Opinion Article

The Word of Mouth of the Park under the New Quality Productivity: An Empirical Study of Quanhu Park at Guiyang City, China

Abstract

In the era of new quality productivity, innovative thinking and methods are needed to produce high-quality results. The tourism development of Guizhou presents a homogenization phenomenon, and it is urgent to introduce the concept of new quality productivity. The purpose of this paper is to explore the status of destination image, destination awareness, visitor satisfaction and words of mouth perceived by tour. In this study, Quanhu Park in Guiyang City was adopted as the research base, and 210 valid sample were obtained through questionnaire survey. It is found that the destination image perceived by tourists can be subdivided into two categories: cultural and entertainment image, and leisure and service image. Secondly, the relationship between the variables showed significant positive correlation; Tourist perception of destination image, destination awareness and visitor satisfaction can effectively predict word-of-mouth and are important antecedents of word-of-mouth. Therefore, the study suggests that destination managers should pay more attentions to the image of cultural and entertainment and optimize the image of leisure and services in the era of new quality productivity.

Key words: new quality productivity; destination image; destination awareness; word-of-mouth; health and wellness tourism

I. Introduction

As early as 1999, scholars have proposed the concept of new quality productivities(NQP), which mainly describes the economic fluctuations of productivity in developing countries under the unbalanced economic structure (Chen, 1999). Since then, some scholars have introduced this concept to explore the development process, transformation and manifestation of the new quality productivity (Li, 2000; Gao, 2002; Zhang g, 2003; Zhou & Li, 2006; Wang, 2013). After the General Secretary's investigation in 2023, the new quality productivity really received attention, and it was published in large numbers in the first quarter of 2024, forming a research trend (Li & Chen, 2024).

New quality productivity can be understood as the application of innovative concepts, thinking, methods, technologies or materials to a specific field with high efficiency, and produce high-quality results that meet the development needs of The Times (Yen, 2024; Yen, Guo, Shi, He, Tian, & Xiong, 2024). In this context, if rural destinations can use new thinking and new methods to develop tourism, and achieve high-quality results that meet the needs of the Times, it is also in line with the General Secretary's concept of new quality productivity.

At present, Guizhou province is making every effort to promote the industrialization of tourism, relying on rich tourism resources such as natural landscape, climate ecology, ethnic culture, history and culture, and exploring and promoting the integrated development of "tourism plus multi-industry" (Yen et al., 2024). How to balance rural ecology and economic development, economic development and tourism development has become the focus of local government and academic research.

However, the development of tourism in Guizhou presents a homogenization phenomenon (Guizhou Provincial Department of Culture and Tourism,2021; Yen et al., 2024). How to develop beyond the traditional tourism model (Wu,2024) has become a very important research topic under the background of new quality productivity. The development of health and wellness destination tourism can not only surpass the traditional tourism model, but also contribute to economic development, highlighting the importance and urgency of this study.

For example, Quanhu Park at Guiyang city itself is a 4A scenic spot, invested hundreds of millions of funds to build, and even the subway station. The current situation is that tourists are scarce and facilities resources are idle. There is an urgent need to build a positive health and wellness destination image and enhance awareness to obtain word-of-mouth. Accordingly, how tourists perceive the destination image, destination awareness, satisfaction and word-of-mouth of this public health and wellness park is one of the issues that the team is concerned about. How to enhance the word-of-mouth through destination awareness and satisfaction is the second issue to this study.

In summary, the purpose of this study is to explore the status quo of destination image, destination awareness, satisfaction and word-of-mouth perceived by visitors in Quanhu Park, Guiyang City; to analyze the correlation and causality between variables; and to propose suggestions for destination managers.

2. Theoretical basis and hypothesis

(1) The concept of word of mouth

Customers' behaviors and preferences are sometimes influenced by information disseminated by tourism practitioners and other tourists (Ronga, Vua, Lawb, & Lia, 2012). Among them, the latter is called word-of-mouth. It is defined as informal communication between the sender and the receiver of information about shared products and services (Liao et al., 2010). In the field of marketing, word of mouth has been regarded as an efficient and effective part of marketing strategy (Stokes & Lomax, 2002), so it is also called word of mouth marketing (Bughin et al., 2010; Han et al., 2017a; Phelps et al., 2004).

Word of mouth is the result of product evaluation (Anderson, 1998; Babin et al., 2005; Hwang & Han, 2017). Therefore, when customers are not satisfied with the results of products or services, they will release negative word-of-mouth communication intentions. Conversely, if customers are satisfied with a product or service, they are more likely to say positive things about the product to others (Hwang & Lyu, 2018). More importantly, word of mouth has a greater impact than commercial advertising because customers voluntarily spread positive aspects of the business to third parties (such as family, relatives, colleagues, and friends)(Chevalier & Mayzlin, 2006; Ryu & Lee, 2017).

