

FACTORS INFLUENCE OF VISITOR LOYALTY IN CONGHUA HOT SPRING TOURISM BASED ON TOURISM PERCEIVED VALUE

Fengqing Nong

An Independent Study submitted in partial fulfillment of the Requirements for the Degree of Master of Management
Program in Creative Industries Management
Rattanakosin International College of Creative Entrepreneurship
Rajamangala University of Technology Rattanakosin
Academic Year 2026
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ABSTRACT

The objectives of this study were (1) to confirm the dimensions of consumers' perceived value in the Conghua hot spring tourism destination, (2) to explore the influence mechanism of consumer perceived value on tourist loyalty in the Conghua hot spring tourism destination, and (3) to provide insights and recommendations for the sustainable development of the Conghua cultural tourism department and the hot spring tourism industry.

This research employed a quantitative methodology to study consumers visiting the hot spring tourism destination in Conghua District, Guangzhou City. The research covered multiple on-site scenarios, including hot spring resorts, hotels, service centers, cultural experience sites, and supporting commercial areas, supplemented by online platforms such as WeChat, Xiaohongshu, Weibo, and Wenjuanxing for data collection. A total of 37 items were included in the questionnaire based on mature scales, covering seven dimensions of tourism perceived value (service value, cultural value, functional value, cognitive value, emotional value, social value, cost value) as well as tourist loyalty. Convenient sampling was adopted, with a sample size of 370 respondents. Using the descriptive statistics, reliability and validity analysis, factor analysis, Pearson correlation analysis, and multiple linear regression analysis, the research hypotheses were subsequently tested.

Major Findings/Results: (1) The seven dimensions of service value, cultural value, functional value, cognitive value, emotional value, social value, and cost value can effectively represent the perceived value of Conghua hot spring tourism; (2) Seven dimensions of consumers' perceived value have a significant positive impact on visitors' loyalty, among which cognitive value has the strongest impact, followed by social value, cost value, emotional value, service value, functional value and cultural value in turn, and; (3) Four actionable recommendations for the cultural tourism authorities, scenic areas, and related enterprises in Conghua hot springs: first, visitor needs must be precisely aligned to optimize products and pricing; second, enhance cognitive and emotional value to improve visitor retention; third, leverage digital empowerment in marketing to expand the customer base and conversion rates; fourth, elevate service and cultural value to solidify development foundations.

Keywords: Conghua hot spring, Perceived value, Tourist loyalty, Wellness tourism

Advisor's Signature…….

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Fengqing-Nong

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CHAPTER 1
INTRODUCTION

1.1 Research Background

With the acceleration of societal pace and the enhancement of public health awareness, wellness tourism has increasingly become a significant choice for individuals seeking to alleviate stress and pursue a healthy lifestyle. According to the China Wellness Industry Consumption Trend Report (2025), the wellness industry is experiencing rapid growth, with the market size projected to reach 9.5 trillion yuan by 2025. The report attributes this swift development to supportive national policies and the rising health consciousness among consumers. As a vital component of wellness tourism, hot spring tourism—offering a combination of therapeutic and leisure functions—has garnered widespread popularity among Visitors. It is progressively transitioning from traditional sightseeing to experiential and holistic wellness models. The Research and Forecast Report on China's Hot Spring Tourism Market Development Trends (2022–2029) indicates that hot spring tourism has become an integral part of China's tourism economy, interlinking various industries such as transportation, catering, commerce, and real estate, while integrating elements of culture, health, and ecology, thereby demonstrating substantial market potential. Moreover, wellness tourism concepts are increasingly embraced by younger demographics. Urban young professionals, facing multifaceted high-intensity pressures, tend to choose wellness tourism to alleviate stress and maintain health (Lü, Dong, & Qi, 2024). Among these, hot spring tourism products constitute a significant segment of wellness tourism (Li, 2024). With the continuous improvement in living standards and purchasing power, hot spring tourism has become a preferred leisure option during holidays. Its integration of leisure, wellness, and vacation elements has made it an increasingly popular choice among consumers.

From the perspective of regional economic development, tourism has become an important driver of growth, and the role of hot spring tourism within this process should not be underestimated. Against this broader background, China has gradually strengthened policy support for tourism products, wellness tourism, and hot spring tourism. Rather than remaining a purely leisure-oriented activity, hot spring tourism has increasingly been incorporated into national strategies related to cultural tourism development, public health, service quality, and industrial upgrading.

At the policy level, the Chinese government has progressively attached greater importance to the standardized and sustainable development of the hot spring tourism sector. During the period of the 13th Five-Year Plan for Tourism Development, policy documents already emphasized the need to promote the long-term and healthy development of tourism, including wellness-related tourism forms. Subsequently, the "Healthy China" initiative further highlighted the growing relevance of health-oriented tourism in national development planning. Under this policy climate, hot spring tourism has gained stronger institutional support because of its close connection with leisure, wellness, and health preservation.

In addition to broad strategic support, the regulatory framework for the hot spring industry has also become more comprehensive. Over the past decade, China has introduced a series of standards and service specifications for hot spring enterprises and hot spring tourism, with the aim of improving operational quality, service safety, and visitor experience. These measures have helped clarify industry norms, strengthen quality supervision, and create a more standardized environment for the development of hot spring tourism. More recent cultural and tourism development plans have further stressed the need to establish scientific and standardized evaluation systems so as to raise the overall quality of tourism services.

Financial and institutional support has likewise created favorable conditions for the continued expansion of this sector. In recent years, national policies related to cultural tourism and health promotion have encouraged greater participation of social capital in tourism infrastructure and public-service projects, while relevant government departments have also provided fiscal support for eligible projects. Within this broader policy environment, hot spring tourism has shown strong development potential. Owing to its distinctive wellness-oriented character, it has gradually become one of the more competitive segments within the tourism industry.

At the same time, the rapid development of China’s tourism market has also provided a favorable demand-side foundation for the growth of hot spring tourism. With the continuous improvement in living standards, the diversification of social and cultural needs, and the ongoing development of transportation infrastructure, tourism consumption has expanded steadily in recent years (Department of Finance, 2024). Against this background, hot spring destinations, which usually combine natural scenery, fresh air, and distinctive local characteristics, are increasingly able to meet tourists’ expectations for leisure, recreation, and health-oriented experiences. As a result, hot spring vacation tourism has gradually become a popular option in China’s leisure travel market and has demonstrated considerable development potential and commercial value (Zhu et al., 2024).

Against this backdrop, Wenquan Town, under the jurisdiction of Conghua District in Guangzhou, Guangdong Province, has leveraged the natural resources of the Liuxi River hot springs and its distinctive local "hot spring" culture to earn multiple accolades, including being recognized as a Global Hot Spring Wellness Town, a National Visitor Resort, and a Domestic Hot Spring Hometown. These honors have established it as a renowned destination in China for therapeutic wellness and leisure vacations. In recent years, hot spring tourism in Conghua has become a significant socio-economic activity, bringing notable social and economic benefits to the local area (Xu Jing, 2021). However, with the rapid development of Conghua's hot spring tourism industry, certain issues have emerged that require attention. Among these, service quality stands out as a particularly pressing concern, acting as a key constraint on the further advancement of Conghua's hot spring tourism (Huang Ying, 2017). Deficiencies in supporting facilities and scenic area management within the Conghua hot spring resort have led to suboptimal visitor experiences and a decline in service quality. This not only affects Visitors' perceived value but may also result in decreased visitor loyalty.

When the Visitor experience is noticeably affected, it becomes necessary to understand Visitors’ overall evaluation of a destination from the perspective of tourism perceived value. Because tourism is highly experiential and context-dependent, tourists’ value judgments are shaped not only by product or service attributes, but also by environmental atmosphere, cultural features, and emotional experience. Therefore, perceived tourism value is particularly suitable for explaining tourist behavior in

destination settings. (Zeithaml, 1988; Schiffman & Kanuk, 1997). Owing to the highly experiential and situational nature of tourism, Visitors' value assessments are influenced not only by product attributes but also by environmental ambience, cultural characteristics, and emotional fulfillment (Sun Yue, 2023; Ge Aihong, 2024). Therefore, tourism perceived value demonstrates multidimensionality, strong subjectivity, and a high dependence on destination characteristics, making it a fundamental theoretical concept for explaining Visitor behavior.

Conghua Hot Spring tourism encompasses multiple attributes—including health and wellness, leisure vacationing, cultural experience, and social interaction—and its attractiveness is built upon Visitors' holistic evaluation of services, environment, cultural factors, and related costs (Huang Fucai & Huang Yinghua, 2007; Su Haiying, 2023). Existing shortcomings in service provision and management directly diminish Visitors' perceived value, thereby influencing their loyalty behavior (Huang Ying, 2017). Thus, adopting tourism perceived value as the core independent variable in this study not only aligns with the multifaceted nature of hot spring tourism but also addresses the key developmental issues faced by Conghua Hot Spring. Moreover, previous literature consistently shows that tourism perceived value acts as an antecedent influencing Visitors' attitudes, evaluations, and loyalty, and it possesses strong explanatory power in tourism behavior research (Zhou Songpeng, 2022; Zeng Xionghui, 2022; Yu Qiuyang & Wang Qian, 2022).

Enhancing Visitor loyalty has profound implications for the economic and social benefits of a destination (Wang Songmao et al., 2025). Loyal Visitors are inclined to make repeat visits and engage in deeper consumption, behaviors that not only reduce the destination's marketing costs but also effectively extend Visitors' length of stay and increase consumption frequency, thereby generating a significant tourism multiplier effect (Su W.-L., 2019). In the context of Conghua's hot spring tourism, the continued patronage of loyal Visitors can stimulate the coordinated development of multiple industries, including hotels, homestays, wellness projects, transportation, and cultural and creative sectors. This contributes to job creation, boosts local residents' income, and enhances local tax revenues, providing financial support for infrastructure development, environmental protection, and the improvement of public services in Conghua District, ultimately fostering a sustainable wellness tourism ecosystem (Guanyan Network Report, 2022).

Therefore, exploring the factors influencing Visitor loyalty and formulating strategies to enhance it are not only practical needs for industry development but also hold significant regional policy value and social importance (China Wellness Industry Consumption Trend Report, 2025).

Consequently, this study focuses on Conghua's hot springs to investigate the factors influencing Visitor loyalty based on consumers' perceived value of hot spring destinations. Building upon this, the study aims to develop targeted recommendations to enhance Visitors' perceived value and loyalty within hot spring resorts. This research holds substantial significance for promoting the healthy and sustainable development of China's hot spring tourism industry and addresses critical issues that require attention and resolution in the current development of hot spring vacation tourism.

1.2 Research Questions

This research mainly from the Visitor perceived value theory, Visitor satisfaction theory, conghua hot spring as the research object, aiming at conghua hot spring tourism consumer demand, the influence factors were discussed and analyzed, and put forward improvement Suggestions to perfect the conghua hot spring tourism, the specific research questions as follows:

The specific research questions are as follows:

(1) What are the dimensions of consumer perceived value in Conghua Hot spring tourism destination?

(2) conghua hot springs tourism destination customer perceived value is how to affect Visitors loyalty?

(3) What are the implications and suggestions of this study for Conghua hot spring tourism destination?

1.3 Research Objectives

The main objectives of this study are as follows:

(1) To confirm the dimensions of consumers' perceived value in Conghua hot spring tourism destination.

(2) Explore the influence mechanism of consumer perceived value on Visitor loyalty in Conghua Hot spring tourism destination.

(3) Provide inspiration and suggestions for the sustainable development of Conghua cultural tourism department and hot spring tourism industry.

1.4 Research significance

1.4.1 Theoretical significance

The theoretical significance of this study can be summarized in two main aspects.

First, although international research on hot spring tourism has produced relatively rich findings in areas such as resource development and tourism marketing, studies focusing on tourists' experiential evaluation of hot spring tourism in the Chinese context remain comparatively limited (Liang, 2023). Existing domestic research using "hot spring tourism" and "tourism perceived value" as core themes is still insufficient, especially in relation to the multidimensional mechanism through which perceived tourism value influences visitor loyalty (Wang, 2022; Deng, 2020; Su, 2023). By taking Conghua Hot Spring as the research setting, this study applies perceived tourism value theory to identify the major value dimensions in the hot spring tourism context and to examine how these dimensions affect visitor loyalty. In this way, the study extends the application of perceived tourism value theory in a destination-specific tourism context and provides a theoretical reference for further research on the relationship between tourism perceived value and visitor loyalty.

Second, compared with international studies, domestic research on hot spring tourism has more often relied on qualitative discussion, while empirical quantitative analysis remains relatively limited (Wang Hongyun, 2022). To address this gap, this study systematically reviews the literature related to tourism, perceived value, and loyalty, and on this basis constructs a research model for examining the relationship between perceived tourism value and visitor loyalty. Furthermore, through questionnaire-based data collection and statistical analysis, this study refines the measurement of the relevant constructs and provides empirical evidence on visitor behavioral responses in the hot spring tourism context. Therefore, this research not only contributes to a deeper understanding of visitor behavior in tourism settings, but also offers a supplementary theoretical perspective for future studies on hot spring tourism and loyalty formation.

1.4.2 Practical significance

Conghua hot spring tourism is one of the most important tourism resources in Guangzhou and plays a significant role in local economic growth and sustainable social development. By examining the relationship between tourists' perceived tourism value and visitor loyalty in the context of Conghua hot spring tourism, this study can provide useful insights for enhancing the attractiveness and competitiveness of local tourism projects, thereby helping attract more tourists and promote the continued development of the local economy.

In addition, the findings of this study may offer practical guidance for relevant stakeholders involved in the development of Conghua hot spring tourism, including government regulators, destination managers, and tourism operators. By identifying the key dimensions of perceived tourism value that influence visitor loyalty, this study can help local authorities and business operators better understand tourists' needs and expectations, improve management mechanisms, optimize tourism products and services, and strengthen the overall market competitiveness of the destination. Therefore, this study may also serve as a reference for policy formulation, destination management, and service quality improvement in the hot spring tourism sector.

1.5 Research Limitations

Although this study has certain theoretical and practical significance, several limitations should still be acknowledged.

First, the empirical data used in this study are based on questionnaire surveys of consumers in Conghua hot spring tourism, and the data collection period is relatively concentrated within a limited time frame. As a result, the findings may not fully capture the dynamic characteristics and possible seasonal changes of tourist flow and visitor perceptions in Conghua hot spring tourism.

Second, this study focuses specifically on the hot spring tourism context in Conghua, Guangdong Province. Because the research setting is relatively specific, the applicability of the findings to other tourism types within Conghua, as well as to hot spring destinations in other regions, may be limited. Therefore, the generalizability of the conclusions still needs to be further tested in broader tourism contexts.

CHAPTER 2
LITERATURE REVIEW

2.1 Definition of Concepts

2.1.1 Hot spring tourism

With the expansion of leisure consumption and the growing demand for wellness-oriented travel, hot spring tourism has gradually become an important form of experiential tourism. Existing studies suggest that although the term “hot spring tourism” appeared relatively early, its conceptual boundaries have not always been defined in a fully consistent way, and its connotation has continued to expand along with changes in tourism demand and industry development (Chen, 2006).

From the perspective of industry regulation, hot spring tourism is first grounded in the resource attributes of hot springs themselves. China’s early local standard, Guangdong Hot Spring Tourism Service Specification, described hot spring bathing water as water emerging from underground with a temperature of no lower than 40°C and containing trace elements beneficial to the human body (Xu Huirong, 2007). On this basis, the national tourism industry standard Hot Spring Tourism Quality Grade (LB/T 070–2017) further defined hot spring tourism as a tourism activity centered on hot spring resources, including geothermal steam, mineral mud, or cold springs, with bathing, soaking, and health therapy as principal forms, and aimed at leisure, recuperation, and vacation.

Academic discussions have extended this official understanding by emphasizing the comprehensive experiential nature of hot spring tourism. Wang Ling and Zeng Chi (2019) argued that hot spring tourism should not be understood merely as a bathing activity, but rather as a broader tourism phenomenon integrating leisure activities, social experience, vacation attributes, and destination characteristics. In their view, hot spring tourism is built around hot spring resources while also incorporating local customs, historical context, and cultural features. Similarly, Cheng Wen and Zheng Yun (2019) stressed that hot spring

tourism takes hot springs as its core carrier, but its value lies in a wider wellness system that may include recuperation, healthy food, outdoor exercise, and other activities conducive to physical and mental balance.

Based on the above viewpoints, this study defines hot spring tourism as a comprehensive tourism activity that complies with relevant industry standards, takes hot spring resources as the primary carrier, and uses bathing, soaking, leisure, and recreation as its main activity forms. More importantly, it is characterized by the integration of health preservation, relaxation, and entertainment, enabling visitors to pursue a more harmonious state of body and mind through the tourism experience (Xu Huirong, 2007; Wang Ling & Zeng Chi, 2019; Cheng Wen & Zheng Yun, 2019).

2.1.2 Conghua Hot Spring Tourism

Hot-spring tourism in Conghua has developed on the basis of the district's unique geothermal resources. As early as 1998, the Regional and Urban Planning Research Center of South China Normal University led and published the Overall Tourism Development Plan of Conghua City, Guangdong Province, which examined the development planning for Conghua's hot-spring tourism. This is among the earlier works in China on planning and management for hot-spring destinations (Wang & Peng, 2004). The fact underscores that Conghua—one of China's earliest clusters of hot-spring destinations—had already attracted scholarly attention at an early stage, and that studying Conghua's hot springs carries substantive academic significance.

Moreover, the core attraction of Conghua lies in its rare water quality and pronounced wellness attributes. The hot-spring water is notable for its rich minerals and trace elements, with the most distinctive feature being its radon-containing soda (sodium-bicarbonate) type. In 2009, it was recognized by the China World Records Association as "China's first radon soda hot spring," and later designated by the World Federation of Hydrotherapy and Climatotherapy as a "World Valuable and Rare Hot Spring." Local government sources also place it alongside Davos, Switzerland, as one of the "globally scarce"radon soda springs (Guangzhou Municipal People's Government portal, 2011). These unique resources afford visitors a high-quality bathing experience.

