

¹Ade-Muhuyati^{2,*}Tao Fan

The Evaluation Method of Xinjiang Bazaar Cultural Service Function Based on Data Information Processing



Abstract: - Based on the processing of data information, the paper formulates the evaluation criteria and weights of each index according to the results of questionnaire survey, market statistics and quantitative calculation, and constructs the evaluation index system of Xinjiang Bazaar from three dimensions: economy, environment and society. Taking into account the influence of surrounding factors on the evaluation model, the environmental conditions are quantified as correction coefficient to correct the evaluation model, and the evaluation model of Xinjiang Bazaar cultural service function is constructed by mathematical model. Three typical cases of Xinjiang Bazaar were selected for value evaluation, and the final result was the score of Xinjiang International Bazaar was 1.53, the score of Tianyu City was 0.43, and the score of Yotegan Old City was 0.47. It can be seen that the scores obtained by using data information processing were consistent with the actual operation of the three projects.

Keywords: Bazaar, Cultural Service, Data Information Processing, Value Evaluation, Vitality, Promotion.

I. INTRODUCTION

From the perspective of customer experience evaluation, the application of data and information processing can objectively reflect the operational value of commercial buildings, which is more real and reliable than quantitative sharing from economic indicators. The object of this study is "bazaar", which comes from the Persian word and is a general term for urban and rural commercial streets and markets in Xinjiang, China. Through the investigation and investigation of Xinjiang Bazaar, the following three obvious problems are found: (1) The homogenization trend is serious: the existing Xinjiang Bazaar basically takes business + catering as the main combination model, and most of the commodities are overlapping. (2) Pay attention to short-term effect, pay attention to the appearance of the form: the construction of Xinjiang Bazaar is driven by the interests of both the government and the business, but the government lacks scientific planning, and many developers lack experience in the development and operation of Xinjiang Bazaar, and only pay attention to the size of the business area and whether the building is beautiful. (3) Lack of vitality and poor management: The current Xinjiang Bazaar generally has the problem of insufficient vitality, and it is difficult to play its due role in urban and rural areas, mainly because developers have exaggerated the "commercial vitality" driven by economic interests, ignoring the "public vitality" stimulated by social attributes.

Therefore, strengthening the "social attributes" of Bazaar and giving play to its due synergies, especially the synergies caused by the cultural service function, are an important channel to enhance the vitality of Bazaar itself, and an effective way to enhance the overall vitality of urban and rural areas. Only in this way, Bazaar can become an important opportunity for urban and rural development from "quantitative change" to "qualitative change", and then achieve common sustainable development at the economic, environmental and social levels. No matter from the perspective of urban and rural development, social governance or people's life, it is timely and necessary to systematically sort out and deeply study the bazaar's cultural service function.

By searching the journal papers in the database and using CiteSpace software to generate the citation network graph, the graph is visually classified according to the author, author unit, keywords and other options, and the five contents are respectively compared and analyzed to analyze the differences in research concerns in the bazaar field. The time range was selected from January 2002 to December 2022. In terms of journal papers, the Web of Science core collection database was used to search the topic "bazaar" and 176 valid papers were selected manually.

By searching the journal papers in the database and using CiteSpace software to generate the citation network graph, the graph is visually classified according to the author, author unit, keywords and other options, and the five contents are respectively compared and analyzed to analyze the differences in research concerns in the bazaar field.

The time range was selected from January 2002 to December 2022. In terms of journal papers, the Web of Science core collection database was used to search the topic "bazaar" and 176 valid papers were selected manually.

¹ College of Architectural and Civil Engineering, Xinjiang University, Urumqi, Xinjiang, China

² College of Architectural and Civil Engineering, Xinjiang University, Urumqi, Xinjiang, China

*Corresponding author: Tao Fan

Copyright © JES 2024 on-line : journal.esrgroups.org

A. Research Status

1) Overall analysis

On the whole, the annual number of journal papers on Bazaar-related topics basically maintained a stable and small increase between 2002 and 2013, but the number of journal papers accelerated from 2015 and reached the highest in 2020, with 24 published, while the domestic literature gradually declined after reaching the highest in 2013. After classifying the subjects of Bazaar's thesis, it can be seen that humanities accounted for the highest proportion, up to 35.65%, ethnology 10.64%, and architecture, urban planning and design and other built environment disciplines accounted for 6.48%, as shown in Table 1. The humanities and nationalities are the main research areas of Bazaar, while the research in the field of architecture and planning is relatively small [1-5].