For health and wellness destination managers, word of mouth can be defined as the information about the positive evaluation of the destination transmitted by non-commercial organizations such as tourists or residents. When the health destination is not well known, more citizens need to spread more positive information.

(2) The concept of destination image

The concept of destination image comes from brand image. The concept of brand image is associated with the perception of the brand as an association that exists in the consumer's memory (Graciola, De Toni, Milan, & Eberle, 2020). The emphasis on brand image is determined by its unique brand characteristics (Mariano, Silva, Melloc, & Santos, 2022). For the destination, the destination image is the attribute that distinguishes it from other places, and it is the combination of various attributes, perceptions and emotions (Rodrigues, Madeira, & Palrao, 2024). Destination image can be evaluated from the perspective of tourists' views on natural landscape, personnel service, cultural atmosphere and shopping and entertainment atmosphere of the destination (Yen, Sun, & Yang, 2022). When an individual has a good impression of a destination, the meaning represented is the result of the individual's overall evaluation of various environments, facilities, services and atmosphere of the destination (Yen, 2020). If it is a health and wellness tourism destination, it can be defined as tourists' perception evaluation of the natural landscape, personnel service, cultural atmosphere and shopping and entertainment atmosphere of the health and wellness tourism destination (Yen et al., 2022).

Generally speaking, when tourists perceive the destination image better, it will affect their perceived destination awareness (Graciola et al., 2020), satisfaction and reputation (Yen 2019). Literature points out that the better the brand image, the better the brand awareness (Gesmundo et al., 2022), the higher the customer satisfaction (Yen, 2019), and the better the word of mouth (Huang, 2022). For the health and wellness tourism destination, the better the tourists perceive the environment, facilities, services and atmosphere of the destination, the more they can distinguish it from other places; May result in better tourist satisfaction and word of mouth. Accordingly, the following hypotheses are proposed in this study:

**Hypothesis 1: Tourists' perception of destination image has a significant positive impact on destination awareness.**

**Hypothesis 2: Tourists' perceived destination image has a significant positive impact on tourists' satisfaction.**

**Hypothesis 3: Tourists' perception of the destination image significantly positively affects word-of-mouth.**

(3) The concept of destination visibility

A destination is like a brand, and its visibility is destination visibility. Brand awareness refers to wh0ether customers are quick to recall or acknowledge a brand, or simply whether customers are aware of a brand (Bonus, Raghani, Visitacion, and Castano, 2022; Dewindaru, Syukri, Maryono, & Yunus, 2022). Therefore, brand awareness precedes the establishment of brand equity (Dewindaru et al., 2022). The source of brand awareness is mainly based on consumers' existing experience, and brand is more important than other experiences in determining consumers' overall satisfaction (Horng, Liu, Chou, & Tsai, 2012). If this result is applied to the wellness tourism industry, it shows that tourists' satisfaction requires strong brand cognition of the destination of wellness and Israel, as well as tourists' cognition, preference, behavior and brand choice of venues, facilities and services in the context of wellness tourism.

Brand awareness is an important prerequisite for customer value (Kim & Kim, 2005), and it helps to improve the service performance of enterprises (Horng, Liu, Chou, & Tsai, 2012). The anthems of customer value are also transformed into a positive correlation between tourists' perceived value of the destination brand and their future behavioral intention (i.e., travel) (Boo et al., 2009). If this concept is applied to health and wellness tourism, the higher the perceived brand awareness of the destination, the higher their satisfaction with the venue, facilities and services of the destination, and the higher the possibility of providing a positive evaluation of the health and wellness destination. Accordingly, the following hypotheses are proposed in this study:

**Hypothesis 4: Tourist perception of destination popularity significantly positively influences tourist satisfaction.**

**Hypothesis 5: Tourist perception of destination visibility significantly positively influences word-of-mouth.**

(4) The concept of tourist satisfaction

Tourist satisfaction belongs to affective factors (or emotional factors), which may be influenced by cognitive factors or other affective factors (Fan et al., 2024). Researchers often use satisfaction as a strong indicator of behavioral factors such as repeat purchase intent, word-of-mouth, and loyalty (Ravald & Gronroos, 1996; Kittiporn and Wang, 2024). Tourists' satisfaction with the destination will increase their willingness to give the destination positive evaluation, recommendation and re-visit (Yen, 2018; Yen, 2019; Kittiporn & Wang, 2024; Qiu, Li, Pan, Wu, & Guo, 2024). This means that the higher perceived satisfaction of visitors to wellness destinations may increase the likelihood that they will give the destination a positive rating. Accordingly, hypothesis six is proposed in this study:

**Hypothesis 6: Tourists' perceived satisfaction significantly positively affects the reputation of their wellness destination.**

2. Research methods

(1) Research framework and hypothesis

In order to achieve the research purpose, the research framework of this paper is shown in Figure 1, which includes research dimensions such as destination image, destination popularity, tourist satisfaction and reputation. In terms of research hypothesis, based on relevant studies on destination image and destination visibility (Yen, 2020), this study proposed hypothesis 1 (Tourists' perception of wellness destination image significantly positively affects their wellness destination visibility). According to relevant studies on destination image and tourist satisfaction (Yen, 2019; Fan, Wong, Zhang, Lin, & Wu, 2024), proposed hypothesis 2 (Tourists' perception of the health destination image significantly positively affects tourists' satisfaction). According to relevant studies on destination image and reputation (Mansoor, Paul, Kha, Abukhait, & Hussain, 2025; Yen, Han, & Yuan, 2023), originally proposed hypothesis 3 (Tourists' perception of the image of a health destination significantly positively affects its reputation); According to relevant studies on tourist satisfaction and destination popularity (Yen, 2018; Yen,2019; Kittiporn & Wang, 2024; Qiu, Li, Pan, Wu, & Guo, 2024), this study proposed hypothesis 4 (Tourists' perceived awareness of wellness destinations significantly positively affects their tourists' satisfaction). According to relevant researches on destination popularity and reputation (Yen, 2018; Yen, 2019), Hypothesis 5 was proposed in this study (tourists' perception of the popularity of the wellness destination significantly positively affects the reputation of their wellness destination); According to relevant studies such as tourist satisfaction and word-of-mouth (Yen, 2019; Fan, Wong, Zhang, Lin, & Wu, 2024), originally proposed hypothesis 6 (Tourists' perceived satisfaction with tourists significantly positively affects their word-of mouth).

H3

DI

H2

H6

H1

SAT

WOM

H4

H5

DA

DI: Destination image; DA: Destination awareness; SAT: Visitor satisfaction; WOM: Word of mouth

Figure 1 Research framework

(2) Variable definition and measurement

In terms of the definition of the research dimension, refer to the destination impression theory (Yen, 2019: Yen, 2018; Kittiporn and Wang, 2024; Qiu et al., 2024), in this study, destination image is defined as "tourists' image evaluation of natural landscape, cultural atmosphere, leisure atmosphere, entertainment atmosphere and tourism service of health tourism in Quanhu Park". At the same time, refer to destination popularity literature (Yen, 2019: Yen, 2018; Kittiporn and Wang, 2024; Qiu et al., 2024), in this study, the awareness of health destination was defined as "tourists' assessment of the site, facilities, activities and awareness of Quanhu Park". Refer to existing studies (Yen, 2019; Fan, Wong, Zhang, Lin, & Wu, 2024), defined tourist satisfaction as "the overall evaluation of tourists' expectations and actual experience of health tourism in Quanhu Park; refer to existing research (Yen, 2018; Yen, 2019) defined word of mouth as "the assessment of tourists' positive evaluation tendency towards health tourism in Quanhu Park".

In terms of measuring the development of questions, refer to relevant literature (Yen, 2019: Yen, 2018; Kittiporn & Wang, 2024; Qiu et al., 2024) researched and proposed questions, including 15 destination image questions, 7 destination popularity questions, 3 tourist satisfaction questions and 2 word of mouth questions. Using a 5-point Likert scale, 5 means strongly agree, 1 means strongly disagree, and the higher the score, the higher the agreement. In addition, in terms of demographic variables, questions such as gender, age, education level, average monthly income and occupation are designed to understand the basic background of consumers. After the measurement tool was developed, the questionnaire was sent to the tourism experts and the industry to confirm the description of the question and the difficulty of the tourists in answering it, and to ask for their suggestions for correction. Secondly, the study also asked local scholars to revise the wording of the words, confirm the expression of the meaning, and make appropriate corrections. Through the above steps, complete the research scale.