Beyond the water itself, Conghua hot-spring tourism emphasizes integration with surrounding natural landscapes and cultural resources, having developed eco-projects such as forest bathing facilities. The destination continues to explore "hot spring +" models—

for example, “hot spring + lychee,” which blends Conghua’s signature lychee produce with hot-spring experiences by promoting novel practices such as enjoying chilled or “sleeping” lychees while soaking, inviting visitors to experience the charm of a “world-rare hot spring” (Fu, 2024). Resorts and hotels also feature Conghua-style dishes—such as tianluo bao ji (field-snail stewed chicken) and Liuxi grilled fish—to enrich the gastronomic experience and strengthen the destination’s appeal. In addition, numerous folk-culture activities—New Year markets, folk performances, and “time-capsule” music concerts—enable visitors to enjoy the hot springs while engaging with Conghua’s local culture, thus creating a distinctive tourism experience (Guangzhou Municipal Government, 2024; Conghua District People’s Government, 2024). Furthermore, Conghua actively stages various cultural festivals, such as hot-spring culture festivals, to raise its profile and influence. The government has also issued a set of supportive policies—covering infrastructure investment and guidance on industry integration—that have facilitated continuous upgrading and diversification of hot-spring tourism (Wang, 2022; Luo, 2023).

In sum, this study defines Conghua hot-spring tourism as travel behavior in which enjoying hot springs is the primary purpose, complemented by locally embedded “hot spring +” activities (e.g., cultural experiences and specialty products) undertaken in Conghua.

2.2 Theoretical Foundation

2.2.1 The Evolutionary Logic and Research Paradigm of Perceived Value Theory

Perceived value theory emerged from consumer behavior research and has gradually become one of the core perspectives for explaining consumers’ evaluative judgments and subsequent behavioral responses. In its early stage, the concept was primarily interpreted through an economic and rational lens, with emphasis placed on the comparison between benefits obtained and sacrifices made during consumption. In this sense, perceived value was not regarded as an objective property of products or services, but as a subjective assessment constructed by consumers in the decision-making process.

A seminal contribution was made by Zeithaml (1988), who conceptualized perceived value as consumers’ overall assessment of utility based on the comparison between what is received and what is given. This definition established the basic analytical logic of perceived value research by highlighting its subjective and trade-off-based nature.

In other words, value is formed not simply by the characteristics of a product or service itself, but by consumers' psychological evaluation of the relationship between benefits and costs.

Subsequent studies questioned the sufficiency of interpreting perceived value only through utilitarian and economic considerations. As consumption behavior became increasingly associated with experience, emotion, and symbolic meaning, scholars began to argue that consumers' value judgments could not be fully explained by functional performance or price alone. Babin, Darden, and Griffin (1994), for example, demonstrated that consumption value also contains hedonic components, indicating that emotional enjoyment and experiential pleasure are important parts of consumer value perception alongside practical utility.

Building on this shift, Sweeney and Soutar (2001) further advanced perceived value research by proposing a multidimensional framework and developing the PERVAL scale. Their model distinguished several interrelated dimensions of value, including functional value, emotional value, social value, and price-related value. Compared with earlier one-dimensional interpretations, this framework offered a more systematic explanation of how consumers form value judgments in complex consumption settings. As a result, it has been widely adopted in studies of services, retailing, and tourism, and has provided an important basis for later empirical investigations of perceived value.

Taken together, the development of perceived value theory reflects a clear shift from a narrow rational trade-off logic to a broader multidimensional perspective that incorporates experiential and psychological elements. Correspondingly, the research paradigm of perceived value has also evolved: rather than treating it as a single and isolated outcome variable, contemporary studies increasingly view it as a higher-order construct composed of multiple dimensions. This theoretical evolution is particularly relevant to tourism research, where consumer experience is often shaped by the combined influence of functional performance, emotional response, social meaning, and perceived cost.

2.2.2 Perceived value theory

Perception generally refers to the process through which individuals sense, interpret, and form awareness of external stimuli, and consumers' perceived psychological activities constitute an important basis for other forms of consumer psychology (Schiffman, 1997). Value, however, is a broader and more abstract concept. In different disciplinary

contexts, it may be manifested in objective forms, such as utility or economic significance, as well as in subjective forms that reflect individuals' internal judgments and evaluations of things. Therefore, value should be understood not only as an attribute embedded in an object, but also as a result of human interpretation and assessment (Meng Fei, 2012).

Within consumer research, perceived value was systematically developed from the perspective of consumer psychology. Zeithaml (1988) argued that perceived value refers to consumers' overall evaluation of the utility of a product or service based on a comparison between the benefits they obtain and the sacrifices they make. This interpretation indicates that perceived value is essentially subjective in nature, because it depends on how consumers personally assess gains and costs rather than on any fixed attribute of the offering itself. As a result, perceived value may vary across individuals, cultural settings, and time periods (Zeithaml, 1988; Meng Fei, 2012).

From a managerial perspective, perceived value theory highlights the importance of value creation in competitive markets. Enterprises are expected not only to provide high-quality products and services, but also to reduce consumers' monetary and non-monetary costs and improve the overall consumption experience. When consumers perceive that the benefits, they receive are greater than the sacrifices they make, they are more likely to develop favorable evaluations of a brand or service, maintain repeated purchase intentions, and spread positive word of mouth. In this sense, perceived value theory offers an important framework for understanding consumer responses and for explaining how firms may strengthen competitiveness and cultivate loyalty through value enhancement.

Although scholars have not reached complete agreement on the precise wording of perceived value, existing studies show several points of common understanding. First, perceived value is fundamentally a subjective evaluation formed by consumers when they encounter goods or services. Second, this evaluation is typically based on a comparison between perceived benefits and perceived costs. Third, the benefits involved are not confined to functional performance or product quality, but may also include emotional satisfaction, psychological enjoyment, and experiential pleasure arising during consumption or service use. Accordingly, perceived value in this study is understood as consumers' overall subjective assessment formed through weighing the functional, experiential, and psychological gains they obtain against the time, money, and effort they invest.

Overall, the concept of perceived value has evolved from a relatively simple cost–benefit trade-off into a more comprehensive psychological evaluation framework that incorporates multiple dimensions of value. This theoretical development has provided an important foundation for applying perceived value theory to experiential consumption settings such as tourism.

2.2.3 Perceived Value in the Tourism Context

In tourism research, the concept of tourism perceived value is largely derived from the broader framework of perceived value theory (Sun, 2023). In essence, it applies the logic of perceived value to the tourism context and focuses on how tourists evaluate tourism products, services, and experiences. Consistent with the core idea of perceived value theory, tourism perceived value can be understood as tourists' overall subjective assessment formed through comparing the benefits, they obtain from tourism consumption with the various sacrifices they make in the process.

Recent studies have further enriched this concept from different perspectives. Ge Aihong (2024) argued that tourists' perceived value is a psychological evaluation generated after tourism consumption, and that such an evaluation involves both perceived gains and perceived costs. Similarly, Li and Zhu (2024) emphasized that tourists' value perception is closely associated with their comparison of time, money, and experiential returns during tourism activities. These views suggest that tourism perceived value is not limited to economic exchange, but also includes visitors' judgments of experiential outcomes.

In addition to the cost–benefit perspective, some scholars have interpreted tourism perceived value with reference to value hierarchy theory. Su Haiyang (2024) pointed out that tourists' cognitive value perception has a hierarchical structure, in which destination attributes serve as the underlying basis for further evaluation. Only when the characteristics of a destination correspond to tourists' travel motives, preferences, and expected outcomes can a positive value judgment be formed. Zhang Saiji (2024) expressed a similar view by noting that tourists usually develop consumption expectations on the basis of previous experience and personal preference, and their perceived value depends on whether the essential attributes of the selected tourism products or services match those expectations.

Taken together, existing studies indicate that tourism perceived value is a multidimensional and experience-oriented concept. It reflects not only tourists' evaluations of functional and economic outcomes, but also their judgments of experiential, emotional, and cognitive gains relative to the time, effort, and money invested. Therefore, in the tourism industry, perceived value theory provides an important perspective for explaining how tourists form evaluations of destinations and services, and why such evaluations may further influence their satisfaction and subsequent behavioral intentions.

2.2.4 Research on perceived value of tourism

The dimension of perceived value of Visitors has always been the focus of the tourism academia, and the understanding of its dimension is mostly based on the traditional theory of perceived value of consumers.

Totally rational perspective dimension. Franco (2024) examined the perceived value of hotel service from the perspective of service system; Deng Chenhui et al. (2006) started from the perspective of service system to analyze the perceived value of consumers, as well as the influence of environment and image, rather than emotions; Tang et al. (2024) constructed consumers' perceived value from the perspectives of product, service, place and price. Zhang Ting (2024) believed that consumers' perceived value includes four dimensions: quality, brand, appearance and price.

Experience perspective dimension. Mohamed et al. (2024) discussed the perceived value of festival tourism based on the hedonic/real experience value table; Li (2023), from the perspective of Visitors' experience of participating in festival and event activities, found that Visitors not only care about practical aspects such as transportation and service, but also care about spiritual aspects such as whether they get psychological pleasure and physical and mental relaxation during the tourism experience. Liao Qianqian (2023) from the Angle of view of the Visitor experience, from the two aspects of practical and recreational culture, emotions, communication, service, affluence seven dimensions such as related validation.

In terms of the relationship model between Visitors' perceived value and Visitors' consumer behavior, from the perspective of tourism destination perception, Visitors' perception is based on Visitors' perception as the cause and Visitors' satisfaction as the medium, and empirical analysis is made on factors such as Visitors' perception, Visitors' satisfaction and Visitors' recommendation. Zhou (2022) and He Mang et al. (2022) take

tourism destination perception as the research object, take Visitor perception as the antecedent variable, and take Visitor satisfaction as the mediating variable to construct the relationship model between perceived value and consumer behavior. Xiong-hui zeng (2022) the perspective of perceived value and its dimensions to build model using satisfaction intermediary variables, explore Visitors perceived value, service quality, Visitor motives affect Visitors loyalty; In qiuyang and wang qian (2022) based on Visitor perceived value and dimensions Angle, build the Visitors perceived value YiManYi a loyalty model; You Xuyun (2021) built a corresponding model in terms of the relationship between tourism satisfaction and Visitors' perceived value, satisfaction and loyalty. From the perspective of Visitors' perception, Liu Han (2021) studied the correlation between Visitors' attitude and tourism competitiveness, and constructed a theoretical model of tourism cognition based on two structural variables and 12 measurement indicators. Huang et al. (2020) argued that whether a company has a greater advantage compared with similar competitors in the market depends on whether consumers can repurchase a company's goods or services after purchasing them. For example, Yao (2018) took the formation mechanism of destination choice intention as the prerequisite variable under the customer value theory, and Wei (2019) also set the relationship between e-service quality and Visitors' purchase intention as the prerequisite variable.

2.2.5 Dimensions of perceived tourism value

Research on the dimensions of perceived tourism value is generally grounded in the multidimensional perspective of perceived value theory. Among the various theoretical approaches, the PERVAL framework proposed by Sweeney and Soutar (2001) is particularly influential, as it treats perceived value as a composite construct consisting of several related dimensions rather than as a single evaluative variable. On this basis, later tourism studies have usually retained the multidimensional logic of perceived value while adjusting specific dimensions to fit different tourism contexts.

In terms of dimensional selection, existing studies commonly combine established theoretical models with contextual adaptation. Rokhima et al. (2024) noted that research on tourism perceived value often draws upon customer perceived value theory in marketing and then modifies the dimensional structure according to the characteristics of the tourism setting. In an empirical study of Hong Kong package tours, Huang Fucai identified several important dimensions of tourism perceived value, including tourism

quality, emotional value, social value, economic cost, and non-monetary cost. Likewise, Kim et al. (2024), in the context of health and leisure tourism, incorporated dimensions such as tourism quality, emotional response, monetary cost, behavioral cost, and reputation, and confirmed their explanatory value across service scenarios including hotels and catering. Zhu Ying (2024) also pointed out that although the naming and combination of dimensions vary across studies, the underlying structure of perceived tourism value remains broadly comparable.

From the overall development of this line of research (as shown in Table 2.1), a relatively stable pattern can be observed despite differences in terminology and classification. Previous studies repeatedly identify cognitive value, functional value, emotional value, and cost value as key components of tourism perceived value. At the same time, in experience-oriented and service-intensive tourism contexts, additional dimensions such as service value, social value, and cultural value are frequently introduced into analytical frameworks. These dimensions have also been shown to play an important role in shaping tourists' evaluations and behavioral responses (Sheth et al., 1991; Sweeney & Soutar, 2001; Zhang Hongmei & Lu Lin, 2010; Bao Jigang, 2014).

Table 2. 1 Multidimensional Dimensions of Tourists' Perceived Value

Author(s)	Dimensions of tourists' perceived value
Sheth, Newman, and Gross (1991)	Epistemic value, Conditional value, Social value, Emotional value, Functional value
Groth (1995)	Cognitive value, Psychological value, Intrinsic value, Extrinsic value
Grönroos (1997)	Cognitive value, Emotional value
Sweeney and Soutar (2001)	Emotional value, Price value, Quality value, Social value
Sánchez et al. (2006)	Tourism quality value, Travel agency social value, Social value, Professional value, Price value, Emotional value
Lee (2007)	Functional value, Overall value, Emotional value
Zhang and Lu (2010)	Social value, Emotional value, Cognitive value, Economic cost, Non-economic cost, Tour guide service, Community service, Resource itself

Table 2. 1 (Continued)

Author(s)	Dimensions of tourists' perceived value
Wang et al. (2011)	Aesthetic value, Service value, Utility value, Perceived price pleasure value, Convenience value
Bao (2014)	Economic convenience value, Functional value, Cultural cognitive value, Social value, Service value, Enjoyment value, Situational value
Wei (2017)	Enjoyment value, Cost value, Quality value, Service value, Social value

Source: Adapted from Su Haiying (2023).

This multidimensional structure is also widely reflected in studies of hot spring tourism and health-related tourism. Existing research in these contexts has commonly emphasized dimensions such as service experience, cultural perception, functional utility, and emotional response, and has shown that these forms of value significantly influence tourists' overall evaluations and loyalty-related intentions (Su Haiying, 2023; Wang Hongyun, 2022; Li Dan, 2024). Therefore, these dimensions should not be regarded as isolated choices made by individual studies, but rather as a relatively stable structure that has gradually emerged across different tourism contexts.

Based on the multidimensional framework of perceived value theory and considering the composite nature of hot spring tourism, which integrates health recuperation, leisure vacation, and cultural experience, this study identifies service value, cultural value, functional value, cognitive value, emotional value, and social value as the core dimensions of perceived tourism value. In addition, because the Conghua hot spring market shows relatively clear differences in pricing across businesses and tourists are often sensitive to both monetary and time-related sacrifices during travel decision-making, cost value is further incorporated into this study so as to provide a more complete description of tourists' value trade-off process in the hot spring tourism context.

2.2.6 Loyalty Theory

Customer loyalty provides the conceptual basis for understanding visitor loyalty in tourism research. Once loyalty is established, customers are generally more willing to maintain long-term relationships with a firm, continue purchasing its products or services,

and invest additional time, money, and trust in that relationship (Harris & Goode, 2004; Ladhari et al., 2008). For this reason, loyalty has long been regarded as a key indicator of sustainable business performance.

Since the late twentieth century, the focus of marketing research has gradually shifted from customer satisfaction alone to the cultivation of customer loyalty. Oliver (1999) noted that, compared with earlier research traditions that concentrated heavily on satisfaction, later studies increasingly viewed loyalty as a more strategic objective of business management. Similar arguments were also made by Reichheld (1996) and Reynolds and Arnold (2000), who emphasized that strengthening customer loyalty is central to long-term competitiveness and profitability.

Because loyalty is associated with customer retention, repeated transactions, and long-term firm value, many scholars have attempted to define it from different theoretical perspectives. However, no single definition has been universally accepted. As summarized by Dai Yongming (2012) (Table 2.2), existing studies mainly differ in whether they interpret loyalty from a single perspective or from a combined attitudinal–behavioral perspective. Some early studies focused only on repeat purchasing behavior or on psychological attachment, whereas later studies increasingly treated loyalty as a concept that includes both dimensions.

Following this line of thought, many scholars have distinguished between attitudinal loyalty and behavioral loyalty (Lam et al., 2004; Kumar & Shah, 2006; Fullerton, 2005). Behavioral loyalty usually refers to the observable tendency of customers to repeatedly purchase from the same brand or provider. Attitudinal loyalty, by contrast, reflects customers' psychological preference, emotional attachment, and willingness to recommend a company or brand to others. Although attitudinal loyalty does not always translate immediately into direct revenue, it can still create considerable indirect value by strengthening brand reputation, encouraging positive word of mouth, and increasing customer influence.

Overall, loyalty theory has gradually evolved from a narrow focus on repeated behavior to a more comprehensive understanding that integrates both behavioral performance and psychological commitment. This theoretical development also provides an important foundation for examining visitor loyalty in tourism contexts, where repeat visitation, recommendation intention, and emotional attachment to destinations often coexist.

