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# Factors Influence of Visitor Loyalty in Conghua Hot Spring Tourism Based on Tourism Perceived Value

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**Abstract:** The objectives of this study are as follows: (1) to identify the dimensional structure of perceived value among consumers in Conghua hot spring tourism destinations; (2) to explore the influence mechanism of consumer perceived value on Visitor loyalty in Conghua Hot spring tourism destination; and (3) to provide inspiration and suggestions for the sustainable development of Conghua cultural tourism department and hot spring tourism industry. This study adopts a questionnaire survey method and random sampling technique, targeting tourists who have experienced hot spring tourism in Conghua, Guangzhou. Data were collected through a combination of online and offline approaches, resulting in 380 valid responses. The data were analyzed using descriptive statistics, reliability and validity tests, exploratory factor analysis, and multiple linear regression analysis to empirically examine the proposed research model and hypotheses, as well as to explore the relationships among the variables. The main findings are as follows: (1) To confirm the dimensions of consumers' perceived value in Conghua hot spring tourism destination.; (2) perceived value has a significant positive effect on visitor loyalty, with different dimensions exerting varying levels of influence, among which service value, emotional value, and functional value show relatively stronger effects; (3) enhancing tourists' perceived value is a key pathway to improving visitor loyalty, which is crucial for optimizing service quality and enriching tourism experiences in Conghua hot spring destinations; (4) based on the findings, this study proposes targeted recommendations from the perspectives of government regulation, destination management, and service improvement to promote the high-quality and sustainable development of Conghua hot spring tourism.

**Keywords:** Perceived Value; Visitor Loyalty; Hot Spring Tourism; Conghua Hot Springs; Multidimensional Value.

## 1. Introduction

In recent years, with the rapid development of the tourism industry and the increasing awareness of health and wellness among consumers, hot spring tourism has gradually become an important component of tourism economic development and shows strong market potential [10]. Conghua District in Guangzhou, Guangdong Province, relying on its unique natural resources such as Liuxi River hot springs and distinctive local hot spring culture, has gained multiple honors and has become a well-known destination for health care and leisure tourism [1]. However, with the rapid development of Conghua hot spring tourism, several problems have gradually emerged and urgently need to be addressed. Among them, service quality issues have become particularly prominent, which restrict the further development of the destination. Inadequate supporting facilities and deficiencies in scenic area management have negatively affected tourist experience and reduced service quality, thereby influencing tourists' perceived value and potentially lowering visitor loyalty [2]. Visitor loyalty plays a crucial role in the economic and social benefits of a destination. Loyal tourists tend to revisit and recommend the destination, which not only reduces marketing costs but also helps strengthen the long-term competitiveness and sustainable development of the destination. In the context of Conghua hot spring tourism, continuous visits by loyal tourists can further promote local tourism development and destination sustainability [1, 2].

Under such circumstances, it is necessary to further understand tourists' overall evaluation of destinations from the perspective of perceived value. Tourism perceived value refers to tourists' comprehensive subjective evaluation formed by comparing the benefits obtained—such as functional benefits, service experience, emotional response, cultural perception, and social interaction—with the costs paid in terms of time, money, and effort [3, 4]. Due to the experiential and situational nature of tourism, perceived value is multidimensional, highly subjective, and closely related to destination characteristics, making it an important theoretical basis for explaining tourist behavior [6, 7]. Therefore, this study takes Conghua hot spring tourism as the research context and, based on the theory of tourism perceived value and tourist satisfaction, explores the dimensions of perceived value and examines how these dimensions influence visitor loyalty. Specifically, this study aims to identify the dimensions of perceived value in Conghua hot spring tourism, analyze the mechanism through which perceived value affects visitor loyalty, and provide practical implications for improving tourism services and promoting the sustainable development of the hot spring tourism industry.

## 2. Literature Review

### 2.1. Definition of Concepts

#### 2.1.1. Hot Spring Tourism

Hot spring tourism has developed rapidly alongside the growth of the wellness industry and increasing consumer demand for health-oriented leisure activities [7, 10]. Existing definitions mainly originate from both regulatory standards and academic research. According to relevant tourism industry standards, hot springs refer to geothermal resources used for bathing, recuperation, and wellness experiences [9]. Furthermore, the Chinese tourism industry standard Hot Spring Tourism Quality Classification (LB/T070-2017)

defines hot spring tourism as tourism activities centered on hot spring resources (including geothermal steam, mineral mud, or cold springs), emphasizing bathing, health therapy, and experiential participation to achieve leisure, recuperation, and vacation purposes [9].

From an academic perspective, scholars have further enriched the concept by emphasizing its experiential and cultural attributes. Wang Ling and Zeng Chi regard hot spring tourism as a form of leisure activity and social phenomenon integrating traditional vacation tourism and emerging thematic tourism, while Cheng Wen and Zheng Yun highlight its role in promoting physical and mental balance through integrated experiences such as bathing, diet, and outdoor activities [10, 11]. Based on the above, this study defines hot spring tourism as a comprehensive tourism activity centered on hot spring resources, integrating bathing, leisure, and wellness functions, and characterized by health preservation, recreation, and holistic physical-mental relaxation.

