

Service Quality Evaluation of Ancient City Scenic Spots Based on Tourists' Perceptions: An Example of Qingzhou Ancient

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Received: 25 April 2023 | Accepted: 20 June 2023 | Published: 30 June 2023

DOI: <https://doi.org/10.55057/ajact.2023.5.2.3>

Abstract: *From the perspective of tourist service perception, this study is the first to evaluate the service quality of the Qingzhou Ancient City tourist scenic area. The study adopts the SERVQUAL model and modifies it into a tourist service quality model specifically designed for ancient city scenic areas to measure the gap between tourists' perceived service quality and expected service quality in the context of the ancient city scenic area. The study also examines the influence of each dimension of this model on tourist satisfaction. Qingzhou Ancient City is chosen as a case study because it has a relatively high rating among ancient city scenic areas in China. The results indicate that tourists' overall satisfaction with the service in Qingzhou Ancient City is average. Among the six dimensions of this model, "historical and cultural significance," "assurance," and "empathy" are identified as key predictors of tourist satisfaction. This paper discusses the research findings and elucidates their managerial implications.*

Keywords: ancient city tourism, service quality evaluation, SERVQUAL, satisfaction.

1. Introduction

Tourism is a service-intensive industry that depends on the quality of the customer service experience and its assessment of satisfaction or dissatisfaction. Therefore, service quality management is crucial to the tourism industry (Zehrer, 2009). The provision of high quality services is increasingly seen as a key factor in the success of travel and tourism businesses (Fick & Brent Ritchie, 1991). Providing quality services and ensuring customer satisfaction are widely recognised as important factors in the success of the tourism industry (STEVENS et al., 1995). The quality of tourism services has a direct impact on tourist satisfaction and loyalty, the image and reputation of the destination, the increase in tourism revenue and the success or failure of tourism development. The tourist is the main subject of tourism activities and is the experiencer of tourism services, therefore the quality of tourism services should be judged by the tourist's perception (Yaofeng Ma et al., 2009).

The 'ancient cities' referred to in this study are specifically referred to as 'historical and cultural cities' in China (Ganshi Zhou, 2003). National historical and cultural cities identified and announced by the State Council of the People's Republic of China are cities that are particularly rich in preserved cultural relics, have significant historical value or commemorative significance, and are in continuous use. According to Baidu, the first batch of 24 national historic and cultural cities was announced on 8 February 1982, and by 11 January 2022, there

were 140 national historic and cultural cities approved by the State Council of China. The number of historic and cultural cities is still increasing.

In November 2013, the State Council of China approved the designation of Qingzhou City in Shandong Province as a National Historical and Cultural City. According to Sohu.com, "The ancient city of Qingzhou received a total of 495,500 visitors during the Chinese New Year holiday in 2022. Only the first day of the Spring Festival holiday received 80,600 visitors."

Service quality and customer satisfaction are highly correlated. A high-quality scenic spot in an ancient city can enhance competitiveness, build a good image and meet challenges from other attractions. Given the remarkable growth of the scenic spot industry in the ancient city category in China, there is an urgent need to measure service quality from the perspective of the perceptions of visitors to ancient city scenic spots. The SERVQUAL method is the best-known model for measuring perceived service quality; however, the universality of its five dimensions has been criticised by scholars. To address this issue, this study adopts the SERVQUAL model and modifies it into an evaluation model of service quality in ancient city scenic areas to measure the gap between tourists' perceived and expected service quality in the context of ancient city scenic areas.

Therefore, this study aims to measure the service quality of the Old City Scenic Area in order to help the managers of the Old City Scenic Area to determine what is important from the visitor's perspective and how to improve the service quality. In addition, visitor satisfaction and willingness to revisit will be measured. This study will measure the service quality of the Old Town scenic area of Qingzhou.

Specifically, the aims of this study are to.

- i. measure the satisfaction and willingness to revisit of visitors to the Qingzhou Ancient City Scenic Area.
- ii. adapt the SERVQUAL model to the Old Town scenic environment, i.e. the Old Town scenic service quality evaluation model.
- iii. measuring the gap between visitors' perceived service quality and expected service quality using the SERVQUAL model for the Old Town scenic area.
- iv. examining the relative importance of the service quality dimensions in influencing visitor satisfaction.