Table 2. 2 Definitions of customer loyalty by different scholars

Perspective	Scholar	Core understanding of loyalty
Single perspective: behavior or attitude	Raybown (1974)	Loyalty is reflected in repeated patronage over time.
	Oliver (1992)	Loyalty is a continuing commitment to repurchase a preferred product or service in the future.
	Tucker (1993)	Loyalty can be identified through continuous repeat purchasing behavior.
	Chandy & Tellis (1998)	Loyalty is shown in repeated purchases of the same or related brand offerings.
Dual perspective: attitude and behavior	Gremler &Brown (1996)	Loyalty combines repeat purchase behavior with a favorable attitude toward a particular provider.
	Giffin (1995)	Loyalty involves both psychological attachment and repeated purchase behavior.
	Dich & Basu (1994)	True loyalty arises when repeat patronage is supported by a strong relative attitude.
	Jones & Sasser (1995)	Loyal customers tend to show preference, continued patronage, and resistance to competitors' attraction.

Source: Adapted from Dai Yongming (2012)

2.2.7 Visitor Loyalty Theory

Visitor loyalty was introduced into tourism research as an extension of customer loyalty and gradually became an important concept for explaining tourists' post-consumption responses to destinations and tourism services. Although its theoretical roots are closely related to customer loyalty, visitor loyalty shows stronger context dependence because tourism consumption is highly experiential, intangible, and place-based. Therefore, in tourism studies, loyalty is usually discussed not only in relation to repeat behavior, but also in relation to visitors' emotional preference, trust, and recommendation intention toward a destination (Yoon & Uysal, 2005).

Existing studies generally suggest that visitor loyalty contains both behavioral and attitudinal implications. Howard et al. (1988) argued that loyalty in tourism can be reflected in two aspects: one is behavioral loyalty, which is expressed through repeated participation in a specific activity, service, or destination; the other is attitudinal loyalty,

which refers to visitors' psychological preference and affective attachment. In this sense, loyalty in tourism is not limited to observable revisit behavior, but also includes visitors' willingness to maintain a favorable attitude toward the destination even when actual revisitation does not occur.

Later studies further emphasized the tourism-specific meaning of loyalty. Cao Luyi (2017), in research on traditional Chinese medicine tourism, pointed out that although behavioral intention and loyalty are not completely identical concepts, they often overlap substantially in tourism contexts because tourism products and services are strongly experience-driven. Su Haiying (2023) defined visitor loyalty as a psychological tendency whereby tourists are willing to revisit an activity or destination and recommend it to others on the basis of their own needs and evaluations. Dai Yongming (2012) also noted that after tourists develop certain perceptions and experiences of a destination, they may gradually form trust, favorable attitudes, and a tendency to revisit or recommend the place to others. These views indicate that visitor loyalty in tourism research is usually understood as a concept integrating both evaluative attitude and future behavioral inclination.

Based on the above discussion, this study understands visitor loyalty as tourists' favorable attitude and revisit or recommendation tendency toward the same destination after they have formed certain perceptions, evaluations, and trust through the tourism experience. Considering the research objective of this paper, which focuses on the relationship between perceived tourism value and loyalty in Conghua hot spring tourism, visitor loyalty is mainly reflected in visitors' intention to revisit and their willingness to recommend the destination to others. This definition is consistent with the tourism context while also preserving the core logic of loyalty theory derived from marketing research.

2.3 Model construction

Previous studies on the relationship between perceived tourism value and visitor loyalty have generally followed two main explanatory approaches. One approach treats visitor satisfaction as an important mediating mechanism, arguing that perceived tourism value first enhances visitors' satisfaction and then indirectly strengthens their loyalty-related responses (Chen Wei, 2024; He Qiongfeng & Li Zhongguang, 2014; Zhao Lei et al., 2018). The other approach suggests that perceived tourism value itself can function as a direct antecedent of visitor loyalty, and that in some tourism contexts the mediating effect

of satisfaction is either weak or not empirically significant (Cao Luyi, 2017; Su Haiying, 2023; Zhang Yun, 2019).

From the perspective of loyalty theory, this second research path also has a clear theoretical basis. Oliver (1999) pointed out that loyalty does not necessarily emerge only through satisfaction, but may also be directly shaped by antecedent psychological factors such as value perception. A similar pattern can be observed in tourism research. Some empirical studies have shown that visitors' value judgments exert a significant direct influence on loyalty, and that the role of satisfaction may vary across tourism settings rather than operating as a universal mediating mechanism (Su Haiying, 2023). International research provides comparable evidence. For instance, Chen and Tsai (2007), in their study of destination image and behavioral intention, found that visitors' value-related evaluations could directly affect revisit intention and recommendation intention without being fully transmitted through satisfaction.

In light of the above findings, this study focuses on the direct relationship between perceived tourism value and visitor loyalty. This choice is also consistent with the characteristics of hot spring tourism, where visitors' judgments are often formed through an integrated evaluation of service experience, emotional feeling, cultural perception, functional utility, and cost-related sacrifice. Therefore, rather than introducing visitor satisfaction as an intermediary variable, this study takes perceived tourism value as the direct explanatory construct of visitor loyalty.

Based on the multidimensional framework of perceived tourism value and the practical characteristics of Conghua hot spring tourism, seven dimensions are selected in this study, namely service value, cultural value, functional value, cognitive value, emotional value, social value, and cost value. These dimensions are incorporated into the theoretical model to examine how different aspects of perceived tourism value influence visitor loyalty. The proposed conceptual model is presented in Figure 2.1

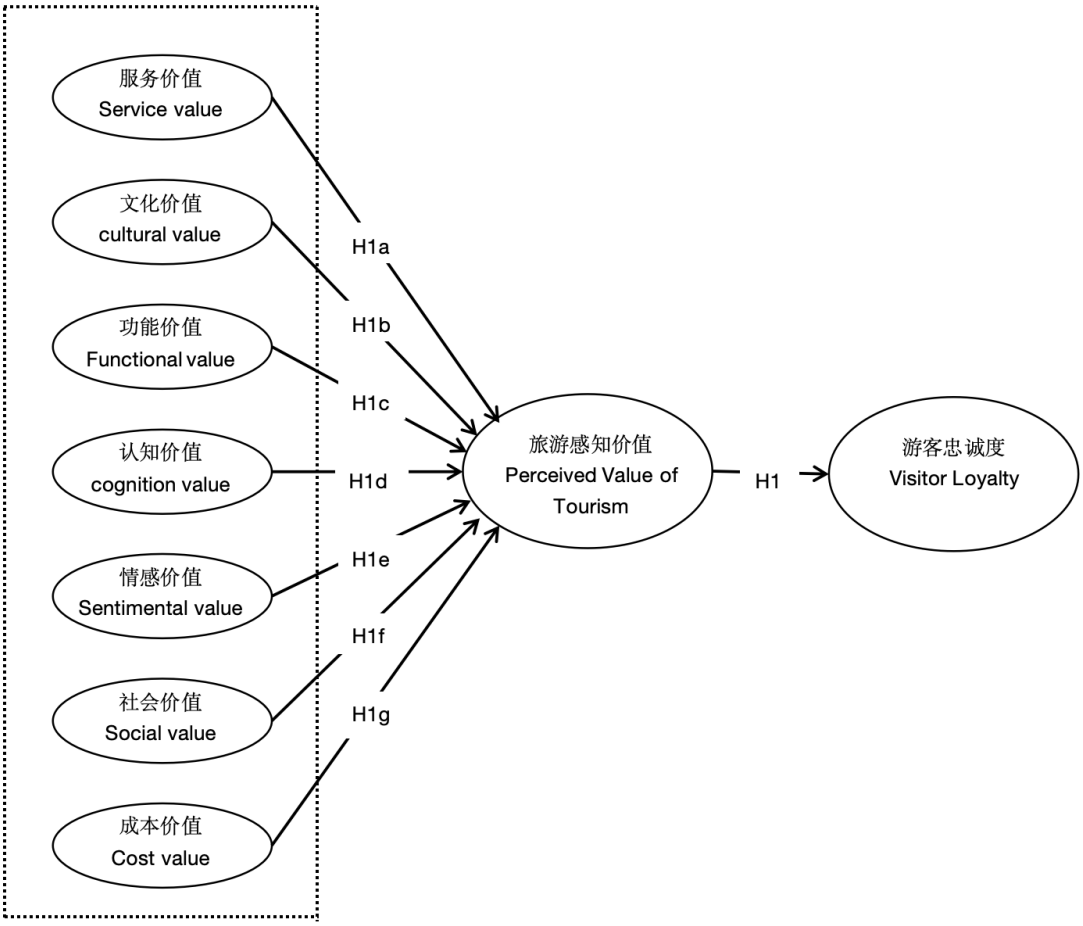


Figure 2. 1 Empirical model

2.4 Research hypothesis

Existing studies generally believe that perceived value is an important antecedent variable in the formation of Visitors' behavioral intentions and loyalty, and its core logic can be traced back to the value judgment framework of a benefit–cost trade-off,and has been further expanded in subsequent studies into a multidimensional structure that incorporates both utilitarian and experiential attributes (Babin, Darden, & Griffin, 1994; Sweeney & Soutar, 2001; Petrick, 2002). In the tourism context, relevant empirical studies also indicate that Visitors'value perceptions of a destination can directly influence their revisit intention and recommendation intention, thereby manifesting as a loyalty tendency (Chen & Tsai, 2007).

At the specific dimension level, domestic research has carried out relatively systematic tests on the relationship between "each dimension of perceived tourism value—loyalty." Su Haiying (2023) focused on the association between perceived tourism value and Visitor loyalty, and analyzed the influence of dimensions such as service value, cultural value, functional value, cognitive value, emotional value, and social value on Visitor loyalty; Chen Zhijun and Xu Feixiong (2021) also found in the context of rural folk tourism that emotional value, cognitive value, and cost value have varying degrees of promoting effects on Visitor loyalty, among which the influence of emotional value is relatively more prominent. Overall, although a certain research consensus has been formed regarding the perceived value–loyalty relationship, for the segmented context of hot spring tourism, which has the characteristics of "health and wellness + leisure + experience," the direct mechanism through which multidimensional perceived tourism value affects Visitor loyalty is still relatively insufficient. Taking Conghua Hot Spring as the research object, under the framework of multidimensional perceived tourism value, and in combination with the product attributes of hot spring tourism and the resource and service characteristics of Conghua Hot Spring, this study selects seven dimensions—cognitive value, service value, functional value, cost value, emotional value, cultural value, and social value—to construct the research model, and on this basis proposes the following research hypotheses:

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

In the multidimensional structure of perceived tourism value, service value reflects Visitors' overall evaluation of the service quality, service efficiency, and service experience they receive during the tourism process. Existing studies have shown that high-quality service experiences help enhance Visitors' overall sense of identification with the destination and emotional attachment, thereby increasing their revisit intention and recommendation intention (Parasuraman, Zeithaml, & Berry, 1988; Baker & Crompton, 2000). Therefore, the following hypothesis is proposed:

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

Cultural value reflects the extent to which Visitors perceive the cultural connotations, cultural atmosphere, and cultural experiences of the destination during the tourism process. Relevant studies indicate that when Visitors obtain positive cultural experiences during tourism activities, they are more likely to form unique memories of the destination and

emotional identification, thereby enhancing their continued visiting and word-of-mouth dissemination behaviors (Chen & Chen, 2010; Kim, Ritchie, & McCormick, 2012). Therefore, the following hypothesis is proposed:

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

Functional value mainly reflects Visitors' evaluation of tourism products and services in terms of practicality, convenience, and reliability. Studies have shown that when tourism products can effectively meet Visitors' functional needs, Visitors' overall evaluation of the destination is more positive, and the likelihood of their repeat choice and continued consumption also increases accordingly (Zeithaml, 1988; Petrick, 2002). Therefore, the following hypothesis is proposed:

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

Cognitive value refers to the new knowledge, new cognition, or enhanced understanding that Visitors obtain through experiential activities during the tourism process. Existing studies that the cognitive gains generated during the tourism process help enhance Visitors' understanding and identification with the destination, thereby promoting the formation of relatively stable behavioral tendencies at the psychological level (Kim et al., 2012). Therefore, the following hypothesis is proposed:

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

Emotional value reflects the pleasure, relaxation, and emotional satisfaction that Visitors experience during the tourism experience process. Tourism research generally that positive emotional experiences are an important psychological mechanism driving Visitors to form attitudes and behavioral intentions. When Visitors obtain higher emotional satisfaction during tourism, their degree of attachment to the destination and their loyalty intention will also be enhanced accordingly (Holbrook & Hirschman, 1982; Babin, Darden, & Griffin, 1994). Therefore, the following hypothesis is proposed:

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

Social value reflects Visitors' perceived value obtained through social interaction, social identification, and self-image expression during tourism activities. Relevant studies indicate that when tourism experiences help enhance Visitors' sense of social identification or satisfy their social needs, they are more likely to stimulate Visitors' positive evaluations of the destination and continuous behaviors (Sheth, Newman, & Gross, 1991; Sweeney & Soutar, 2001). Therefore, the following hypothesis is proposed:

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

Cost value reflects Visitors' comprehensive evaluation of the monetary, time, and effort costs they incur during the tourism process. Studies have shown that when Visitors that the costs they incur match, or even exceed, the tourism experience they obtain, they are more likely to form a higher overall perceived value and further enhance their intention to choose the destination again (Zeithaml, 1988; Petrick, 2002). Therefore, the following hypothesis is proposed:

H1g: Cost value has a significantly positive impact on Visitor loyalty

CHAPTER 3
RESEARCH METHODOLOGY

3.1 Target Population

The primary target population of this study comprises visitors engaging in hot spring tourism at the hot spring destinations in Conghua District, Guangzhou. Empirical evidence supports the strategic focus on this demographic. Luo (2023), utilizing Baidu big data with "Conghua tourism" as a keyword, revealed that the source market for rural tourism in Conghua District is predominantly within Guangdong Province, suggesting that future development must be grounded in this local market. Similarly, in an analysis of marketing strategies for Conghua's tourism products, Deng (2017) identified the core market as Guangzhou and the broader Pearl River Delta (PRD) region. This market, centered on Guangzhou, consists of stable, medium- to short-haul source markets characterized by robust economic development, high travel propensity, and strong mobility among residents.Further corroborating this geographic focus, a survey on visitor behavior at Conghua hot springs indicated that 63% of visitors incur travel times of less than three hours. This finding implies that the primary source market is concentrated in neighboring cities within a 200-kilometer radius, with leisure, vacation, and sightseeing serving as the predominant travel motives (Wang & Bao, 2004). Consequently, this study selects Guangzhou—the nearest megacity to the Conghua hot spring destinations—as the critical context for investigating visitors' perceived value and loyalty. This selection is underpinned by theoretical rationale and multifaceted advantages, notably the city's substantial population base (Yuan & Li, 2024). As of April 2024, Guangzhou's permanent resident population stood at 18.827 million (Guangzhou Municipal People's Government, 2024). This demographic magnitude spans diverse age cohorts and income levels, thereby providing a broad and heterogeneous sample for this research. Such a vast and varied population structure facilitates a rigorous examination of how distinct dimensions of perceived value influence visitor loyalty, ultimately ensuring the representativeness and generalizability of the study's findings.

In addition, the tourism market of Conghua is active, which is suitable for in-depth research. According to the conghua district in 2023, according to the national economy and the development of statistical bulletin 2023 Visitors 15.3557 million person-time, year-on-year growth of 14%; The tourism revenue reached 5.253 billion yuan, up 12.4% year on year. Of hot spring tourism is the center of gravity of the local tourism, hot spring tourism resort area during 2021-2023 streams cumulative attracted more than 1000 visitors immersive experience WenQuanKang culture, creating tourism income of 1.6 billion yuan. (guangzhou ecological environment bureau, 2024) in this study we do research on guangzhou, can get representative data, provide a reference for similar research.

3.2 Targeted site

The target locations of this study cover multiple scenarios and channels in the Conghua hot spring tourism context that are related to the entire process of Visitors' "visit—experience—evaluation—revisit/recommendation," so as to more comprehensively identify the key driving factors for the formation of Visitor loyalty, and to provide a more representative sample source for the measurement and testing of the seven dimensions of perceived tourism value. Through multi-site sampling and multi-channel data collection, this study can, while ensuring sample diversity, enhance the explanatory power and external validity of the research conclusions for real tourism contexts.

First, the core consumption venues within the hot spring resort area (such as hot spring resort hotels/hot spring resorts, the reception center of the hot spring scenic area, and ticketing/front desk areas, etc.) are indispensable research locations. These venues are key contexts in which Visitor's form "service experience—emotional response—overall evaluation," and researchers can obtain Visitors' immediate feedback on aspects such as service quality, service efficiency, facility convenience, and experiential comfort after Visitors complete the experience, thereby providing highly reliable first-hand data for the measurement of dimensions such as service value, functional value, and emotional value. At the same time, front desk consultation, guidance services, and complaint/feedback channels can also reflect Visitors' overall perception of the service process, which helps explain how different service touchpoints influence revisit intention and recommendation intention.

Second, supporting spaces and tourism-chain nodes around the hot spring resort area (such as dining and commercial streets, featured homestay/hotel clusters, Visitor distribution points, and parking-and-transfer areas, etc.) are also important research venues. The experience of hot spring tourism is not limited to bathing itself; throughout the entire process of "arrival—consumption—leisure—departure," Visitors will form a comprehensive judgment on time cost, transportation convenience, queueing and crowding levels, and price transparency, among others. Observation and questionnaire collection at these locations can more fully capture Visitors' perceptions of cost value, and provide empirical evidence for explaining how "cost–benefit matching" affects loyalty.

Third, considering that Conghua hot spring tourism has certain attributes of cultural experience and local identity, this study will include experiential spaces related to Conghua local culture (such as cultural display points with local characteristics, venues for traditional cultural activities, featured cultural blocks, or experiential projects related to Lingnan culture, etc.). In these scenarios, Visitors are more likely to generate experiential evaluations of the destination's cultural connotations, cultural atmosphere, and cultural memories. Relevant data can provide more contextually grounded evidence for the measurement of cultural value and cognitive value, and help explain how Visitors form a behavioral chain of "unique memory—emotional identification—continued visiting/word-of-mouth dissemination" through cultural experiences.

