Research on the Formation Mechanism and Promotion of Brand Loyalty in Tourism Destinations
Taking Guangdong-Hong Kong-Macao Greater Bay Area as an Example

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Abstract. The competition among tourist destinations is becoming more and more fierce. For tourist destinations, it is not only necessary to maintain the core market, but also to attract opportunity markets and guide tourists to become loyal tourists to the destination. The study found that the direct effect of tourism destination image in tourism quality, perceived value and satisfaction is significant, tourism quality has a significant direct effect on perceived value, satisfaction and loyalty, and perceived value has a significant direct effect on satisfaction and loyalty and satisfaction on loyalty. Tourism quality and perceived value have a significant indirect effect on tourist loyalty through the mediating role of tourist satisfaction, and tourist satisfaction plays a part of the mediating role; the indirect effect of destination image on tourist satisfaction through the mediating role of tourism quality is also significant, and tourism quality plays a significant role. Part of the role of intermediary. However, the indirect effect of destination image on tourist loyalty is significant, while the direct effect is not significant. Perceived value has a completely mediating effect.

Keywords: destination image · tourism quality · perceived value · tourist satisfaction · tourist loyalty

1 Introduction

With the increasing homogeneity of destinations, increasing substitutability, and intensifying competition between destinations, branding has become the key to destination marketing [1]. At the same time, new media technologies and social media are rapidly increasing. Development brings consumers countless alternative tourism product information. How to make choices in a relatively short period of time is the main problem that consumers face in this complex business environment. A strong tourism destination brand can help guide tourists' interest and form a tourism experience, improve tourist satisfaction and maintain high brand loyalty. However, how to enhance the brand value

of tourist destinations and how to maintain tourists' loyalty to the destination brand has become a common concern of academic circles, industry and government. Therefore, more and more tourist destinations attach importance to brand building, and are committed to shaping or creating distinctive destination brands. Brand loyalty is one of the core elements of brand equity and the core of brand management [2], and destination brand loyalty is an important research field in tourism research [3–7].

The Guangdong-Hong Kong-Macao Greater Bay Area includes two special administrative regions of Hong Kong and Macau and nine cities in Guangdong Province, including Guangzhou, Shenzhen and Zhuhai, with a total area of 56 000 km^2. It is one of the regions with the strongest economic vitality in my country. On February 18, 2019, the "Guangdong-Hong Kong-Macao Greater Bay Area Development Plan Outline" issued by the Central Committee of the Communist Party of China and the State Council pointed out that one of the key areas of cooperation is to build a high-quality living circle that is livable, business and travel. This article takes the Guangdong-Hong Kong-Macao Greater Bay Area as the research area, which will help promote further cooperation and win-win cooperation among Guangdong, Hong Kong and Macao.

At present, relevant researches on destination image and tourism destination brand equity have achieved some meaningful results, but there is no clear conclusion on the constituent elements of destination brand equity and the relationship between the elements; the key factors affecting destination brand, and the relationship between tourism image and brand loyalty has not been paying enough attention. Therefore, based on the theory of brand equity, this article discusses the main factors that form destination brand loyalty and the causal relationship between the main factors, trying to provide a relatively new perspective and insight for destination brand management.

2 Literature Review and Theoretical Assumptions

2.1 Destination Brand Loyalty

In recent years, the research on brand loyalty has become an important research direction of tourism destination management, but the academic circles have not yet reached a consensus on the definition of brand loyalty to tourism destinations. Ferns and Walls believe that due to the comprehensive characteristics of destinations, from the perspective of tourists, destination brand loyalty is the result of the multi-dimensional interaction of tourists' cognition and preference for a particular destination brand [8]. Cui Fengjun and Gu Yongjian pointed out that brand loyalty in tourist attractions refers to repeated purchases by tourists or repeated recommendation of a particular destination to relatives, friends and others [9]. Li Lanlin emphasized that brand loyalty in tourism destinations includes the psychological trust and love of the destination brand by tourists, and repeated purchases in behavior. It is an important source of brand advantages for tourism destinations [10].

Generally, for the measurement of destination brand loyalty, most travel scholars draw on the research methods of marketing, and measure it from two dimensions: attitude loyalty and behavior loyalty. Regarding destination brand loyalty at the behavioral level, the indicator of revisiting is often used for consideration; destination brand loyalty at the attitude level, mostly refers to the positive or positive emotions of tourists towards

a destination, generally based on the willingness to travel and positive word-of-mouth communication. Bianchi and Pike et al. believe that in terms of long-distance tourism, the attitude level is more appropriate than the behavioral level, and even the most loyal tourists are unlikely to be willing to frequently travel long distances to a certain destination [11]. Konecnik believes that attitude will further affect tourists' willingness to revisit the destination or recommend to others. Tourists visit a certain destination with a positive attitude, even if the chance of them revisiting in the future is small, they will still carry out positive word-of-mouth communication to the destination. Due to the importance of word-of-mouth communication, attitude loyalty is particularly important in destination loyalty [12].

