



Research on Service Quality Improvement of Tianmu Lake Scenic Spot Based on SERVQUAL Model

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ABSTRACT

As the basic and core factor of tourism development, tourist attractions occupy an incalculable position in tourism, and the service quality of tourist attractions has gradually become a key factor affecting their own competitiveness. In this paper, based on SERVQUAL model, we study Tianmu Lake in Changzhou, so that each scenic spot can pay more attention to the quality of service and can formulate an improved research program. In this paper, the reliability analysis and validity analysis of literature collection method, questionnaire survey method and data analysis method are used to test the feasibility of the new scale, and the paired t-test is performed on the questionnaire results, so as to find out the gap in the service quality of scenic spots, and the strategies to improve the service quality of scenic spots are proposed for five dimensions to improve the management level of scenic spots.

Keywords: *Tourist attractions; SERVQUAL model; Service quality; Tian mu Lake*

1. INTRODUCTION

With the gradual formation and optimization of domestic tourism industry chain, some tourism resources are overdeveloped, and the service quality of scenic spots has gradually received more attention from tourists. The service quality of scenic spots can be understood as perceived service and expected service. However, in recent years, many scenic spots have a serious gap between service perception and expectation, which will continuously affect the satisfaction of tourists and have a huge impact on the competitiveness of scenic spots. Therefore, it is very worth paying attention to promoting the balance between resource utilization and service quality in scenic spots [2].

The SERVQUAL model was first proposed by Parasuraman, Zeithaml, Berry (1985) (PZB) [5], and its application in tourism began in 1991 by Gavin R. Fick (1991) [1], which mainly discusses the application and influence of SERVQUAL scale in the four main departments of tourism, as well as the limitations and existing problems of this scale. Since then, SERVQUAL model has been more widely used in tourism, for example, Liu Tao (2011) [7] used SEVQUAL to combine the service content and characteristics of rural tourism to provide a basic analytical framework for improving the quality of rural tourism services. Li Xuekai (2016) [6]

constructed the travel agency service quality scale based on the competitive analysis of travel agency service technical elements and industry. However, so far, only 39 articles have been retrieved with the keywords of "SERVQUAL model" + "scenic spot", so in the previous research, SERVQUAL is still rarely used in scenic spots. In this regard, the theoretical basis for the quantitative analysis of the quality of service in tourist attractions still has obvious shortcomings.

2. EMPIRICAL STUDY ON THE QUALITY OF TIANMU LAKE SERVQUAL

2.1 QUESTIONNAIRE DESIGN AND RESEARCH

Based on the SERVQUAL model proposed by Parasuraman, Zeithaml, Berry (1985) (PZB), this paper studies 22 indexes of the scale, which are partially modified according to the specific circumstances of Tianmu Lake under the condition that the five dimensions of the scale, namely, plasticity, reliability, assurance, responsiveness, and empathy, are unchanged, and establishes an evaluation system according to the five-point evaluation method.

Table 1 Service quality evaluation indicators of Tianmu Lake Scenic Spot after primary screening

number	evaluation indicators		
A1	Completeness of tourist facilities in the scenic spot (such as sightseeing bus, brochure, toilet, signboard, rest place, etc.)	A15	safety precautions The staff of the scenic spot are reliable
A2	The buildings and facilities in the scenic area are attractive and characteristic	A16	The staff in the scenic spot have rich professional knowledge and can fully answer the questions of tourists
A3	The image of the staff is appropriate, the clothes are clean and well-trained	A17	The charging prices for catering and shopping in the scenic spot are reasonable, and the trading channels are legitimate
A4	The scenic area is beautiful, comfortable, sanitary and clean	A18	Staff take the initiative to say hello, use polite language and smile Services (such as standard Mandarin Service)
A5	The service provided by the scenic spot is consistent with the commitment	A19	The scenic spot provides personalized or reasonable services (such as exclusive access for special people)
A6	When encountering difficulties, the scenic spot can timely care for tourists and help solve problems	A20	The scenic spot gives priority to the rights and interests of guests
A7	The actual situation of the scenic spot is consistent with the publicity image	A21	The traffic around the scenic spot is convenient and the setting is reasonable
A8	The scenic spot can accurately provide the services required by tourists	A22	Be able to know all kinds of information about the scenic spot in advance through certain channels (such as network, etc.)
A9	The staff can accurately record some emergencies and related service conditions (such as the feedback informatio	A23	The scenic spot provides daily opening hours to meet the needs of tourists
A10	The staff will not ignore the needs of tourists because they are busy (especially in peak seasons)		
A11	The service hotline of the scenic spot is unblocked		
A12	The service staff in the scenic spot are very efficient		
A13	The staff can inform the customers of the schedule of travel services in advance (such as some performance times)		
A14	The staff can timely remind some		