2) Author distribution analysis

Based on the co-occurrence analysis of Bazaar research journal papers, the top authors in the number of published papers in Chinese journals are Wang Min, Shawuti Pavan, Liu Zhengjiang, Wang Xiaodong, Fan Tao and Che Xiaomei. Chinese authors in this field mainly explore Bazaar in the direction of humanities and social sciences, and some also explore Bazaar in the direction of architectural design. Other national literature authors, such as Ian Baxter, Taheri Babak, Alff Henryk, Curran Ross and Sean Lochrie, have published more papers, and the authors in this field mainly explore Bazaar's humanities and social sciences.

3) Keyword co-occurrence analysis

Based on the generated knowledge map of bazaar research literature, combined with intermediary centrality and frequency, the top settlements of keyword occurrence in the paper are: subjectivity, business, economic freedom, politics, Bazaar governance, Figure 1.

4) Keyword prominence analysis

The top 12 keywords of journal papers are selected for prominence analysis. The time axis in the figure is a green line, while the time of the occurrence node of hot keywords is a red line segment on the basis of the green axis [6]. The journal papers from 2005 to 2013 focused on economy, production and management, etc. From 2014 to 2022, the research focuses on consumers, behavior, and cities. Figure 2 [7-9].

Table 1: Discipline Classification of Bazaar Literature

Subject category (%)	Literature ratio (%)
Humanities	35.65%
Ethnonymics	10.64%
Architectural design/planning	6.48%
Administration and State administration	7.41%
Geography	4.17%
Trade economy	3.7%
other	31.95%

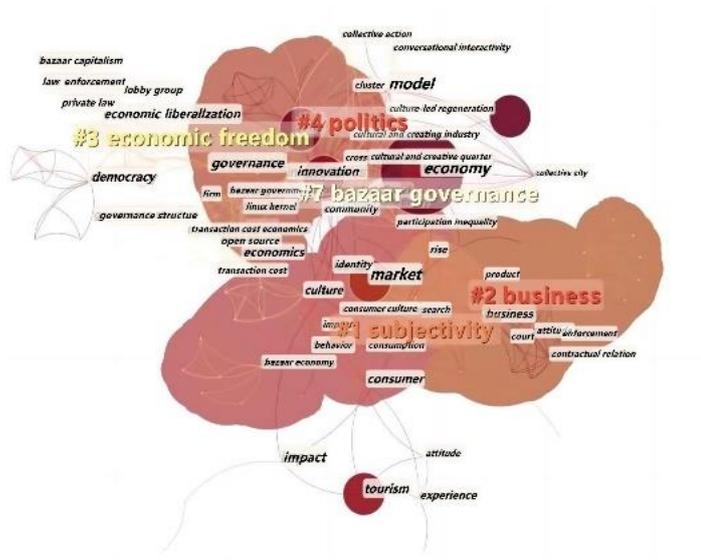


Figure 1: Analysis diagram of keyword co-occurrence settlements in bazaar literature

Top 12 Keywords with the Strongest Citation Bursts



Figure 2: Bazaar Keywords Highlight Chart from 2002 to 2022

5) Literature analysis in the direction of architectural planning

In recent years, researches on Bazaar's architectural design mainly focus on Bazaar's urban space design and sustainable urban space. It can be seen that the focus of bazaar in China and other countries has shifted from basic theoretical research to customer behavior analysis and the urban attribute of Bazaar. Following the construction of Xinjiang International Grand Bazaar by Wang Xiaodong, the research heat of Chinese studies has increased. From 2003 to 2013, it mainly stayed in the Bazaar's architecture and regional studies, and from 2018, it began to pay attention to the study of the Bazaar's public space [10-19].

To sum up, the architectural form of bazaar with regional characteristics mainly exists in some countries in the Middle East, West Asia and Central Asia. The research on this architectural type of Bazaar is mostly carried out from the humanistic and social science level, and the research on architectural design and planning level is insufficient, especially the research on the cultural service function value of Bazaar, although there are some preliminary results. We need to dig deeper.

B. Research Content and Significance

This paper puts forward the influencing factors of cultural service ability from the three dimensions of economy, environment and society, determines 8 environmental indicators and 5 preference indicators, and constructs the evaluation index system. Based on questionnaire survey and market statistics, the evaluation criteria and weights reflecting users' behavioral preferences were developed. Meanwhile, the evaluation model was corrected by quantifying correction coefficients from five aspects: attraction ability, Xinjiang Bazaar scale, cultural service scale, radiation population and influence ability. Finally, the expression of the mathematical model is selected to integrate the above contents, and the evaluation model of Xinjiang Bazaar cultural service ability is constructed.

