

Study on the Measurement and High-Quality Development of Tourism System Resilience in Sichuan Province under the “Dual Circulation” Pattern*

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Abstract: The international and domestic situation has changed under the "double-loop" pattern. In order to explore the profile of Sichuan's tourism industry and its ability to cope with various risks under the new development pattern, this paper uses the CRITIC method and multi-objective weighting methods to measure the systemic resilience of its tourism industry in four dimensions: economic, ecological, social and technological. Based on these measures, we analyze the types of tourism resilience in Sichuan Province and propose scientific policy recommendations to promote high-quality tourism development. The results of the study show that: (i) the representative cities of Sichuan Province are Chengdu, Mianyang, Meishan, Ziyang, and Deyang in the five levels of tourism system resilience from high to low; (ii) most of the cities (states) in the province have medium to high resilience levels, and the regional resilience levels are graded more obviously, and the tourism system resilience tends to decrease from the center to the surroundings and from east to west; (iii) in the development of tourism system resilience, Chengdu and Mianyang are socially in the development of tourism system resilience, Chengdu and Mianyang are social lagging type, other cities (states) are technical lagging type.

Keywords: Dual Circulation; Tourism resilience; High quality development; CRITIC approach; Sichuan province

1. Introduction

The meeting of the Central Political Bureau held on December 11, 2020 proposed that the world today is in the midst of "unprecedented changes in a century". pattern in order to ensure sustainable economic development [1-3], which is an urgent requirement to adapt to the changes in China's comparative advantages and major social contradictions and to the complex and profound changes in the international environment, a strategic direction for China's economic development in the current and longer-term future, and another great practical feat to practice the advanced concept of human destiny community [4].

With the continuous development of tourism industry and the impact of the new crown epidemic, we find that the contradiction between the demand for tourism system and the unbalanced and insufficient supply of tourism system by the growth of tourism industry is becoming more and more prominent, and improving the resilience of tourism system can help the high-quality development of tourism industry. Therefore, it is important to conduct a comprehensive scientific measurement of the resilience of the tourism system in Sichuan Province, to explore the important factors affecting the resilience of the tourism system, and to continue to do a good job in the development of tourism in Sichuan Province in order to promote the high-quality development of tourism in Sichuan Province.

The events of September 11, 2001 and Hurricane Katrina, 2005 [5-7] have inspired researchers and government agencies to explore resilient cities from economic, social, ecological, and disaster prevention perspectives [8]. At present, scholars at home and abroad mainly study the connotation of resilience, the way to measure it and its application, and today's academia has a relatively broad definition of resilience, usually from social, economic, cultural and ecological factors to understand its contribution to the resilience of tourism systems [9], or to establish a resilience index system of urban tourism environmental systems with relevant indicators of natural, economic and social aspects [10], and through the index system

The evaluation and analysis of tourism system resilience is carried out. Some scholars have studied the resilience of the tourism system in Shandong Province, portraying the characteristics of its spatial pattern, analyzing the factors of the barrier degree of development, and providing reference for promoting its high-quality development^[11]; through the study of the resilience of tourism communities, proposing the revitalization strategy of tourism communities; through the analysis of the resilience of China's tourism economy, exploring the characteristics of its spatial and temporal changes and the role of influencing factors^[12].

The above studies have explored more extensively the connotation, development process and measurement methods of resilience, gradually applied the concept of resilience to tourism, and studied the resilience of tourism communities and urban tourism system resilience, but lacked the definition of the concept of resilience for tourism systems, while in the construction of the indicator system mostly using easily accessible quantitative data, the process of selecting indicators for the indicator system is being improved, and the construction of Indicator system needs to be more targeted and more practical value. Therefore, this paper measures the system resilience of tourism in Sichuan Province from four dimensions: economic, ecological, social and technological, using the CRITIC method and multi-objective weighting, and based on this, we explore the current situation of the development of tourism resilience in Sichuan Province, and put forward referable opinions and suggestions in order to promote the high-quality development of tourism.