2.2 Research on the Relationship Between Tourism Quality, Perceived Value and Satisfaction

Regarding the relationship between tourism quality and tourist satisfaction, domestic and foreign scholars have conducted a lot of research. The causal relationship between service quality and customer satisfaction is an important but unresolved problem. In previous studies, service quality researchers have distinguished service quality from customer satisfaction at transaction levels. They believe that customer satisfaction is an evaluation of a particular transaction, while service quality is an overall evaluation. Feng Yun conducted a survey on tourism distribution centers and concluded that service quality has a significant impact on customer satisfaction [13]. Baker and Crompton believe that satisfaction is intuitively regarded as the primary determinant of revisiting and word-of-mouth publicity. Related research shows that higher service quality and satisfaction, increase the possibility of revisiting. They believe that tourists are more Their perceptions play a key role in satisfaction and determine whether they choose to revisit, which is also a component of new expectations and motivation to revisit [14]. Cronin and others pointed out that the quality of experience positively affects the satisfaction of the tourists [15].

H1: Tourism quality positively affects the perceived value of tourists.

H2: Tourism quality positively affects tourist satisfaction.

2.3 Research on the Relationship Between Tourism Quality and Tourist Loyalty

Most research results of the individual antecedents of customer loyalty show that quality has a direct positive effect on customer loyalty [16–18]. The research on the antecedents of tourist loyalty in the tourism industry has also reached a similar conclusion, that is, the higher the quality of tourism, the more revisiting behaviors or tendencies after the experience of tourists, and the more positive word-of-mouth effect [19]. For example, Petrick's [20] research on cruise tourists, Zabkar [21] and other studies based on different tourism destinations, and Chen [22] and other studies on heritage tourism have found that tourism quality has a significant positive effect on the willingness to revisit and word-of-mouth recommendation.

H3: Tourism quality positively affects tourist loyalty.

2.4 Research on the Relationship Between Tourist Satisfaction and Loyalty

Most scholars agree that tourist satisfaction is of great significance to positive word-of-mouth and tourist loyalty, and tourist satisfaction is the direct cause of tourist loyalty. Satisfaction is the overall evaluation produced by tourists comparing their expectations and actual experience [23]. Studies by Dick and others show that satisfaction is the first influencing factor of loyalty, and satisfaction often leads to loyalty [24]. Koza and Rimmington research found that destination attraction, tourist attractions and facilities, and facilities and services of the destination airport are the main factors that affect the overall satisfaction of tourists, and overall satisfaction is positively correlated with the possibility of revisiting again and positive word of mouth [25]. Kim et al. pointed out that the most significant factors affecting the overall satisfaction of public restaurant services are food quality, followed by service quality, price and value, convenience, and environment. Overall satisfaction is positively correlated with revisiting and positive word of mouth. After studying customer satisfaction and customer loyalty, many scholars believe that customer satisfaction is the first influencing factor of customer loyalty [26, 27].

Kotler pointed out that the key to maintaining customers is customer satisfaction, and a highly satisfied customer will stay loyal to the company for longer [28]. Wang Bin verified the significant positive correlation between tourist satisfaction and tourist loyalty in scenic spots through the assumption of structural equation [29]. Through an empirical study on the satisfaction of Hong Kong Disneyland entertainment show visitors, Li Qin found that entertainment venue satisfaction and performance quality satisfaction have a significant positive impact on tourist loyalty [30]. Yin Zhangxin et al. studied the relationship between non-tourism factors and urban tourism, and showed that the tourist satisfaction of urban tourism has a significant impact on tourist loyalty, which is more significant than the impact of urban perception on tourist satisfaction [31].

H4: Tourist satisfaction positively affects tourist loyalty.

2.5 Research on the Relationship Between Tourism Quality, Satisfaction and Loyalty

The relationship between tourism quality, customer satisfaction and loyalty has always been the focus of theorists and practitioners. The comprehensive research on the relationship between the three began with the study of the antecedents of behavioral tendencies. Research by Zeithaml et al. pointed out that the quality of service will directly affect the behavior intention of consumers, and the quality of service is positively correlated with loyalty and willingness to pay high prices [32]. Baker et al.'s research on the tourism industry shows that the effect of satisfaction on behavior tendency is greater than the effect of service quality on behavior tendency; at the same time, service quality has an indirect effect on the behavior tendency through satisfaction [33]. Tung discussed how service quality and perceived value affect the behavior of SMS users in the post-use phase. In particular, the author studies how the service quality and perceived value of service providers affect customer satisfaction and how customer satisfaction affects behavioral intentions. The results show that the three dimensions of tangibility, empathy,

and assurance of service quality are the antecedents of customer satisfaction; there is a positive correlation between customer satisfaction and customer behavior intentions; and there is also a significant positive correlation between customer satisfaction and the prolongation of customers' use of SMS [34]. Hackman et al. used online services as an example to study the relationship between behavioral intention and its antecedents. The research results show that behavior intention is directly affected by the quality, value and satisfaction of online services. The satisfaction of online services is in turn affected by the value and quality of online services, while the value of online services is affected by the quality of online services and related sacrifices [35]. Lobo uses Singapore's travel retailer as an example to explore the relationship between service quality and favorable behavior intentions. Research results show that improving service quality can enhance favorable behavior intentions [36].