Based on the processing of data information, the paper calculates the final scoring criteria and weights. The results can provide scientific and quantitative reference for the development and operation of Xinjiang Bazaar in China, and the research of this paper has certain practical significance for improving urban and rural cultural service space in Xinjiang, activating traditional architectural forms, improving residents' quality of life and maintaining social stability.

II. BAZAAR CULTURAL SERVICE EVALUATION INDEX SYSTEM CONSTRUCTION

A. Selection of Indicators

Based on the collation and analysis of literature and the selection of indicators, the following 13 indicators are proposed to reflect the cultural service capability of Xinjiang Bazaar. They are "environmental quality, type of facilities, difficulty of arrival, charging status, number of facilities, degree of openness, frequency of activities, duration, number of people, follow-up activities, stay time, repeat visits, and service radius". The above 13 indicators respectively reflect the various dimensions of the synergistic effect of cultural services in Xinjiang Bazaar. As this study mainly focuses on the evaluation from the perspective of spatial performance, the selection of research indicators mainly focuses on three dimensions: economy, environment and society.

B. Classification of Indicators

1) Classification of environmental indicators and behavioral indicators

The above 13 indicators are classified. The environmental indicators reflect the environmental attributes of the cultural service places in Xinjiang Bazaar, while the behavioral indicators reflect the behavioral attributes of the

users in the places. The quality of the environment will affect the users' behavioral choices, and the two interact and confirm each other, as shown in Figure 3. In the following research, the comprehensive scoring evaluation of service capability and the comparison and verification of operation and use status evaluation will be carried out respectively. Environmental indicators and behavioral indicators correspond to the above two stages respectively, and the scientificity and accuracy of the comprehensive evaluation model will be tested through the comparison of environment and behavior.

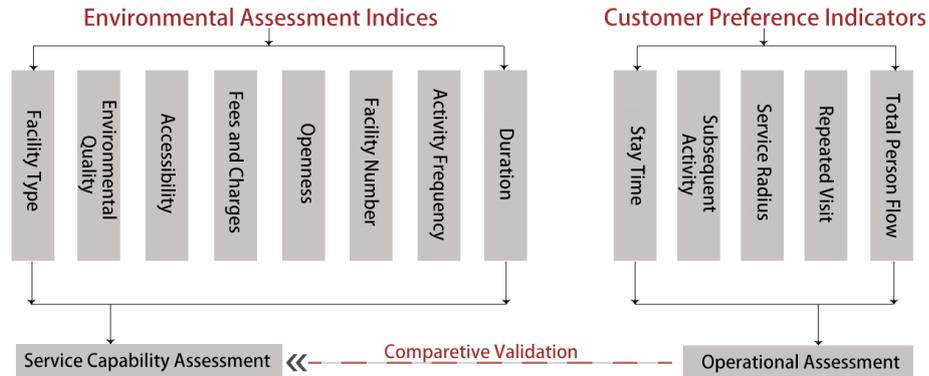


Figure 3: Index Classification

2) Comprehensive index and sub-index classification

The evaluation object of the comprehensive evaluation system is the cultural service places in Xinjiang Bazaar, and there is often more than one cultural service place in Xinjiang Bazaar, and cultural services in Xinjiang Bazaar are bound to be affected by their own attributes, so it is necessary to classify indicators, part of which is comprehensive index. The overall score was given to the bazaar in Xinjiang. The other part is the sub-index; Score individual cultural service places. Among the 8 environmental indicators, "environmental quality" and "facility quantity" are the evaluation objects of Xinjiang Bazaar as a whole; the remaining six evaluated individual cultural services.

III. BAZAAR USER PREFERENCE CULTURAL SERVICE FUNCTION EVALUATION SYSTEM

A. Establishment of Evaluation Index Scoring Standards

Different environmental indicators need to use different amounts for the establishment of the index scoring standard of the comprehensive evaluation model. By means of questionnaire analysis, market statistics analysis and software analysis, eight environmental indicators were quantified. Due to the different classification standards of different indicators in the process, questionnaire statistics and indicator quantification, it is necessary to process the data, multiply each indicator by the corresponding standardization coefficient, unify the highest and lowest scores into "1" and "5", and finally generate the scoring standards and parameter Settings of each indicator, as shown in Table 2.

Since the main target of this study is Bazaar in Xinjiang Autonomous Region, the questionnaire data and content used in the process of formulating the scoring standard are calculated and analyzed with samples from Xinjiang region, so as to improve the pertinence and accuracy of the scoring system.