In addition, online word-of-mouth and content platforms are also one of the key target sites of this study. As the digitalization trend of tourism decision-making strengthens, Visitors' information searching, comparison, and evaluation before and after travel highly depend on online platforms and social media content. The study will focus on online travel platforms, review platforms, and content communities commonly used by Visitors (for example, online booking platforms, rating and review platforms, and graphic/text or short-video sharing communities, etc.), in order to supplement sample types that may be difficult to cover in offline surveys (such as Visitors who do not fill in the questionnaire on the spot but are willing to provide feedback online, repeat-visit Visitors, etc.). Through summarizing online reviews and shared content (or using them as interview guiding materials), it is possible to further understand how service value, emotional value, and social value are amplified in word-of-mouth dissemination, and provide supporting evidence for the formation mechanism of loyalty (recommendation intention/revisit intention).

Finally, public information and promotional platforms of government and industry-related institutions can serve as important background data sources for the study (such as public information released by local culture and tourism departments, service standards and activity information released by scenic area management parties, industry associations, or destination promotion channels, etc.). This information can help researchers place the formation of Visitors' perceived value within the real framework of destination governance and service supply, thereby more accurately explaining the potential influence of service systems, product supply, and destination image building on Visitors' loyalty tendencies.

In summary, by comprehensively covering core consumption scenarios, surrounding supporting nodes, cultural experience spaces, online platforms, and public information channels related to Conghua hot spring tourism, this study can collect empirical data related to Visitors' perceived value and loyalty from multiple perspectives, providing a more solid evidence base for subsequent hypothesis testing and managerial recommendations, and offering operable references for product optimization, service improvement, and word-of-mouth operation for hot spring tourism destinations.

3.3 Sampling method

In this study, the sample size determination was guided by the instrument design, which comprises a 37-item scale to ensure comprehensive coverage of the research dimensions. To achieve adequate statistical power and enhance the representativeness of the findings, the sample size was established based on established guidelines recommending a minimum ratio of 10 respondents per scale item (Lakens, 2022). Consequently, the calculated minimum required sample size was 370 (37 items × 10).

However, adhering to the survey design principles outlined by Dillman et al. (2014), it is imperative to account for uncontrollable factors such as invalid responses (e.g., incomplete submissions or attention check failures) and data exclusions during the cleaning process. Therefore, to buffer against these potential losses and ensure that the final valid sample meets the requirements for rigorous statistical analysis, the target distribution volume was increased by approximately 20% to 25% above the calculated minimum. Based on this adjustment, this study aims to collect a total of 450 questionnaires.

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3.5 Data collection

In this study, data collection will adopt a mixed strategy combining online and offline approaches to ensure a comprehensive and representative sample. Offline data collection will be conducted by distributing questionnaires on site at hot spring resort hotels, the reception front desks or ticketing centers of hot spring scenic areas, restaurants in and around the scenic area, and featured cultural display points within the major hot spring tourism service areas in Conghua Hot Spring Town. The selection of these locations is intended to target consumers who actively participate in hot spring tourism products and services. To encourage participation, small gifts or scenic-area coupons will be prepared and distributed at these venues to increase respondents' participation and response rate. The online component will make use of widely used platforms such as WeChat, Xiaohongshu, and Weibo, and the questionnaire will also be posted on Wenjuanxing. These platforms can achieve broad geographic coverage and accessibility, ensuring the participation of respondents across different ranges. By combining these methods, the study aims to overcome the limitations of single-mode data collection and achieve both depth and breadth in the sample.

This dual approach enhances the external validity of the study and provides favorable insights for an in-depth understanding of the factors influencing consumer demands in hot spring tourism destinations.

3.6 Data Analysis Methods

To examine the proposed research model and the corresponding hypotheses, this study adopts a quantitative analytical strategy based on valid questionnaire data.

The statistical analysis is organized in a step-by-step manner so that the data can be examined from basic sample characteristics to scale quality and finally to the testing of the hypothesized relationships. In general, the analytical process includes three stages: sample description, reliability and validity examination, and empirical hypothesis testing.

Step 1: Descriptive Statistics Analysis

The first stage is descriptive analysis, which is used to present the overall profile of the respondents and to provide a basic empirical context for the subsequent analysis. Frequency distributions and percentage statistics will be calculated for the respondents' demographic characteristics, such as gender, age, education level, occupation, and income. In addition, tourism-related behavioral information, including travel mode, frequency of visits, budget level, and information sources, will also be summarized. This step helps identify the general structure of the sample and provides an initial basis for judging whether the collected data are suitable for further analysis.

Step 2: Reliability and Validity Analysis of the Measurement Scales

Before testing the research hypotheses, it is necessary to verify whether the measurement scales used in this study have acceptable reliability and validity.

Reliability analysis is conducted to assess the internal consistency of the scales. In this study, Cronbach's Alpha coefficient will be used to evaluate the reliability of all latent constructs, including the seven dimensions of visitor perceived value—service value, cultural value, functional value, cognitive value, emotional value, social value, and cost value—as well as the dependent variable of visitor loyalty. In general, an Alpha coefficient above 0.70 is considered to indicate an acceptable level of internal consistency (Robert F. DeVellis et al., 2021).

Validity analysis is used to determine whether the scale items appropriately reflect the constructs they are intended to measure. To assess construct validity, the Kaiser–Meyer–Olkin (KMO) measure and Bartlett's test of sphericity will first be applied to examine whether the dataset is suitable for factor analysis. When the KMO value reaches an acceptable level and Bartlett's test is statistically significant, exploratory factor analysis can be conducted. In this study, principal component analysis will be used for factor extraction, and Varimax rotation will be employed to clarify the loading relationships between measurement items and the corresponding latent dimensions.

Step 3: Hypothesis Testing

After confirming the reliability and validity of the scales, the study will proceed to test the proposed hypotheses through correlation analysis and multiple regression analysis.

First, Pearson correlation analysis will be used to examine the direction and strength of the relationships between each dimension of visitor perceived value and visitor loyalty. This step provides an initial statistical basis for determining whether the variables are significantly associated.

Second, multiple linear regression analysis will be conducted with visitor loyalty as the dependent variable and the seven dimensions of visitor perceived value—service value, cultural value, functional value, cognitive value, emotional value, social value, and cost value—as independent variables. By examining the standardized regression coefficients and significance levels, this study will test whether each dimension exerts a significant influence on visitor loyalty and compare their relative explanatory power. At the same time, variance inflation factor (VIF) values will be checked to identify possible multicollinearity among the independent variables, thereby improving the robustness of the regression results.

Through the above analytical procedures, this study seeks to reveal how different dimensions of perceived value shape visitor loyalty in the context of Conghua hot spring tourism and to provide an empirical basis for subsequent discussion and managerial recommendations.

3.7 Questionnaire design

The questionnaire used in this study was developed on the basis of previous literature and established measurement scales. To improve the theoretical grounding and comparability of the instrument, the design of the questionnaire mainly draws on the measurement approaches used in prior studies on hot spring tourism loyalty and perceived tourism value, particularly those reported by Yu Ping et al. (2015), Yu Jinhua et al. (2015), Fan Xiaoping (2016), and Su Haiying (2023). On this basis, the questionnaire items were adjusted to fit the research context of Conghua hot spring tourism.

The questionnaire is composed of five sections. The first section is an introductory statement that explains the purpose of the study, the way the questionnaire should be completed, and the principles of anonymity and confidentiality. The second section contains screening questions designed to ensure that the respondents meet the target-population requirements of this research, especially for questionnaires collected through online distribution. The third section collects respondents' basic information, including gender, age, education level, income, travel type, and channels through which they obtain information about hot spring tourism. These items are used to describe the sample from both demographic and behavioral perspectives.

The fourth section contains the measurement items for the core study variables. Specifically, it measures the seven dimensions of perceived tourism value—emotional value, service value, functional value, cultural value, cognitive value, social value, and cost value—as well as visitor loyalty. In total, the scale includes 37 items, which together provide the information required for testing the research model. The final section serves as the closing part of the questionnaire, mainly used to restate the research topic and encourage respondents to complete all items carefully.

With respect to measurement format, this study adopts a five-point Likert scale. The response options range from 1 to 5, representing "strongly disagree" to "strongly agree." This scaling method makes it possible to quantify respondents' subjective evaluations and provides a basis for subsequent statistical analyses, including reliability testing, validity assessment, and regression analysis.

3.8 Scale

Drawing on the research of many scholars, this study proposes a measurement scale for Visitor loyalty as well as seven core dimensions involved in the measurement of perceived tourism value, namely emotional value, service value, functional value, cultural value, cognitive value, social value, and cost value. To ensure the scientific nature of the measurement of the research variables and the testability of the conclusions, the scale construction in this study follows the basic path of "priority reference to mature scales—contextual adjustment of wording—statistical testing to confirm quality."In terms of scale sources, the Visitor loyalty scale and the items for each dimension of perceived tourism value in this study are all selected based on mature measurement items that have been repeatedly applied and tested in existing studies, and are combined with the Conghua hot spring tourism context for moderate localization adjustments in expression, so as to improve the content coverage and contextual fit of the items. This scale development approach of "reference—revision—combination" conforms to the classic norms of construct measurement development in marketing and management research, that is, ensuring that items can fully represent the construct connotation and reduce measurement error through item generation and screening (Churchill, 1979; Hinkin, 1998; DeVellis, 2016). In terms of the measurement method, this study uses a five-point Likert scale to score each item (1 = strongly disagree, 5 = strongly agree). This method can effectively quantify respondents' attitudes and perceived judgments, and has a classic methodological foundation in attitude measurement research in the social sciences (Likert, 1932). At the same time, given that perceived tourism value has the theoretical characteristic of "multidimensional comprehensive evaluation," this study measures emotional value, service value, functional value, cultural value, cognitive value, social value, and cost value as core dimensions, which is consistent with the mainstream views of multidimensional perceived value theory and its classic scale development research (Sweeney & Soutar, 2001; Zeithaml, 1988). In the subsequent data analysis, this study will further confirm the scale quality through reliability and validity tests: for example, using Cronbach's α to assess internal consistency (Cronbach, 1951), and referring to the suggestions of classic psychometrics on reliability thresholds to judge the measurement stability and usability of the scale (Nunnally & Bernstein, 1994). Through the above process, this study strives, while ensuring theoretical traceability, to improve the measurement validity of the scale in

the context of hot spring tourism experience, and to provide a reliable measurement basis for subsequent hypothesis testing. The specific scale items are as follows:

Dimension	Items	Source of measurement:
Emotional value	The EV1. I think conghua hot spring area is the natural landscape to attract me	Fan (2016) Hai-ying su (2023). Ying-hua huang (2007)
	Conghua hot spring tourism EV2. Let me indulge	
	EV3. I think conghua hot spring tourism makes me feel happy and healthy	
	EV. 4 I think conghua hot spring tourism makes me feel relieve pressure, eliminate worry	
	EV5. I think conghua hot spring tourism can attract my curiosity, let me feel interesting	
Service value	SV1. I think conghua hot spring area service staff enthusiasm patience	Yao Yin (2016). Sweeney (2001). Li Wenbing (2011)
	SV2. I think the service personnel can meet the needs of Visitors in a timely manner	
	SV3. I think the specific requirements of the service personnel will notice individual Visitors	
	SV4. I think the service personnel can timely deal with complaints	
	SV5. Service personnel can clear hot spring area	
function Value	FV1. I think Conghua hot spring tourism makes me adjust the sub-health state of my body	Chen Lin (2013) Su Haiying (2023)
	FV2 I think Conghua Hot spring tourism makes me experience a healthy way of maintaining health	
	FV3. I think conghua hot spring tourism functions	
	FV4. I think conghua hot spring tourism makes me to participate in interesting entertainment	
Cultural value	CV1. I think conghua hot spring tourism makes me understand the customs of different culture	Lv Han (2013). The fresh spring (2015).
	CV2. I think conghua hot spring area shows the culture characteristics of Asia	
	CV3. I think conghua hot spring area are passing the elegance of having a unique style	
	CV4. I think Conghua Hot Spring area shows the artistic charm of various regions	
	CV5. I think conghua hot spring area shows unique cultural charm	

Dimension	Items	Source of measurement:
Cognitive Value	CO1. I think conghua hot spring tourism let me learn new things	Luo Haicheng (2003).
	CO2. I think conghua hot spring show different natural landscape makes me admire	
	CO3. I feel hot spring district shapes produced strong interest to me	
	CO4. I think the size of hot spring area, makes me admire	
Social value	SO1. I spent quality time with my family and friends	Zhang wd (2020). Su Haiying (2023)
	SO2. I got a very unusual experience	
	SO3. This travel experience earned me respect and recognition from others.	
	SO4. The tour I made new friends	
	SO5. The experience increased my self-image	
Cost value	CTV1. I think conghua hot spring scenic spot ticket price is reasonable	Sweeney (2001). Wen-bing li (2011). Michael choi (2015). Gallarza(2006)
	CTV2. I think reasonable conghua hot spring scenic area in the price of goods and services	
	CTV3.The time and effort spent traveling to Conghua Hot Spring Scenic Area are reasonable.	
	CTV4.The time and effort spent searching for information before visiting Conghua Hot Spring Scenic Area are reasonable.	
Visitor loyalty	TL1. I would like to visit Conghua Hot Spring Scenic spot again	Yu Ping et al. (2015) Yu Jinhua et al. (2015) Oppermann (2000) Yuksel (2019).
	TL2. I would recommend friends to experience conghua hot spring tourism together	
	TL3. I would like to introduce to others conghua hot spring tourism	
	TL4. When I travel to hot spring in the future, Conghua Hot Spring area is my first choice	
	TL5. I will be happy when I hear someone praise Conghua Hot Spring	

CHAPTER 4
DATA ANALYSIS

This study collected questionnaire data through a mixed-mode approach combining offline and online channels.

The offline data collection was conducted during the peak season of Conghua hot spring tourism, from December 25, 2025, to January 20, 2026. Three representative hot spring resorts within the Liuxi Hot Spring Tourism Resort Area in Conghua—covering mid-to-high-end and homestay-style accommodations—were selected: Guangzhou Conghua Bishuiwan Hot Spring Resort, Guangzhou Conghua Dusit Thani Hot Spring Resort, and Guangzhou Conghua Santorini Hot Spring Estate. Additionally, two core hot spring scenic areas—the Liuxi River National Forest Park Hot Spring Zone and the Biquan Sky Hot Spring Scenic Area—were included. Questionnaire QR codes were distributed at the reception desks and ticketing centers of these locations under the premise of voluntary participation.

The online component involved targeted dissemination of the questionnaire link via social media platforms such as WeChat, Xiaohongshu (Little Red Book), and Weibo, using relevant hashtags to reach potential respondents with experience in Conghua hot spring tourism.

Data collection spanned from December 25, 2025, to January 30, 2026, yielding a total of 456 responses. To ensure data validity, responses were screened using the item: “Have you personally visited Conghua District, Guangzhou, and engaged in hot spring tourism consumption (e.g., staying at a hot spring hotel or purchasing admission tickets to a hot spring resort) within the past three years?” A total of 76 invalid responses were excluded based on this criterion. Consequently, 380 valid questionnaires were retained, resulting in an effective response rate of 84.4%. This sample size exceeds the pre-specified minimum requirement of 370, thereby satisfying the necessary condition for subsequent statistical analysis.

The specific analytical procedures and results are presented as follows:

4.1 Descriptive Analysis

This study employs descriptive statistics to analyze the respondents' demographic profiles and tourism behavioral characteristics, with the results presented in Table 4.1 below.

Table 4. 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

Table 4. 1 (Continued)

Variable	Category	Frequency	Percent (%)	Cumulative Percent (%)
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

Based on the data presented in Table 4.1, we can summarize the findings as follows:

Gender Distribution: Among the respondents, there were 214 male Visitors, accounting for 56.3%, and 166 female Visitors, making up 43.7%. The slightly higher proportion of male respondents aligns with the characteristics of Conghua hot spring tourism as a destination for family leisure and wellness retreats.

Age Group Analysis: The age group with the highest representation was 46-60 years old, constituting 33.7% of the sample. This is followed by the 31-45 age group at 19.2%. Participants aged under 18, 18-30, and over 60 accounted for 17.1%, 15.3%, and 14.7%, respectively. The broad age range indicates that Conghua hot spring tourism has expanded beyond its traditional middle-aged to elderly clientele and is now attracting younger consumers and family groups with children.

Educational Background: Respondents with a high school or vocational education level constituted the largest segment at 43.2%. Those with an associate degree and bachelor's degree represented 20% and 22.1% respectively, totaling 42.1%. Individuals with junior high school education or below accounted for 14.7%, while there were no participants with a master's degree or above. This educational distribution aligns with the target audience of Conghua hot spring tourism, where the core customer base prioritizes practicality and comfort in their travel experiences.

Occupation Distribution: Workers made up the largest occupational category at 26.8%, followed by employees in education, science, culture, and health sectors at 24.5%, and retirees at 17.1%. These three categories combined account for 68.4% of the total sample. Self-employed individuals, enterprise/institutional employees, civil servants, students, and farmers comprised 8.2%, 7.9%, 5.3%, 6.8%, and 3.4% respectively, highlighting the diverse occupational backgrounds of Conghua hot spring Visitors.

Monthly Income: In terms of monthly income, visitors earning between 6,001 and 8,000 RMB constituted the largest proportion at 42.6%, followed by those in the 4,001–6,000 RMB bracket at 25.8%. The remaining income categories—below 2,000 RMB, 2,001–4,000 RMB, 8,001–10,000 RMB, and above 10,000 RMB—accounted for 6.6%, 10.0%, 13.9%, and 1.1%, respectively. These findings indicate that the core visitor demographic is predominantly composed of middle-to-high income individuals.