2. Literature Review

Services

Pure services are characterised by their intangibility, but some services contain tangible components (Schneider & White, 2004). Services are also indivisible, non-storable, produced and consumed simultaneously, and heterogeneous. In addition, services are an interaction between producer and consumer, and the service process can vary from scenario to scenario and from customer to customer. These characteristics of services make them difficult to control and to set measurement standards.

Service quality

Many scholars have not yet reached a consensus on the meaning of service quality. It was not until 1982 that the Nordic scholar Professor Christian Gronross introduced the term quality to service issues, and at the same time proposed the concept of service quality and its model of

customer perception from the perspective of cognitive psychology for the first time, confirming its components, that the systematic study of service quality really began.

Ryan (1996) defined it as a function and characteristic that affects all products or services to meet their stated or implied needs. Lewis and Booms (1983) pointed out that service quality in the service industry should focus on customer needs and meet customer expectations. Sureshchandar, Rajendran and Anantharaman (2002) proposed five key factors of service quality from the customer's perspective, namely "core services or service products, human factors in service delivery, systematization of service delivery (non-human factors), changes in service scenarios, and social responsibility".

Parasuraman, Zeithaml and Berry (1985) argue that the service perceived by the customer may be different from the service provided by the service provider, and are the first to suggest a gap between perceived and expected service quality. Therefore, to improve service providers' services, it is necessary to understand the perceived and expected service quality from the customer's perspective. Perceived service quality is the quality of service actually experienced by the customer (Grönroos, 1984). However, multiple interactions in the service delivery process may have a positive or negative impact on the customer's perceived service quality (Schiffman and Kanuk, 2007). Khan and Kang (2003) argue that expected service quality is the type of service level that the customer believes he/she should receive from the service provider. As with perceived service quality, different customers have different expected service quality because they are influenced by factors including word of mouth, past experiences, service providers' attitudes and other contexts.

Service quality of scenic spots in ancient cities

As the core competitiveness of the tourism industry, the quality of service in tourist attractions directly affects the development of the local economy (Huimin Bu, MinHui & Nalin, 2018). Relatively little research has been conducted on scenic tourism in the ancient city of Qingzhou in China. The main focus is on the development of tourism resources and the protection of the ancient city. Most of the studies have been conducted from the perspective of tourism suppliers. There are relatively few studies from the perspective of tourists' perceptions. The literature on the quality of tourism services in the ancient city of Qingzhou is almost non-existent. Therefore, there is a great need to investigate the service quality of the ancient city of Qingzhou.

The relationship between service quality and customer satisfaction

Satisfaction and dissatisfaction come from the service encounter experience and the comparison of the experience with expectations (Oliver, 1980). It has been suggested that service quality is highly correlated with customer satisfaction. Rust and Oliver (1994) attempted to demonstrate the difference between service quality and customer satisfaction. Quality judgements are very specific, whereas satisfaction may be very broad and generic. Customer satisfaction is a cognitive and emotional response to a service event. Many other non-quality aspects can also constitute satisfaction judgements, including perceptions of fairness, equity and need (Nelson K. F. Tsang et al., 2012).

Service quality and customer satisfaction are closely related and both contribute to the performance of a company. Iacobucci, Ostrom and Grayson (1995) argue that considering the needs of customers is a way to enhance customer satisfaction. A high level of customer satisfaction leads to customer loyalty, ensures a steady source of customers and gains a competitive advantage (Fornell, 1992). Therefore, a company's service performance is very

important and can enhance customer loyalty. Loyal customers can spread positive word of mouth and attract new customers. (Augustyn & Ho, 1998).

The SERVQUAL measurement model

Along with the Service Quality Perception Model and the Gap Model, PZB introduced the SERVQUAL model of service quality measurement in 1988. It is the first systematic scale for evaluating service quality and consists of 22 questions in five dimensions: tangibility, reliability, responsiveness, assurance and empathy. The core component of the scale is the Service Quality Gap Model, where the size of the gap between customer expectations and customer perceptions of service represents the level of service quality. This model has been widely recognised by service quality researchers and has been shown to have good reliability and validity and can be used in a wide range of service industries.