The questionnaire survey of this study was conducted from February 15 to March 15, 2022, and the subjects of the survey were mainly tourists in the Nanshan Zhuhai Scenic Spot of Tianmu Lake. A total of 240 questionnaires and 182 actual valid questionnaires were distributed. The valid questionnaire recovery rate was 75.8%. The main part of the questionnaire is mainly composed of two aspects: perception and practice. And according to the five-level indicator system of Likert scale, each question indicator is set to five levels, representing very dissatisfied, dissatisfied, fair, satisfied and very satisfied from left to right, respectively.

2.2 EMPIRICAL ANALYSIS OF SERVICE QUALITY MODLE

2.2.1 RELIABILITY ANALYSIS

Reliability is reliability, reliability analysis is the analysis of questionnaire reliability. In this paper, the clonal Bach α coefficient in the α reliability coefficient method is mainly used. The coefficients for the five dimensions are obtained as required by the SPSS 26 analysis as follows [3].

Table 2 reliability test results of each dimension

Dimension	Number of indicators	Cronbach'a	
		Expect	Perception
Tangibles	4	0.956	0.963
Reliability	5	0.937	0.949
Responsive ness	5	0.930	0.949
Guarantee	4	0.935	0.947
Empathy	5	0.933	0.951
Population	23	0.950	0.961

It can be seen from the table that the analysis based on Likert scale can be considered from five dimensions, which are tangible, reliable, responsive, empathic, and guaranteed, and each dimension can be analyzed from two aspects, namely, expectation experience and actual perception. According to the study criteria, both the total coefficient and the coefficients of each dimension in this study were higher than 0.9, so the reliability of the questionnaire was high.

2.2.2 VALIDITY ANALYSIS

The validity analysis mainly tests the rationality of questionnaire design that is, validity. In this paper, we measure its structural validity and detect the degree to which the measurement results can reflect the expected factor, which is mostly used for exploratory factor analysis and confirmatory factor analysis. The data result is determined by the KMO test value and the Bartlett test value.

The data results showed that the KMO test value of this questionnaire was 0.94, and the Bartlett test value was 0.00, which was much less than 0.05, so the correlation between the variables of this questionnaire was extremely strong and suitable for factor analysis. This study is based on the Likert mature scale, and has a very clear dimensional division, so this paper mainly carries out confirmatory factor analysis, not exploratory

factor analysis. Based on the above analysis, AMOS24.0 software will be used for exploratory factor analysis. The analysis results are shown in Table 4 below.

Indicator name		Adaptation standard	Initial model fitting
Absolute fitting index	X ²	Less than 5, better less than 3	2.749
	RMR	Preferably less than 0.05	0.022
Relative fitting index	RMSEA	Below 0.05, no more than 0.1	0.098
	CFI	Greater than 0.9, the closer to 1, the better	0.917
	TLI	Greater than 0.9, the closer to 1, the better	0.904

Figure 1 results of exploratory factor analysis

All the 23 indexes were input into Amos 24.0 software, and the absolute fitting indexes were shown as follows: normative chi-square (χ^2/df) was 2.749, obviously the fitting degree of this questionnaire was very high; and the root mean square of approximation error (RMSEA) was 0.098; the comparative fitting index (CFI) was 0.917; and the non-normative fitting index (TLI) was 0.904. In conclusion, the results obtained by Amos 24.0 all met the requirements, and the fitting degree of this questionnaire was good. The results of confirmatory factor analysis showed that the factor loadings of the five dimensions were all greater than 0.7, and the standardized regression coefficients were also greater than 0.6, indicating that the dimensions of this questionnaire and the design of each item of the topic were basically more reasonable.

2.2.3 GAP ANALYSIS

In this paper, there are a total of five dimensions: tangible, empathic, responsive, guaranteed, and reliable, with 4-5 questions in each dimension, and the results of the questionnaire are now reclassified and analyzed, so as to find the gap between the expectations and perception of each service quality [4].