Travel Companions: A significant portion (62.1%) of Visitors traveled with family or friends, which is the dominant mode of travel. Traveling alone accounted for 12.9%, while other modes of travel represented 18.4%. Tour groups and employer-organized trips accounted for only 4.5% and 2.1% respectively, suggesting a preference among Visitors for flexible and independent travel arrangements.

Visit Frequency: Nearly half (49.7%) of the respondents were first-time visitors. Second and third visits each accounted for around 20%, while fourth visits made up 10%. There were no respondents who had visited more than four times, indicating potential for increasing customer loyalty.

Travel Budget: High-budget travelers spending over 500 RMB accounted for 35%, while those spending between 201 and 300 RMB represented 30.3%. Combined, these two categories accounted for 65.3% of the sample. Lower budget categories (below 100 RMB, 100-200 RMB, 301-500 RMB) accounted for 13.2%, 9.2%, and 12.4% respectively, showing a strong willingness among Visitors to spend on quality experiences.

Information Sources: Online media was the most commonly used source of information, accounting for 49.7%. Apps such as Meituan and Dianping contributed another 28.4%, together making up 78.1% of information sources. Word-of-mouth recommendations from friends and family, print media, and other sources accounted for 6.6%, 6.3%, and 8.9% respectively, underscoring the importance of digital channels in disseminating information about Conghua hot spring tourism.

This comprehensive overview provides valuable insights into the demographic and behavioral characteristics of Visitors visiting Conghua hot springs, guiding targeted marketing strategies and enhancing visitor satisfaction.

4.2 Reliability Analysis

Reliability analysis was conducted to examine the internal consistency of the measurement scales used in this study. Cronbach's Alpha was adopted as the main indicator of reliability. In general, an Alpha coefficient above 0.70 is considered acceptable, while higher values indicate stronger internal consistency (Darren George et al., 2018; Robert F. DeVellis et al., 2021).

In this study, reliability was tested for the seven dimensions of visitor perceived value, namely service value, cultural value, functional value, cognitive value, emotional value, social value, and cost value, as well as for the dependent variable of visitor loyalty. The corresponding results are reported in Table 4.2.

Table 4. 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		

Table 4. 2 (Continued)

Scale Variable	Items	Cronbach's α if item deleted	Cronbach's α	Overall Cronbach's α
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		

As reported in Table 4.2, the questionnaire used in this study shows a high level of internal consistency. The overall Cronbach's Alpha coefficient reaches 0.948, suggesting that the full scale is highly reliable.

At the dimensional level, the Alpha coefficients of all constructs are higher than 0.86, indicating satisfactory reliability across the seven dimensions of visitor perceived value and visitor loyalty. Among them, social value has the highest reliability coefficient (0.919), followed by cost value (0.908), emotional value (0.899), service value (0.898), functional value (0.894), cognitive value (0.879), and cultural value (0.867).

In addition, the Cronbach's Alpha value of each dimension decreases when any individual item is removed. This result suggests that all items make a positive contribution to the internal consistency of their corresponding constructs, and no item appears to weaken the reliability of the scale.

Overall, the scale used in this study demonstrates strong reliability both for the overall questionnaire and for each individual dimension. Therefore, the data are considered suitable for subsequent validity testing and further statistical analysis.

4.3 Validity analysis

Validity analysis was conducted to examine whether the measurement items used in this study were appropriate for reflecting the intended constructs. In this section, the suitability of the data for factor analysis was assessed through the Kaiser–Meyer–Olkin (KMO) measure and Bartlett's test of sphericity (Phillip Plisky et al., 2021).

The KMO value is commonly used to evaluate whether the correlations among items are adequate for factor analysis. In general, higher KMO values indicate better suitability of the sample data. Bartlett's test of sphericity is used to determine whether the correlation matrix significantly differs from an identity matrix. A statistically significant result suggests that sufficient correlations exist among the items and that factor analysis can be carried out.

In this study, validity testing was performed for all items measuring the seven dimensions of visitor perceived value—service value, cultural value, functional value, cognitive value, emotional value, social value, and cost value—as well as the dependent variable of visitor loyalty. The results are shown in Table 4.3.

Table 4. 3 KMO and Bartlett spheres test analysis

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

As reported in Table 4.3, the KMO value is 0.891, which indicates that the sample data are suitable for exploratory factor analysis. In addition, Bartlett's test of sphericity is statistically significant ($p = 0.000 < 0.05$), suggesting that the correlation matrix is not an identity matrix and that meaningful correlations exist among the measurement items.

Taken together, these results show that the dataset meets the basic requirements for exploratory factor analysis and that the measurement items have acceptable construct validity for subsequent analysis.

4.4 Exploratory factor analysis

After confirming that the data were suitable for factor analysis, this study further conducted exploratory factor analysis to examine the underlying factor structure of the measurement scale and to assess whether the questionnaire items corresponded appropriately to the intended theoretical dimensions (Marley W. Watkins, 2021).

In this analysis, principal component analysis was used for factor extraction, and Varimax rotation with Kaiser normalization was applied to obtain a clearer factor structure. Factors with eigenvalues greater than 1 were retained, and only items with factor loadings above 0.70 were kept for interpretation.

The exploratory factor analysis covered the 37 items measuring the seven dimensions of visitor perceived value—service value, cultural value, functional value, cognitive value, emotional value, social value, and cost value—as well as the dependent variable of visitor loyalty. The detailed results are presented in Table 4.4.

Table 4. 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.

As shown in Table 4.4, eight common factors with eigenvalues greater than 1 were extracted, which aligns perfectly with the theoretical framework of this study—namely, the seven dimensions of perceived value plus one dimension of Visitor loyalty. The cumulative variance explained by these eight factors reaches 74.082%, substantially exceeding the commonly accepted minimum threshold of 50%. This indicates that the extracted factors adequately capture the majority of the information contained in the original 37 items, confirming good construct validity of the measurement scale.

Specifically, the first factor accounts for 35.372% of the total variance, while the remaining seven factors explain between 3.548% and 8.929% each. The relatively balanced distribution of variance across factors—without any single factor overwhelmingly dominating the solution—further supports the appropriateness and stability of the factor structure.

Table 4. 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	

Table 4. 5 (Continued)

	Component							
	1	2	3	4	5	6	7	8
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.

As shown in Table 4.5, all items exhibit factor loadings greater than 0.70, with no cross-loadings, low loadings, or ambiguous factor assignments. This demonstrates a strong and unambiguous association between each item and its designated construct, confirming a clear and well-defined scale structure:

Component 1 corresponds to social value (items S24–S28), with factor loadings ranging from 0.755 to 0.834;

Component 2 corresponds to service value (items Q1–Q5), with loadings between 0.730 and 0.805;

Component 3 corresponds to cognitive value (items W15–W19), with loadings from 0.713 to 0.808;

Component 4 corresponds to cultural value (items F6–F10), with loadings between 0.718 and 0.768;

Component 5 corresponds to Visitor loyalty (items Y33–Y37), with loadings ranging from 0.716 to 0.761;

Component 6 corresponds to cost value (items C29–C32), with loadings from 0.779 to 0.883;

Component 7 corresponds to functional value (items G11–G14), with loadings between 0.752 and 0.889;

Component 8 corresponds to emotional value (items R20–R23), with loadings from 0.751 to 0.846.

In summary, the results of the Exploratory Factor Analysis (EFA) confirm that the measurement scale developed in this study exhibits strong construct validity. The item allocation is theoretically sound, the dimensional boundaries are distinct, and the scale accurately captures the seven dimensions of Visitor perceived value as well as Visitor loyalty. Consequently, the instrument is deemed suitable for subsequent correlation and regression analyses.

4.5 Correlation Analysis

Correlation analysis was conducted to examine the relationships between the seven dimensions of visitor perceived value and visitor loyalty. In this study, Pearson's correlation coefficient was used to assess the direction and strength of the linear association between variables (Vandana Roy, 2022).

Specifically, the analysis covered service value, cultural value, functional value, cognitive value, emotional value, social value, and cost value, with visitor loyalty treated as the dependent variable. In general, a positive coefficient indicates a positive relationship, whereas a negative coefficient indicates an inverse relationship. The larger the absolute value of the coefficient, the stronger the association between the variables.

All correlation tests in this study were evaluated at the 0.01 significance level. The detailed results are presented in Table 4.6.

Table 4. 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).

As shown in Table 4.6, all pairwise correlations among the variables are statistically significant at the 0.01 level (two-tailed) and exhibit positive relationships—no negative or non-significant correlations are observed—aligning consistently with the theoretical expectations of this study.

Regarding the strength of association between each dimension of Visitor perceived value and Visitor loyalty:

Cognitive value shows the strongest correlation with Visitor loyalty r = 0.590), indicating a moderate positive relationship. This suggests that the acquisition of new knowledge and insights during the hot spring tourism experience is most closely linked to visitors' loyalty intentions.

Emotional value r = 0.512), service value r = 0.505), and cost value r = 0.504) also demonstrate moderate correlations with loyalty (allr values between 0.50 and 0.60), highlighting that emotional satisfaction, service quality, and perceived cost-effectiveness significantly influence loyalty.

Social value r = 0.498), functional value r = 0.461), and cultural value r = 0.455) show correlations in the range of 0.45–0.50, representing low-to-moderate positive associations. This indicates that fulfillment of social needs, functional performance of the tourism offering, and cultural experience all contribute meaningfully to fostering Visitor loyalty.

Furthermore, inter-correlations among the seven dimensions of perceived value range from 0.200 to 0.465, reflecting low to moderate relationships. Crucially, none of these correlations reach the threshold for high collinearity ($|r| \geq 0.8$), confirming that while the dimensions are conceptually related, they remain relatively distinct and non-redundant. This supports the appropriateness of the dimensional structure and provides a solid foundation for subsequent multiple regression analysis by mitigating concerns about severe multicollinearity.

4.6 Regression Analysis

This study employs multiple regression analysis to conduct hypothesis testing, with the core objective of examining the linear effects of the seven dimensions of Visitor perceived value on Visitor loyalty, clarifying the strength and significance of each dimension's influence, and thereby validating the research hypotheses (Kanishka Tyagi et al., 2022). A multiple linear regression model is constructed, taking the seven dimensions of Visitor perceived value—service value, cultural value, functional value, cognitive value, emotional value, social value, and cost value—as independent variables and Visitor loyalty as the dependent variable. Model evaluation includes the coefficient of determination test, overall regression equation significance test, and individual regression coefficient significance tests, along with multicollinearity diagnostics using tolerance and variance inflation factor (VIF).

The overall model fit is presented in Table 4-7. As shown, the model's correlation coefficient R = 0.753, the coefficient of determination $R^2 = 0.567$, and the adjusted $R^2 = 0.559$. The adjusted R^2 exceeds 0.5, indicating that the seven dimensions of Visitor

perceived value jointly explain 55.9% of the variance in Visitor loyalty, demonstrating a good model fit and a significant linear relationship.

The results of the overall regression significance test show an F-statistic of 69.508 with a significance level of $p = 0.000 < 0.001$, leading to the rejection of the null hypothesis that all regression coefficients are zero. This confirms that the regression model is statistically significant as a whole, with at least one independent variable exerting a significant linear effect on Visitor loyalty, thereby verifying that the model is reasonably and effectively specified.

Table 4. 7 Regression analysis of continuous purchase intention

	R	R^2	Adjusted R^2	F	Standardized coefficient (Beta)	t	p	Tolerance	VIF
(Constant)						-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	.753a	.567	.559		.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
				69.508					

Dependent variable: Visitor loyalty

Predictors: (Constant), Cost value, Cultural value, Service value, Social value, Functional value, Cognitive value, Emotional value

As shown in Table 4.7, all standardized regression coefficients (β) for the independent variables are positive and statistically significant at $p < 0.01$ (with several at $p < 0.001$), indicating that all seven dimensions of Visitor perceived value exert a significant positive influence on Visitor loyalty. Consequently, the main hypothesis H1 and its sub-hypotheses H1a–H1g are all fully supported.

In terms of effect size, the relative strength of each dimension's positive impact on Visitor loyalty is ranked as follows:

Cognitive value ($\beta = 0.250$, $p < 0.001$) demonstrates the strongest effect and emerges as the core driver of Visitor loyalty;

Social value ($\beta = 0.179$, $p < 0.001$) ranks second, showing a substantial and significant contribution to loyalty intentions;

Cost value ($\beta = 0.159$, $p < 0.001$) and emotional value ($\beta = 0.158$, $p < 0.001$) exhibit nearly identical and considerable impacts, both making important contributions to loyalty;

Service value ($\beta = 0.126$, $p = 0.003$), functional value ($\beta = 0.119$, $p = 0.004$), and cultural value ($\beta = 0.110$, $p = 0.007$) show relatively modest but still statistically significant positive effects on Visitor loyalty.

Multicollinearity diagnostics further reveal that all predictors have tolerance values greater than 0.6 and variance inflation factor (VIF) values below 2—well under the commonly accepted threshold of 10—confirming the absence of severe multicollinearity among the independent variables. This ensures the stability and reliability of the regression estimates, with no substantial interference from overlapping information across predictors.

In summary, the multiple linear regression analysis confirms that all seven dimensions of Visitor perceived value—service value, cultural value, functional value, cognitive value, emotional value, social value, and cost value—significantly and positively influence Visitor loyalty, with cognitive value exhibiting the most pronounced effect. The model demonstrates good fit and robustness, free from multicollinearity concerns, thereby providing strong empirical support for the research hypotheses.

4.7 Hypothesis test result

To more intuitively illustrate the relationships between the six dimensions of Visitor perceived value—service, cultural, functional, cognitive, emotional, and social value—and Visitor loyalty in Conghua hot spring tourism, this study presents the findings based on the hypothesis testing results, as shown in Table 4.8.

Table 4. 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

CHAPTER 5
RESULTS AND DISCUSSION

The data analysis section has empirically validated all hypotheses of this study. This chapter integrates the research findings with the practical development context of Conghua hot spring tourism, conducts an in-depth discussion of the core research outcomes, proposes targeted optimization strategies for cultural and tourism authorities, scenic area operators, and related enterprises, reflects on the limitations of this study, and outlines directions for future research.

5.1 Conclusion

Taking Conghua hot spring tourism as the research context, this study examines the relationship between visitor perceived value and visitor loyalty on the basis of perceived value theory. Data were collected through a combination of online and offline questionnaires, and the proposed hypotheses were tested through statistical analysis. The main conclusions are as follows.

(1) The empirical results show that perceived value in the context of Conghua hot spring tourism can be described through seven dimensions: service value, cultural value, functional value, cognitive value, emotional value, social value, and cost value. The exploratory factor analysis indicates that the factor loadings of all items are above 0.70, and the cumulative variance explained reaches 74.082%. This result suggests that the seven-dimensional structure is appropriate for reflecting tourists' value evaluations in the hot spring tourism setting. At the same time, it also corresponds well to the integrated characteristics of hot spring tourism, which combines wellness, leisure, and cultural experience, as well as to the destination features of Conghua hot springs.

(2) The results further indicate that all seven dimensions of visitor perceived value are positively associated with visitor loyalty, and each of them has a statistically significant positive effect in the regression model ($p < 0.01$). Together, these dimensions explain 55.9% of the variation in visitor loyalty. Among the seven dimensions, cognitive value shows the

strongest explanatory effect (β = 0.250), followed by social value (β = 0.179), cost value (β = 0.159), and emotional value (β = 0.158). Service value (β = 0.126), functional value (β = 0.119), and cultural value (β = 0.110) also have positive and significant effects, although their coefficients are comparatively smaller. Overall, the empirical findings support the hypotheses proposed in this study.

(3) The sample analysis also helps clarify the main profile of tourists visiting Conghua hot springs. The respondents are mainly concentrated in the 46–60 age group (33.7%), and their monthly income is most commonly between RMB 6,001 and 8,000 (42.6%). In terms of travel mode, most respondents visit with family members or friends (62.1%). Information acquisition relies heavily on online media platforms and lifestyle service applications, which together account for 78.1% of the sample. In addition, nearly half of the respondents are first-time visitors (49.7%), while 35% report a travel budget above RMB 500. These findings indicate that digital channels have become important access points for destination information and that visitors to Conghua hot springs show a relatively clear willingness to spend on this type of tourism experience.

5.2 Discussion

This chapter integrates the empirical findings with prior literature to provide an in-depth discussion of the core research insights.

5.2.1 Discussion on Sample Demographic Characteristics

The core characteristics of the study sample can be summarized as follows: middle-aged individuals constitute the primary consumption force; the demographic is predominantly middle-to-high income; there is a marked preference for group travel; and digital channels serve as the primary touchpoint. These findings align with the conclusion drawn by Cir.cn (2025), which posits that the core demographic for hot spring tourism is shifting toward middle-aged, middle-to-high income groups.The 46–60 age cohort represents the largest segment. This predominance is attributed to the group’s stable income levels and acute health consciousness. Notably, the wellness-oriented attributes of Conghua Hot Springs—specifically its radon-bearing soda springs—closely align with these core demands (Conghua District People’s Government of Guangzhou, 2025).

Furthermore, The middle-to-high income cohort accounts for 83.4% of the sample, suggesting that Conghua Hot Springs' current pricing strategy is well-aligned with the purchasing power of the mass market. However, this demographic profile also indicates significant potential for upmarket expansion. Future strategies could focus on enhancing service quality and diversifying tourism offerings to effectively expand visitors' consumption budgets and capture higher value segments.

In contrast to Bao Jigang and Wang Guanxian's (2004) finding that "Conghua hot spring visitors are primarily drawn from within a 200-kilometer radius," this study reveals that online media and lifestyle service apps (e.g., Meituan, Dianping) have become the primary information channels. This shift suggests that digital marketing has effectively transcended geographical constraints, opening new pathways for expanding Conghua's visitor catchment area. However, the fact that nearly half of the respondents (49.7%) are first-time visitors also indicates significant room for improvement in visitor retention and repeat-visit conversion.