In the tourism industry, different researchers have developed specific service quality evaluation models based on SERVQUAL, such as LODGSERV, DINESERV, HOLSAT, HISTOQUAL and ECOSERVQ, which are used to evaluate the service quality of hotels, restaurants, resorts, tourism products and ecotourism respectively (SongXu ,2006).

Gap models

Based on the research of Christian Gronroos, in 1985 PZB proposed the Gaps in Service Quality Model (GAPs Model) These five gaps are described as follows.

Gap 1, Managerial Perception Gap. Gap 2, quality standard gap. Gap 3, Service Performance Gap.

Gap 4, Marketing Communication Gap. Gap 5, the perceived service quality gap, is expressed as the difference between the customer's expectations and perceptions of the service before and after consumption. If the customer's perceptions of the service are higher than expectations, the customer will be more satisfied with the perceived service quality, otherwise they will rate the service quality lower.

The model helps us to identify problems that occur during the service process and to analyse and solve the problems that occur in the service so that timely improvements can be made to the service quality. The focus of this study is on the measurement gap.5 The comprehensive gap model is shown in Figure 1.

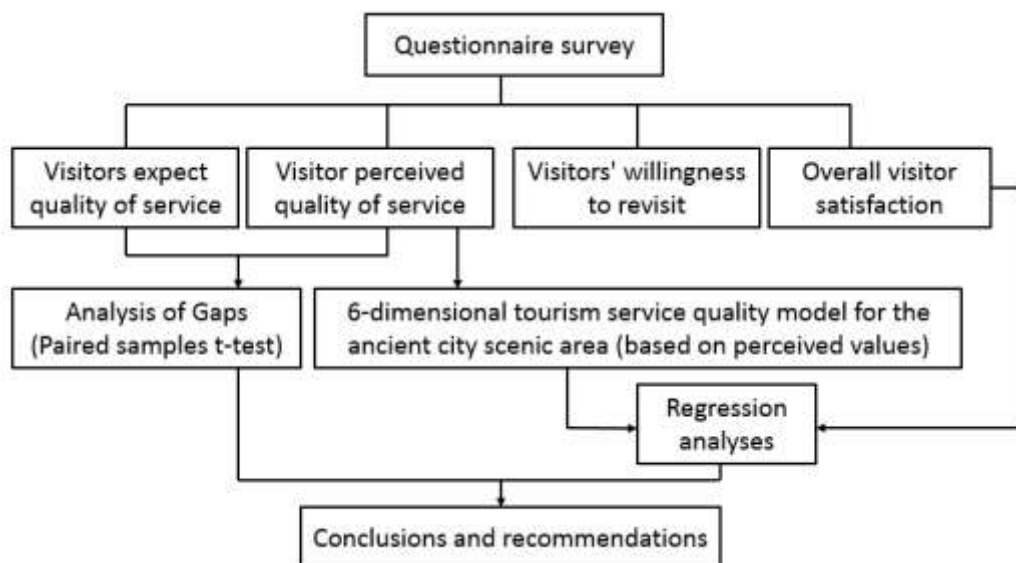


Figure 1: Research Path

Building a service quality model for tourism in the Old City

The applicability of the SERVQUAL model may not be universal, as it is widely questioned for its lack of applicability in certain industries (Boulding et al., 1993). Modifications to the measurement dimensions, question items and wording are therefore required in order to adapt to different contexts (Carman, 1990). He also further described the need to extend or add more dimensions in different services with the aim of increasing the reliability of the scale.

In this study, the SERVQUAL model was modified to meet the context of measuring service quality in the Old City Scene. To suit the context, the five dimensions of the model were subsequently modified to six dimensions (as shown in Table 1), and the modified SERVQUAL model was named the Tourism Service Quality Evaluation Model of the Old City Scenic Area. Tangibility, reliability, responsiveness, assurance, empathy and the addition of a new dimension, historical and cultural, were modified. The historical and cultural dimension was added because the special characteristics of the ancient city scenic area are also its tourism characteristics.