2. Research Methodology and Data Sources

2.1. Evaluation index system construction and data sources

Table 1: Evaluation index system of tourism system resilience.

Evaluation objectives	Level 1 indicators	Secondary indicators	Metric data
Tourism system resilience assessment	Economic environment (0.2771)	Local economic foundation (0.1304)	GDP per capita (RMB/person)
			Tertiary industry as a percentage of GDP/%
			Per capita disposable income/RMB
		Development of tourism economy (0.0727)	Domestic tourism revenue/100 million RMB
			International tourism foreign exchange earnings/10,000 US dollars
			Receives 10,000 visitors throughout the year
	Tourism economic resilience (0.0739)	Growth rate of fixed investment in the tertiary industry/%	
	Ecology (0.4004)	Pollution and remediation (0.1922)	Regional sewage discharge/10,000 cubic meters
			Comprehensive utilization rate of solid waste/%
		Green cover (0.1744)	Green cover area (hectares)
			Green coverage rate of built-up area/%
			Area of green space in the park (hectares)
		Park green area per capita (m ² /person)	
	Richness of tourism resources (0.0388)	Number of 4A level scenic spots/pcs	
	Social environment (0.1714)	Tourist facilities (0.0495)	Number of starred hotels/unit
			Number of travel agencies/home
		Social development (0.1219)	Number of permanent residents/10,000
	Engel coefficient of urban residents' lives/%		
	Technical environment (0.1511)	Investment in science and technology (0.0735)	R&D expenses/billion yuan
			Patent application/entry
Patent grants/items			
Technical personnel pool (0.0758)		Number of institutions of higher learning	
		Number of researchers/person	
R&D personnel this and full-time personnel/person-years			

Tourism resilience is closely related to urban resilience and economic resilience, so drawing on relevant studies, the tourism system can be summarized into four dimensions: economic, ecological, social and technological, and the tourism system resilience is defined as the comprehensive performance of the ability of the four dimensions of the tourism system economic environment, ecological environment, social environment and technological environment to withstand external disturbances.

Based on this, the tourism system resilience evaluation index system is constructed, as shown in Table 1. According to the constructed tourism system resilience evaluation index system to collect relevant raw data, the raw data are selected from the City Statistical Yearbook-2020, Sichuan Statistical Yearbook-2020, and the Statistical Bulletin of National Economic and Social Development of the City. The evaluation index system of tourism system resilience is shown in Table 1.

2.2. Research Methodology

2.2.1. Data standardization

After the collected raw data, due to the different contents represented by each indicator and the difference in the unit of measure, for the subsequent study, this paper adopts the polar difference method to standardize the raw data, and when there are $i = 1, \dots, n$ alternatives and $j = 1, \dots, m$ indicators, the formula for standardization is as follows:

$$\text{Positive indicators: } z_{ij} = \frac{x_{ij} - \min_i x_{ij}}{\max_i x_{ij} - \min_i x_{ij}} \tag{1}$$

$$\text{Negative indicators: } z_{ij} = \frac{\max_i x_{ij} - x_{ij}}{\max_i x_{ij} - \min_i x_{ij}} \tag{2}$$

Where, x_{ij} represents the original data value; z_{ij} represents the normalized data value; $\max_i x_{ij}$ and $\min_i x_{ij}$ represent the maximum data value and minimum data value of each indicator, respectively.

2.2.2. CRITIC method to determine the index weights

CRITC method is an objective weighting method proposed by Diakoulaki, Mavrotas and Papayannakis for assigning weights to indicators. In this method, indicators do not contradict each other, and the indicator weight values are determined by using a decision matrix. First, the initial decision matrix is determined from the normalized values obtained in equations (1) and (2):

$$Z = \begin{pmatrix} z_{11} & z_{12} & \dots & z_{1m} \\ z_{21} & z_{22} & \dots & z_{2m} \\ \vdots & \vdots & \ddots & \vdots \\ z_{n1} & z_{n2} & \dots & z_{nm} \end{pmatrix} \tag{3}$$