#### 2.1.2. Conghua Hot Spring Tourism

Conghua Hot Spring Tourism refers to tourism activities developed based on the hot spring resources located in Conghua District, Guangzhou, which integrates natural ecological resources, hot spring wellness functions, and regional cultural characteristics. As one of the most representative hot spring destinations in China, Conghua has formed a tourism development pattern centered on leisure vacation, health preservation, and cultural experience, supported by its high-quality geothermal resources and well-established tourism infrastructure.

In recent years, with the rapid development of wellness tourism and increasing market demand for health-oriented travel, Conghua Hot Spring Tourism has gradually evolved from traditional sightseeing to a comprehensive tourism model emphasizing experience, leisure, and wellness. Existing studies indicate that Conghua Hot Spring Tourism not only possesses significant economic value but also plays an important role in promoting regional tourism development and industrial integration [1, 2, 12].

However, compared with other types of tourism, Conghua Hot Spring Tourism demonstrates stronger characteristics of service dependency, experiential consumption, and value perception sensitivity. Therefore, tourists' evaluations of service quality, cultural experience, and cost performance become key factors influencing their behavioral intentions and loyalty. Based on this, this study defines Conghua Hot Spring Tourism as a comprehensive tourism system centered on hot spring resources in Conghua, integrating wellness, leisure, and cultural experience, and emphasizes tourists' perceived value and experiential evaluation in the consumption process.

## 2.2. Theoretical Foundation

#### 2.2.1. Tourism Perceived Value

Tourism perceived value originates from consumer behavior theory and refers to the overall evaluation formed by consumers based on the trade-off between perceived benefits and perceived costs during the consumption process [13, 14]. In the tourism context, this concept is further extended to reflect Visitors' comprehensive assessment of their travel experience, encompassing functional utility, emotional response, cognitive judgment, and social meaning. As such, perceived value has been widely recognized as a multidimensional construct with strong explanatory power in tourism behavior research [15].

Existing literature generally agrees that perceived value is a key antecedent variable influencing Visitors' attitudes and behavioral intentions. Higher levels of perceived value significantly enhance Visitors' satisfaction, revisit intention, and recommendation willingness, thereby exerting a direct impact on Visitor loyalty [18, 20, 23]. In terms of dimensional structure, although different studies adopt varying classification methods, a relatively stable framework has gradually emerged. Core dimensions such as functional value, emotional value, cognitive value, and cost value have been consistently validated, while service value, social value, and cultural value are frequently incorporated in experience-oriented tourism contexts to better explain Visitors' perceptions [14, 16-18].

In the specific context of hot spring tourism, characterized by the integration of "wellness, leisure, and cultural experience," perceived value demonstrates more complex and context-dependent features. Prior studies indicate that dimensions such as service experience, emotional perception, functional utility, and cultural experience play significant roles in shaping Visitors' evaluations and behavioral intentions [20-22]. Therefore, adopting a multidimensional perceived value framework is both theoretically grounded and contextually appropriate for this study.

#### 2.2.2. Visitor Loyalty

Visitor loyalty, derived from customer loyalty theory, was introduced into tourism research in the 1990s and has since become a central concept in explaining destination competitiveness and sustainable development [23]. Existing studies suggest that loyalty encompasses both behavioral and attitudinal dimensions. Behavioral loyalty refers to repeat visitation behavior, while attitudinal loyalty reflects Visitors' psychological preference and emotional attachment to a destination (Howard et al., 1988; Yoon & Uysal, 2005). Although some scholars distinguish between behavioral intention and loyalty, their conceptual expressions are largely consistent in the tourism context [23].

Furthermore, research indicates that Visitor loyalty is formed based on Visitors' cognitive evaluation and experiential perception of a destination, leading to trust, revisit intention, and recommendation behavior [24, 25]. Loyal Visitors not only contribute to stable tourist flows but also generate positive word-of-mouth effects, thereby reducing marketing costs and enhancing the long-term competitiveness of tourism destinations [23].

Based on the above theoretical foundations, existing studies have reached a general consensus that perceived value is an important driving factor of Visitor loyalty. However, current research still exhibits certain limitations. First, in terms of research context, most studies focus on urban, cultural, or rural tourism, while empirical research in the hot spring tourism context—especially at specific destinations—remains insufficient. Second, regarding research perspective, prior studies often emphasize overall perceived value or single dimensions, with relatively limited exploration of the differentiated effects of multiple value dimensions on Visitor loyalty.

Therefore, this study takes Conghua Hot Spring Tourism as the research context and constructs a multidimensional perceived value framework to systematically examine the influence mechanism of different value dimensions on Visitor loyalty, thereby enriching the application of perceived value theory in specific tourism contexts.

## 2.3. Model Development and Research Hypotheses

Based on the theoretical foundation of perceived value and Visitor loyalty, this study constructs a conceptual model to examine the influence of multidimensional perceived value on Visitor loyalty in the context of Conghua Hot Spring Tourism. Existing research generally supports that perceived value is a key determinant of behavioral intention and loyalty, while different value dimensions may exert heterogeneous effects.