Information on historic culturalness can be obtained from policy documents. The Regulations on the Protection of Famous Historical and Cultural Cities and Towns and Villages, as amended by the Chinese State Council in October 2017, set out five conditions for declaring a national historical and cultural city.

- Firstly, exceptionally rich in preserved cultural relics.
- Second, a concentration of historical buildings in patches.
- Third, the preservation of the traditional pattern and historical appearance.
- Fourth, it has historically served as a political, economic, cultural or transportation centre or a military stronghold, or has been the scene of important historical events, or its traditional industries or major projects constructed in history have had an important impact on the development of the region, or can reflect centrally the cultural and ethnic characteristics of the region's architecture.
- Fifthly, there should also be more than two historic and cultural districts within the protection area of the declared historic and cultural city.
- After the construction of the evaluation model of tourism service quality of ancient city scenic area, it will become the theoretical basis for measuring the service quality of ancient city scenic area, which in this study refers to the ancient city scenic area of Qingzhou.

Table 1: Six dimensions of the service quality model for ancient city scenic areas

Dimensionality	Description
Historical and cultural	This refers to the ability of visitors to see ancient buildings that are over 100 years old and to feel the heritage of traditional culture during their visit. In this study historical and cultural nature mainly refers to the good protection of ancient buildings in the scenic area of the old city and the inheritance and development of traditional culture. Folk culture exhibitions are abundant and can be experienced.
Tangibility	This refers to what visitors can see and touch during their experience. In this study, tangibility refers to the tangible elements associated with the Old Town, such as those related to objects (service centres, service equipment, rubbish bins and toilets) and those related to people (clothing, posture, language and expressions of service staff).
Reliability	It refers to the level of reliability of the company in fulfilling its service commitments. In the context of this study, reliability refers to whether the tourist attractions in the ancient city scenic area are able to ensure that the standard of service provided is error-free when providing services to visitors and that the ancient city scenic area is able to make timely and best efforts to resolve difficulties encountered when visitors encounter difficulties.

Responsiveness	Refers to the level of responsiveness and initiative of a company in providing services to its customers. In the context of this paper, responsiveness refers to the level of initiative and speed in providing service to visitors in the tourism scenic area of the Old City in terms of attitude.
Assurance	It refers to the level of knowledge of the service staff, their courtesy in the service process and the extent to which they can make the customer trust them. In the context of this paper, assurance refers to whether the operator of the ancient city scenic spot has the tourist as one central two basic points (starting and ending points), whether the staff of the scenic spot have professional service capabilities and service skills, and the extent to which the tourist can rely on the services provided by the ancient city scenic spot.
Empathic	It refers to the customer-centredness of the company, providing personalised services tailored to the needs of different customers. In this study, empathy refers to the ability to provide unique services to meet the distinctive needs of different tourists and the ability of the service staff to give emotional care to the tourists during the service process, to keep people with emotions.

3. Methodology

This study is a study using quantitative methods, which enable objective findings to be obtained. The data collection method used in this study was a questionnaire survey including both online and field questionnaires.

Survey design

The purpose of the questionnaire survey was to measure the level of service quality perceived by visitors to the tourism services in the ancient city of Qingzhou, and to test the tourism service quality evaluation model of the ancient city and assess the impact of the service quality dimensions on visitor satisfaction. The survey has five components. The survey respondents were selected on the basis of having visited Qingzhou Ancient City Scenic Area.

- The first part collected demographic information about the visitors, including gender, age, occupation, education level, personal income, source of visitors, number of trips, who they traveled with, and mode of travel.
- The second part collected the expected service levels of visitors in terms of the quality of service of an outstanding Old Town attraction. The 23 measures compiled are listed. The measurement items have been modified to suit the scenario of the Old Town scenery.
- The third section collects the perceived service quality of visitors to the Old Town scenic area of Qingzhou. The measurement items are consistent with Part 2.

Respondents were guided to assess expected and perceived service quality on a 5-point Likert scale. The expected and perceived service quality sections each consisted of 23 questions, with each question option set to 5 levels, each with a pair of adjectives with opposite meanings at each end, and each level scored from left to right as 1,2,3,4,5.