5.2.2 Discussion on the Dimensional Structure of Visitor Perceived Value

The seven-dimensional perceived value framework developed in this study builds upon the foundational multi-dimensional perceived value theory proposed by Jillian C. Sweeney et al. (2001), while innovatively incorporating a dedicated cost value dimension tailored to the context of Conghua hot spring tourism. This addition resonates with Zhu Zehui et al.'s (2024) observation that "hot spring Visitors are highly sensitive to both time and monetary costs." The exploratory factor analysis confirms clear dimensional boundaries with no cross-loadings, and a cumulative variance explained of 74.082%, validating the contextual appropriateness of this framework in hot spring tourism settings. This addresses the gap identified by Wang Hongyun (2022) and others regarding the "insufficient development of perceived value dimensions specific to hot spring tourism."

Compared with Huang Yinghua et al.'s (2007) perceived value model, the newly added cost value dimension has been empirically validated in this study, demonstrating that Visitors' perceptions of ticket prices, transportation expenses, and information search costs have become critical components of their overall value judgment in hot spring tourism. This finding enriches the application of perceived value theory within the niche domain of wellness tourism.

5.2.3 Discussion on the Influence Mechanism of Perceived Value on Visitor Loyalty

Cognitive value emerges as the strongest predictor of Visitor loyalty (β = 0.250), consistent with Sungsoo Kim et al.'s (2024) assertion that "cognitive gains strengthen Visitors' identification with a destination." As a "world-rare hot spring," Conghua's unique mineral composition and therapeutic benefits must be translated through experiential engagement into meaningful cognitive outcomes for visitors. Such cognitive recognition fosters stable psychological attachment, which in turn drives intentions to revisit and recommend.

The relatively high impact of social value (β = 0.179) aligns with Jagdish N. Sheth et al.'s (1991) social value theory. Shared experiences with family and friends, along with the acquisition of social validation, deepen emotional bonds with the destination—particularly fitting for hot spring tourism, which inherently blends social interaction with leisure.

The significant effects of cost value (β = 0.159) and emotional value (β = 0.158) corroborate Valarie A. Zeithaml's (1988) core proposition of perceived value as a "trade-off between perceived benefits and costs" and Barry J. Babin et al.'s (1994) experiential emotion theory. Reasonable cost perception forms the baseline for value acceptance, while the pleasure and stress relief derived from natural scenery and a relaxing atmosphere enhance destination attachment—mirroring Lü Shuxian et al.'s (2024) finding that "urban residents choose wellness tourism primarily to alleviate psychological pressure."

Although service value (β = 0.126), functional value (β = 0.119), and cultural value (β = 0.110) exhibit more modest yet still statistically significant effects, they reflect Visitors' essential demands for basic service quality, effective wellness functionality, and cultural enrichment in hot spring tourism. This finding echoes Huang Yinghua and Huang Fucai's (2007) earlier critique that "inadequate service quality at Conghua hot springs constrains its development," underscoring that enhancing foundational services and cultural offerings remains a key optimization priority.

Compared with Su Haiying's (2023) study on the relationship between perceived value and loyalty in hot spring tourism, this research not only identifies cognitive value as the central driver but also quantifies the differential influence strength across all dimensions, thereby providing more precise empirical evidence to guide targeted improvements at hot spring destinations.

5.3 Recommendations

Based on the research conclusions and considering the current development status of Conghua hot spring tourism, the following optimization recommendations are proposed for cultural and tourism departments, scenic area operators, and related enterprises:

5.3.1 Precisely Align with Visitor Needs and Optimize Products and Pricing

For the core demographic (aged 46–60): Focus on enhancing health and wellness functions by introducing “hot springs + therapy” packages. Collaborate with dermatologists and wellness experts to organize offline lectures and online live streams to popularize knowledge about hot spring wellness.

For mid-to-high-income groups (monthly income of 6,001–8,000 RMB): Optimize the pricing system by retaining main products priced between 100–300 RMB and adding small-scale experience projects priced at 50–100 RMB to lower the threshold for first-time visitors.

For family and friend group travel: Design interactive spaces such as family-friendly hot spring areas and themed pools. Offer “family tickets” and “friends discount” promotions to enhance the group travel experience.

5.3.2 Enhance Cognitive and Emotional Value to Improve Visitor Retention

Focus on enhancing cognitive value: Develop a content system around “hot spring science + wellness knowledge.” Use methods like exhibition boards within the scenic area, short videos online, and tour guide explanations to systematically introduce the mineral composition of the hot spring water, its wellness principles, and suitable user groups. Collaborate with authoritative institutions to release evaluation reports, transforming resource advantages into visitor knowledge gains.

Optimize natural landscapes and leisure facilities: Create forest hot spring paths and viewing platforms to enhance visitor enjoyment and relaxation experiences. Establish a visitor community to encourage sharing of travel experiences and wellness outcomes, regularly organizing “hot spring wellness story collection” activities to strengthen emotional connections and word-of-mouth promotion.

5.3.3 Leverage Digital Marketing to Expand Visitor Sources and Conversion

Utilize online media and lifestyle service apps: Build a targeted marketing matrix. Publish practical content such as ingredient analyses and wellness guides on platforms like Douyin and Xiaohongshu, and push personalized advertisements targeting the core

demographic (aged 46–60). Collaborate with platforms like Meituan and Dianping to optimize online booking processes and offer exclusive discounts for online bookings to improve conversion rates.

Leverage big data analytics: Analyze visitor preferences to precisely push product and event information, achieving personalized marketing. Additionally, launch direct shuttle services from Guangzhou's urban areas to the scenic area, optimizing transportation connections to reduce visitor time costs and enhance perceived cost value.

5.3.4 Improve Service and Cultural Value to Strengthen Development Foundations

Enhance staff training: Increase service enthusiasm and professionalism, establish a complaint feedback mechanism that responds within 12 hours, and focus on individual visitor needs. Standardize pricing for goods and services within the scenic area, publicly display price lists, and ensure price transparency.

Integrate Lingnan culture with hot spring wellness culture: Develop distinctive products such as "hot springs + lychee" and "hot springs + folklore." Organize hot spring cultural festivals and folk performances. Create cultural exhibition areas to showcase the historical origins, traditional bathing culture, and local customs of Conghua hot springs, allowing visitors to experience both the hot springs and the cultural charm during their visit.

These strategies aim to address specific visitor needs, enhance overall visitor satisfaction, and promote sustainable development in Conghua hot spring tourism.

5.4 limitation

Although this study has yielded meaningful findings, several limitations remain:

(1) Temporal and spatial constraints in sample selection: Data collection was not conducted during the winter peak season or the summer off-season of hot spring tourism, which may introduce bias in sample representativeness and limit the ability to fully capture seasonal variations in visitor behavior. Moreover, the majority of respondents were drawn from Guangzhou and its surrounding cities, resulting in insufficient coverage of long-distance Visitors and thereby restricting the geographical generalizability of the conclusions.

(2) Relatively limited research methodology: This study primarily relied on questionnaire surveys and did not incorporate qualitative methods such as in-depth interviews or on-site observations, which limits the depth of understanding regarding the underlying motivations behind Visitors' perceived value formation. Furthermore, the data analysis focused solely on direct effects and did not include potential mediating or moderating variables—such as Visitor satisfaction or destination attachment—thus failing to uncover more complex causal mechanisms.

(3) Narrow scope of the research subject: The study exclusively focused on Conghua hot springs and did not extend to other hot spring destinations, making cross-regional comparative analysis impossible and limiting the industry-wide applicability of the findings. Additionally, it did not differentiate between various types of hot spring products (e.g., therapeutic, recreational, luxury), reducing the precision and contextual relevance of the conclusions.

5.5 Prospects

In light of the limitations identified, future research can be deepened along the following directions:

(1) Expand the temporal, spatial, and geographical scope of sampling: Extend the data collection period to cover all four seasons, thereby capturing seasonal variations in Visitor characteristics and enhancing the representativeness of the sample across different times of the year. Increase the proportion of long-distance Visitors and incorporate multiple hot spring destinations from diverse regions into comparative studies to test the generalizability of the perceived value dimensional framework and explore distinctive features across different types of hot spring tourism sites.

(2) Enrich research methodologies and theoretical models: Adopt a mixed-methods approach by integrating questionnaire surveys with in-depth interviews, on-site observations, and online user-generated content (e.g., social media reviews or travel blogs) to gain deeper insights into the underlying mechanisms shaping Visitors' perceived value. Introduce mediating variables such as Visitor satisfaction and destination attachment, as well as moderating variables like gender and age, to construct a more comprehensive theoretical model— "Perceived Value → Mediating Variables → Visitor Loyalty"—and uncover multi-path influence mechanisms.

(3) Broaden research themes and contextual settings: In response to digital transformation trends, investigate how social media marketing, immersive technologies (e.g., AR/VR experiences), and smart tourism applications shape perceived value and loyalty in hot spring tourism. Conduct targeted studies on specific product categories (e.g., therapeutic, luxury, or eco-friendly hot springs) to enhance practical relevance. Furthermore, focus on evolving health-related demands in the post-pandemic era, examining how the wellness attributes of hot spring tourism influence perceived value and loyalty, thereby providing robust theoretical support for the sustainable development of the industry.

REFERENCE

Abou-Shouk Mohamed,Zouair Nagwa,Abdelhakim Ayman,Roshdy Hany & Abdel-Jalil Marwa.(2024).The effect of immersive technologies on Visitor satisfaction and loyalty: the mediating role of customer engagement and customer perceived value. International Journal of Contemporary Hospitality Management,36(11),3587-3606.

Babin, B. J., Darden, W. R., & Griffin, M. (1994). Work and/or fun: Measuring hedonic and utilitarian shopping value. Journal of Consumer Research, 20(4), 644–656. https://doi.org/10.1086/209376

Cai Weimin. (2015). A Study on Visitor Perceived Value and Revisit Intention in Rural Tourism Sites: A Case Study of Sancheng Township, Chengdu. Journal of Southwest University for Nationalities (Humanities and Social Sciences), 36(05),134-138.

Cao, L. Y. (2017). Research on the tourist loyalty model of traditional Chinese medicine tourism (Master's thesis, Fujian Agriculture and Forestry University).

Chen, C. F., & Tsai, D. (2007). How destination image and evaluative factors affect behavioral intentions? Tourism Management, 28(4), 1115–1122. https://doi.org/10.1016/j.tourman.2006.07.007

Chen Yan e. (2006) Research on the Development of Hot Spring Tourism Products (Masters Thesis, Central South University of Forestry and Technology). Masters https://kns.cnki.net/kcms2/article/abstract?v=cO3sNaablhi51kRlYXLK9-W-dd4Ptrh7jWKg_GR37gbZ2MwlaD-EYnDOcIz-PLb2z_gtrGk0DcbF--a4JXnRMlR0PGzt1HqzW093GmTrTPVuSAUNml3DUvhrRgwxdgIBZVEPTMZMFmkjCfVq5BqZsSy5oS2OL79t_I75wEE0g6XGv-uxseoAwXxaggc19EEJ&uniplatform=NZKPT&language=CHS

Cheng Wen & Zheng Yun. (2019). Research on the Interactive Development of Tourism and Water Resources Industry in Guizhou from the Perspective of Industrial Integration. Journal of Kaili University, 37(04),33-38.

Cir.cn. (2025). China hot spring tourism industry current status research analysis and market prospects forecast report (2025 edition). Retrieved January 16, 2025, from https://www.cir.cn/R_QiTaHangYe/72/WenQuanLvYouShiChangXingQingFenXiYuQuShiYuCe.html

Dai, Y. M. (2012). A study on the authenticity of ancient villages based on tourists' perceptions (Master's thesis, Zhejiang University).

Deng, H. (2017). Research on marketing strategies for tourism products in Conghua District, Guangzhou [Master's thesis, South China Agricultural University]. CNKI. https://kns.cnki.net/KCMS/detail/detail.aspx?dbname=CMFD202002&filename=1018771351.nh

DeVellis, R. F., & Thorpe, C. T. (2021). Scale development: Theory and applications. Sage publications.

Dillman, D. A., Smyth, J. D., & Christian, L. M. (2014). Internet, phone, mail, and mixed-mode surveys: The tailored design method (4th ed.). John Wiley & Sons.

Du Lijun, Cui Haiming, Xing Lujun & Bao Xueying. (2023). Research on the Development Path of "Chinese Herbal Medicine + Tourism" in Chengde City. Rural Economy and Science & Technology, 34(11),118-121.

Fan, X. P. (2016). A study on audience viewing motivation and behavioral intention toward superhero films (Master's thesis, Jinan University).

Fang Kemei, Yin Huaguang & Zhao Qingyang. (2023). The influence of lifestyle, perceived value and Visitors health tourism behavior intention. Jiangxi Science, 41(03), 601-606.doi:10.13990/j. issn1001-3679.2023.03.033.

Feng Yuxin & Li Zhuo. (2023). The Impact of Visitor Psychological Contract on Tourism Destination Brand Equity: A Case Study of Laojun Mountain Scenic Area in Luoyang, Henan Province. Tourism Research, 15(06),55-68.

Feng Ziyang & Ge Xianjia. (2022). Consumers Perceived Value, Satisfaction, and Behavioral Intention of Red Tourism —— An Empirical Analysis of the Development of Red Tourism in Hebei Province Based on Structural Equation Modeling. Statistics and Management, 37(05), 100-109.doi:10.16722/j. issn.1674-537x.2022.05.004.

Fu, P. (2024, December 15). *A millennium-old street gains a new look and vibrant bustle*. *Nanfang Daily*, p. 001. [https://doi.org/10.28597/n.cnki.nnfrb.2024.007554] (https://doi.org/10.28597/n.cnki.nnfrb.2024.007554)

Gallarza, M. G., & Saura, I. G. (2006). Value dimensions, perceived value, satisfaction and loyalty: an investigation of university students' travel behaviour. Tourism management, 27(3), 437-452.

Gao Qiming & Gao Xihan. (2024). A Study on the Impact of Short Video Marketing of Innovative Tourism Products on Consumer Purchase Intention —— Analysis Based on the Context of Integrated General Aviation Tourism Products. Price Theory and Practice, (10), 179-183+228.doi: 10.19851/j.cnki. CN11-1010/ F.2024.10.279.

Ge Aihong. (2024). "Volume Form" or "Volume Content": A Study on the Promotion Strategies of TikTok Cultural Tourism Short Videos Based on Perceived Value. New Media Research, 10(03),6-9+14.doi: 10.16604/j.cnki.issn2096-0360.2024. 03.020.

Ge, A. (2024). Visitors' perceived value in tourism consumption: A study on emotional and cultural experience.

George, D., & Mallery, P. (2018). Reliability analysis. In IBM SPSS statistics 25 step by step (pp. 249-260). Routledge.

Han Chunxian (2015). The relationship between perceived value and satisfaction of tourism and behavioral intention. Human Geography, 30(03),137-144+150.doi: 10.13959/j.issn.1003-2398.2015.03.021.

Harris, L. C., & Goode, M. M. (2004). The four levels of loyalty and the pivotal role of trust: a study of online service dynamics. Journal of retailing, 80(2), 139-158.

He Mang, Zhang Ziyi, Li Yaoqi & Li Jun. (2022). The Influence of Residents Perceived Value on Support Behavior of Health and Wellness Tourism —— A Perspective Based on the Theory of Emotional Evaluation. Tourism Science, 36(04), 18-41.doi: 10.16323/j.cnki.lykx.20221026.001.

He Qiong-feng & Li Zhong-guang. (2014). Evolutionary Characteristics and Influencing Mechanisms of Chinas Tourism Service Quality Based on the Perception of Inbound Visitors. Human Geography, 29(01), 154-160.doi: 10.13959/j.issn.1003-2398.2014.01.024.

Hinkin, T. R. (1998). A brief tutorial on the development of measures for use in survey questionnaires. Organizational Research Methods, 1(1), 104–121. https://doi.org/10.1177/109442819800100106

Huang, Y. (2017). Development strategies for Conghua Hot Spring Town. Shanxi Architecture, (6), 41–42. https://doi.org/10.13719/j.cnki.cn14-1279/tu.2017.06.022

Huang Yinghua & Huang Fucai (2007). A Model of Perceived Value of Visitors: Measurement and Empirical Study. Tourism Studies, 22(8),42-47.

Huang Yufang, Wang Shulin & Liu Mingfei. (2020). Research on the Influencing Factors of Tourism Product Purchase Behavior Based on Customer Perceived Value under New Tourism Retail. Modern Trade and Industry, 41(08), 22-24.doi: 10.19311/j.cnki. 1672-3198.2020.08.011.

Huang, Y. (2017). A study on service quality problems in Conghua hot spring tourism.

Jidong Yi. (2024). A Study on the Interactive Behavior, Perceived Value and Local Identity of Long-term Health Tourism in Guangxi: A Case Study of Bama. Journal of Hechi University, 44(04),59-70.

Jin Guoqiang & Guo Zheng. (2009). Service Contact Theory and Its Application in Service Quality Evaluation. China Quality, (09), 36-39.doi: 10.16434/j.cnki.zgzl.2009.09.025.

Kim, S., Kwon, H., & Shi, J. (2024). The Moderating Roles of Multidimensional Novelty-Seeking Behaviors on Destination Images and Revisit Intentions. Tourism Review International, 28(4), 293-309.

Kumar V., D. Shah, and R. Venkatesan (2006), "Managing Retailer Profitability — One Customer at a Time!" Journal of Retailing, 82 (4), 277–294.

Ladhari, R. (2008). Alternative measures of service quality: a review. Managing Service Quality: An International Journal, 18(1), 65-86.

Lakens Daniël.(2022).Why P values are not measures of evidence. Trends in Ecology & Evolution,37(4),

Lam, S. Y., Shankar, V., Erramilli, M. K., Murthy, B. (2004), "Customer value, satisfaction, loyalty, and switching costs: an illustration from a business-to-business service context," Journal of the Academy of Marketing Science, 32(3), 293-311.