In experience-oriented tourism contexts, service value is considered a fundamental factor influencing Visitors' overall evaluation. High-quality service enhances satisfaction and strengthens trust, thereby increasing the likelihood of revisit and recommendation behavior [20]. Similarly, functional value reflects the practical utility and quality of tourism products, which directly affects Visitors' perceived benefits and plays an essential role in shaping loyalty [13, 14].

Emotional value, as a reflection of affective responses generated during tourism experiences, has been widely confirmed to significantly influence Visitors' attitudes and behavioral intentions. Positive emotional experiences contribute to stronger destination attachment and revisit intention [15]. Cognitive value, on the other hand, relates to Visitors' rational evaluation and knowledge acquisition during travel, which also affects their overall perception and subsequent behavioral decisions [16-18].

In addition, social value emphasizes the extent to which tourism experiences enhance social identity and interpersonal interaction, while cultural value reflects Visitors' perception of local culture and authenticity. Both dimensions are particularly relevant in experiential tourism settings and have been found to positively influence Visitors' satisfaction and loyalty [20, 21].

Cost value represents Visitors' evaluation of the trade-off between perceived benefits and monetary or non-monetary costs. Reasonable pricing and high cost-effectiveness can significantly enhance perceived value and promote positive behavioral intentions [14].

Based on the above analysis, this study proposes the following hypotheses:

H1: Perceived value of tourism has a significant positive impact on Visitor loyalty

H1a: Service value has a significant positive impact on Visitor loyalty

H1b: Cultural value has a significant positive impact on Visitor loyalty

H1c: Functional value has a significant positive impact on Visitor loyalty

H1d: Cognitive value has a significantly positive impact on Visitor loyalty

H1e: Emotional value has a significant positive impact on Visitor loyalty

H1f: Social value has a significant positive impact on Visitor loyalty

Accordingly, a conceptual model is constructed ((as shown in Figure 1) with perceived value as independent variables and Visitor loyalty as the dependent variable.

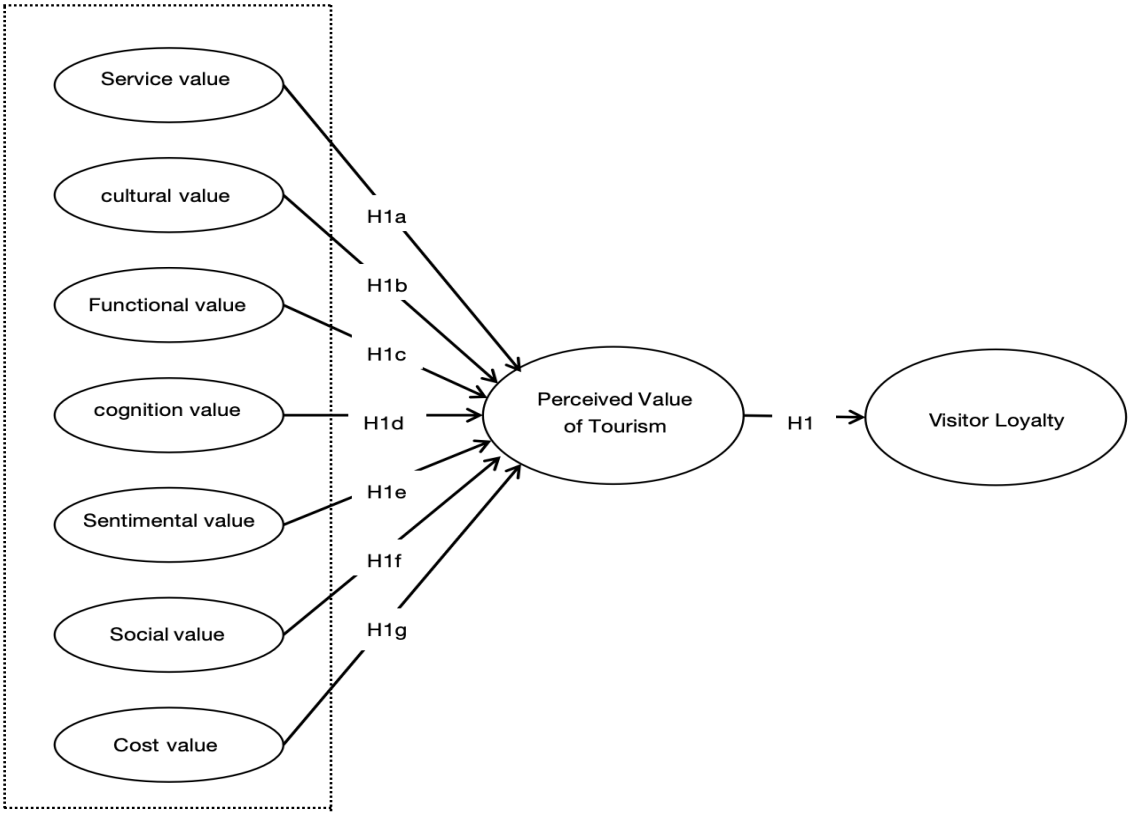


**Figure 1.** Conceptual Model of the Relationship Between Perceived Value and Visitor Loyalty in Conghua Hot Spring Tourism