Then solve for the value of the correlation coefficient between the indicator data:

$$\rho_{jk} = \frac{\sum_{i=1}^n (z_{ij} - \bar{z}_j)(z_{ik} - \bar{z}_k)}{\sqrt{\sum_{i=1}^n (z_{ij} - \bar{z}_j)^2 \sum_{i=1}^n (z_{ik} - \bar{z}_k)^2}} \tag{4}$$

Where, \bar{z}_j and \bar{z}_k represent the average of the j th and k th indicators, which is calculated by equation (5). ρ_{jk} represents the correlation coefficient between the j th and k th indicators.

$$\bar{z}_j = \frac{1}{n} \sum_{i=1}^n z_{ij} \tag{5}$$

Afterwards, the standard deviation of σ_j is calculated for each indicator and the index C is obtained:

$$\sigma_j = \sqrt{\frac{1}{n-1} \sum_{i=1}^n (x_{ij} - \bar{x}_j)^2} \tag{6}$$

$$C_j = \sigma_j \sum_{k=1}^m (1 - \rho_{jk}) \quad (7)$$

The final weight values of the 24 indicators were obtained as follows:

$$w_j = \frac{C_j}{\sum_{j=1}^m C_j} \quad (8)$$

2.2.3. Multi-objective weighting method to determine the level of resilience

In this paper, the value of tourism system resilience level and the resilience level of tourism system economic environment, tourism system ecological environment, tourism system social environment and; v have system technical environment of each city (state) are derived by multi-objective weighted summation method using the following formula:

$$G_i = \sum_{j=1}^m w_j \times z_{ij} \quad (9)$$

Where, z_{ij} represents the standardized processed data value; $G = \{X, Y, S, W\}$, G represents the tourism system resilience level value, X represents the resilience value of tourism system economic environment, Y represents the resilience value of tourism system ecological environment, S represents the resilience value of tourism system social environment, W represents the resilience value of tourism system technological environment; w_j represents j indicators' weights.

3. Analysis of tourism system resilience characteristics

3.1. Analysis of tourism system resilience types

The weights of the 24 indicators were calculated based on the obtained raw data and formulas (1)-(8), and the results of the toughness evaluation based on formula (9) are shown in Table 2. According to the obtained results, the 18 prefecture-level cities and 3 autonomous prefectures in Sichuan Province are classified into five types: high, higher, medium, lower and low.

(1) High resilience level city (state): Chengdu. Chengdu has the highest level of tourism system resilience, mainly because of the strong tourism economy and developed science and technology. Chengdu is the main distribution of 4A and 5A scenic spots in Sichuan Province, and its number of scenic spots far exceeds that of other cities (states) in Sichuan Province, laying the foundation for tourism development.

(2) Higher resilience level cities (states): Mianyang City, Luzhou City, Zigong City, Yibin City, Leshan City, Guangyuan City. The resilience score of this category of cities (states) is between 0.43-0.46, which has relative advantages in economic foundation, tourism ecological environment, science and technology investment and the amount of science and technology talent reserves, and rich tourism resources, with more scenic spots above 4A level, good economic support and science and technology investment, relatively superior tourism resources provide support for the development of its tourism industry and promote the construction of tourism system resilience.

(3) Medium resilience level cities (states): Meishan City, Neijiang City, Dazhou City, Guang'an City, Ya'an City, Bazhong City, Ganzi Prefecture. The resilience scores of this category of cities (states) range from 0.39-0.43, which is almost the same as the average of the resilience level in Sichuan Province. Despite the better ecological environment of the tourism system, the constraints of the local economic base and tourism economic development, already in the shortage of scientific and technological innovation, lead to the resilience level in the middle half of the degree.

(4) Lower toughness level cities (states): Ziyang City, Nanchong City, Suining City, Aba Prefecture. The resilience scores of these cities (states) are between 0.36 and 0.39. Among them, Ziyang City has relatively outstanding tourism ecological protection, but the tourism infrastructure situation is very lacking for tourism development; Nanchong City's science and technology level has contributed to the development of tourism system, but the tourism economic base is weak and lacks tourism development characteristics.