problem	expected value		perceived value		disparity	T value	P value
	average	standard deviation	average	standard deviation			
Q1	4.40	0.726	4.39	0.747	-0.005	-0.134	.000
Q2	4.29	0.725	4.32	0.784	0.033	0.774	.000
Q3	4.40	0.679	4.48	0.710	0.077	2.038	.000
Q4	4.40	0.679	4.47	0.710	0.071	1.797	.000
Q5	4.30	0.679	4.47	0.779	-0.027	-0.650	.000
Q6	4.33	0.704	4.27	0.710	0.022	0.648	.000
Q7	4.34	0.691	4.24	0.768	-0.098	-2.206	.000
Q8	4.34	0.715	4.34	0.760	0.000	0.000	.000
Q9	4.38	0.730	4.39	0.747	0.011	0.288	.000
Q10	4.30	0.758	4.18	0.795	-0.120	-2.949	.000
Q11	4.43	0.722	4.42	0.721	-0.011	-0.342	.000
Q12	4.39	0.709	4.35	0.776	-0.038	-1.068	.000
Q13	4.37	0.736	4.31	0.801	-0.060	-1.546	.000
Q14	4.38	0.716	4.42	0.743	0.033	0.816	.000
Q15	4.0	0.680	4.38	0.767	-0.027	-0.686	.000
Q16	4.37	0.743	4.38	0.738	0.016	0.469	.000
Q17	4.36	0.763	4.25	0.851	-0.109	-2.670	.000
Q18	4.45	0.685	4.46	0.677	0.011	0.308	.000
Q19	4.46	0.693	4.44	0.723	-0.022	-0.706	.000
Q20	4.47	0.709	4.39	0.761	-0.082	-2.501	.000
Q21	4.47	0.702	4.41	0.727	-0.060	-1.647	.000
Q22	4.45	0.724	4.45	0.708	-0.005	-0.169	.000
Q23	4.51	0.686	4.51	0.686	0.000	0.000	.000

Figure 2 paired t-test results

Note: The significance probability of P two-tailed T test can be seen from the figure. Given the significance level of $\alpha = 0.05$, the result is that $P < 0.05$ indicates that there

is a significant difference in the perception value and actual feeling expected by tourists [8]. In terms of the analysis of the difference between expectations and perception, the analysis of the difference between expectations and perception shows that in addition to the 10 questions of scenic spots in terms of architectural attractiveness (Q2), well-trained employees, decent image (Q3), clean and beautiful environment (Q4), timely help for tourists to meet suffering scenic spots (Q6), active provision of services by scenic spots (Q8), accurate recording of emergencies and related services by scenic spots (Q9), timely reminding of some precautions by scenic spots (Q14), knowledge reserve of lecturers by scenic spots that can answer tourists' questions (Q16), active asking polite phrases by staff (Q18), and sufficient play time for scenic spots (Q23), all aspects involved in the other 13 questions need to be paid attention to by scenic spots, because these aspects are aspects that scenic spots need to be improved and corrected.

3. CONCLUSION

From the above gap analysis, it can be seen that the quality of service in Tianmu Lake Scenic Spot is generally satisfactory to tourists, but there are still many parts that need to be further improved in five aspects: tangible, reliable, empathic, responsive, and guaranteed. Therefore, according to the above data on these five aspects of improvement opinions: tangible, the data show that the scenic area in the facilities and equipment of tourists actual experience is not very ideal, the internal tourist cars and small trains and other traffic, many are burning gasoline. Scenic spots can standardize the facilities and equipment of scenic spots and improve the sense of experience; reliability, scenic spots need to weigh in terms of publicity with the construction of actual scenic spots, scenic spots can publicize and improve the sense of tourists' experience and strengthen internal information communication according to their own advantages and characteristics in terms of publicity; responsiveness, data reflect that the service level of scenic spots' service personnel recruitment in the peak season needs to be improved, and scenic spots can increase tourists' satisfaction; assurance, there is a slight situation of snack street charges in scenic spots, and scenic spots need to formulate appropriate policies to enhance the trust of scenic spots; empathy: tourists have expectations and perception errors in the characteristic products of scenic spots, because the commodity scenic spots do not form their own commodity sales points with solitary characteristics, and many things can also be bought elsewhere, and scenic spots should develop things that highlight the characteristics of scenic spots to increase humanistic care..

According to the above analysis, the questionnaire is reasonably set up. The results show that the service quality expectation and actual perception gap in Tianmu

Lake Scenic Spot is not very large in general, and some of them have actual perception knowledge lower than the expectation value. However, in response to this problem, the above suggestions for improvement have been put forward after questionnaire and field investigation. However, in fact, the results of the survey will also be affected because of the previous play experience of each tourist, due to these non-negligible factors, which will also affect the scoring results, and the five dimensions of this model will also have different assigned values in different industries, so the application of SERVQUAL model in the quality of service in scenic spots not only needs more empirical research, but also needs to be continuously optimized.

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