(3) Questionnaire survey

Based on the nature of the topic, this study adopts the questionnaire survey method and takes the tourists' voluntary participation as the principle. Through sampling, tourists are selected to participate in the questionnaire survey in Quanhu Park, Guizhou Province. In terms of the number of samples, it is generally recommended that the number of samples for the initial test should be greater than the number of questions, and it is best to issue 3-5 times the number of questions. 50 copies of the initial test are issued, and 50 copies of effective questionnaires are issued. During the formal investigation, the number of questions in this study (27 in total) and subsequent analysis were taken into account, and the total number of samples in this study was 220. In terms of sampling method, considering the feasibility of the study and follow-up analysis, the quota sampling method was adopted in this study. According to the characteristics of field observation and related research samples, gender and age were used as quota basis for sampling to obtain the required samples for analysis.

In terms of investigation methods, this study mainly conducted a questionnaire survey through interviewers taking a face-to-face approach and issuing answers on the spot. A total of 210 valid questionnaires were obtained. In order to ensure the quality of the survey, before the formal investigation, the researchers first conducted training for interviewers, so that the interviewers were familiar with the purpose, content and methods of the questionnaire survey, and skilled in various ways to cope with the problems, so as to ensure the safe and smooth conduct of the questionnaire survey and obtain high-quality data. In addition, in addition to organizing a photo recording team, the researchers also participated in the scene, taking photos and obtaining evidence to ensure that the questionnaire was answered by tourists. The initial test took place in November 2024, and the formal investigation period was from December 2024 to February 2025. 220 copies were issued, 210 were recovered, and 210 were valid questionnaires, with an effective questionnaire rate of about 95%.

In terms of sample characteristics (see Table 1), 36.7% were male and 63.3% were female. In terms of age, 29%(61 times) were 18-20 years old, 12.4%(26 times) were 20-30 years old, 19.5%(41 times) were 31-40 years old, 16.2%(34 times) were 41-50 years old, 17.6%(37 times) were 51-60 years old, and 5.2%(11 times) were over 60 years old. In terms of education, 18.1%(38 times) were in junior high school or below, 20.0%(42 times) in senior high school, 21.0%(44 times) in junior high school, and 41.0%(86 times) in bachelor's degree or above. In terms of occupation distribution, military, police and public education accounted for 2.4 percent (5 times), manufacturing 2.1 percent (4 times), business services 14.8 percent (31 times), agriculture 11.0 percent (23 times), students 24.8 percent (52 times), and free work 40.0 percent (84 times). Monthly income (RMB) below 3,000 yuan was 37.1%(78 times), 3001-6,000 yuan was 41.4%(87 times), 6001-8,000 yuan was 5.8%(11 times), and more than 8001 yuan was 2.9%(6 times). In terms of ethnic groups, ethnic minorities accounted for 42.4%(89 times) and Han accounted for 57.6%(121 times).

**Table 1 Sample characteristics**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Items | Freq. | % | Items | Freq. | % |
| Gender | Occupation |
| F | 133 | 63.3 | Military & police | 5 | 2.4 |
| M | 77 | 36.7 | Agriculture | 23 | 11.0 |
| Age(years old) | Manufacture | 4 | 2.1 |
| 18~20 | 61 | 29.0 | Business/Services | 31 | 14.8 |
| 21~30 | 26 | 12.4 | Student | 52 | 24.8 |
| 31~40 | 41 | 19.5 | other | 84 | 40.0 |
| 41~50 | 34 | 16.2 | Monthly income(RMB) |
| 51~60 | 37 | 17.6 | <3000 | 78 | 37.1 |
| 60 or above | 11 | 5.2 | 3001~6000 | 87 | 41.4 |
| Educational level | 6001~8000 | 11 | 5.8 |
| Primary | 38 | 18.1 | >8001 | 6 | 2.9 |
| High | 42 | 20.0 | Nationality |
| College | 44 | 21.0 | Minority  | 89 | 42.4 |
| Bachelor | 86 | 41.0 | Han  | 121 | 57.6 |

3. Empirical results

In terms of data processing, statistical software SPSS 22 was used to conduct empirical analysis of sample data in statistical description, validity analysis, reliability analysis, and discrimination, and the analysis results are as follows.

(1)Differential analysis

In this study, the total score of each question was added, and the top 27% and the bottom 27% were divided into high group and low group, respectively. Independent sample t identification was used to detect the identification of different subjects on the measurement questions of various variables. The test results show that the T-values of 20 question items are all significant level, and the measurement items developed in this study have discriminability for different subjects.

(2) Sample description statistics, validity and reliability

In terms of descriptive statistics (see Table 2), the average value ranges from 3.55 to 4.14, which belongs to the general to agreement degree, and the standard deviation ranges from 0.812 to 1.173. The higher the average agreement degree is that the health tourism area of Quanhu Park is safe and reliable (4.14), while the lower one is that the health tourism area of Quanhu Park is a good place to buy local products (3.55). In addition, the kurtosis coefficient is less than 3 and the skewness coefficient is less than 10, indicating that the data used in this study does not violate the normal distribution and can be analyzed later.