# 3. Methodology

This study adopted a quantitative research method, which was appropriate for examining the relationship between tourism perceived value and visitor loyalty based on a relatively large sample. The questionnaire items were mainly developed with reference to mature studies on perceived value and visitor loyalty, and were further adapted to the context of Conghua hot spring tourism [20, 26-28] The core variables included seven dimensions of tourism perceived value, namely emotional value, service value, functional value, cultural value, cognitive value, social value, and cost

value, as well as visitor loyalty [20, 26-28].

The questionnaire consisted of several parts, including screening questions, respondents' basic demographic information, tourism behavior information, and the core variable measurement section. The screening question was used to identify whether respondents had actual experience of Conghua hot spring tourism, so as to improve the validity of the collected data. The demographic section mainly covered gender, age, education, occupation, and income, while the tourism behavior section included travel frequency, travel mode, travel budget, and information sources. The core measurement section adopted a five-point Likert scale ranging from 1 ("strongly disagree") to 5 ("strongly agree") [31].

The target population of this study consisted of tourists who had visited Conghua and engaged in hot spring tourism consumption. The selection of this group was grounded in the actual tourism market structure of Conghua. Existing studies have shown that the source market of Conghua tourism is mainly concentrated in Guangzhou and the Pearl River Delta, and that the tourist flow is characterized by short-distance, high-frequency, and relatively stable travel demand [12, 19, 34]. In addition, Guangzhou has a large permanent resident population and a diversified consumer base, which provided a realistic basis for obtaining an adequate sample for this study [35].

In terms of sample size, since the questionnaire contained 37 measurement items, the minimum sample size was determined according to the principle that the number of valid responses should generally be no less than ten times the number of items [29, 30]. Therefore, at least 370 valid questionnaires were required. To reduce the possible influence of invalid responses and data loss, the planned sample size was further expanded to about 450 questionnaires [33].

This study collected questionnaire data through a mixed online-offline approach. The offline part was conducted from December 25, 2025 to January 20, 2026, which coincided with the peak season of hot spring tourism in Conghua Hot Spring. Three representative hot spring resort hotels covering mid-to-high-end and homestay types were selected within the Conghua Liuxi Hot Spring Tourist Area: Guangzhou Conghua Bishuiwan Hot Spring Resort; Guangzhou Conghua Duhuitai Liulian Hot Spring Resort; Guangzhou Conghua Santoli Hot Spring Estate. Additionally, the reception desks and ticket offices of the core hot spring scenic areas, namely the Hot Spring Area of Liuxi River National Forest Park and the Sky Hot Spring Scenic Area in Conghua Biquan, were chosen. The questionnaire QR codes were distributed under the guise of a voluntary survey. The online part utilized platforms such as WeChat, Xiaohongshu, and Weibo to push the questionnaire links through relevant tags. A total of 456 questionnaires were collected from December 25, 2025 to January 30, 2026. After excluding 76 invalid questionnaires based on the option "Have you personally visited the Conghua District in Guangzhou and made hot spring tourism consumption (including staying in a hot spring hotel and purchasing tickets for the hot spring scenic area, etc.) in the past three years?", 380 valid questionnaires were obtained, with an effective recovery rate of 84.4%. This met the preset minimum sample size requirement of 370.

After data collection, the study used descriptive statistics to summarize respondents' demographic characteristics and tourism behavior, and the detailed results are presented in Section 4.1. Reliability and validity tests, including Cronbach's alpha, the KMO test, and Bartlett's test, were then conducted to examine the internal consistency and structural validity of the scale [36-39]. On this basis, correlation analysis and multiple regression analysis were further carried out, with visitor loyalty as the dependent variable and the seven dimensions of tourism perceived value as the independent variables, in order to test the relationships among variables and verify the research hypotheses [36-39].

# 4. Data Analysis and Results

## 4.1. Descriptive Analysis

This study employed descriptive statistics to analyze respondents' demographic profiles and tourism behavioral characteristics, and the results are shown in Table 1. In terms of gender, male respondents accounted for the largest proportion (56.3%). Regarding age, the 46–60 age group represented the highest proportion of the sample (33.7%), indicating that middle-aged visitors constituted the core tourist segment. For educational background, respondents with a high school or vocational high school education accounted for the largest share (43.2%). In terms of occupation, workers formed the largest group (26.8%). Regarding monthly income, respondents earning RMB 6,001–8,000 accounted for the highest proportion (42.6%), suggesting that the sample mainly consisted of middle-income visitors.