In terms of domestic related research, Wang Chunxiao and Wen Biyan conducted an empirical study on three travel agencies in Guangdong Province to explore the impact of service quality, consumption value and tourist satisfaction on tourists' behavioral intention, and pointed out that these three factors have a direct impact on tourists' behavioral intention [37]. Xie Lishan and Li Jianyi pointed out that the trust of tourists on tour guides is an important factor affecting tourists' behavioral intention; the service quality of tour guides and the satisfaction of tourists to tour guides also affect tourists' behavioral intentions [38]. Zhou Bo studies the relationship among B2C e-service quality, customer satisfaction and behavior intention in China. The results show that the five service quality dimensions of ease of use, responsiveness, reliability, care and safety have significant impact on customer satisfaction, and customer satisfaction also has a significant impact on customer behavior intention, but only reliability and safety have direct impact on behavior intention, while ease of use, responsiveness and care have no direct impact on behavior intention [39].

Based on the above summary and refinement of relevant Chinese and foreign documents, it can be inferred that the overall quality of tourism and tourist satisfaction will affect tourists' post-purchase behavior intentions. However, does the quality of tourist experience directly affect behavior intentions positively, or does it indirectly affect behavior intentions through satisfaction? On this point, the academic community is still divided.

H5: Tourist satisfaction plays a mediating role between tourist quality and tourist loyalty.

2.6 Research on the Relationship Between Tourists' Perceived Value and Satisfaction

Since the 1990s, customer perceived value as a new source of competitive advantage has received extensive attention from academia and business operators, and has become another research focus after quality management and customer satisfaction. Most scholars believe that customer perceived value is a trade-off between customers' gains and losses of products and services [40].

Current research shows that the causal relationship between customer perceived value and customer satisfaction is still divergent. Some scholars support Satisfaction and Value Causal Link, and believe that customer value is a higher-level concept than

customer satisfaction and has a more stable logical judgment, which is the result of customer evaluation behavior after purchase [41, 42]. However, more scholars support Value and Satisfaction Causal Link and believe that satisfaction has a good predictive effect on future behavior tendencies, and customer value is an important antecedent of satisfaction [15, 43]. Woodruff and Gardial also support this view, pointing out that customer perceived value describes the nature of the relationship between the organization, customer and service, while customer satisfaction is the customer's response to the actual value of the specific product or service provided [44]. This has also been recognized by Jones and Sasser, who proposed that the only way for companies to obtain lasting satisfaction from customers must provide them with good value [45]. Psychological research shows that perception triggers emotional reflection through a process. Therefore, theoretically speaking, the value satisfaction causality chain is more convincing. This is because the concept of customer perception value is defined at the level of buying or not buying, and satisfaction It is the judgment that occurs after the purchase [46]. Huang Wei et al. confirmed that there is a positive correlation between the perceived value of tourists and their satisfaction with rural tourism through empirical research on concentrated contiguous destitute areas [47]. Research by Guo Anxi and others found that the perceived value of tourists can help enhance tourists' satisfaction. Therefore, it can be considered that perceived value is an important antecedent of customer satisfaction [48].

H6: Tourists' perceived value positively affects tourist satisfaction.

2.7   Research on the Relationship Between Tourists' Perceived Value and Loyalty

Neal pointed out that for customer loyalty, customer satisfaction is necessary, but only value ultimately drives loyalty [49]. Cronin et al. believe that perceived value can well predict consumer satisfaction and behavior tendency [15]. Parasuraman and others, even believe that, as the most important factor to measure competitive advantage, perceived value is an important behavior predictor and a key determinant of consumer satisfaction and loyalty [50]. Cronin and others examined six industries including sports spectatorship, sports participation, entertainment, fast food, health care, and long-distance transportation, and found that perceived value indirectly affects the behavior tendency through satisfaction [15]. Zhang Taihai et al. verified the hypothesis that customer perceived value positively affects customer loyalty [51]. Zhao Lei et al. showed through empirical tests that the perceived value of tourists in Xixi National Wetland Park has a significant positive impact on tourist loyalty, indicating that the greater the perceived value of tourists, the higher their loyalty to tourism [52].

H7: Perceived value positively affects tourist loyalty.

2.8   Research on the Relationship Between Tourist Perceived Value, Tourist Satisfaction and Loyalty

The study found that perceived value has a good predictive effect on consumer behavior and consumer satisfaction. The greater the consumer's perceived value, the higher their consumer satisfaction and the greater the possibility of repurchase. Parasuraman

et al. believe that perceived value is the most important decisive factor for customer satisfaction and loyalty, which embodies the view of perceived value-driven theory of the loyalty mechanism [50]. However, some studies have shown that between satisfaction and perceived value, satisfaction is a direct influencing factor, and perceived value indirectly affects loyalty through satisfaction, and is verified by cross-industry empirical research.