(3) Validity and reliability

In the validity analysis, this research scale reference research, has a theoretical basis; It has also been reviewed by experts and related researchers and has expert validity. Secondly, this study adopts the maximum variation method, through the principal component analysis, covers the process of factor analysis, and uses the spherical test to do the factor analysis. Whether the Communalities of questions are greater than 0.5 tests the degree of intersection of questions; The maximum variation method was used to extract the factors with eigenvalues greater than 1. In addition, the process of factor load after axis rotation is greater than 0.7, etc., to test the construct validity of the study variables.

The analysis results show that Bartletts' sphericity test of the four variables is significant, that is, it is suitable for factor analysis. In terms of the validity of the image of the health destination, after deleting questions 4, 5 and 6 (the factor load after rotating the axis is greater than 0.5 across groups), each question is only attributed to one factor, and the factor load meets the theoretical requirement of 0.7 or close to 0.7. Two factors were extracted from the analysis results of health destination image factors and named as cultural entertainment image and leisure service image respectively according to their eigenvalues, and the overall explanatory variation reached 73.4%. Therefore, the health destination image scale has good construction validity. The reliability coefficients of cultural entertainment image and leisure service image are 0.941 and 0.910 respectively, both greater than 0.7, belonging to the high reliability range, and the scale has good internal consistency (see Table 3).

**Table 2 Descriptive statistics**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Dimension | Item | Mean | Standard deviation | Skew | Kurtosis |
| DI | di1 | 4.11 | .878 | -.910 | .874 |
| di2 | 4.06 | .944 | -.779 | .160 |
| di3 | 4.10 | .838 | -.879 | .934 |
| di4 | 3.83 | .997 | -.614 | -.142 |
| di5 | 4.06 | 1.017 | -.951 | .267 |
| di6 | 4.01 | .938 | -.651 | -.323 |
| di7 | 3.85 | .941 | -.490 | -.153 |
| di8 | 3.88 | .907 | -.305 | -.646 |
| di9 | 4.14 | .812 | -.864 | 1.036 |
| di10 | 3.82 | 1.077 | -.524 | -.629 |
| di11 | 3.85 | 1.055 | -.665 | -.355 |
| di12 | 3.79 | 1.100 | -.665 | -.319 |
| di13 | 3.57 | 1.173 | -.443 | -.636 |
| di14 | 3.72 | .999 | -.343 | -.679 |
| di15 | 3.55 | 1.170 | -.559 | -.442 |
| DA | ba1 | 4.07 | .948 | -.823 | .225 |
| ba2 | 3.82 | 1.018 | -.575 | -.299 |
| ba3 | 3.80 | .990 | -.554 | -.306 |
| ba4 | 3.70 | 1.063 | -.365 | -.710 |
| ba5 | 3.85 | 1.029 | -.622 | -.397 |
| ba6 | 3.69 | 1.078 | -.444 | -.539 |
| ba7 | 3.70 | 1.032 | -.469 | -.392 |
| SAT | sa1 | 3.93 | .933 | -.785 | .516 |
| sa2 | 3.70 | 1.032 | -.495 | -.372 |
| sa3 | 3.86 | .956 | -.781 | .488 |
| WOM | wo1 | 4.06 | .979 | -1.021 | .914 |
| wo2 | 3.96 | .985 | -.825 | .503 |

**Table 3 Validity and reliability analysis of destination image (n=210)**

|  |  |  |
| --- | --- | --- |
| Item | Culture & entertainment image  | Leisure & service image |
| di10. It has national and cultural attraction. | **0.791** | 0.291 |
| di11. It has national culture experience activities. | **0.856** | 0.275 |
| di12.There are different lifestyles. | **0.838** | 0.321 |
| di13. It has a great nightlife. | **0.761** | 0.399 |
| di14. It has many delicacies. | **0.790** | 0.374 |
| di15. It is a good place to buy local produce. | **0.864** | 0.302 |
| di1. A good place to rest. | 0.223 | **0.789** |
| di2. A good place to relax. | 0.268 | **0.786** |
| di3. A quiet place. | 0.299 | **0.829** |
| di7. The service staff is helpful. | 0.403 | **0.697** |
| di8. The service staff is honest and trustworthy. | 0.398 | **0.725** |
| di9. Safe and reliable in the area. | 0.325 | **0.780** |
| Eigenvalue | 4.648 | 4.201 |
| Cumulative % | 38.73 | 73.74 |
| Cronbach’s Alpha | 0.941 | 0.910 |