Le Wei, Meng Jieying, Zeng Yurong & Yang Jing. (2019). Construction and Research of Service Quality Evaluation Model under Three-dimensional Subdivision of Contact Unit —— A Comparative Perspective Based on B2C and B2B. Science and Technology Management Research, 39(06),207-213.

Lei Yan. (2023). Research on the Development Status and Countermeasures of Homestay Tourism in Conghua District under the Rural Revitalization Strategy (Master's Thesis, Guangxi Normal University). Master https://link.cnki.net/doi/10.27036/d. cnki. ggxsu.2023.000557doi: 10.27036/d.cnki.ggxsu.2023.000557.

Li Baoku & Li Xuebing. (2024). The influence of Internet celebrity city image communication on consumer behavior intention under the perspective of social media. Intelligence Exploration, (10),18-24.

Li Cuicui, Gao Weijie & Qi Jia. (2024). The Impact of Value Co-creation on the Quality of Rural Tourism Experience in Ethnic Areas. Jiangsu Business Forum, (08), 56-60.doi: 10.13395/j.cnki.issn. 1009-0061.2024.08.030.

Li Dan. (2024). Research on the Development Status, Problems and Optimization Strategies of Lhasa Rido Hot Spring Health Tourism. Hebei Enterprise, (10), 49-51.doi: 10.19885/j.cnki.hbqy.2024.10.035.

Li Jianmei, Qi Jia & Shan Mengqi. (2023). Constructing the Perception Value Dimensions of Cultural Heritage Tourism Sites from the Perspective of Network Text Analysis: A Case Study of Longmen Grottoes in Luoyang. Tourism Forum, 16(04), 89-97.doi: 10.15962/j.cnki.tourismforum.202304046.

Li Jinglong & Zhu Min. (2024). A Study on the Impact of Ecosystem Cultural Service Value Perception on Visitors Environmental Responsibility Behavior: A Case Study of Wuyi Mountain National Park. Journal of Heilongjiang Ecological Engineering Vocational College, 37(01),45-49+141.

Li Ling. (2021). Research on the Impact of Rural Cultural Tourism Integration on Visitor Satisfaction —— An Empirical Analysis Based on Scene Theory. Technology, Economy and Management Research, (04),100-104.

Li Ning, Gan Zupeng, Xu Lamei & Sun Chu. (2023). The Mechanism of the Influence of Animation Works on Travel Intention —— The Mediating Role Based on Perceived Value. Journal of Shenzhen Institute of Information Technology, 21(06),78-86.

Li Wenbing. (2011). A Study on the Loyalty Model of Visitors in Ancient Villages—— Based on the Perspective of Visitor Perceived Value and Its Dimensions. Geography Research, 30(01),37-48.

Li Ximing. (2023). A Study on the Influence of Perceived Value of Heritage Site Residents on Tourism Support Attitude (Masters Thesis, Huaqiao University). Master https://link.cnki.net/doi/10.27155/d.cnki.ghqiu.2023.000835doi:10.27155/d.cnki.ghqiu.2023.000835.

Li Xin. (2024). The Impact of Interest Level on Consumer Satisfaction with Intangible Cultural Heritage Products —— An Empirical Study Based on the Mediating Effect of Perceived Value. Journal of Tonghua Normal University, 45(01), 123-127.doi: 10.13877/j.cnki.cn22-1284.2024.01.018.

Liao Qianqian (2023). A Study on the Attractiveness of Coastal Tourism Based on Visitors Perceived Value (Masters Thesis, Hainan Normal University). Master https://link.cnki.net/doi/10.27719/d.cnki.ghnsf.2023.000209doi:10.27719/d.cnki.ghnsf.2023.000209.

Liu Anan. (2024). Research on the Path of High-Quality Development of Rural Tourism in Luliang City under the Background of Rural Revitalization (Masters Thesis, Inner Mongolia University of Finance and Economics). Master https://link.cnki.net/doi/10.27797/d.cnki.gnmgc.2024.000631doi:10.27797/d.cnki.gnmgc.2024.000631.

Liu Han. (2021). Analysis of the dimensions of rural leisure tourism Visitors needs based on perceptual value theory. Journal of Jilin University of Chemical Technology, 38(05), 95-100.doi: 10.16039/j.cnki.cn22-1249.2021.05.020.

Liu Zhan Yu & Zhu Kangwen. (2021). The Mechanism of Psychological Distance on Health Tourism Behavior under the Perspective of Health Care. Journal of Sichuan University of Science and Engineering (Social Sciences Edition), 36(05),42-57.

Lu Shuxian, Dong Shouye & Qi Tingyue. (2024). Research on Development Strategies of Health and Wellness Tourism Based on RMP Model —— A Case Study of Qinghe Town, Ji an. Guangdong Sericulture, 58(04),145-147.

Luo, L. (2023). Research on the development of rural tourism in Conghua District, Guangzhou [Master's thesis, Zhongkai University of Agriculture and Engineering].

Mauricio Carvache Franco,Ana Gabriela Víquez Paniagua, Orly Carvache Franco, Allan Pérez Orozco, Miguel Orden Mejía & Wilmer Carvache Franco.(2024).Implications of destination marketing from the perspective of the perceived value of foreign Visitors. Cogent Business & Management,11(1),

Meng Fei. (2012). Research on the Influence of Opinion Leaders on Purchase Intention in Socialized Business Environment (Doctoral dissertation, Nanjing University). Doctor https://kns.cnki.net/kcms2/article/abstract?v=cO3sNaablhhQysCXXJPGqMIlAPKhijzQgyo_ysm7brPT3wg9WfYKn1nMkdCTxbsJtxtU4T5YJK9yh0GwgPhn8SXHQU6eojiAyLFF9wltGY1-qsHTJtdHUsozKqwebekwOrPFj_gMbWtyiny1qDxkE6c2PeUcqvcDQ_pCsGBblbic4N6sn4zMQj_f5I5Jp8-K&uniplatform=NZKPT&language=CHS

Ministry of Civil Affairs, National Office for the Aged. 2023 Annual Bulletin on the Development of National Aging Cause. https://www.gov.cn/lianbo/bumen/202410/content_6979486.htm

MiseongKim,HyunjiMoon,YeonwooJoo & YooshikYoon.(2024).Visitors perceived value and behavioral intentions based on the choice attributes of wellness tourism. International Journal of Tourism Research,26(1),

Nan Xinyan & Tian Zhiyou (2006). SQ-NEED, A New Method for Service Quality Evaluation. Shanghai Quality, (06),66-69.

National Tourism Administration of the Peoples Republic of China. Classification of hot spring tourism water quality: LB/T070-2017[S]. Beijing: China Standards Press, 2017:1.

Nunnally, J. C., & Bernstein, I. H. (1994). Psychometric theory (3rd ed.). McGraw-Hill.

Oliver, R. L. (1999), “Whence customer loyalty?” Journal of Marketing, 63(special issue), 33-44.

People’s Government of Conghua District, Guangzhou. (2025). Conghua’s rare hot springs are perfect for soaking all year round! Get your seasonal hot spring guide now. Retrieved May 12, 2025, from https://www.conghua.gov.cn/zjch/chgk/chlylyzx/content/post_10259524.html

Peng Runhua & Qiang Jing. (2023). A Study on the Improvement of Rural Tourism Service Quality Based on Visitor Satisfaction —— A Case Study of Suzhou City, Anhui Province. Journal of Wuxi Business Vocational College, 23(05), 38-46.doi: 10.13659/j.cnki.wxsy.2023.05.006.

Plisky, P., Schwartkopf-Phifer, K., Huebner, B., Garner, M. B., & Bullock, G. (2021). Systematic review and meta-analysis of the Y-balance test lower quarter: reliability, discriminant validity, and predictive validity. International journal of sports physical therapy, 16(5), 1190.

Qin Junli. (2022). The influence of social media marketing on consumers willingness to travel in rural areas —— the mediating role of perceived value. Business Economics Research, (23),84-87.

Reichheld, F. F. (1996), The Loyalty Effect: the Hidden Force Behind Growth, Profits, and Lasting Value. Boston, Mass.: Harvard Business School Press.

Rostiani Rokhima,Firdausi Asri Sekar Mawar,Arini Hilya Mudrika, Mulyani Yun Prihantina & Sunarharum Tri Mulyani.(2024).The effect of Islamic attributes, destination image, scepticism, perceived value and halal awareness on the intention to engage in Muslim-friendly travel. Journal of Islamic Marketing,15(2),613-632.

Roy, V. (2022). Breast cancer Classification with Multi-Fusion Technique and Correlation Analysis. Fusion: Practice & Applications, 9(2).

Schiffman, L. G., & Kanuk, L. L. (1997). Consumer Behavior”., Prentice Hall., New Jersey.

Sheth, J. N., Newman, B. I., & Gross, B. L. (1991). Why we buy what we buy: A theory of consumption values. Journal of business research, 22(2), 159-170.

Special report on the creation of "Two Mountains" Practice Innovation Base in Conghua District —— The Liuxi Hot Spring Tourism Resort uses "hot" resources to leverage "warm" economy Guangzhou Municipal Bureau of Ecology and Environment 2024.05.30

Su Haiyang, Wentong & Xiao Kaijie. (2024). Study Tour Consumption under Parental Decision-making —— A Dual Perspective Based on the Inconsistency between Consumers and Buyers. Tourism Journal, 39(02), 121-134.doi: 10.19765/j.cnki.1002-5006.2024.02.014.

Su, H. Y. (2023). The influence of Visitor perceived value on loyalty at Haikou Mission Hills volcanic hot spring (Master’s thesis, Hainan University). https://link.cnki.net/doi/10.27073/d.cnki.ghadu.2023.000201

Sun, Y. (2023). A study on the influence of telepresence on potential tourists’ travel intention (Master’s thesis, Beijing Jiaotong University).

Sweeney, J. C., & Soutar, G. N. (2001). Consumer perceived value: The development of a multiple item scale. Journal of retailing, 77(2), 203-220.

Tang Jingwen, Wang Feng, Zhong Jinsong & Ju Xiaolin. (2024). Research on the Design and Application of Museum Cultural and Creative Products Based on the Theory of Perceived Value of Visitors. Packaging Engineering, 45(24), 163-171.doi: 10.19554/j.cnki.1001-3563.2024.24.016.

Tao Dechang, Tang Xiaochen & Chen Qinwu. (2024). Brand Story Construction and Emotional Marketing Strategies of Dongchuan Copper Culture. Old Brand Marketing, (23),12-14.

The People's Government of Guangzhou Municipality. (n.d.). Hot Spring. Guangzhou International.https://www.gz.gov.cn/guangzhouinternational/visitors/whattodo/sportsandrecreation/hotspring/content/post_2998905.html

Tyagi, K., Rane, C., & Manry, M. (2022). Regression analysis. In Artificial intelligence and machine learning for EDGE computing (pp. 53-63). Elsevier.

Wang Bo. (2024). Analysis of the Behavioral Characteristics and Influencing Factors of Sports Tourism Consumption —— A Case Study of a Scenic Spot. Cultural and Sports Supplies and Technology, (05),65-67.

Wang, H. Y. (2022). Research on improving Visitor satisfaction in Anning hot spring tourism based on visitor perception (Master's thesis, Yunnan University). https://link.cnki.net/doi/10.27456/d.cnki.gyndu.2022.000767

Wang Hui & Song Xinzhe. (2021). Evaluation of Factors affecting the Satisfaction of Island Visitors Based on Customer Value Theory: A Case Study of Wangjia Island and Shicheng Island in Dalian City. Journal of Capital Normal University (Natural Science Edition), 42(04), 56-61.doi:10.19789/j.1004-9398.2021.04.010.

Wang Jun & Wang Guopin. (2025). Research on the Ecological System Cultural Service Function in the Development of Rural Tourism —— A Case Study of Huangzhang Village, Feidong, Anhui Province. Journal of Sichuan Tourism University, (01),70-76.

Wang Liguo, Song Wei & Huang Zhiping. (2023). The Impact of Tourism Perceived Value and Place Identity on Rural Tourism Preference Behavior. Journal of Northwest Normal University (Natural Science Edition), 59(04), 94-101.doi: 10.16783/j.cnki.nwnuz.2023.04.015.

Wang Ling & Zeng Chi. (2019). Prospects of Chinas modern hot spring industry development —— Hot Spring Industry 4.0. Chinese Market, (26), 51-53.doi: 10.13939/j.cnki.zgsc.2019.26.051.

Wang, G. X., & Bao, J. G. (2004). Analysis of characteristics and spatial competition of hot spring tourism destinations: A case study of the old and new hot springs in Conghua. Areal Research and Development, (6), 83–87+122. https://kns.cnki.net/kcms2/article/abstract?v=Mz9udXFtQxncji11KenH676XH1wGgjBcj6plne5Z8owlPWs8W55etOLkPgVfK0bD4VRF39ksA_BG76DTtRU2qD-uNwpm8vIOlQErPML2gRrPGP1xcdt_LBjVgIUQpC7tEtifN-pz7zcGA6lBJv5AU5kdIGeEoJj2d08Wnf_fr03zmyJUpOKbw==&uniplatform=NZKPT&language=CHS

Wang Yaobin, Qin Zeqing & Wang Chu. (2024). Identification of dimensions of perceived value of national ski resort Visitors —— Based on network text analysis. Economic Forum, (10),51-61.

Watkins, M. W. (2021). A step-by-step guide to exploratory factor analysis with SPSS. Routledge.

Wei Wangqian (2019). A Study on the Evaluation of Outbound Tourism Shopping Experience Based on Customer Perceived Value Theory (Masters Thesis, South China University of Technology). Masters https://link.cnki.net/doi/10.27151/d.cnki.ghnlu.2019.004743doi:10.27151/d.cnki.ghnlu.2019.004743.

Wen Lianyang. (2024). Estimation of Ecological Service Function and Value of Forest Tourism Area in Western Hunan. Journal of Central South University of Forestry and Technology, 44(08), 180-188.doi: 10.14067/j.cnki.1673-923x.2024.08.018.

Xu Huirong. (2007). Opportunities, gaps and countermeasures of Nanjing hot spring tourism. (eds.) Proceedings of Southern Daji Hot Spring Tourism Forum (pp.16-17). Jiangsu Academy of Social Sciences;

Xu, J. (2021). Planning exploration of Lingnan characteristic towns from a multidimensional perspective: A case study of Guangzhou Conghua Hot Spring Romantic Town. Real Estate World, (14), 37–39.

Yao Peijun. (2018). Marketing Strategy Research of Shugang-Shrouxihu Scenic Area Based on Customer Value Theory (Masters Thesis, Yangzhou University). Masters https://kns.cnki.net/kcms2/article/abstract?v=bYx4kmIyqoVVmyA9z8bSltqyzFq9BbONQgQBdpJGDGNvWtMc2_I1E1CwZv8sdS5dk0hm-EPMR09MTlZJp1FKCSpQcaejsCIFJkg2XNByL1YVVtshWBBHQ0Zbe69IqqYc3C0BeixLQrAsBBbPIb70wJUl2vT1KoH54yu-IYf4W7j81uGJdo2dM2YlgiSqPz00KaHqFml8QAE=&uniplatform=NZKPT&language=CHS

Yoon, Y., & Uysal, M.Yoon, Y., & Uysal, M. (2005). An examination of the effects of motivation and satisfaction on destination loyalty: a structural model. Tourism management, 26(1), 45-56.

Yu Fenglong. (2021). Transformation and Differentiation of Rural Residents Consumption Values in the New Era —— A Perspective Based on Tourism Consumption Behavior. Journal of Yangzhou University (Humanities and Social Sciences Edition), 25(03), 112-122.doi: 10.19411/j.cnki.1007-7030.2021.03.010.

Yu Jinhua & Zhang Jiantao. (2015). A Study on the Relationship between Experience Value, Satisfaction and Loyalty: A Case Study of Hot Spring Tourism. Journal of Liaoning University (Philosophy and Social Sciences), 43(02), 75-81.doi: 10.16197/j.cnki.lnupse.2015.02.013.

Yu Ping. (2015). The influence of health conditions on Visitors loyalty in Visitor destinations: A case study of Zhoushan Islands. Tourism Forum, 8(06), 36-42.doi: 10.15962/j.cnki.tourismforum.201506076.

Yu Qiuyang & Wang Qian. (2022). Research on the Perception Value and Choice Preference of Urban Rural Tourism Consumption in Network Context. Shanghai Economy, (03),16-32.

Yu Xu Yun. (2021). Research on the Influence of Tourism Live Streaming on Visitors Purchase Intention Based on S-O-R Theory (Masters Thesis, Beijing Jiaotong University). Master https://link.cnki.net/doi/10.26944/d.cnki.gbfju.2021.002486doi:10.26944/d.cnki.gbfju.2021.002486.

Yu, Q., & Wang, Q. (2022). Perceived value and behavioral preferences in online urban–rural tourism. Shanghai Economy, 3, 16–32.

Yuan Zuochun & Li Lei. (2024). Statistical analysis of karst development patterns in Baiyun District, Guangzhou. Urban Construction, 21(24), 137-141.doi: 10.19892/j.cnki.csjz.2024.24.36.

Zeithaml, V. A. (1988). Consumer perceptions of price, quality, and value: A means–end model and synthesis of evidence. Journal of Marketing, 52(3), 2–22.

Zeng Xionghui (2022). Research on Operation Strategy Optimization of Bus Company in City Z Based on Customer Perceived Value Theory (Masters Thesis, Hunan University of Technology). Master https://link.cnki.net/doi/10.27730/d.cnki.ghngy.2022.000005doi:10.27730/d.cnki.ghngy.2022.000005.