Some scholars try to reveal the relationship among tourists' perceived value, tourists' satisfaction and loyalty, but they have not formed a relatively unified understanding, especially the causal relationship between tourist perceived value and tourist satisfaction. Wang Bin proposed that perceived value not only has a direct effect on loyalty, but also has an indirect impact on loyalty through satisfaction. However, the relationship between tourists' perceived value and satisfaction has not been further explored [53]. Some scholars believe that some components of tourists' perceived value have a positive impact on tourists' overall satisfaction. Huang Yanling, Huang Zhenfang research shows that tourism resource perception, software service perception and tourism commodity perception have a significant positive impact on the overall satisfaction of agricultural tourism tourists, and the overall satisfaction of tourists has a significant positive impact on tourist loyalty [54]. Li Wenbing believes that tourists' perceived value of ancient villages has an indirect positive impact on the formation of loyalty through satisfaction, and cognitive value, non economic cost perception and tourism resource ontology perception have a positive impact on tourist loyalty [55]. Ding Lei et al. Proposed that tourism resource perception, hardware service perception and software service perception all have a significant positive relationship with tourists' satisfaction. Among them, tourism resource perception is the most important factor affecting tourists' satisfaction in water tourism destinations, and satisfaction directly affects tourists' willingness to revisit and recommend [56]. According to the empirical results of the influence relationship model of expectation, perception, satisfaction and loyalty, it shows that expectation has a negative significant influence on satisfaction; perception has a positive and significant influence on satisfaction; expectation has no positive significant influence on loyalty; perception has a positive significant influence on loyalty; satisfaction has a positive and significant influence on loyalty [57]. Lu Xiaoli et al. empirically analyzed the quality, satisfaction and tourist loyalty of Jinggang Mountain's red tourism and found that tourist satisfaction has a significant positive impact on tourist loyalty, and tourism quality has a significant positive impact on satisfaction, and indirectly through satisfaction Influencing tourist loyalty, satisfaction has a complete mediating effect on tourism quality and tourist loyalty, and red tourism quality has an insignificant negative influence on tourist loyalty [58].

H8: Tourist satisfaction plays a mediating role between perceived value and tourist loyalty.

2.9 Research on the Relationship Between Tourism Destination Image, Tourism Quality and Tourist Satisfaction

As early as 1977, Lapage and Cormier paid attention to the role of tourist destination image in tourist decision-making: the information obtained by tourists before visiting the destination may often be supplemented by the psychological image of the destination,

possibly a tourist image compared with actual tourism information, it can drive tourists' motivation for destination selection and promote their tourism decision-making behavior [59]. Potential tourists often have extremely limited knowledge of tourist destinations they have never visited. It is difficult for potential tourists to obtain objective measures to measure the important attributes of these destinations. In this way, the image of the tourist destination will be used in the tourist product evaluation process. The more subjective the product attribute determination is, the more important the image is in the process of determining brand preferences.

Tourism research has verified that there is a certain correlation between tourist satisfaction and the self-image of tourists and the harmony of the destination image. In particular, the more consistent the self-image of the tourist and the image of the destination, the more satisfied the tourist will be. Bian Xianhong believes that the image of a tourist destination refers to people's overall understanding and evaluation of the destination as a tourist destination, not just the tourist image of the destination. And this puts forward a causal relationship model in which image affects quality, and then quality affects satisfaction and the follow-up behavior of tourists [60].

H9: The image of tourism destinations positively affects tourism quality.

H10: The image of tourist destinations positively affects tourist satisfaction.

H11: Tourism quality has an intermediary effect between the image of tourist destinations and tourist satisfaction.

2.10 Research on the Relationship Between Tourist Destination Image, Perceived Value and Tourist Loyalty

In terms of research on the image and satisfaction of specific tourist destinations and post-travel behavior, Gartner's research found that the image of tourist destinations is composed of three interconnected components: cognitive, emotional and extended [61]. Some research results of environmental psychology confirm this concept: environment and region have both cognitive and emotional images. On the basis of the research conclusions of scholars such as Gartner, Bigne et al. studied the relationship between the destination image perceived by tourists and their behavioral intentions and post-purchase evaluation, and examined the relationship between quality and satisfaction and these variables and the relationship between tourists. The relationship between behavioral variables believes that quality has a positive relationship with consumer satisfaction and intention to revisit, and satisfaction determines consumers' willingness to recommend the destination [62].