Secondly, in terms of the validity of destination popularity, tourist satisfaction and word of mouth, each scale extracts a factor, which is also named destination popularity, tourist satisfaction and word of mouth in order. After rotating the axis, the factor load of all questions is greater than 0.7 except for one question, and the variation extraction is 74.28% destination awareness, 85.28% tourist satisfaction and 86.63% word of mouth, respectively, indicating that the scale of tourist satisfaction, destination awareness and word of mouth used in this study has a good amount of construction validity. Finally, the reliability coefficients of destination visibility, tourist satisfaction and word of mouth are 0.663941, 0.912 and 0.846 respectively, all greater than 0.7, belonging to a high reliability range, and the scale has good internal consistency (see Table 4).

**Table 4 Validity and reliability of DA, SAT and WOM (n=189)**

|  |  |  |
| --- | --- | --- |
| Measure item | factor loading | Cronbach’s Alpha |
| **Destination awareness (eigenvalue = 5.20; Cumulative %= 74.28%)** |  | **0.941** |
| ba1. I've heard of Quanhu Park. | 0.659 |  |
| ba2. When I want to go on a wellness trip, I think of Quanhu Park. | 0.884 |  |
| ba3. Quanhu Park is a good place for health tourism. | 0.891 |  |
| ba4. I know what kind of wellness experiences are available in Quanhu Park. | 0.891 |  |
| ba5. Quanhu Park offers a good place for recuperation. | 0.888 |  |
| ba6. Quanhu Park offers good health facilities. | 0.899 |  |
| ba7. Quanhu Park offers excellent wellness services. | 0.893 |  |
| **Visitor satisfaction (Eigenvalue = 2.56; Cumulative %=85.282%)** |  | **0.912** |
| sa1. Overall, the Quanhu Park wellness tour was better than expected. | 0.927 |  |
| sa2. Quanhu Park health tourism environment is better than other places. | 0.900 |  |
| sa3. The view of Quanhu Park health tourism is better than expected. | 0.943 |  |
| **Word of mouth (Eigenvalue =1.73; Cumulative %= 86.63%)** |  | **0.846** |
| wo1. I will tell others about the advantages of health tourism in Quanhu Park. | 0.931 |  |
| wo2. I would recommend others to Quanhu Park for a health tour. | 0.931 |  |

(4) Correlation analysis

After the validity and reliability analysis, this study then analyzes the correlation between variables, and the analysis results are shown in Table 5. According to Table 5, culture and entertainment image is significantly positively correlated with leisure service image, destination awareness, tourist satisfaction and word of mouth, with correlation coefficients of 0.698, 0.828, 0.817 and 0.499, respectively. Secondly, leisure service image presents a significant positive correlation with destination awareness, tourist satisfaction and word of mouth, and the correlation coefficients are 0.711, 0.708 and 0.755, respectively. Furthermore, destination awareness is positively correlated with tourist satisfaction and word of mouth, and the correlation coefficients are 0.857 and 0.633, respectively. Finally, there is a significant positive correlation between tourist satisfaction and word-of-mouth, and the correlation coefficient is 0.674. The analysis results show that all the variables used in this study are positively correlated, that is, the higher the score of tourists' perceived cultural and entertainment image, the higher the score of variables such as leisure service image, destination visibility, tourists' satisfaction and word-of-mouth. The higher the score of tourists' perceived leisure service image, the higher the score of variables such as destination awareness, tourists' satisfaction and word of mouth. The higher the destination awareness score of tourists, the higher the scores of variables such as tourist satisfaction and word of mouth; When the visitor's satisfaction score is higher, the word of mouth score is higher. Therefore, this study confirmed that there was a significant positive association between the study variables, so the regression analysis could be continued.

**Table 5 Results of Correlation (n=210)**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Items | M | SD | 1 | 2 | 3 | 4 | 5 |
| 1.CI | 22.30 | 5.79 | 1 |  |  |  |  |
| 2.SI | 24.15 | 4.42 | 0.698\*\* | 1 |  |  |  |
| 3.BA | 26.63 | 6.16 | 0.828\*\* | 0.711\*\* | 1 |  |  |
| 4.SA | 11.49 | 2.70 | 0.817\*\* | 0.708\*\* | 0.857\*\* | 1 |  |
| 5.WO | 8.02 | 1.83 | 0.499\*\* | 0.755\*\* | 0.633\*\* | 0.674\*\* | 1 |

\*\*p<0.01; CI: cultural and entertainment image; SI: leisure and service image; BA: brand awareness; SA: visitors’ satisfaction; WO: words of mouth

(5) Regression analysis

The purpose of this study was to clarify the causal relationship between variables and establish five hypotheses based on the literature. Secondly, based on the result of factor analysis, the image of scenic spots is divided into cultural entertainment image and leisure service image. The assumptions of this study are adjusted as follows:

Hypothesis 1a: Tourists' perception of cultural entertainment image significantly positively affects their perception of destination popularity.