(5) Low-level resilience level cities (states): Deyang City, Liangshan Prefecture, Panzhihua City. The resilience scores of this category of cities (states) range from 0.32-0.36, which is larger than the average level of tourism system resilience of cities (states) in Sichuan Province, mainly due to low tourism visibility, inconvenient tourism development due to geographical location, and weak economic base.

Table 2: Evaluation scores of tourism system resilience and scores of each dimension.

City (State)	Economic environment		Ecology		Social environment		Technical environment		City (state) resilience	
	Score	Ranking	Score	Ranking	Score	Ranking	Score	Ranking	Score	Ranking
Chengdu	0.9515	1	0.6234	16	0.5316	2	1.0000	1	0.7555	1
Zigong	0.3814	9	0.7129	5	0.3587	7	0.0274	9	0.4567	4
Panzhihua	0.3928	7	0.4914	20	0.1122	20	0.0247	11	0.3286	21
Luzhou	0.3689	10	0.7156	3	0.3686	6	0.0469	4	0.4590	3
Deyang	0.1818	20	0.6544	15	0.1720	18	0.1084	3	0.3583	19
Mianyang	0.3970	5	0.6904	9	0.2296	14	0.2534	2	0.4641	2
Guangyuan	0.3133	15	0.6909	8	0.3992	5	0.0158	15	0.4343	7
Suining	0.2876	17	0.6572	13	0.2129	16	0.0190	13	0.3822	17
Neijiang	0.3875	8	0.7128	6	0.1704	19	0.0294	8	0.4264	9
Leshan	0.4488	3	0.6693	12	0.2331	13	0.0305	7	0.4369	6
Nanchong	0.2818	18	0.6131	17	0.3327	8	0.0450	6	0.3874	16
Meishan	0.3612	12	0.7082	7	0.2492	12	0.0273	10	0.4305	8
Yibin	0.3952	6	0.7138	4	0.2522	11	0.0459	5	0.4455	5
Gwangan	0.3663	11	0.6837	10	0.2212	15	0.0097	18	0.4146	11
Dazhou	0.2579	19	0.6568	14	0.4477	4	0.0238	12	0.4148	10
Ya'an	0.3195	14	0.7189	2	0.2002	17	0.0163	14	0.4131	12
巴中	0.1129	21	0.6825	11	0.5883	1	0.0050	19	0.4061	13
Bazhong	0.3416	13	0.7251	1	0.0156	21	0.0106	17	0.3892	15
Aba	0.4638	2	0.4846	21	0.3223	9	0.0044	20	0.3784	18
Kardze	0.4098	4	0.5065	19	0.5128	3	0.0001	21	0.4042	14
Liangshan	0.3103	16	0.5258	18	0.3192	10	0.0128	16	0.3531	20

3.2. Analysis of spatial characteristics of tourism system resilience

3.2.1. Analysis of overall spatial characteristics

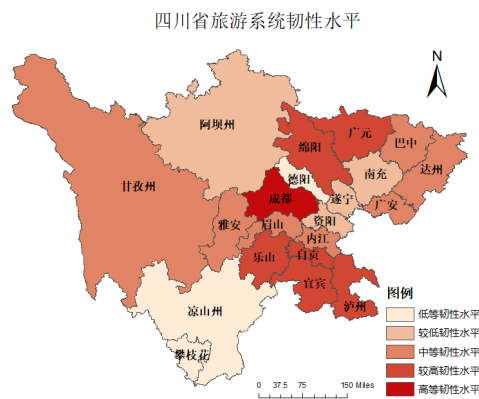


Figure 1: Spatial pattern of resilience level of tourism system in Sichuan Province.

In this paper, using the obtained data results, the spatial pattern of the resilience level of the tourism system in Sichuan Province is drawn by ArcGIS software, and the results are shown in Figure 1. From the figure, it can be seen that there is an obvious spatial divergence in the resilience level of tourism system in Sichuan province. The overall tourism system resilience level of the province is in the middle and high level, with a decreasing trend from the center to the surroundings and from east to west. Most of the cities (states) are in the middle and high level of resilience, among which the high level cities (states) are mainly in the southeast and northeast sides with Chengdu as the center, and the middle level cities (states) are mainly in the east, west and throughout the province. The low level areas are located in Liangshan Prefecture and Panzhihua in southern Sichuan, Nanchong, Suining, Ziyang and Deyang in

eastern Sichuan.