Perceived value is the customer's perceived preference and evaluation of certain attributes and properties of a product or service, as well as product use results that help achieve their behavioral intentions and goals in a specific situation, and the attributes and performance in the travel experience It is often reflected in the image characteristics of the destination [63]. In the process of tourism experience, the objects and services that visitors come into contact with, and the psychological experience they bring will eventually form an impression in the minds of visitors in the form of perceived value,
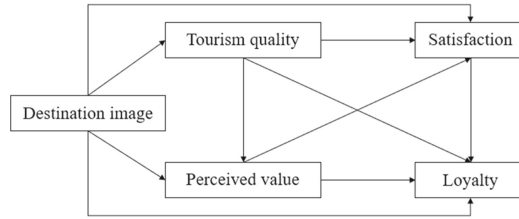
Fig. 1. Conceptual model diagram of this research

which will be presented in the form of "perceived gains and perceived losses", and weighed Comparison, and then form the overall perception of tourists to the travel experience. Wang Bin's research pointed out that the better the image of the scenic spot, the greater the perceived value of tourists, and the image of the scenic spot has a significant positive impact on the perceived value [29]. Chen and Tsai's research show that the image of tourist destinations indirectly affects loyalty through perceived quality, perceived value and satisfaction [64].

H12: The image of tourist destinations positively affects perceived value.

H13: The image of tourist destinations positively affects loyalty.

H14: Perceived value plays an intermediary role between the image of a tourist destination and the loyalty of tourists.

Based on the above research hypotheses, this research has drawn a conceptual model diagram of the causal relationship between destination image, tourism quality, perceived value, satisfaction and loyalty, as shown in Fig. 1.

3   Research Methods

Ethics Committee approval was obtained from the Institutional Ethics Committee of School of Cultural Tourism and Geography, Guangdong University of Finance and Economics to the commencement of the study.

The following explains whether the tourists agree or not. First of all, when we hand out questionnaires to tourists, we will ask tourists whether they are willing to accept the survey, and then we will send out the questionnaire to tourists after getting a positive answer; secondly, in the beginning of the questionnaire, I have already informed the interviewee about the purpose of the survey. It is agreed that the investigation can be withdrawn at any time, and the initial words are as follows:

Dear interviewee:

Hello! I am a graduate student in the Tourism Management Department of Guangdong University of Finance and Economics. I am investigating research on brand loyalty in tourist destinations, and I need some specific data as a demonstration. I hope to get your support! This survey is mainly for academic research and will not be used for any commercial purposes. This questionnaire is not a test and is anonymous. There is no

standard answer. There is no "right", "wrong", "good" or "bad" answer to any question. What we want to know is your true state and feelings. Please fill in it according to your actual situation. Thank you very much for taking the time to participate in this questionnaire during your busy schedule. Since this questionnaire was only distributed to a part of the population, each of your answers is very important to us. If you have any questions about the questionnaire, please feel free to contact me. Email: 1028943403@ qq.com.

I would like to express my heartfelt thanks for your support!

This study uses a self-structured questionnaire method to collect data. The questionnaire consists of three parts. The first part is mainly aimed at tourists' investigation of the destination image and tourism quality of the Guangdong-Hong Kong-Macao Greater Bay Area. The image of the tourist destination is based on previous studies, from attractions, service facilities, obstacles and 13 items in 4 aspects of the atmosphere are measured. Tourism quality is measured from 3 aspects of tourists' perception of quality of tourism resources, quality of tourism reception and quality of tourism activities. The second part is a survey of tourists' perceived value, satisfaction and loyalty. There are 3 items of perceived value, 4 items of tourist satisfaction, and 3 items of tourist loyalty. See Table 1 for details. The first and second parts are all measured using the Likert five-level scale, from 1 to 5 respectively, indicating very disagree, disagree, general, agree, very agree, or very dissatisfied, dissatisfied, fair, satisfied and very dissatisfied satisfaction. The third part is a survey of demographic characteristics of the sample, including gender, age, place of residence, occupation, education level, income level and visiting method.

Due to the impact of the new crown pneumonia epidemic, questionnaires are mainly distributed online. The time is March 2021-April 2021. Mainly for tourists who have visited the urban agglomeration in the Guangdong-Hong Kong-Macao Greater Bay Area, 280 questionnaires were released, and 254 were effectively recovered, with an effective recovery rate of 91%. Among all the tourists surveyed, there are more women than men, and women account for 61.3.%. Those under 25 (35.4%) and 36–45 (32.7%) have a comparative advantage. Tourists mainly come from cities around Guangzhou, accounting for 42.7% of the total number of tourists surveyed, followed by other cities in Guangdong Province, which accounted for 34.6%; from the perspective of occupation, the majority is an enterprise personnel (42.3%) and students (35.4%). College or undergraduate education has the largest proportion, accounting for 56.7%. From the perspective of economic ability, most of the test subjects have an average monthly income of 5,000–8,000 yuan, accounting for 56.9%. 76.4% of tourists came with family or friends. According to the demographic characteristics of the sample, the representativeness of this survey sample is good. This study mainly uses SPSS25.0 and Amos24.0 for data analysis.