B. The Statistical Result of Evaluation Index Weight

According to the weight of the indicators, a ranking question is set in the questionnaire "Please rank the importance of the following affecting your going to the large-scale Xinjiang Bazaar cultural and artistic facilities?" (Please fill in the numbers in parentheses, with 1 being the most important and 8 the least important). Taking the degree of influence of each indicator on user behavior selection as the quantitative basis, the questionnaire answers were summarized, and the comprehensive score of each indicator was calculated as its weight, as shown in Table 3.

C. Model Correction Factor Combined with Environment

The weighted calculation of 8 environmental indicators is an evaluation of the cultural service capability of Xinjiang Bazaar from the perspective of user preference, while the cultural service capability in reality will be affected by many factors. As the cultural service place in this study is Xinjiang Bazaar as the carrier, the attribute characteristics of Xinjiang Bazaar itself often have a more significant impact on its cultural service ability. It is necessary to quantify the external realistic environment influencing factors, so as to modify the score results and

make the evaluation results more accurate. Through the preliminary field investigation and analysis, the following five environmental factors with significant impact are summarized as correction coefficients:

Table 2: Scoring Standards and Parameters of Each Index

index	factor	score					
Type of facility	1	custom	education	production	exhibition	performance	
		1	2	3	4	5	
Environmental quality	1	range	Normal	ordinary	comfort	fine	
		1	2	3	4	5	
Charging situation	1.25	141 and above	71-140	Free only	1-70		
		1	2	3	4		
Arrival difficulty	1	Hard	harder	normal	easier	easy	
		1	2	3	4	5	
Number of facilities	1.25	none	one	two	Two or more		
		1	2	3	4		
Degree of openness	1.25	Indoor independent place	There are covered areas outside	Indoor open space	Outdoor open space		
		1	2	3	4		
Activity frequency	0.83	Every 2-3 days	Almost every day	Every two weeks	Once a week	Once a year	Once a month
		1	2	3	4	5	6
duration	1	One day	Half a year	a whole year	weekend	A week or two	
		1	2	3	4	5	

Table 3: Statistical Results of the Index Weight Questionnaire

Index name	Environmental quality	Type of facility	Number of facilities	Degree of openness	Activity frequency	duration	Charging situation	Arrival difficulty
Average score	6.29	4.9	3.84	3.58	3.07	2.68	4.02	4.63

1) *Correction coefficient of attraction ability*

The location of Xinjiang Bazaar in urban and rural areas often has a significant impact on its cultural service ability. For example, Xinjiang Bazaar in urban areas will have more perfect infrastructure, more convenient public transportation, stronger place identity and more dense human flow than Xinjiang Bazaar in county and town areas. This also gives it a wider radiation range and a stronger influence. According to its location and the people it serves, Xinjiang Bazaar is divided into city level, district level and community level.

2) *Correction coefficient of the area size of Xinjiang Bazaar*

The scale size includes the overall scale of Xinjiang Bazaar and the scale of cultural service functions. Through investigation, it is found that the total area of Bazaar is positively correlated with the cultural service capability. It is necessary to add the total area of Xinjiang Bazaar and the area of cultural service places into the specific quantitative indicators as the quantitative basis.

3) *Correction coefficient of the scale of cultural services in Xinjiang Bazaar*

Through investigation, it is found that the functional area of cultural services in Xinjiang Bazaar is positively correlated with the capacity of cultural services. The total area of Xinjiang Bazaar and the area of cultural service places need to be included in the specific quantitative indicators as the quantitative basis.

4) *Radiation population correction coefficient*

The size of cultural service capacity is related to the number of residents around Xinjiang Bazaar. The denser the surrounding population is, that is, the more people served under the same conditions, the higher the number of visitors and frequency of use will be, and the higher the service capacity will be. In the specific quantification process, the number of residential households in the corresponding plot will be estimated by means of network big data investigation.

5) *Modification coefficient of influence ability*

The popularity and praise of a bazaar in Xinjiang also greatly affect people's travel choices. Xinjiang Bazaar, which is more widely spread and well-known by the Internet, will significantly attract more people, which also affects its influence ability. In the specific quantification process, well-known apps such as "Dianping" and "Meituan" can be used to obtain the rating popularity of corresponding Xinjiang Bazaar as the quantitative basis.

However, remote areas in Xinjiang have low usage of apps such as Resident Comments, which could result in low scores.