3.2.2. Analysis of the spatial characteristics of each dimension

The tourism economic environment, ecological environment, social environment and technical environment of each city (state) in Sichuan Province are divided into dimensions, which are divided into five levels: low, low, medium, high and high, and the spatial pattern map of each dimension is drawn accordingly using ArcGIS software, the results are shown in Figure 2, and further analysis is carried out according to the results:

(1) Tourism system economic environment: the indicators of economic environment contain local economic and economic foundation situation, tourism economic development situation and tourism economic recovery ability, the corresponding indicator weights are 0.4707, 0.2624 and 0.2669 respectively. It can be seen from the overall, the tourism economy of most cities (states) in the province is in the middle and high level, but the spatial differences are obvious.

(2) Tourism system ecological environment: the indicators of ecological environment include pollution and treatment, greening coverage and tourism resource richness, the corresponding indicator weights are 0.4800, 0.4356 and 0.0843, respectively. It can be seen from the overall, the tourism ecological environment in the eastern and western parts of the province is very different, the middle and high level cities (states) are mainly located in the east of Sichuan, the typical ones are Ziyang City and Ya'an City; the low level cities (states) are mainly located in the east of Sichuan, the typical ones are Ziyang City and Ya'an City. This is inextricably related to the geographical location and topography of the western part of Sichuan, which has a certain restrictive effect on the shaping of tourism ecological environment.

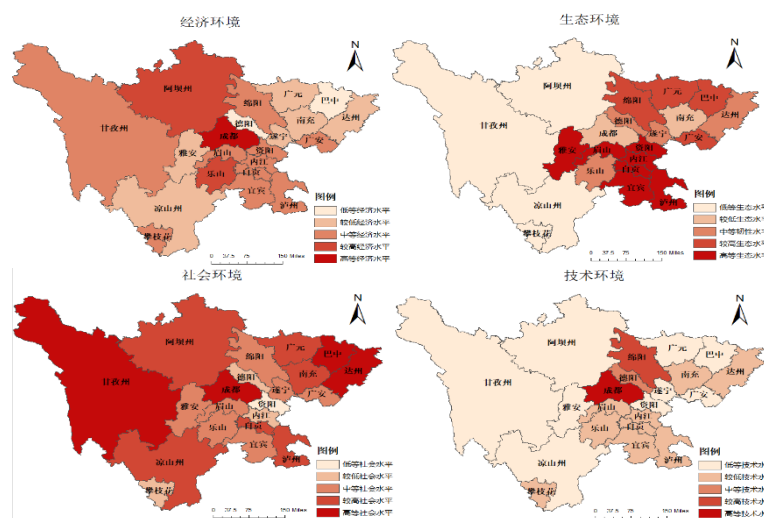


Figure 2: Multidimensional spatial pattern of resilience level of tourism system in Sichuan Province.

(3) Social environment of tourism system: The indicators of social environment include tourism facilities and social development, and the corresponding indicator weights are 0.2887 and 0.7113 respectively. It can be seen that the level of tourism social environment in the province is very high, and all cities (states) in the province are basically in the middle and high level, Ganzi in the east of Sichuan, Chengdu in the middle of Sichuan, and Bazhong and Dazhou in the west of Sichuan are in the high level. The social environment level of tourism in the province shows a gradual decrease from outside the province to inside the province.

(4) Tourism system technical environment: the indicators of technical environment include science and technology investment and technical talent reserves, the corresponding indicator weights are 0.4985 and 0.5015 respectively. The province's tourism technical environment is generally at a low level, with only the neighboring cities (states) of Chengdu, Mianyang and Deyang at a medium to high level. The low level areas are mainly located in the west, northeast and southeast of Sichuan. The level of tourism technical environment in general gradually increases from outside to inside Sichuan province.