As for tourism behavioral characteristics, traveling with family or friends was the dominant travel mode (62.1%), indicating that Conghua hot spring tourism is mainly characterized by leisure travel in small social groups. In terms of visitation frequency, first-time visitors accounted for the largest proportion (49.7%), showing that the destination still has considerable room to improve repeat visitation and visitor loyalty. Regarding travel budget, visitors spending more than RMB 500 represented the largest group (35.0%), reflecting a relatively strong willingness to pay for hot spring tourism experiences. In terms of information acquisition channels, online media was the most important source (49.7%), indicating that digital platforms have become the primary channel through which visitors obtain information about Conghua hot spring tourism.

Overall, the descriptive results show that the sample covered all major demographic and behavioral categories, while each item also displayed a relatively prominent dominant group. These findings provide a basic profile of visitors to Conghua hot spring tourism and lay the foundation for the subsequent reliability, validity, correlation, and regression analyses.

**Table 1.** Description of the overall situation of the sample

| Variable | Category | Frequency | Percent (%) | Cumulative Percent (%) |
|---|---|---|---|---|
| Gender | Male | 214 | 56.3 | 56.3 |
| | Female | 166 | 43.7 | 100 |
| Age | Under 18 | 65 | 17.1 | 17.1 |
| | 18-30 years old | 58 | 15.3 | 32.4 |
| | 31-45 years old | 73 | 19.2 | 51.6 |
| | 46-60 years old | 128 | 33.7 | 85.3 |
| | Over 60 years old | 56 | 14.7 | 100.0 |
| Education Level | Junior high school or below | 56 | 14.7 | 14.7 |
| | High school/vocational high school | 164 | 43.2 | 57.9 |
| | Associate degree | 76 | 20.0 | 77.9 |
| | Bachelor's degree | 84 | 22.1 | 100 |
| | Master's degree or above | 0 | 0 | 100 |
| Occupation | Student | 26 | 6.8 | 6.8 |
| | Enterprise/institutional employee | 30 | 7.9 | 14.7 |
| | Civil servant | 20 | 5.3 | 20 |
| | Self-employed/individual business owner | 31 | 8.2 | 28.2 |
| | Education/science/culture/health sector employee | 93 | 24.5 | 52.6 |
| | Retiree | 65 | 17.1 | 69.7 |
| | Worker | 102 | 26.8 | 96.6 |
| | Farmer | 13 | 3.4 | 100 |
| | Other | 0 | 0 | 100 |
| Monthly Income (RMB) | Below 2,000 yuan | 25 | 6.6 | 6.6 |
| | 2001-4000 yuan | 38 | 10 | 16.6 |
| | 4001-6000 yuan | 98 | 25.8 | 42.4 |
| | 6001-8000 yuan | 162 | 42.6 | 85 |
| | 8001-10000 yuan | 53 | 13.9 | 98.9 |
| | Above 10,000 yuan | 4 | 1.1 | 100 |
| Travel Companion | Traveling alone | 49 | 12.9 | 12.9 |
| | With family or friends | 236 | 62.1 | 75 |
| | With a tour group | 17 | 4.5 | 79.5 |
| | Organized by employer | 8 | 2.1 | 81.6 |
| | Other | 70 | 18.4 | 100 |
| Visit Frequency | First time | 189 | 49.7 | 49.7 |
| | Second time | 77 | 20.3 | 70 |
| | Third time | 76 | 20 | 90 |
| | Fourth time | 38 | 10 | 100 |
| | More than four times | 0 | 0 | 100 |
| Budget for This Trip (RMB) | Below 100 yuan | 50 | 13.2 | 13.2 |
| | 100-200 yuan | 35 | 9.2 | 22.4 |
| | 201-300yuan | 115 | 30.3 | 52.6 |
| | 301-500yuan | 47 | 12.4 | 65 |
| | Above 500 yuan | 133 | 35 | 100 |
| Information Source for Conghua Hot Spring Tourism | Print media (books/magazines) | 24 | 6.3 | 6.3 |
| | Online media | 189 | 49.7 | 56.1 |
| | Word-of-mouth (friends/family) | 25 | 6.6 | 62.6 |
| | Apps (e.g., Meituan, Dianping) | 108 | 28.4 | 91.1 |
| | Other | 34 | 8.9 | 100 |

## 4.2. Reliability Analysis

To ensure the internal consistency of the measurement scale, this study conducted reliability analysis using Cronbach's alpha. Table 2 indicates the overall Cronbach's alpha of the questionnaire reached 0.948, indicating excellent internal consistency and a high level of overall scale reliability. At the dimensional level, all Cronbach's alpha coefficients were above 0.86, suggesting that each construct exhibited satisfactory reliability. Among them, social value showed the highest reliability, followed by cost value, emotional value, service value, functional value, cognitive value, and cultural value. In addition, for each dimension, the Cronbach's alpha coefficient after deleting any individual item was lower than the original coefficient of that dimension, indicating that all items contributed positively to the internal consistency of their respective constructs. Therefore, the scale used in this study can be considered stable and reliable, providing an appropriate basis for subsequent validity testing and empirical analysis.