IV. CONSTRUCTION OF BAZAAR CULTURAL SERVICE FUNCTION EVALUATION MODEL

A. The Structural Framework of the Comprehensive Evaluation Model

According to the above research and analysis, the scoring system based on user preference and the model correction coefficient combined with the current situation are determined, and then the comprehensive evaluation model is constructed by integrating various structural components. According to the system theory approach, the model requires the interaction of the components, structure and environment of the system. The most ideal solution is to establish a mathematical model that can include quantity, relation and qualification, and establish the relationship between independent variable and dependent variable through function. Finally, the diagram of the relationship between the components of the comprehensive evaluation model is formed, as shown in Figure 4.

B. Function Generation of Comprehensive Evaluation Model

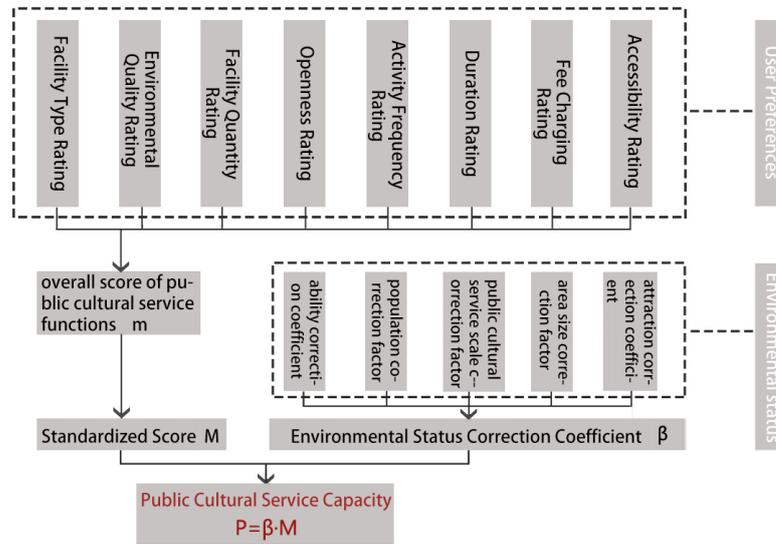


Figure 4: Diagram of Comprehensive Evaluation Model

1) Data standardization

In the process of comprehensive evaluation of multiple indicators, because each indicator has different meanings and attributes, it is usually difficult to unify its unit and magnitude. When the magnitude difference of each index is large, the index with higher value will cover up the role of the index with lower value in the comprehensive evaluation to some extent. Therefore, in order to ensure the reliability of the results, it is necessary to process the original index data, remove the unit restriction, and transform it into a dimensionless pure value, so as to facilitate the horizontal comparison and analysis among various indicators.

2) Mathematical function generation

Based on the structural framework of the proposed comprehensive evaluation model, the author transforms it into mathematical function expression. The overall evaluation result of cultural service ability is the combined effect of the overall correction coefficient (β) and the score result (M), which is the product of the two. The formula expressed as a mathematical function is:

$$P = \beta \cdot M \tag{1}$$

In terms of scoring, first of all, the individual cultural service places are scored quantitatively according to the scoring criteria (T_i , t_i), and then multiplied by the weight of each index (α_i) accordingly. The scores (m_i) of each cultural service place in Xinjiang Bazaar were added to obtain the scores (m) of Xinjiang Bazaar cultural service; the final standardized score (M) was obtained by data standardization processing of the obtained scores. The formula expressed as a mathematical function is:

$$M = \sum_{i=1}^n T_i \alpha_i + \sum_{i=1}^n t_k \alpha_k \tag{2}$$

For the correction coefficient, the five influencing factors were quantified respectively, and then the data were normalized (β_i), and the final sum was the overall correction coefficient (β). Symbolic description of comprehensive evaluation model, as shown in Table 4. The formula expressed as a mathematical function is:

$$\beta = \sum_{i=1}^n \beta_i \tag{3}$$

Table 4: Symbol Description Table of Comprehensive Evaluation Model

symbol	Meaning statement
Ti	Comprehensive index scoring
ti	Score the sub-index
α	Index weight
M	Total score after data standardization
β_i	Quantitative value of influencing factors after data standardization processing
β	Population correction factor
P	Evaluation value of cultural service ability in Xinjiang Bazaar

C. Selection and Analysis of Typical Cases

The evaluation model of Xinjiang Bazaar proposed in the previous section is applied in practice. Three typical cases of Xinjiang bazaar are selected in Xinjiang region, investigated, visited and collected information on them, and each indicator is quantified and substituted into the evaluation model expression to calculate the final evaluation result of cultural service capability.

D. Bazaar Typical Case Overview

1) Xinjiang international grand bazaar

Located in Tianshan District of Urumqi, Xinjiang International Grand Bazaar covers an area of 39,888 square meters with a total construction area of 100,000 square meters. It has been the largest bazaar in China since its completion. There are two large buildings in the International Grand Bazaar, and there is a square in the middle of the two floors. In the center of the square is a 100-meter-high garden landscape tower named Silk Road Tower. There are paintings and exhibitions on each floor of the tower to show the historical story of the Silk Road.