The expected service quality section asks the respondent to consider whether he thinks it is important for excellent service characteristics as described in the question to confirm the visitor's expectations, based on his past experiences of the quality of service in the area during his travels. 1-5 are 'very unimportant, unimportant, average, important, very important'.

Perceived service quality asked respondents to rate in the box after the question whether their perceptions of the tourist services in the Old Town of Qingzhou were in line with those described in the question. 1-5 were "very unlikely, unlikely, fair, likely, very likely".

In the fourth section, respondents were asked to rate their satisfaction with the service quality of the Qingzhou Ancient City Scenic Area. There were also 5 levels of scores from "unsatisfactory" to "satisfactory".

In the fifth section, respondents were asked to rate their willingness to revisit and recommend the ancient city of Qingzhou. The scores were also divided into 5 levels, from "not willing" to "willing".

Sample and data collection

A pre-survey of 128 questionnaires was conducted to ensure reliability and clarity of the content. Some confusing and biased questions were subsequently revised. A random sampling method was used to survey the target respondents. The survey was conducted using the Questionnaire Star online web-based questionnaire method and a field-based web-based questionnaire method in the scenic area of the ancient city. Respondents were not required to complete the questionnaire if they had not been to the ancient city of Qingzhou. The data collection time was approximately 16 days. A total of 550 questionnaires were collected, of which 450 were usable.

4. Data analysis

Descriptive statistics were used to measure the perceived and expected service quality of the respondents. Paired sample t-tests were also used to determine the gap between these two variables. Based on visitors' perceived scores, the six dimensions of the Old Town Scenic Area Service Quality Model will be used in a multiple regression to determine the influence and relative importance of each dimension in determining visitors' satisfaction with the Old Town Scenic Area. Figure 1 illustrates the research pathway for this study.

5. Research Findings and Discussion

Demographic profile

The demographic profile of the respondents is shown in Table 2. Of the 450 respondents, over 80% were female (81.6%) and 18.4% were male. The majority of respondents were between the ages of 18 and 25 (97.3%), followed by 31 to 40 years old (1.6%) and 18 years old or younger (0.4%). The majority of respondents were residents of Shandong Province, with only 1.3% being visitors from outside the province. In general, respondents obtained a college education level (80%) and 19.6% reached a bachelor's degree or above. In terms of monthly personal income, 86.7% of respondents earned less than RMB 2,000, 9.1% earned between RMB 2,001 and RMB 6,000, and 4.2% earned more than RMB 6,000.

Table 2: Demographic Information of Respondents (N = 450)

Variable		%
Gender	Male	18.4
	Female	81.6
Age	Under 18 years	0.4
	18~25	97.3
	31~40	1.6

	41~50	0.7
Occupation	Student in school	97.8
	Government/office officials/civil servants	0.2
	General employee (office/office worker)	0.2
	Professional (e.g. doctor/lawyer/sports/journalist/teacher, etc.)	1.8
Education	High school/junior college/technical school	0.4
	University college	80.0
	Undergraduate	17.8
	Master's degree and above	1.8
Monthly income	below RMB 2000	86.7
	2001-4000 RMB	6.4
	4001-6000 RMB	2.7
	Above RMB 6000	4.2
Place of residence	Qingzhou	27.3
	Weifang	10.0
	Shandong Province	61.3
	Outside the province	1.3

Overall visitor satisfaction was measured using a 5-point Likert-type scale. The results are shown in Table 3. The survey results show that the average satisfaction level of visitors was 3.95, which means that visitors were generally satisfied with the quality of services provided by the scenic spots in Qingzhou Ancient City. Nearly 61.6% of the respondents were satisfied and about 21% were average. Only 0.4% of respondents were more dissatisfied. 16.9% of respondents said they were very satisfied.