**Table 2.** Sample Reliability Analysis

| Scale Variable | Items | Cronbach's α if item deleted | Cronbach's α | Overall Cronbach's α |
|---|---|---|---|---|
| Service value | Q1 | .884 | .898 | .948 |
| | Q2 | .868 | | |
| | Q3 | .875 | | |
| | Q4 | .879 | | |
| | Q5 | .874 | | |
| Cultural value | F6 | .845 | .867 | |
| | F7 | .834 | | |
| | F8 | .836 | | |
| | F9 | .840 | | |
| | F10 | .843 | | |
| Functional value | G11 | .876 | .894 | |
| | G12 | .876 | | |
| | G13 | .872 | | |
| | G14 | .826 | | |
| Cognition value | W15 | .843 | .879 | |
| | W16 | .848 | | |
| | W17 | .863 | | |
| | W18 | .855 | | |
| | W19 | .859 | | |
| Sentimental value | R20 | .877 | .899 | |
| | R21 | .880 | | |
| | R22 | .880 | | |
| | R23 | .839 | | |
| Social value | S24 | .903 | .919 | |
| | S25 | .913 | | |
| | S26 | .893 | | |
| | S27 | .893 | | |
| | S28 | .900 | | |
| Cost value | C29 | .889 | .908 | |
| | C30 | .884 | | |
| | C31 | .897 | | |
| | C32 | .852 | | |
| Visitor loyalty | Y33 | .920 | .927 | |
| | Y34 | .908 | | |
| | Y35 | .912 | | |
| | Y36 | .907 | | |
| | Y37 | .904 | | |

## 4.3. Validity Analysis

**Table 3.** KMO and Bartlett spheres test analysis

| KMO | | .891 |
|---|---|---|
| Bartlett's Test of Sphericity | Approx. Chi-Square | 11073.603 |
| | df. | 666 |
| | Sig. (p) | .000 |

To examine whether the data were suitable for factor analysis, this study employed the KMO measure and Bartlett's test of sphericity. Taken together the KMO value was 0.891, indicating a high degree of sampling adequacy and confirming that the data were suitable for exploratory factor analysis. At the same time, Bartlett's test of sphericity yielded a chi-square value of 11073.603 with 666 degrees of freedom, and the significance level was 0.000, which indicates that the correlation matrix was not an identity matrix and that significant correlations existed among the measurement items. These results demonstrate that the scale had good structural validity and that the data met the requirements for further exploratory factor analysis.

## 4.4. Exploratory Factor Analysis

On the basis of the validity test, this study further conducted exploratory factor analysis using principal component analysis and Varimax rotation. According to the criterion of eigenvalues greater than 1, eight common factors were extracted, which is fully consistent with the theoretical structure of this study, namely the seven dimensions of tourism perceived value and one dimension of visitor loyalty. The cumulative variance explained by these eight factors reached 74.082%, which is substantially higher than the commonly accepted threshold of 50%, indicating that the extracted factors were able to explain most of the information contained in the original items.

**Table 4.** Total variance explanation table

| Initial eigenvalue | | | | Extract the sum of squared loads | | | Rotating load sum of squares | | |
|---|---|---|---|---|---|---|---|---|---|
| ingredient | total | Percent variance | accumulate% | total | Percent variance | accumulate% | total | Percent variance | accumulate% |
| 1 | 13.088 | 35.372 | 35.372 | 13.088 | 35.372 | 35.372 | 3.916 | 10.585 | 10.585 |
| 2 | 3.304 | 8.929 | 44.300 | 3.304 | 8.929 | 44.300 | 3.698 | 9.994 | 20.579 |
| 3 | 2.487 | 6.721 | 51.022 | 2.487 | 6.721 | 51.022 | 3.585 | 9.689 | 30.268 |
| 4 | 2.195 | 5.932 | 56.954 | 2.195 | 5.932 | 56.954 | 3.419 | 9.242 | 39.509 |
| 5 | 1.952 | 5.275 | 62.229 | 1.952 | 5.275 | 62.229 | 3.344 | 9.038 | 48.547 |
| 6 | 1.572 | 4.248 | 66.477 | 1.572 | 4.248 | 66.477 | 3.249 | 8.781 | 57.328 |
| 7 | 1.501 | 4.057 | 70.534 | 1.501 | 4.057 | 70.534 | 3.112 | 8.41 | 65.739 |
| 8 | 1.313 | 3.548 | 74.082 | 1.313 | 3.548 | 74.082 | 3.087 | 8.343 | 74.082 |
| Extraction Method: Principal Component Analysis. | | | | | | | | | |