4. Analysis of tourism system resilience quality development

4.1. Analysis of tourism system resilience development types

The four first-level indicators in the evaluation index system of tourism system resilience in Sichuan province are taken as the object of study, and the main aspects affecting the resilience development of its tourism system in each city (state) can be identified through comparative analysis of the relationship between the four first-level indicators. First of all, to develop the type of tourism system resilience development criteria, according to $K = \min\{X, Y, S, W\}$ to determine the type of development, if $K = X$, then the economic environment lagging type, that is, the economic environment backward on its tourism system resilience development has the greatest impact; if $K = Y$, then the ecological environment lagging type, that is, the ecological environment backward on its tourism system resilience development has the greatest impact; if $K = S$, then the social environment lagging type, that is, the social environment lagging on its tourism system resilience development of the greatest impact; if $K = W$, it is the technical environment lagging type, that is, the technical environment lagging on its tourism system resilience development of the greatest impact, the results are shown in Table 3. It can be seen from this, Chengdu and Mianyang city belong to social lagging type, that is, in the tourism system resilience development, tourism infrastructure construction and social development needs to be more attention, which means that in the subsequent resilience level improvement, we should pay more attention to the construction of such aspects as star hotels, travel agencies, transportation, etc., and focus on improving the quality of life of the people, good living conditions will be more to promote the residents in the tourism industry. The input and expenses of the tourism industry. Other cities (states) are technology lagging type, which means that in the development of tourism system resilience, this type of areas relatively lack of attention to the degree of science and technology, in the gradual development of intelligent tourism, enhance the investment in science and technology has an important role in the development of tourism system resilience.

Table 3: Results of tourism system toughness coupling coordination degree.

City (State)	Type of development	City (State)	Type of development
Chengdu	Social lagging type	Zigong	Technology lag type
Panzhihua	Technology lag type	Luzhou	Technology lag type
Deyang	Technology lag type	Mianyang	Social lagging type
Guangyuan	Technology lag type	Suining	Social lagging type
Neijiang	Technology lag type	Leshan	Social lagging type
Nanchong	Technology lag type	Meishan	Social lagging type
Yibin	Technology lag type	Gwangang	Social lagging type
Dazhou	Technology lag type	Ya'an	Social lagging type
Bazhong	Technology lag type	Ziyang	Technology lag type
Aba	Technology lag type	Kardze	Technology lag type
Liangshan	Technology lag type		

4.2. Tourism System Resilience High Quality Development Recommendations

Based on the new pattern of "double cycle" and the measurement and analysis of tourism system resilience in Sichuan Province, in order to strengthen the construction of tourism system resilience in Sichuan Province, reduce the impact of public health crisis events and disasters on the tourism industry, and promote the high quality development of tourism system resilience, it is of great value to promote the high quality development of tourism system resilience based on the above-mentioned resilience research and the study of Sichuan city (state) tourism system resilience development types. Based on the above-mentioned resilience study and the study on the types of tourism system resilience development in Sichuan cities (states), the following high-quality development recommendations are proposed:

(1) On the basis of maintaining the current tourism system resilience of the province mostly at medium to high level, precise support is needed to improve the tourism system resilience in low level areas and to value the important role of tourism in the high quality growth of regional economy. In the economic environment of tourism system resilience, low-level cities (states) are mainly located in the northeast and southwest of Sichuan Province, more typically in Bazhong City and Liangshan Prefecture, which need greater economic support to promote local economic development.

(2) The construction of tourism system resilience must adhere to the ecological concept of green

development and sustainable development. For Aba Prefecture, Liangshan Prefecture and Ganzi Prefecture, its geographical environment characteristics cause more natural ecological areas, less tourism ecological areas, in the construction of its tourism ecological environment, cannot cause damage to the original ecological environment in order to develop tourism, green and sustainable tourism ecological environment is the fundamental guarantee to promote the construction of tourism system resilience. A good ecological environment will make the tourism system has stronger ecological resilience when it is impacted, bringing the tourism system stronger resilience.