Table 3: Overall Satisfaction Level of Visitors (N = 450)

Satisfaction level	%
Unsatisfactory	0.0
Relatively dissatisfied	0.4
Neutral	21.1
Satisfied	61.6
Very satisfied	16.9
Average value	3.95

Visitors' willingness to revisit

Visitors' willingness to revisit was measured using a 5-point Likert-type scale. The results are shown in Table 4. The survey results show that the mean value of visitors' willingness to revisit was 3.82, with nearly 57.8% of respondents indicating that they would be willing to return to Qingzhou Ancient City Scenic Area. About 13.1% of visitors were very willing to revisit Qingzhou Ancient City Scenic Area. Only 1.3% of respondents were not willing to come back.

Table 4: Visitors' willingness to revisit (N = 450)

Willingness to revisit	%
Very reluctant	0.4

Reluctant	1.3
Neutral	27.3
Willing	57.8
Very willing	13.1
Average	3.82

Gap Analysis

The mean scores of visitors' expectations and perceptions of the scenic spots in Qingzhou Ancient City are shown in Table 5. Visitor expectations were 4.42 and perceptions were 3.74, with significant negative differences across 23 attributes, $p < 0.05$. The two attributes with the largest negative differences (above -0.8) were at the responsiveness level, including "The service staff at the ancient city can deal with your complaints quickly and accurately" and "The staff at the Old Town service area handles your complaints promptly and accurately". The two attributes with the highest negative variance (-0.8 or more) were at the level of responsiveness, including "The staff at the Old Town service area handles your complaints promptly and accurately" and "The staff at the Old Town service area handles visitor complaints promptly and appropriately". The one attribute with the least negative variance came from the tangibility dimension, which was "the roads within the scenic area are well designed". However, 7 of the 23 attributes showed a significant negative difference of -0.7 or more, with a difference of $p < 0.05$. 5 of the attributes were more or less related to staff performance, such as "The service staff in the Old Town area are proactive and helpful when visitors are in trouble", "The Old Town area The performance of the staff of the Old Town is more or less related to the performance of the staff, such as "The staff of the Old Town is helpful when visitors are in trouble", "The services promised to visitors are completed in a timely and accurate manner" and "The staff of the Old Town is responsive to visitors' needs". The figures show that visitors are generally dissatisfied with the performance of the staff at the Old Town. The other two dimensions with a negative gap of 0.7 or more are the historical and cultural dimension and the assurance dimension, which show that "the food and drink in the scenic spot is rich in regional and cultural characteristics" and "the shopping environment in the scenic spot is good and honest". This shows that visitors are not satisfied with the shopping environment and the provision of speciality food and drink in the Old Town.

In addition, of the six equal dimensions, the 'responsiveness' dimension has the largest negative gap (-3.95). This means that this aspect is very much not in line with the expectations of visitors. The reason for this may be related to the low number of permanent staff in the area and the lack of channels for dealing with complaints. The negative gap in the dimensions "assurance", "reliability" and "tangibility" ranged from -2.18 to -2.77, with the largest negative gap being for "The largest negative gap is for 'assurance' and the smallest is for 'tangibility'". The attributes of these three dimensions are related to whether the services provided by the scenic spot staff in the Old City can be relied upon, whether the services provided by the scenic spot staff are of an acceptable standard, whether the problems encountered by tourists can be solved in a timely manner, and whether the scenic spot has complete tourism facilities. The results show that the performance of the scenic spot staff in the Old City is lower than the tourists' expectations. The two dimensions with the smallest negative gap are 'empathy' and 'historical and cultural', which indicate that the scenic spots perform better in terms of

preserving historical and cultural buildings, the life style of the residents, and displaying the cultural characteristics of the region.

Table 5: Gap Scores Between Expectation and Perception of Visitors (N = 450)