Zhang, H. M., & Lu, L. (2010). The structural relationship among tourist involvement, tourism motivation, and tourist satisfaction: A case study of inbound tourists in Guilin and Yangshuo. Forecasting, 29(2), 64–69.

Zhang Saiqi. (2024). A Study on the Influence of Visitor Perceived Value of Rural Tourism Products on Purchase Intention (Masters Thesis, Hebei University). Masters https://link.cnki.net/doi/10.27103/d.cnki.ghebu.2024.001241doi:10.27103/d.cnki.ghebu.2024.001241.

Zhang Ting. (2024). Factors influencing consumers willingness to buy local food from the perspective of consumption value theory. Rural Economy and Science & Technology, 35(20),238-240.

Zhang Yu. (2022). Research on the Impact of Ecotourism Motivation on Visitor Satisfaction (Masters Thesis, Guangxi Normal University). Master https://link.cnki.net/doi/10.27036/d.cnki.ggxsu.2022.000436doi:10.27036/d.cnki.ggxsu.2022.000436.

Zhao Xu. (2019). Research on optimization strategies of rural hot spring tourism in Chongqing. Regional Governance, (32),248-250.

Zhao Yao. (2024). A Study on the Impact of Visitors Border Tourism Motivation and Perceived Value on Behavioral Intention: A Case Study of the China-Vietnam Border in Guangxi. Journal of Guangxi Vocational Normal University, 36(04),45-53.

Zheng Ranran, Ye Chengzhi & Li Lulong. (2022). The influence of interactive tourism live streaming on Visitors participation intention —the mediating role of spatial presence and flow experience. Xinjiang Agricultural Reclamation Economy, (04),82-92.

Zhong Haofan & Yang Ming. (2023). A Study on Visitor Satisfaction Perception Evaluation in Qiandongnan Prefecture Based on Grounded Theory and Text Analysis. Journal of Hubei University of Arts and Science, 44(11),67-72.

Zhou Shibei & Chen Changyao. (2024). Research on Ecotourism Experience Perception —— A Case Study of Meili Snow Mountain. Forestry Economy, 46(07), 42-58.doi: 10.13843/j.cnki.lyjj.20241025.001.

Zhou Songpeng. (2022). Research on Marketing Strategies of Maocounty June Red Pepper Based on Customer Perceived Value Theory (Masters Thesis, Southwest University of Science and Technology). Masters https://link.cnki.net/doi/10.27415/d.cnki.gxngc.2022.001094doi:10.27415/d.cnki.gxngc.2022.001094.

Zhou, S. (2022). Research on Visitor perception and loyalty model in tourism destinations.

Zhu Tingting. (2020). The mechanism of customer value on brand loyalty of tourism consumers. Journal of Anhui University of Technology (Social Sciences Edition), 37(05),22-28.

Zhu Xiaofeng, CAI Yanguang & Tang Yalian. (2020). Research on the Influencing Factors of Online Tourism Consumer Behavior. Journal of Guangdong Technical Normal University, 41(06),49-55+63.doi: 10.13408/j.cnki.gjsxb.2020.06.008.

Zhu Ying. (2024). Research on the Influence of Host-Guest Interaction in Rural Tourism on Visitors Value Co-creation Willingness (Masters Thesis, Lanzhou University of Finance and Economics). Master https://link.cnki.net/doi/10.27732/d.cnki.gnzsx.2024.000661doi:10.27732/d.cnki.gnzsx.2024.000661.

Zhu, Z. H., Liu, J. M., Zhu, H., Gao, C. X., & Li, F. J. (2024). Spatial distribution and influencing factors of hot spring tourism destinations in China. Economic Geography, 44(5), 190–201. https://doi.org/10.15957/j.cnki.jjdl.2024.05.020

Zuo Wenchao & Hu Beiming. (2022). Tourism Consumption Vulnerability under the COVID-19 Pandemic: An Integrated Analytical Framework. Tourism Science, 36(04), 1-17.doi: 10.16323/j.cnki.lykx.2022.04.002.

APPENDIXES

APPENDIX A
Questionnaire

This questionnaire is divided into five parts: the first part is the questionnaire introduction, the second part is the screening items, the third part is the basic information questionnaire, the fourth part is the five-point Likert scale for analyzing consumer demand at the Conghua tourism destination, and the final part is the questionnaire overview.

Part1: questionnaire is introduced

Dear Mr/Mrs:

Hello! We are conducting an academic study on the hot spring tourism experience in Conghua District, Guangzhou, aiming to explore how to improve the service quality of hot spring tourism. This questionnaire is an anonymous survey, and all data will be used only for academic research, so please feel free to complete it.

To ensure the validity of the research data, please fill it out based on your real experiences. The entire questionnaire will take approximately 5–8 minutes. Thank you for taking your valuable time to support this study!

Part 2: Screening Items

Have you personally visited Conghua District, Guangzhou, and engaged in hot spring tourism consumption (including staying at a hot spring hotel, purchasing hot spring scenic area tickets, etc.) within the past three years?

□ Yes, I have visited and experienced it

□ No, I have not been there / I only passed by without consumption (If selected, please stop answering)

Part 3: basic information

Single topic selection: please play before the option to fit your situation "tick"

1. Your gender

Male/female

2. Your age

Mind under 18-18 to 30 and 31-45-46-60 - more than 60

3. Your record of formal schooling

□ Junior high school or below

□ Senior high school or vocational school

□ Junior college

□ Bachelor's degree

□ Master's degree or above

4. Your current career

Mind students mind enterprises and workers and civil servants and self-employed - teaching, branch, wen, who staff

□ Retirees □ Workers □ Farmers □ Other occupations

5. Your monthly income

□ Less than 2000 yuan □2001-4000 Yuan

□4001-6000 Yuan □6001-8000 yuan

□ 8001-10,000 yuan □ More than 10,000 yuan

6. Your mode of travel

□ Travel alone □ with family and friends □ with a tour group

□ Organized by an organization □ Other

7. How many times have you visited the Conghua hot-spring area?

□ First time □ Second time □ Third time

□ Fourth time □ More than four times

8. What is your budget for this trip to Conghua hot-spring tourism (per person, in RMB/CNY)?

□ Less than ¥100 □ ¥100–200 □ ¥201–300

□ ¥301–500 □ More than ¥500

9. Where did you hear about Conghua Hot Spring Tour? (subject to multi-select)

□ Books and magazines

□ Online media

□ Introduction of friends and relatives

□ Meituan, Dazhong Dianping and other apps

□ Others

Part 4: destinations conghua likert five component of consumer demand analysis

This project for the radio, please in the following item according to your own subjective intention after playing in the corresponding scores tick, "5" representatives "strongly agree"; "1" means "strongly disagree".

dimension	item	1	2	3	4	5
Emotional value	1. I think conghua hot spring area is the natural landscape to attract me					
	2. Let me immersed conghua hot spring tourism					
	3. I think conghua hot spring tourism makes me feel happy and healthy					
	4. I think conghua hot spring tourism makes me feel relieve pressure, eliminate worry					
	5. I think Conghua Hot spring tourism can attract my curiosity and make me feel new and interesting					
Service value	6. I think conghua hot spring area service staff enthusiasm patience					
	7.I think the service staff can solve the needs of Visitors in a timely manner					
	8. I think the specific requirements of the service personnel will notice individual Visitors					
	9. I think the service personnel can timely deal with complaints					
	10. Service personnel can clear hot spring area					
Function value	11. I think conghua hot spring tourism make me improve the sub-health state of the body					
	12. I think conghua hot spring tourism makes me experience the healthy way of keeping in good health					
	13.I think Conghua hot spring tourism makes me beautiful and beautiful					
	14.I think Conghua hot spring tour enables me to participate in interesting entertainment projects					

dimension	item	1	2	3	4	5
Cultural value	15. I think Conghua Hot spring tour makes me understand different customs and cultures					
	16. I think conghua hot spring area shows the culture characteristics of Asia					
	17. I think conghua hot spring area are passing the elegance of having a unique style					
	18. I think artistic charm conghua hot spring area shows the parts of the world					
	19. I think conghua hot spring area shows unique cultural charm					
Cognitive Value	20. I think Conghua Hot spring tour makes me know new things					
	21. I think conghua hot spring show different natural landscape makes me admire					
	22. I find the different shapes of hot springs interesting to me					
	23. I find the size of the hot spring area impressive					
Social value	24. I enjoy a good time with family and friends					
	25. I got a very unusual experience					
	26. This travel experience earned me respect and recognition from others.					
	27. I am willing to introduce conghua hot spring tourism to others					
	28. The experience increased my self-image					
Cost value	29. I think conghua hot spring scenic spot ticket price is reasonable					
	30. I think reasonable conghua hot spring scenic area in the price of goods and services					
	31.The time and effort spent traveling to Conghua Hot Spring Scenic Area are reasonable.					
	32.The time and effort spent searching for information before visiting Conghua Hot Spring Scenic Area are reasonable.					

dimension	item	1	2	3	4	5
Loyalty of Visitors	33. I am willing to once again to conghua hot spring tourism					
	34. I would recommend friends to experience conghua hot spring tourism together					
	35. I would like to introduce Conghua Hot Spring Tourism to others					
	36. I later on hot spring tourism, I preferred conghua hot spring area					
	37. I hear someone praise conghua hot spring, I will feel happy					

Part 5: summary of questionnaire

This questionnaire aims to explore the influence of perceived value in hot spring tourism on Visitor loyalty. The first part includes screening items to ensure that you belong to the target population of this study. The second part collects demographic information, including gender, age, education level, income, travel type, and the channels through which you receive information on hot spring tourism. The third part focuses on specific dimensions and collects data on the seven dimensions of perceived value in Conghua hot spring tourism and Visitor loyalty—emotional value, service value, functional value, cultural value, cognitive value, social value, and cost value—so as to comprehensively understand the relationship between Visitors' perceived value and loyalty, and to provide valuable insights for local hot spring service providers and policymakers.

APPENDIX B

Article

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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.

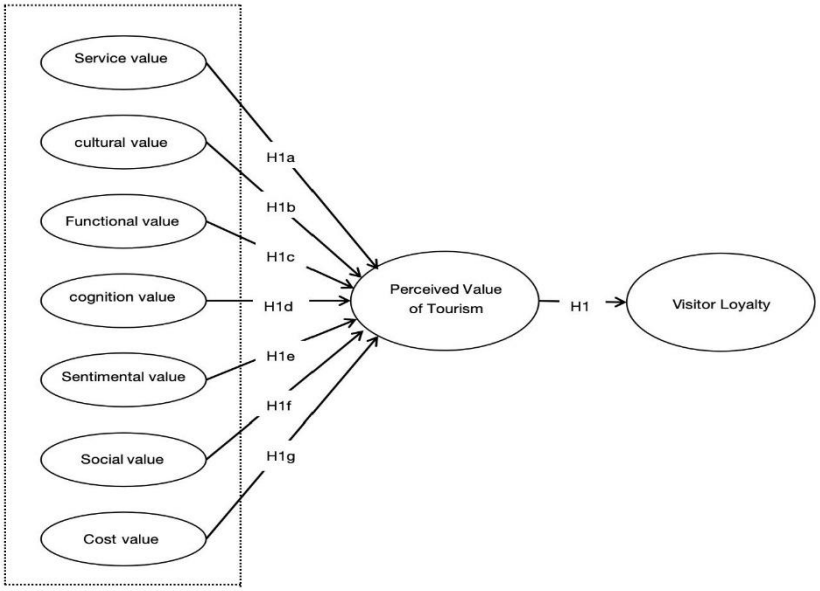


Figure 1. Conceptual Model of the Relationship Between Perceived Value and Visitor Loyalty in Conghua Hot Spring Tourism

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 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.

References

[1] Xu, J. (2021). Planning exploration of Lingnan characteristic towns from a multidimensional perspective: A case study of Guangzhou Conghua Hot Spring Romantic Town. Real Estate World, (14), 37–39.

[2] Huang, Y. (2017). Development strategies for Conghua Hot Spring Town. Shanxi Architecture, (6), 41–42. https://doi.org/10.13719/j.cnki.cn14-1279/tu.2017.06.022

[3] Zeithaml, V. A. (1988). Consumer perceptions of price, quality, and value: A means-end model and synthesis of evidence. Journal of Marketing, 52(3), 2–22.

[4] Schiffman, L. G., & Kanuk, L. L. (1997). Consumer behavior. Prentice Hall.

[5] Sun, Y. (2023). A study on the influence of telepresence on potential tourists' travel intention (Master's thesis, Beijing Jiaotong University).

[6] Ge, A. H. (2024). "Volume Form" or "Volume Content": A study on the promotion strategies of TikTok cultural tourism short videos based on perceived value. New Media Research, 10(03), 6–9+14.

[7] Chen, Y. (2006). Research on the development of hot spring tourism products (Master's thesis, Central South University of Forestry and Technology).

[8] Xu, H. R. (2007). Opportunities, gaps and countermeasures of Nanjing hot spring tourism. In Proceedings of Southern Daji Hot Spring Tourism Forum (pp. 16–17).

[9] Ministry of Culture and Tourism of the People's Republic of China. (2017). Hot Spring Tourism Quality Classification (LB/T070-2017).

[10] Wang, L., & Zeng, C. (2019). Prospects of China's modern hot spring industry development—Hot Spring Industry 4.0. Chinese Market, (26), 51–53.

[11] Cheng, W., & Zheng, Y. (2019). Research on the interactive development of tourism and water resources industry in Guizhou from the perspective of industrial integration. Journal of Kaili University, 37(04), 33–38.

[12] Luo, L. Y. (2023). Research on the development of rural tourism in Conghua District, Guangzhou (Master's thesis, Zhongkai University of Agriculture and Engineering).

[13] Sheth, J. N., Newman, B. I., & Gross, B. L. (1991). Why we buy what we buy: A theory of consumption values. Journal of Business Research, 22(2), 159–170.

[14] Sweeney, J. C., & Soutar, G. N. (2001). Consumer perceived value: The development of a multiple item scale. Journal of Retailing, 77(2), 203–220.

[15] Zhang, H. M., & Lu, L. (2010). The structural relationship among tourist involvement, tourism motivation, and tourist satisfaction: A case study of inbound tourists in Guilin and Yangshuo. Forecasting, 29(2), 64–69.

[16] Zhou, S. P. (2022). Research on marketing strategies of Maocounty June Red Pepper based on customer perceived value theory (Master's thesis, Southwest University of Science and Technology).

[17] Zeng, X. H. (2022). Research on operation strategy optimization of bus company in City Z based on customer perceived value theory (Master's thesis, Hunan University of Technology).

[18] Yu, Q., & Wang, Q. (2022). Research on the perception value and choice preference of urban rural tourism consumption in network context. Shanghai Economy, (03), 16–32.

[19] Wang, G. X., & Bao, J. G. (2004). Analysis of characteristics and spatial competition of hot spring tourism destinations: A case study of the old and new hot springs in Conghua. Areal Research and Development, (6), 83–87+122.

[20] Su, H. Y. (2023). The influence of visitor perceived value on loyalty at Haikou Mission Hills volcanic hot spring (Master's thesis, Hainan University).

[21] Wang, H. Y. (2022). Research on improving visitor satisfaction in Anning hot spring tourism based on visitor perception (Master's thesis, Yunnan University).

[22] Li, D. (2024). Research on the development status, problems and optimization strategies of Lhasa Rido hot spring health tourism. Hebei Enterprise, (10), 49–51.

[23] Yoon, Y., & Uysal, M. (2005). An examination of the effects of motivation and satisfaction on destination loyalty: A structural model. Tourism Management, 26(1), 45–56.

[24] Cao, L. Y. (2017). Research on the tourist loyalty model of traditional Chinese medicine tourism (Master's thesis, Fujian Agriculture and Forestry University).

[25] Dai, Y. M. (2012). A study on the authenticity of ancient villages based on tourists' perceptions (Master's thesis, Zhejiang University).

[26] Yu, P. (2015). The influence of health conditions on visitors loyalty in visitor destinations: A case study of Zhoushan Islands. Tourism Forum, 8(06), 36–42.

[27] Yu, J. H., & Zhang, J. T. (2015). A study on the relationship between experience value, satisfaction and loyalty: A case study of hot spring tourism. Journal of Liaoning University (Philosophy and Social Sciences), 43(02), 75–81.

[28] Fan, X. P. (2016). A study on audience viewing motivation and behavioral intention toward superhero films (Master's thesis, Jinan University).

[29] Churchill, G. A. (1979). A paradigm for developing better measures of marketing constructs. Journal of Marketing Research, 16(1), 64–73.

[30] Hinkin, T. R. (1998). A brief tutorial on the development of measures for use in survey questionnaires. Organizational Research Methods, 1(1), 104–121.

[31] Likert, R. (1932). A technique for the measurement of attitudes. Archives of Psychology, 22(140), 1–55.

[32] Lakens, D. (2022). Why P values are not measures of evidence. Trends in Ecology & Evolution, 37(4).

[33] Dillman, D. A., Smyth, J. D., & Christian, L. M. (2014). Internet, phone, mail, and mixed-mode surveys: The tailored design method (4th ed.). John Wiley & Sons.

[34] Deng, H. (2017). Research on marketing strategies for tourism products in Conghua District, Guangzhou (Master's thesis, South China Agricultural University).

[35] Guangzhou Municipal People's Government. (2024). Statistical information on permanent resident population of Guangzhou.

[36] DeVellis, R. F., & Thorpe, C. T. (2021). Scale development: Theory and applications. Sage.

[37] Cronbach, L. J. (1951). Coefficient alpha and the internal structure of tests. Psychometrika, 16(3), 297–334.

[38] Nunnally, J. C., & Bernstein, I. H. (1994). Psychometric theory (3rd ed.). McGraw-Hill.

[39] George, D., & Mallery, P. (2018). Reliability analysis. In IBM SPSS Statistics 25 Step by Step (pp. 249–260). Routledge.

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