Hypothesis 1b: Tourists' perception of leisure service image significantly positively affects their perception of destination visibility.

Hypothesis 2a: The cultural and entertainment image perceived by tourists has a significant positive impact on their perceived satisfaction.

Hypothesis 2b: Tourists' perception of leisure and service image has a significant positive impact on their perceived satisfaction.

Hypothesis 3a: Tourists' perception of cultural and entertainment image significantly positively affects their perception of word-of-mouth.

Hypothesis 3b: Tourists' perception of leisure and service image significantly positively affects their perception of word-of-mouth.

Hypothesis 4: Tourists' perception of destination awareness has a significant positive impact on their perception of tourist satisfaction.

Hypothesis 5: Tourists' destination awareness significantly positively influences their word-of-mouth perception.

Hypothesis 6: Tourists' perceived satisfaction significantly positively affects their perception of word-of-mouth.

Furthermore, there are three dependent variables in this research framework (destination awareness, tourist satisfaction, and word of mouth), so there are three regression equations in this study:

Model 1: Destination awareness =a1+b11 cultural and entertainment image +b12 leisure and service image +e1 (Formula 1)

Model 2: Tourist satisfaction =a2+b21 cultural and entertainment image +b22 leisure and service image +e2 (Formula 2)

Model 3: Word of mouth =a3+b31 cultural and entertainment image +b32 leisure and service image +b33 destination awareness +b34 satisfaction +e3 (Formula 3)

Where, a1, a2 and a3 are constant terms, b11, b12, b21, b22, b31, b32, b33 and b34 are regression coefficients, and e1, e2 and e3 are error terms. Based on the correlation analysis results in the previous section, this study then uses multiple regression to test the hypothesis, and the analysis results are shown in Table 6.

According to Table 6, the model fit (F-value) of model 1 is 266(p<0.001), indicating that the regression relationship between independent variables and dependent variables is well fit. Secondly, VIF (coefficient of self-expansion of variance) is less than 10, and the collinearity of independent variable and dependent variable is not serious. The results show that both cultural entertainment image and leisure service image have significant positive influence on destination visibility, with influence coefficients of 0.647 and 0.259. Finally, the independent variable can effectively predict 72% variation by variable. Accordingly, H1a and H1b are supported.

Table 6 Regression analysis (n=210)

|  |  |  |  |
| --- | --- | --- | --- |
| Independent variable |  DA(M1) | SAT (M2) | WOM(M3) |
| β | t | β | t | β | t |
| CI | 0.647\*\*\* | 12.607 | 0.295\*\*\* | 4.869 | -0.451\*\*\* | -5.681 |
| LI | 0.259\*\*\* | 5.045 | 0.134\*\* | 2.773 | 0.628\*\*\* | 10.283 |
| DA |  |  | 0.518\*\*\* | 8.381 | 0.178\*\* | 2.011 |
| SAT |  |  |  |  | 0.446\*\*\* | 5.154 |
| Compatibility (F-number) | 266(p=.000) | 243(p=.000) | 100(p=.000) |
| VIF | 1.948 | 2.18~3.57 | 2.26~4.78 |
| R2 | 0.720 | 0.780 | 0.663 |

CI: Cultural & entertainment image; LI: Leisure & service image; DA: Destination awareness; SAT: Visitor satisfaction; WOM: Word of mouth; \*p<0.05; \*\*p<0.01; \*\*\*p<0.001

In model 2, the model fit (F-value) was 243(p<0.001), indicating that the regression relationship between the independent variable and the dependent variable was well fit. Secondly, VIF (coefficient of self-expansion of variance) is less than 10, and the collinearity of independent variable and dependent variable is not serious. The analysis results show that the cultural entertainment image, leisure service image and destination popularity have a significant positive impact on tourist satisfaction, with the influence coefficients of 0.295, 0.134 and 0.518. Finally, independent variables such as cultural entertainment image, leisure service image and destination popularity can effectively predict 78% variation of the dependent variable (tourist satisfaction). Accordingly, H2a and H2b and H4 are supported.

