists have a demand for newly added cultural products. Lightweight cultural interpretation could be explored using existing spaces, such as setting up concise wayfinding signage at viewing points; at the same time, improve ventilation, cleanliness, and

commercial experience in internal spaces to respond to environment- and business-type complaints. The above directions are only options for exploration; whether to invest in construction needs to be determined after evaluating visitor flow and costs.

5. Conclusion

Based on text analysis of 492 reviews from Ctrip from 2023 to 2026, this study described the main content of tourists' perceptions of Hongyadong, the distribution of scores and text sentiment, and the main complaint categories in non-positive reviews. However, the study has clear limitations: the sample was drawn from a single OTA platform and, affected by the platform's user structure and recommendation ranking mechanism, recent reviews were overrepresented, so extrapolation of conclusions requires caution; the sentiment analysis tool had low recall for non-positive reviews, and text sentiment can only serve as an auxiliary reference; word frequency and proportion analysis constitutes descriptive evidence and cannot reveal the causes and consequences of perception formation; complaint classification covered only screened and reviewed non-positive reviews, and complaints in positive reviews were not included in the statistics. Future research could collect multi-platform data for cross-validation, introduce sentiment measurement tools more suitable for tourism texts, establish a case-by-case manual annotation quality control process, and also combine questionnaires or interviews to mutually verify textual conclusions, thereby further improving the precision of perception measurement and the robustness of conclusions.

Funding

Master's Student Innovation Program of Chongqing University of Science and Technology (YKJCX2521013)

Disclosure statement

The authors declare no conflict of interest.

References

- [1] Yan Y, 2024, Check-In Style Travel in the Social Media Era. *People's Tribune*, (17): 103–106.
- [2] Zhang SP, Feng YF, Su XF, et al., 2024, A Flash in the Pan or Riding the Trend: The Impact of Internet-Famous Check-In Destination Types on Consumers' Continued Check-In Intention. *China Ecotourism*, 14(5): 1042–1056.
- [3] Kuang ZR, Lin G, 2024, Consumer Practices and Spatial Production of "Internet-Famous Check-In" in the Visual Era: A Case Study of the Film *Better Days* and Its Filming Location Chongqing. *Tourism Tribune*, 39(2): 74–88.
- [4] Yan FW, Shu BY, Zhao X, et al., 2022, Secular Experience or Spiritual Pursuit? An Attribution Study of Internet-Famous Check-In Tourism in the Context of Consumerism. *Tourism Tribune*, 37(6): 94–105.
- [5] Yin ZY, Huang AM, 2023, Research on Attributes and Word-of-Mouth Communication Mechanisms of Internet-Famous Tourism Check-In Destinations. *Resource Development & Market*, 39(10): 1400–1408.
- [6] Zhou K, Zhang HT, Xia YN, et al., 2021, New Characteristics of Urban Consumption Space under the Influence of Social Media: A Case Study of "Internet-Famous Check-In Destinations" in Changsha on Xiaohongshu. *Modern Urban Research*, (9): 20–27.

- [7] Wen JM, Yu Y, Liu XW, et al., 2019, Research on Image Perception of “Internet-Famous” Tourism Destinations Based on Online Text Analysis: A Case Study of Hongyadong Scenic Area in Chongqing. *Tourism Research*, 11(2): 44–57.
- [8] Pan YY, 2022, An Empirical Study on the Comparison of “Projected-Perceived” Images of Internet-Famous Scenic Areas: A Case Study of Hongyadong Scenic Area in Chongqing. *New Media Research*, (22): 103–106.
- [9] Li LJ, 2019, Reflections on Enhancing the Image of “Internet-Famous” Tourism Destinations: A Case Study of Hongyadong Scenic Area in Chongqing. *National Circulation Economy*, (18): 134–135.
- [10] Zhao WJ, Zheng YZ, 2024, Research on Improvement Strategies for Chongqing Nighttime Cultural Tourism Cluster Areas Based on Online Review Analysis. *China Business Review*, (1): 91–94.
- [11] Baloglu S, McCleary KW, 1999, A Model of Destination Image Formation. *Annals of Tourism Research*, 26(4): 868–897.
- [12] Beerli A, Martín JD, 2004, Factors Influencing Destination Image. *Annals of Tourism Research*, 31(3): 657–681.
- [13] He ZH, Tao YG, Zhang HX, 2024, Tourism Destination Image and Its Influencing Factors Based on Multi-Source Heterogeneous Reviews: A Sentiment Analysis Perspective. *World Regional Studies*, (10): 168–179.
- [14] Fan S, Shi CY, Li H, et al., 2025, A Cross-Platform Comparative Study of Information Shared by Rural Tourists from the Perspective of Sentiment Analysis. *Tourism Research*, (2): 60–74.
- [15] Guo SB, 2025, Research on Image Perception of Mountain Tourism Destinations Based on LDA Model: A Case Study of Malinghe Canyon Scenic Area in Guizhou Province. *Business Exhibition Economy*, (21): 115–119.
- [16] Yang BL, 2024, Research on Tourism Satisfaction Evaluation of National Parks Based on Online Text Mining: Based on Data Analysis of Wuyishan National Park. *Journal of Heilongjiang Vocational Institute of Ecological Engineering*, (2): 56–62.
- [17] Wang WS, Zhou YH, Tang CC, 2025, Research on the Impact of Short Video Content Characteristics on Tourism Destination Image and Tourists’ Behavioral Intentions: Based on Positive Emotion Theory. *Geography and Geo-Information Science*, 41(2): 135–144.
- [18] Gong SY, Huang KJ, 2023, Marketing Analysis of the “Internet-Famous Check-In Destination” Tourism Phenomenon. *Journal of Commercial Economics*, (7): 65–68.

Publisher’s note

Bio-Byword Scientific Publishing remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.