4 Research Results

4.1 Exploratory Factor Analysis

The paper uses the Principal Components analysis method in factor analysis, and uses the VARIMAX method in orthogonal rotation to find important factors for tourists' perception of tourist destination image and tourism quality. The results of data analysis found that the Bartlett Test of Sphericity of the tourism destination image correlation

matrix has a significance level of 0.000, a statistic of 391.291, and a KMO (Kaiser-Meyer-Olkin) value of 0.720; the relationship between tourism quality The Bartlett Test of Sphericity of the matrix has a significance level of 0.000, a statistic of 453.820, and a KMO (Kaiser-Meyer-Olkin) value of 0.751. Shows that there is a correlation between the original variables, suitable for factor analysis. The paper uses the maximum variance orthogonal rotation for factor rotation, and the eigenvalues greater than 1 are extracted as common factors. A total of four common factors were extracted from the principal component analysis of tourism destination image, which explained 66.414% of the total variance of the original variables, and three common factors were extracted from tourism quality, and the cumulative variance contribution rate reached 67.416%. The cumulative variance contribution rate is greater than 50%, which is considered a relatively satisfactory result. The four common factors of the tourist destination image are named in order: Attractions, Facilities, Barriers and Atlas; the three common factors of tourism quality are named Perception of in turn the quality of tourism resources, Perception of the quality of tourism reception, Perception of the quality of tourism activities. The Cronbach's α value of the four dimensions of the destination image is between 0.749–0.812, and the Cronbach's α value of the three dimensions of tourism quality is between 0.796–0.868, which are all greater than 0.7, indicating that the internal consistency of each dimension is high. See details Table 1.

Table 1. Questionnaire Item Content and Reliability and Validity Test Results

Variables	Item	Factor loading	Cumulative Variance explained (%)	Cronbach's α
Destination image (DI)	**Attractions**		36.749	0.812
	Historic sites	0.775		
	Museums	0.808		
	Scenery natural attractions	0.827		
	Facilities		48.363	0.749
	Nightlife and entertainment	0.827		
	Shopping facilities	0.568		
	Accommodation	0.764		
	Restaurants	0.742		
	Barriers		57.662	0.788
	Accessibility	0.710		
	Personal safety	0.834		
	Cleanliness	0.834		
	Atmosphere		66.414	0.765
	Exotic atmosphere	0.829		

(*continued*)

Table 1. (*continued*)

Variables	Item	Factor loading	Cumulative Variance explained (%)	Cronbach's α
	Opportunity for adventure	0.838		
	Opportunity to increase knowledge	0.507		
Tourism quality (TQ)	**Perception of the quality of tourism resources**		44.169	0.868
	When I travel here, I can enjoy the beautiful scenery	0.594		
	I can experience unique cultural customs	0.634		
	I can visit historic sites and museums	0.757		
	There are beaches that attract me	0.720		
	There are theme parks and artificial landscapes that appeal to me	0.681		
	There is a pleasant climate here	0.805		
	There is a well protected ecological environment here	0.739		
	Perception of the quality of tourism reception		56.572	0.796
	When I travel here, I can buy what I want	0.770		
	I can enjoy delicious food	0.837		
	I can rest in a comfortable hotel	0.573		
	The local transportation is convenient	0.672		
	The service quality is very good, the management level is very good	0.683		
	I can easily get the travel information I need	0.711		
	Perception of the quality of tourism activities		67.416	0.814
	Traveling here satisfies my pursuit of religious belief	0.815		
	I can take part in a variety of recreational activities	0.746		
	I can take part in sports that I am interested in	0.665		
	I can attend conferences, exhibitions and festivals	0.694		
	I can take part in adventure activities	0.621		

Table 1. (*continued*)

Variables	Item	Factor loading	Cumulative Variance explained (%)	Cronbach's α
Perceived value (PV)	I think from the overall point of view, my travel experience is worth the money, time and energy	0.905	75.704	0.836
	Compared with the money, time and energy I paid, I think it's worth a lot	0.838		
	On the whole, my last trip here is worth the money, time and energy I paid	0.683		
Satisfaction (SAT)	I find the experience of traveling here enjoyable	0.996	100	0.870
	I decided to travel here. It was a wise choice	0.997		
	I think it is right to choose this place as a tourist destination	0.995		
	I am satisfied with my decision to travel here	0.997		
Loyalty (LOY)	Experience matches expectation	0.814	77.445	0.815
	Willing to recommend	0.996		
	Willing to revisit	0.810		

4.2 Confirmatory Factor Analysis

Confirmatory factor analysis is used to test the relationship between the destination image and its four sub-facets: Attractions, Facilities, Barriers and Atmosphere; tourism quality and its Perception for the quality of tourism resources, Perception for the quality of tourism reception and Perception of the quality The relationship between the three sub-facets of tourism activities and the reliability and validity of each facet of destination image and tourism quality. The model fitting results show that the destination image chi-square value Chi-square = 399.448, degrees of freedom df = 82, P = .000, chi-square degrees of freedom ratio CMIN/DF = 4.871, GFI = 0.807, NFI = 0.892, CFI = 0.914, RMR = 0.059, RMSEA = 0.072. Travel quality chi-square value Chi-square = 466.418, degrees of freedom df = 153, P = .000, ratio of chi-square degrees of freedom CMIN/DF = 3.048, GFI = 0.827, NFI = 0.874, CFI = 0.925, RMR = 0.050, RMSEA = 0.071. Except for GFI and NFI, the destination image and tourism quality all meet the recommended values, indicating that the model fits well.