2) Jotegan ancient city

Yotegan Ancient City is located in Bagqi Town, 10 kilometers west of Hotan City, with a construction area of about 70,000 square meters and a total investment of 600 million yuan. It is the first folk culture tourism project in Hotan area. Through the layout of performing arts, food streets, homestay hotels, handmade workshops, cultural pavilions and other scenes, with culture enabling, coupled with modern technology panoramic interpretation, reproduce the magnificent scenery of ancient Khotan along the Silk Road.

3) Tianyu city

Located in the south of Longquan Street, the north of Tianchi Road, the west of Jiefang South Road, and the east of Longquan Street South Lane, the whole is divided into three areas A, B and C, and the construction is carried out in stages. The soon-to-open Zone A covers an area of about 20,900 square meters, with a total floor area of 46,000 square meters. The ground floor of the four-story building, the first floor is a collection of fine cultural creation, Xinjiang specialties, ethnic catering, Central Asian specialty products as one of the creative fashion and leisure food shopping street, by the Silk Road South Road, the Central courtyard Silk Road Square and the Silk Road North Road three parts.

E. Index Scoring Calculation

Based on the above research, the index of each cultural service in Xinjiang Bazaar was scored and weighted, as shown in Table 5, Table 6 and Table 7. The score calculation results reflect the user preference of each cultural service to a certain extent, and the user preference characteristics can be seen from the above results.

F. Correction Factor Calculation

The correction coefficients of Xinjiang International Grand Bazaar, Urumqi Tianyu City and Hotan Jotegan Ancient City were collected and calculated. (1) Correction coefficient of attraction ability: Xinjiang International Grand Bazaar and the Old City of Yotegan belong to the city-level Xinjiang Bazaar, and Tianyu City belongs to the regional level Xinjiang Bazaar, and the correction coefficient is 1:0.66:1. (2) Correction coefficient of the area size of Xinjiang Bazaar: the area ratio of the three is 10:4.6:7, and the final correction coefficient is 0.46:0.21:0.33. (3) Correction coefficient of the scale of Xinjiang Bazaar cultural services: the area ratio of the three is 5650:1550:2100, and the final correction coefficient is 0.61:0.17:0.22. (4) Radiation population correction factor: First of all, the 1.5km area around the selected city is defined according to roads and land boundaries. Then, the household type map of each community and the data of "total number of houses" are collected from the website of Anjuke to count the number of households in each plot. According to the General Principles of Civil Building

Design, the number of people in each household is 3.5, and the final result of the residential population of this plot is calculated. According to the population data in Hotan Statistical Yearbook 2018 [20]. The population ratio is determined to be 18:17:2.3, and the correction coefficient is finally 0.48:0.46:0.06. (5) Modification coefficient of influence ability: The number of views of "Baidu Encyclopedia" is selected as the basis for the degree of fame, which are: 418,200 items of Xinjiang International Dabaza, 3767 items of Tian-Yu City, and 4814 items of the Old City of Yotegan. The ratio of browsing times is $418200/19 = 2210$ $3767/3 = 1256$, $4814/1 = 4814$. The correction coefficient is finally 0.78:0.04:0.18. According to the above data, it is standardized, and the obtained sub-item correction coefficients are added to obtain the overall correction coefficient β of each complex, as shown in Table 8.

Table 5: International Grand Bazaar Comprehensive Scoring Table

factor	index	Xinjiang International Grand Bazaar					
		Dance square	Grand theatre	Sightseeing tower	Outdoor exhibition	Cultural museum	heritage hall
6.29	Environmental quality	4					
3.84	Number of facilities	5					
4.9	Type of facility	5	5	4	4	4	4
3.58	Degree of openness	5	1.25	1.25	5	1.25	1.25
3.07	Activity frequency	1.66	0.83	1.66	1.66	1.66	1.66
2.68	duration	1	1	3	5	3	3
4.02	Charging situation	3.75	1.25	5	2.5	5	5
4.63	Arrival difficulty	5	2	4	5	5	3
score		132.76	92.85	120.19	133.56	124.82	72.21
Total score		676.39					