In model 3, the model fit (F-value) is 100(p<0.001), indicating that the regression relationship between the independent variable and the dependent variable is well fit; Secondly, VIF (coefficient of self-expansion of variance) is less than 10, and the collinearity of independent variable and dependent variable is not serious. The analysis results show that cultural and entertainment image, leisure service image, destination awareness and tourist satisfaction all have significant positive influence on word-of-mouth, and the influence coefficients are -0.451, 0.628, 0178 and 0.446. Finally, cultural and entertainment image, leisure service image, destination popularity and tourist satisfaction can effectively predict 66.3% variation of the variable (word-of-mouth). As a result, H3a, H3b, H5, and H6 are supported. The word-of-mouth prediction path of the overall tourists is shown in Figure 2.

**DI**

**CI**

**LI**

**-0.451\*\*\***

**0.628\*\*\***

**0.295\*\*\***

**0.134\*\***

**SAT**

***R2=0.78***

**WOM**

***R2=0.663***

**0.647\*\*\***

**0.259\*\*\***

0.446\*\*\*

0.518\*\*\*

0.178\*\*

**DA**

***R2=0.72***

DI: Destination image; CI: Cultural & entertainment image; LI: Leisure& service image; DA: Destination awareness; SAT: Visitor satisfaction; WOM: Word of mouth; \*\*p<0.01, \*\*\*p<0.001

Figure 2. Prediction path of visitors' word of mouth

5. Conclusions and Recommendations

(1) Conclusion

The main purpose of this paper is to explore how tourists perceive the destination image and how it affects their reputation. Through the above analysis, the following conclusions can be obtained:

* The average agreement degree of tourists' perception of health destination image, destination popularity, tourist satisfaction and word of mouth in Quanhu Park of Guiyang City ranged from 3.55 to 4.14, and the standard deviation ranged from 0.812 to 1.173. The respondents agreed with the overall health destination image, destination popularity, tourist satisfaction and word of mouth, with little difference in opinion.
* The health destination image perceived by tourists of Quanhu Park in Guiyang can be subdivided into two categories: cultural entertainment image and leisure service image;
* There is a significant positive correlation among tourists' perceived health destination image, destination popularity, tourist satisfaction and word-of-mouth in Quanhu Park of Guiyang City;
* In terms of variable causality, cultural entertainment image, leisure service image and destination visibility all have a significant positive impact on tourist satisfaction; cultural entertainment image and leisure service image all have a significant positive impact on destination visibility; cultural entertainment image, leisure service image, destination visibility and tourist satisfaction all have a significant positive impact on word-of-mouth.

(2) Suggestions

* First of all, the influence of destination image on destination popularity is that the coefficient of cultural and entertainment image is greater than that of leisure service image. This shows that the cultural entertainment image is superior to the leisure service image in the ranking of respondents' needs. Destination managers should attach importance to shaping the image of culture and entertainment, and invest more resources to cast the connotation and essence of culture and entertainment activities.
* Secondly, in the relationship between destination image and tourist satisfaction, the coefficient of cultural entertainment image is higher than that of leisure service image. This shows that the satisfaction ranking of the respondents, cultural entertainment image is superior to leisure service image. The satisfaction of leisure service image is relatively low, which is the part that needs to be optimized in the future.
* Third, in the relationship between destination image and word of mouth, cultural and entertainment image has a positive impact on destination awareness and satisfaction, but a negative impact on word of mouth. This shows that the cultural and entertainment image will make the respondents know Quanhu Park and be satisfied with its environmental landscape, but the respondents will not have a positive evaluation. The possible reason is the lack of existing cultural activities, which is difficult for respondents to evaluate; Secondly, there are not many recreational activities available, and respondents can't find anything better than nearby parks. The real reason remains to be clarified by further research.
* Fourthly, the image of a destination will directly affect the word of mouth, and it will also affect the word of mouth through the popularity of the destination and the satisfaction of tourists. Destination managers should think carefully about how to shape the healthy destination. Based on the current situation of Quanhu Park, the subway station is convenient to travel. However, destination managers should pay attention to and think about whether there are few on-site health and wellness activities, too many vendors and high commercialization are conducive to tourists engaging in health and wellness activities and enhancing their image and popularity.
* Finally, on the road to high-quality development, new quality productivity emphasizes innovation, high quality and producing results that meet the needs of The Times. Guiyang, as the best district in Guizhou, should also consider innovative projects that can bring high quality results in terms of cultural and recreational activities and leisure services. For example, primary and secondary school students study health care projects, quality development projects.

Disclaimer (Artificial intelligence)

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Author(s) hereby declare that NO generative AI technologies such as Large Language Models (ChatGPT, COPILOT, etc.) and text-to-image generators have been used during the writing or editing of this manuscript.

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Details of the AI usage are given below:

1.

2.

3.

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