Dimensionality	Measurement questions	Expectations score (E)		Perceived score (P)		Quality of Service P-E	Paired samples t-test	
		Average score	Standard deviation	Average score	Standard deviation		T value	p value
Historical and cultural	A3 The historical and cultural buildings in the scenic area are well preserved	4.50	0.616	4.00	0.708	-0.49	-11.983	0.000
	A4 The local residents in the scenic area live in an original and simple way	4.30	0.672	3.76	0.757	-0.55	-12.818	0.000
	A5 Food and drink in the scenic area is rich in regional cultural characteristics	4.28	0.697	3.58	0.814	-0.70	-14.214	0.000
Tangibility	B1 The ancient city scenic area has complete infrastructure (e.g. toilets, rubbish bins, tour buses, etc.)	4.50	0.668	3.84	0.737	-0.66	-14.779	0.000
	B2 tourism facilities such as catering and accommodation are complete and comfortable	4.34	0.683	3.78	0.692	-0.56	-13.611	0.000
	B5 The internal roads in the scenic area are well designed	4.26	0.702	3.88	0.694	-0.38	-8.978	0.000
	B6 Signage in the Old Town is visible and clear	4.48	0.630	3.91	0.716	-0.57	-13.780	0.000
Reliability	C1 Good security conditions in the Old Town	4.52	0.658	3.91	0.713	-0.60	-13.909	0.000
	C2 Good order of visitation in the Old Town	4.43	0.654	3.88	0.696	-0.55	-13.594	0.000
	C3 Clear visitor warning signs in the Old Town	4.44	0.638	3.90	0.728	-0.54	-12.574	0.000
	C4 the facilities and surroundings of the Old Town feel safe	4.52	0.637	3.94	0.688	-0.58	-14.816	0.000

Responsiveness	D1 The staff at the Old Town Scenic Area are responsive to visitors' needs	4.43	0.665	3.66	0.794	-0.78	-16.464	0.000
	D2 the service staff at the Old Town area are able to deal with your complaints promptly and accurately	4.43	0.674	3.58	0.786	-0.84	-18.177	0.000
	D3 the staff of the Old Town will deal with your complaint in a timely and appropriate manner	4.47	0.671	3.63	0.763	-0.84	-18.413	0.000
	D4 the staff of the Old Town will take an active interest in helping visitors when they encounter difficulties	4.42	0.633	3.65	0.784	-0.77	-16.668	0.000
	D5 the services promised to visitors are completed in a timely and accurate manner	4.40	0.637	3.68	0.758	-0.72	-16.046	0.000
Assurance	E2 Transportation within the Old Town is convenient	4.18	0.763	3.57	0.765	-0.62	-12.649	0.000
	E3 good shopping environment in the Old Town and honest business practices	4.50	0.648	3.71	0.781	-0.79	-16.905	0.000
	E4 The staff of the Old Town have good communication skills and understand the needs of visitors accurately	4.37	0.645	3.70	0.760	-0.68	-15.171	0.000
	E5 External publicity is in line with the actual feelings of visitors	4.38	0.684	3.69	0.750	-0.69	-15.247	0.000
	Empathic	F2 the staff at the Old Town are sensitive to your needs and preferences	3.96	0.843	3.48	0.801	-0.48	-9.704
F3 Old Town staff provide personalised service to visitors		3.99	0.790	3.50	0.840	-0.50	-10.141	0.000
F4 The staff at the Old Town are enthusiastic and willing to help visitors		4.34	0.665	3.74	0.740	-0.60	-13.690	0.000
Overall mean		4.42	0.421	3.74	0.513	-0.68	-23.457	0.000

Impact of dimensions on visitor satisfaction

The overall visitor satisfaction was taken as the dependent variable and the six dimensions as the independent variables. Multiple regression analysis was used to determine the relationship between the six dimensions and overall satisfaction. Table 6 shows the results of the impact of the tourism service quality dimensions on visitor satisfaction in the Old Town scenic area. r^2 was 0.44, which indicates that 44% of the change in satisfaction was explained. The three independent variables, "assurance", "historical and cultural" and "empathy", were statistically significant predictors of tourist satisfaction ($p < 0.05$) and were significant contributors to

overall tourist satisfaction. Beta values (β) confirmed that 'assurance' was the best predictor of visitor satisfaction ($\beta=.269$), followed by 'historical and cultural' ($\beta=.144$) and 'empathy' ($\beta=.117$). " ($\beta=.117$). In contrast, the effects of 'tangibility', 'reliability' and 'responsiveness' on visitor satisfaction were not statistically significant. The main contributors were related to the trustworthiness of the services provided by the scenic spot and the preservation and use of the historic culture of the spot, such as the service of the staff and the preservation and presentation of the historic culture of the spot, with the provision of trustworthy services in the Old Town being a key driver of high satisfaction.