**Table 5.** Component matrix after rotation

| | Component | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| Q1 | | .730 | | | | | | |
| Q2 | | .801 | | | | | | |
| Q3 | | .783 | | | | | | |
| Q4 | | .763 | | | | | | |
| Q5 | | .805 | | | | | | |
| F6 | | | | .744 | | | | |
| F7 | | | | .768 | | | | |
| F8 | | | | .718 | | | | |
| F9 | | | | .759 | | | | |
| F10 | | | | .724 | | | | |
| G11 | | | | | | | .752 | |
| G12 | | | | | | | .763 | |
| G13 | | | | | | | .814 | |
| G14 | | | | | | | .889 | |
| W15 | | | .808 | | | | | |
| W16 | | | .768 | | | | | |
| W17 | | | .713 | | | | | |
| W18 | | | .776 | | | | | |
| W19 | | | .799 | | | | | |
| R20 | | | | | | | | .751 |
| R21 | | | | | | | | .759 |
| R22 | | | | | | | | .774 |
| R23 | | | | | | | | .846 |
| S24 | .820 | | | | | | | |
| S25 | .755 | | | | | | | |
| S26 | .825 | | | | | | | |
| S27 | .819 | | | | | | | |
| S28 | .834 | | | | | | | |
| C29 | | | | | | .779 | | |
| C30 | | | | | | .820 | | |
| C31 | | | | | | .788 | | |
| C32 | | | | | | .883 | | |
| Y33 | | | | | .717 | | | |
| Y34 | | | | | .716 | | | |
| Y35 | | | | | .725 | | | |
| Y36 | | | | | .761 | | | |
| Y37 | | | | | .719 | | | |
| Extraction method: principal component analysis. Rotation method: Caesar's normalized maximum variance method. a rotation converges after 6 iterations. | | | | | | | | |

The rotated factor loading results further show that all measurement items loaded clearly on their corresponding constructs, with all factor loadings exceeding 0.70. No cross-loading, low loading, or ambiguous item allocation was found. Specifically, the eight extracted factors corresponded to social value, service value, cognitive value, cultural value, visitor loyalty, cost value, functional value, and emotional value, respectively. This indicates that the scale structure was clear, the dimensional boundaries were distinct, and the instrument used in this study exhibited good construct validity. Therefore, the measurement model was considered appropriate for subsequent correlation and regression analyses.

## 4.5. Correlation Analysis

This study used Pearson correlation analysis to examine the relationships between the seven dimensions of tourism perceived value and visitor loyalty. The results show that all variables were significantly and positively correlated at the 0.01 level, and no negative or non-significant relationship was observed. This result is generally consistent with the theoretical expectation that higher perceived value is associated with stronger visitor loyalty.

Among the seven dimensions, cognitive value showed the strongest correlation with visitor loyalty, followed by emotional value, service value, and cost value, all of which demonstrated moderate positive relationships. Social value, functional value, and cultural value were also positively correlated with visitor loyalty, although their correlation coefficients were slightly lower. In addition, the inter-correlations among the seven dimensions of perceived value were all below the threshold of high collinearity, indicating that the dimensions were related but still relatively independent from one another. This result supports the rationality of the multidimensional structure of tourism perceived value and provides an appropriate basis for the subsequent regression analysis.

**Table 6.** Correlation analysis table

| | Sentimental value | Service value | Functional value | Cultural value | Cognition value | Social value | Cost value | Visitor loyalty |
|---|---|---|---|---|---|---|---|---|
| Sentimental value | 1 | | | | | | | |
| Service value | .465** | 1 | | | | | | |
| Functional value | .358** | .419** | 1 | | | | | |
| Cultural value | .297** | .346** | .393** | 1 | | | | |
| Cognition value | .446** | .414** | .293** | .341** | 1 | | | |
| Social value | .200** | .376** | .369** | .424** | .409** | 1 | | |
| Cost value | .455** | .296** | .314** | .294** | .451** | .298** | 1 | |
| Visitor loyalty | .512** | .505** | .461** | .455** | .590** | .498** | .504** | 1 |
| ** indicates significance at the 0.01 level (two-tailed). | | | | | | | | |

## 4.6. Regression Analysis

**Table 7.** Regression analysis of continuous purchase intention

| | R | $R^2$ | Adjusted $R^2$ | F | Standardized coefficient (Beta) | t | p | Tolerance | VIF |
|---|---|---|---|---|---|---|---|---|---|
| (Constant) | .753a | .567 | .559 | 69.508 | | -3.165 | .002 | | |
| Sentimental value | | | | | .158 | 3.658 | .000 | .621 | 1.609 |
| Service value | | | | | .126 | 2.963 | .003 | .645 | 1.550 |
| Functional value | | | | | .119 | 2.926 | .004 | .705 | 1.419 |
| Cultural value | | | | | .110 | 2.730 | .007 | .719 | 1.392 |
| Cognition value | | | | | .250 | 5.818 | .000 | .631 | 1.584 |
| Social value | | | | | .179 | 4.337 | .000 | .681 | 1.468 |
| Cost value | | | | | .159 | 3.879 | .000 | .691 | 1.447 |
| Dependent variable: Visitor loyalty<br>Predictors: (Constant), Cost value, Cultural value, Service value, Social value, Functional value, Cognitive value, Emotional value | | | | | | | | | |