Table 2. Results of Confirmatory Factor Analysis of Destination Image and Tourism Quality

Observed variables	Standard errors	t-value	Standardized regression coefficient	CR	AVE
Attractions				0.845	0.646
Historic sites	0.169	10.775	0.792		
Museums	0.161	9.018	0.761		
Scenery natural attractions	0.169	9.119	0.842		
Facilities				0.819	0.535
Nightlife and entertainment	0.175	11.082	0.741		
Shopping facilities	0.183	8.106	0.763		
Accommodation	0.211	9.243	0.751		
Restaurants	2.204	9.096	0.744		
Barriers				0.837	0.632
Accessibility	0.201	11.074	0.774		
Personal safety	0.197	12.482	0.706		
Cleanliness	0.228	11.254	0.648		
Atmosphere				0.777	0.549
Exotic atmosphere	0.246	11.985	0.742		
Opportunity for adventure	0.218	12.834	0.747		
Opportunity to increase knowledge	0.232	11.852	0.780		
Perception of the quality of tourism resources				0.874	0.501
When I travel here, I can enjoy the beautiful scenery	0.195	10.258	0.776		
I can experience unique cultural customs	0.187	11.005	0.704		
I can visit historic sites and museums	0.212	12.254	0.649		
There are beaches that attract me	0.232	12.382	0.776		
There are theme parks and artificial landscapes that appeal to me	0.251	11.076	0.746		

(continued)

Table 2. (*continued*)

Observed variables	Standard errors	t-value	Standardized regression coefficient	CR	AVE
There is a pleasant climate here	0.244	13.452	0.656		
There is a well protected ecological environment here	0.198	12.841	0.782		
Perception of the quality of tourism reception				0.859	0.508
When I travel here, I can buy what I want	0.196	12.765	0.805		
I can enjoy delicious food	0.234	11.863	0.843		
I can rest in a comfortable hotel	0.242	11.842	0.766		
The local transportation is convenient	0.229	12.541	0.757		
The service quality is very good, the management level is very good	0.262	12.413	0.736		
I can easily get the travel information I need	0.231	13.541	0.771		
Perception of the quality of tourism activities				0.835	0.506
Traveling here satisfies my pursuit of religious belief	0.252	12.382	0.674		
I can take part in a variety of recreational activities	0.236	13.436	0.749		
I can take part in sports that I am interested in	0.195	11.075	0.682		
I can attend conferences, exhibitions and festivals	0.212	10.926	0.784		
I can take part in adventure activities	0.245	14.021	0.820		

The confirmatory factor analysis results of tourism destination image and tourism quality and its sub-facets show that the combined reliability CR value is between 0.777–0.874, which is much greater than the reference value of 0.6. Therefore, the measurement scale can be considered to have high reliability. The AVE value is between 0.501–0.646, all greater than the reference value of 0.50, indicating that the model has good convergent

validity. These indicators show that the scale used in this study has good structural reliability and validity, as shown in Table 2.

4.3 Structural Equation Analysis

The paper uses Maximum Likelihood Estimates to test the causal relationship among tourism destination image, tourism quality, perceived value, satisfaction, and loyalty. The conceptual model matches the data well (Chi-square = 743.568, DF = 287, CMIN/DF = 2.591, GFI = 0.864, NFI = 0.878, CFI = 0.952, RMSEA = 0.068, RMR = 0.053). The results show that tourism quality, perceived value and satisfaction have a significant positive impact on tourist loyalty, and destination image has no positive effect on tourist loyalty; destination image, tourism quality and perceived value have a significant positive impact on tourist satisfaction; destination Image and tourism quality have a significant positive impact on perceived value; destination image positively affects tourism quality. That is, H1, H2, H3, H4, H6, H7, H9, H10, and H12 are established, but H13 is not established; the destination image is satisfied with tourism quality, tourism quality and perceived value, and tourist satisfaction has an effect on loyalty at the level of 0.001 Significant, while the others are significant at the 0.05 level, see Table 3 for details.