The "reliability and responsiveness" dimension had the highest expected mean score, both at 4.48. It was also considered to be the strongest predictor of satisfaction levels. This further supports the view that this dimension is the most critical dimension in the service quality model for the Old Town area. These findings echo the study by Lee, Lee and Yoo (2000), which showed that responsiveness is an important factor in a people-centred industry. Visitors need responsive and easily accessible service staff. Costa, Glinia and Drakou (2004) suggest that empathy is underestimated in service research.

Table 6: Impact of Service Dimensions on the Satisfaction Level of Visitors

Independent variables	β	Beta	t	Significant t
Perceiving Historical Cultural Nature	0.146	0.144	2.880	0.004
Perceptual tangibility	0.121	0.102	1.837	0.067
Perceptual reliability	0.073	0.066	1.084	0.279
Perceived responsiveness	0.052	0.056	0.866	0.387
Perceived reassurance	0.279	0.269	4.226	0.000
Perceived empathy	0.105	0.117	1.931	0.054

6. Research findings and limitations

The purpose of this study was to measure the satisfaction level and willingness to revisit of visitors to the ancient city of Qingzhou, and to measure the gap between expectations and perceptions using the Ancient City Scenic Area Service Quality Model, as well as to assess the impact of the dimensions of the model on visitor satisfaction. Based on these findings, recommendations are made to the managers of the Old Town scenic area. After a comprehensive data analysis, the overall satisfaction with the quality of tourism services in the Old Town scenic area is average, including the service performance of the staff in the Old Town scenic area and the shopping environment and speciality dining in the Old Town scenic area. Among the many factors, 'historical and cultural', 'assurance' and 'empathy' are the decisive predictors of satisfaction among the six dimensions of the Old Town tourism service quality model. The quality of tourism services in the Old City is a key predictor of satisfaction. In order to enhance the core competitiveness of Qingzhou as a tourist destination, the ancient city should provide quality services to meet the needs of tourists and build a good brand reputation for the tourist city. Based on the results of the survey study and the high level of quality expected by tourists, this study offers several suggestions for improvement to the management of the Old City Scenic Area in order to increase tourist loyalty.

The results of the gap analysis show that the 'responsiveness' dimension of service is below customer expectations, which is closely related to the service performance of the service staff. In order to reduce the variation in expectations and perceptions of service responsiveness and to provide a high quality service. Improvements should be made in the following areas: recruiting good tourism professionals and organising training in professional service competencies to develop a customer-oriented mindset. Set up a website message board, an email address and a 24/7 service telephone number for timely and accurate handling. Involve service staff in setting service quality standards so that they feel it is their responsibility to maintain them. Establishing a call-back number for service evaluation and a system of rewards based on service evaluation will help to improve the performance of service staff.

With regard to the most important influencing factor affecting satisfaction, "assurance", the management of the Old Town Scenic Area should provide training on service standardisation for the service staff of the Old Town to ensure consistency of service. Standardise publicity and not exaggerate services that are not available. Regular inspections of businesses within the Old Town should also be carried out. "In this regard, the management should continue to strengthen the discovery, protection, heritage and presentation of the history and culture of the Old Town, especially the speciality restaurants in the area, which need to be further upgraded. "Empathy is also an important factor. The development of 'empathy' and personalised attention to customers is something that the service industry should focus on, according to Barlow and Maul (2000). Loyal customers should be surveyed and interviewed regularly in order to understand the needs and expectations of visitors. Service employees should also be told to actively understand and identify with visitors' feelings and take the initiative to care about helping them.

There are also limitations to this study. The demographics show that the majority of respondents were residents and students in the province. This may not match the actual market operation of the Old Town of Qingzhou. The study sample size is relatively small and the data set may not fully represent the full picture, a limitation that affects the representativeness of the findings. Future studies may consider larger sample sizes and purposeful selection of respondents that truly reflect the actual marketing mix of the Old Town. In addition, the Old Town Scenic Area Service Quality Model is a conceptual framework that needs to be further supplemented and validated for soundness.

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