## 4.7. Hypothesis Testing Results

**Table 8.** Summary of hypothesis testing results

| Hypothesis | Direction and Significance of Relationship | Conclusion |
|---|---|---|
| H1: Perceived value of tourism has a significant positive impact on Visitor loyalty | Significantly positively correlated | Supported |
| H1a: Service value has a significant positive impact on Visitor loyalty | Significantly positively correlated | Supported |
| H1b: Cultural value has a significant positive impact on customer loyalty | Significantly positively correlated | Supported |
| H1c: Functional value has a significant positive impact on customer loyalty | Significantly positively correlated | Supported |
| H1d: Cognitive value has a significantly positive impact on Visitor loyalty | Significantly positively correlated | Supported |
| H1e: Emotional value has a significant positive impact on Visitor loyalty | Significantly positively correlated | Supported |
| H1f: Social value has a significant positive impact on Visitor loyalty | Significantly positively correlated | Supported |
| H1g: Cost value has a significantly positive impact on Visitor loyalty | Significantly positively correlated | Supported |

# 5. Conclusion and Prospects

## 5.1. Results and Discussion

Taking Conghua hot springs as the research object, this study constructed a research model of the relationship between visitor perceived value and loyalty in Conghua hot spring tourism based on perceived value theory. Through a mixed online–offline questionnaire survey and statistical analysis, the results confirmed that the seven dimensions of visitor perceived value—service value, cultural value, functional value, cognitive value, emotional value, social value, and cost value—could effectively represent the perceived value structure of Conghua hot spring tourism. Exploratory factor analysis showed that all factor loadings exceeded 0.7 and the cumulative variance explained reached 74.082%, indicating that the dimensional framework had good structural validity and was consistent with the composite characteristics of hot spring tourism that integrate wellness, leisure, and cultural experience.

The empirical results further demonstrated that all seven dimensions of visitor perceived value had significant positive effects on visitor loyalty. Multiple regression analysis showed that these dimensions jointly explained 55.9% of the variance in visitor loyalty. Among them, cognitive value had the strongest influence, followed by social value, cost value, and emotional value, while service value, functional value, and cultural value also showed significant but relatively moderate effects. This indicates that visitor loyalty in Conghua hot spring tourism is not shaped by a single factor, but rather by the combined influence of multiple dimensions of perceived value. In particular, visitors' understanding of the wellness functions, resource uniqueness, and experiential meaning of Conghua hot springs plays a particularly important role in stimulating revisit intention and recommendation intention.

The study also revealed several prominent characteristics

of the sample and visitor behavior. Middle-aged tourists, especially those aged 46–60, constituted the main visitor group; middle- and upper-middle-income visitors formed the core consumer segment; traveling with family or friends was the dominant mode; and online media together with lifestyle service apps had become the main channels for information acquisition. At the same time, nearly half of respondents were first-time visitors, suggesting that Conghua hot spring tourism still has considerable room to improve repeat visitation and loyalty conversion. These findings are generally consistent with the practical development trend of hot spring tourism, namely that the market is increasingly oriented toward middle-aged, wellness-conscious, and digitally connected consumers.

In discussion with previous studies, this research further confirms the contextual applicability of multidimensional perceived value theory in hot spring tourism. Compared with existing perceived value frameworks, the addition and empirical verification of cost value enrich the explanatory power of the model in the context of wellness tourism, highlighting that visitors' judgments of ticket price, transportation expenditure, and information search cost have become important parts of their overall value evaluation. Meanwhile, the stronger effects of cognitive value and social value suggest that in Conghua hot spring tourism, visitors not only care about direct service and functional experience, but also attach importance to knowledge gain, wellness understanding, social interaction, and emotional connection. Therefore, enhancing cognitive, emotional, and social value, while simultaneously improving service quality, pricing transparency, and cultural integration, is essential for strengthening visitor loyalty and promoting the sustainable development of Conghua hot spring tourism.

## 5.2. Limitations and Future Prospects

Although this study generated meaningful findings, several limitations remain. First, the sample was constrained by time and space. Data collection did not cover all seasonal periods of hot spring tourism, and most respondents were drawn from Guangzhou and surrounding areas, which may limit the representativeness of the sample and the geographical generalizability of the conclusions. Second, the research mainly relied on questionnaire surveys and focused on direct effects, without incorporating qualitative methods such as in-depth interviews or on-site observation, nor introducing possible mediating or moderating variables. As a result, the deeper mechanisms underlying the formation of visitor perceived value and loyalty were not fully revealed. Third, the study focused only on Conghua hot springs and did not include cross-regional comparisons or distinctions among different types of hot spring products, which restricts the broader applicability and contextual precision of the findings.

Future research can be extended in several directions. First, the temporal and geographical scope of sampling can be expanded by collecting data across different seasons and including visitors from more distant source markets, or by comparing multiple hot spring destinations in different regions, so as to further test the generalizability of the perceived value framework. Second, future studies may adopt mixed methods by combining questionnaire surveys with interviews, field observation, and online user-generated content analysis, while also introducing mediating variables such as visitor satisfaction and destination attachment, as well as moderating variables such as age and gender, to construct a more comprehensive explanatory model of visitor loyalty. Third, in response to digital transformation and changing wellness demands, future research may further explore how social media marketing, immersive technologies, smart tourism applications, and post-pandemic health concerns influence visitor perceived value and loyalty in hot spring tourism. Such extensions would help provide stronger theoretical and practical support for the sustainable development of the hot spring tourism industry.

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