Table 6: Tianyu City Comprehensive Scoring Table

factor	index	Tianyu City			
		book bar	Cultural theme hall	Jade exhibition hall	Training institution
6.29	Environmental quality	3			
3.84	Number of facilities	3.75			
4.9	Type of facility	2	4	4	2
3.58	Degree of openness	3.75	1.25	1.25	1.25
3.07	Activity frequency	4.15	4.15	4.15	3.32
2.68	duration	3	3	3	5
4.02	Charging situation	5	2.5	1.25	1.25
4.63	Arrival difficulty	5	3	4	2
score		120.53	102.07	101.68	85.43
Total score		409.71			

Table 7: Comprehensive Scoring Table of the Jotegan Ancient City

factor	index	Jotegan Ancient City		
		Exhibition hall	Cultural street	proscenium
6.29	Environmental quality	4		
3.84	Number of facilities	3.75		
4.9	Type of facility	4	1	5
3.58	Degree of openness	1.25	5	5
3.07	Activity frequency	4.15	3.32	1.66
2.68	duration	3	5	3
4.02	Charging situation	5	5	1.25
4.63	Arrival difficulty	4	5	5
score		123.04	129.2	120.23
Total score		372.47		

G. Evaluation Result Analysis

According to the calculated scores of each Xinjiang Bazaar and the correction coefficient, the two are multiplied together to calculate the final evaluation value of Xinjiang Bazaar's cultural service ability, which is 1.53 for Xinjiang International Bazaar; Tianyu City is 0.43; The city of Jotegan is 0.47, as shown in Table 9. The analysis of the final evaluation results shows that Urumqi has the strongest cultural service capacity of Xinjiang International Grand Bazaar. First of all, due to the number and scale of its cultural service places are significantly more, the total area of its cultural service places is 5650 square meters, while the international Grand Bazaar itself is larger, can produce greater radiation effect, accommodate more people and activities; Secondly, among the cultural service places, the Joy singing and dancing square and outdoor exhibition hall have a high degree of

satisfaction in terms of openness and difficulty of arrival. At the same time, the field survey found that the cultural service places of Xinjiang International Bazaar are more open. Through the most popular outdoor square, the indoor open cultural service space and the indoor closed cultural service space are effectively connected and integrated, and have a good synergistic effect with other functional formats.

Table 8: Statistical Calculation Table of Correction Coefficient

name	Attraction	β_1	Gross area	β_2	Cultural service place	Cultural service area	area of cultural	β_3	1.5 km radiation	β_4	Influence ability	β_5	β
Grand Bazaar	region	1	10	0.46	Dance square	1000	5650	0.61	18	0.48	22010	0.78	3.33
					Grand theatre	2000							
					Sightseeing tower	400							
					Outdoor exhibition	1500							
					Cultural museum	150							
					Heritage museum	600							
Tianyu City	region	0.66	4.6	0.21	Book bar	50	1550	0.17	17	0.46	1256	0.04	1.54
					Cultural theme hall	800							
					Jade exhibition hall	500							
					Educational institution	200							
Jotegan	city	1	7	0.33	Exhibition hall	300	2100	0.22	2.3	0.06	4814	0.18	1.79
					Cultural street	1000							
					proscenium	800							

Although Tianyu City and the International Grand Bazaar are located on the same adjacent land, in terms of overall volume, Tianyu City accounts for about half of the International Grand Bazaar, which is relatively close to each other in terms of functions and formats and surrounding environmental conditions, but the area proportion, types and number of its cultural service places are relatively small. At the same time, the cultural service places are generally closed and not attractive enough for residents. For example, Tianyu City education and training institutions are basically jade carving training studios with sales and processing, only for specific groups of people. Most education and training institutions are on the second or third floor, and their operation and use are relatively independent, with little impact on other functions.

Table 9: Calculation Table of Final Evaluation Results of Cultural Service Capability

name	Cultural service place	score	Total score	Standardized score	β	Final score
Grand Bazaar	Dance square	132.76	676.39	0.46	3.33	1.53
	Grand theatre	92.85				
	Sightseeing tower	120.19				
	Outdoor exhibition	133.56				
	Cultural museum	124.82				
	Heritage museum	72.21				
Tianyu City	Book bar	120.53	409.71	0.28	1.54	0.43
	Cultural theme hall	102.07				
	Jade exhibition hall	101.68				
	Educational institution	85.43				
Jotegan	Exhibition hall	123.04	372.47	0.26	1.79	0.47
	Cultural street	129.2				
	proscenium	120.23				

Although the total construction area and the total area of cultural service places of Yotegan Old City are much larger than Tianyu City, the final cultural service capacity is closer to Tianyu City. On the one hand, the main

reasons are its geographical location. In the suburbs of Hotan City, there are few residents affected by the surrounding radiation, and the cultural services provided are not attractive enough. Tourists are positioned as the main consumer group, and the needs of local residents are not fully considered.