The paper refers to the Bootstrap method proposed by Preacher and Hayes [65] and Hayes [66] to test the mediating effect of tourist satisfaction between tourism quality, perceived value and tourist loyalty. The sample size is 5000, and under the 95% confidence interval, The intermediary inspection results do not contain 0, indicating that the intermediary effect of tourist satisfaction is significant, that is, H5 and H8 are proved. Similarly, tourism quality has a significant mediating effect between the image of a tourist destination and tourist satisfaction, as evidenced by H11. However, the influence range of tourist destination image on tourist loyalty includes 0, that is, the direct effect of

Table 3. Structural Equation Analysis Results

Path	Standardized regression coefficient	T-value	P	Hypothesis
DI → TQ	0.412	4.601	***	Yes
DI → PV	0.187	2.060	0.030	Yes
DI → SAT	0.235	3.011	0.003	Yes
DI → LOY	0.049	0.897	0.312	No
TQ → PV	0.227	2.974	0.003	Yes
TQ → SAT	0.274	3.121	***	Yes
TQ → LOY	0.243	3.457	0.004	Yes
PV → SAT	0.256	4.782	***	Yes
PV → LOY	0.241	2.687	0.003	Yes
SAT → LOY	0.254	3.843	***	Yes

Table 4. Test Results of Mediation

Path Two-tailed test	Point estimate	Coefficient product		Bootstrapping (5000)		Two-tailed test
				Bias-corrected 95% CI		
		Standard error	t-value	lower	upper	
TQ → SAT → LOY	1.056	0.057	18.572a	0.971	1.353	0.000
	0.571	0.062	8.126b	0.435	0.764	0.000
	0.485	0.077	---	0.362	0.703	---
FV → SAT → LOY	0.963	0.051	19.304a	0.884	1.124	0.000
	0.532	0.063	8.262b	0.427	0.657	0.000
	0.431	0.072	---	0.358	0.593	---
DI → TQ → SAT	0.862	0.073	11.724a	0.743	1.021	0.000
	0.436	0.058	7.511b	0.356	0.527	0.000
	0.426	0.076	---	0.302	0.584	---
DI → FV → LOY	0.867	0.081	10.545a	0.693	1.012	0.000
	0.124	0.078	1.364b	−0.046	0.263	0.171
	0.743	0.071	---	0.621	0.892	---

destination image on tourist loyalty through perceived value is not significant, as shown in Table 4.

To sum up, the direct effect of tourism destination image in tourism quality, perceived value and satisfaction is significant, tourism quality has a significant direct effect on perceived value, satisfaction and loyalty, and perceived value has a significant direct effect on satisfaction and loyalty and satisfaction on loyalty. Tourism quality and perceived value have a significant indirect effect on tourist loyalty through the mediating role of tourist satisfaction, and tourist satisfaction plays a part of the mediating role; the indirect effect of destination image on tourist satisfaction through the mediating role of tourism quality is also significant, and tourism quality plays a significant role. Part of the role of intermediary. However, the indirect effect of destination image on tourist loyalty is significant, while the direct effect is not significant. Perceived value has a completely mediating effect.

5   Conclusion and Discussion

5.1   Research Conclusion

This research constructs a model of the influence mechanism of tourism destination brand loyalty, and verifies the multidimensional structure of tourism destination image and tourism quality and how it affects tourist loyalty. The study found:

First, the image and quality of tourism destinations are multi-dimensional structures. Tourism destination image is mainly composed of four dimensions: Attractions, Facilities, Barriers and Atmosphere; tourism quality is composed of three dimensions: Perception for the quality of tourism resources, Perception for the quality of tourism reception and Perception for the quality of tourism activities. It is similar to previous studies.

Second, it clarified the relationship between tourism destination image, tourism quality, perceived value, satisfaction and loyalty. Tourism quality, perceived value and satisfaction are all important antecedents of loyalty, and they all have a significant positive impact on tourist loyalty. The influence of destination image on tourist loyalty is not significant.

Third, the indirect effect of tourism quality and perceived value of tourist loyalty through the mediating effect of tourist satisfaction is significant, and tourist satisfaction plays a part of the mediating role; the indirect effect of destination image on tourist satisfaction through the mediating effect of tourism quality is also significant. Tourism quality plays a part of intermediary role. However, the indirect effect of destination image on tourist loyalty is significant, while the direct effect is not significant. Perceived value has a completely mediating effect.

5.2   Management Enlightenment

First, the tourist destination government should actively promote the image of local tourism. It can start from the four aspects of Attractions, Facilities, Barriers and Atlas to enhance the image of tourist destinations. Attractions are basic and difficult to change, but improving Facilities, reducing barriers and enhancing Atmosphere are easier to implement.

Second, improve the quality of tourism, including the quality of tourism resources, the quality of tourism reception and the quality of tourism activities. Do more marketing and publicity, so that tourists can truly feel the improvement of tourism quality in tourist destinations, and make tourists look forward to it and generate motivation to travel.

Third, the government of tourist destinations should pay attention to improving the perceived value and satisfaction level of tourists, so as to achieve the purpose of enhancing tourists' loyalty. Maintain the accessibility of transportation and the availability of tourist information, build supporting facilities, so that tourists are worry-free throughout the journey, and make the tourists leave an unforgettable travel experience.

5.3   Research Limitations and Prospects

Due to the impact of the new crown epidemic at the beginning of the year, the questionnaires came from the Internet and the number was not very large. There was no field investigation to obtain first-hand information. This is the main limitation of this paper. In addition to the destination image, tourism quality, perceived value, and satisfaction affecting tourist loyalty, whether there are other factors that affect tourist loyalty, such as tourism motivation and expectations, is worthy of further discussion in the future.

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