ACKNOWLEDGEMENT

This work was supported by the Xinjiang University College Students Innovation Training Program 202210755040, Xinjiang University Central Asia Research Institute Research platform construction major research project 24ZYZD001.

REFERENCES

- [1] Lak A, Hakimian P. A new morphological approach to Iranian bazaar: the application of urban spatial design theories to Shiraz and Kerman bazaars. *Journal of Architectural Conservation*, 2018, 24(3).
- [2] Pre-Kwanzaa & Christmas Bazaar Comes Back to Hyde Park. M2 Presswire, 2018.
- [3] KILIÇ E S, TÜRKÖĞLU G. Accommodation-Purposed Function Changes in Traditional Structures: The Case of Safranbolu Old Bazaar District. *Ege Coğrafya Dergisi*, 2015(1).
- [4] Mitra E S, Ahad E N, Vahid V. Prioritizing infill structure indicators in a historical context: in terms of economic sustainability- the vicinity zone of Tabriz historic bazaar. *Smart and Sustainable Built Environment*, 2022, 11(3).
- [5] Havva B T, Rachida B, Tulin A V. A framework proposal for resilience assessment in traditional commercial centres: case of the historical bazaar of bursa as a resilient world heritage site. *Heritage Science*, 2022, 10(1).
- [6] Qi Liu, Tao Liu. Visual analysis of biosafety laboratory research in China based on CiteSpace software. *Occupational and health*, 2021, 37(17):2412-2416.
- [7] Mina B, Jahanshah P, Varij A K. Gendered space: Women's presence and use of space in Sabzeh-meydan of Tehran Bazaar. *Cities*, 2022, 126.
- [8] Bozdağ T H, Benabbou R, Arslan V T. Resilience assessment framework for the sustainability of traditional commercial centres - case of the Historical Bazaar of Bursa. *International Journal of Sustainable Society*, 2021, 13(3).
- [9] Erdem A E. Challenges to Urban Planning for the Galatea – Persembe Bazaar, Waterfont, Istanbul. *Studia KPZK*, 2018, 188.
- [10] Karrar, HH. Kyrgyzstan's Dordoi and Kara-Suu Bazaars: Mobility, Globalization and Survival in Two Central Asian Markets. *GLOBALIZATIONS*, 2017, 14 (4):643-657.
- [11] Tao Fan, Huan Wang, Jian Wang, Yan Shen. Study on the Sustainability Value of Public Space Culture Service – Xinjiang International Grand Bazaar, China as an Example. *Forest Chemicals Review*, 2021, 7:855-870.
- [12] Humphrey, C and Skvirskaja, V. The end of the bazaar? Morphology of a post-Soviet marketplace. *HISTORY AND ANTHROPOLOGY*, 2021, 10.
- [13] Bozdağ, HT; Benabbou, R and Arslan, TV. A framework proposal for resilience assessment in traditional commercial centres: case of the historical bazaar of bursa as a resilient world heritage site. *HERITAGE SCIENCE*, 2022, 10 (1).
- [14] Yadollahi, Solmaz Der. iranische Basar als öffentlicher Raum: eine forschungsgelietete Untersuchung zur Reintegration, untersucht an der Fallstudie Tabriz Basar. *Brandenburgische Technische Universitaet Cottbus (Germany)*, 2017, 1 (2).
- [15] Mohamad, Danah. Review of the Development and Change of Tripoli Bazaar in Lebanon. *Bursa Uludag University (Turkey)*, 2020, 6.
- [16] Szytniewski, BB, Spierings, B. Place Image Formation and Cross-Border Shopping: German Shoppers in the Polish Bazaar in Subice. *TIJDSCHRIFT VOOR ECONOMISCHE EN SOCIALE GEOGRAFIE*, 2018, 09 (2): 295-308.
- [17] Bidar, M; Pakzad, J and Kazemi, AV. Gendered space: Women's presence and use of space in Sabzeh-meydan of Tehran Bazaar. *CITIES*, 2022, 05.
- [18] Williams, Samuel Joseph. *Istanbul Incorporated Minorities and the Market in the Grand Bazaar and İstiklâl Street*. Princeton University, 2016.
- [19] Boyce, M; Bowell, A; Clark, E. Evaluation of patient questionnaire based on computer software analysis. *BRITISH JOURNAL OF CLINICAL PHARMACOLOGY*, 2016, 53(4):436.
- [20] *China county statistical Yearbook-2019*. Beijing: China Statistics Press, 2020, 05:657.