(3) The analysis of the social environment of tourism system resilience shows that the current social environment in Sichuan Province is suitable for the development of tourism and the construction of tourism system resilience. For the cities (states) of Ziyang City and Neijiang City, where the level of tourism system resilience social environment is relatively low, we should pay attention to the communion between tourists and local residents when building their social environment, and we should strengthen the construction and supervision mechanism of transportation, travel agencies and star hotels. Promote the construction of tourism industry resilience system to promote the healthy development of tourism.

(4) The analysis of the types of tourism system resilience development and technological environment shows that the type of tourism system resilience development in Sichuan Province is mostly lagging in science and technology, so it is imperative to promote its resilience and high quality development and strengthen the technology empowerment. Promote the construction of intelligent tourism, enhance the tourism industry's independent innovation capacity, and promote the cultivation and application of scientific and technological talents. Fully exploit the advantages of the regional center of tourism big data, accelerate the construction of information technology facilities for the management of key scenic spots, and provide early warning and develop defensive measures for unexpected crisis events.

(5) The overall development of tourism in Sichuan Province is relatively unbalanced, with large differences in development between localities. In order to promote the development together, should establish a global consciousness view, can do overall planning around the tourism system in Sichuan Province, on the basis of the establishment of a good local tourism system, the tourists will be diverted, so that the tourism industry development of better areas to drive the development of the lagging areas, so that the tourism system in Sichuan Province can be better synergistic development.

5. Conclusions and Recommendations

This paper takes the 18 prefecture-level cities and 3 autonomous prefectures of Sichuan Province as the research objects, constructs the evaluation index system of tourism system resilience in Sichuan Province, and collects the relevant data in 2019, calculates the index weights by CRITIC method, and uses the multi-objective weighted summation method to measure the resilience level, and conducts an in-depth exploration of the tourism system resilience in Sichuan Province, and analyzes the difference of its resilience level, in order to promote the resilience construction to promote the high-quality development of tourism. The conclusions are as follows:

(1) Types of tourism system resilience: only Chengdu has a high level of resilience, Mianyang, Luzhou, Zigong, Yibin, Leshan and Guangyuan have a high level of resilience, Meishan, Neijiang, Dazhou, Guang'an, Ya'an, Bazhong and Ganzi have a medium level of resilience, Ziyang, Nanchong, Suining and Aba have a low level of resilience, and Deyang, Liangshan and Panzhihua have a low level of resilience.

(2) Tourism system toughness spatial pattern: the province's cities (states) are mostly medium and high toughness level, the regional toughness level grading is more obvious, tourism system toughness from the center to the surrounding, from east to west there is a downward trend. In terms of economic environment, the tourism economy of most cities (states) is in the middle and high level, and the low level cities (states) are mainly located in the northeast and southwest of Sichuan Province; in terms of ecological environment, the middle and high level cities (states) are mainly located in the east of Sichuan Province, and the low level cities (states) are mainly located in the west of Sichuan Province; in terms of social environment, all cities (states) are basically in the middle and high level, and the overall situation is gradually decreasing from outside to inside the province. In terms of technical environment, it gradually increases from outside to inside Sichuan province, but is generally at a low level.

(3) Tourism system resilience development type: Chengdu and Mianyang belong to the social lag type, in the tourism system resilience development, we should pay more attention to social welfare and tourism infrastructure construction; other cities (states) are technical lag type, we should pay more

attention to the investment in tourism science and technology, pay attention to the important role of science and technology development on tourism system resilience.

(4) Tourism system toughness high-quality development: we should focus on policy support and economic support for Liangshan, Panzhihua and other low-level cities (states); pay attention to the construction of tourism system toughness and economic assistance; adhere to the ecological concept of green development and sustainable development; promote the construction of social infrastructure for tourism; promote the deep integration of modern science and technology with tourism; and build a multi-dimensional tourism system toughness high-quality development. Promote mechanism, focus on in-depth understanding of the new development pattern as well as the scientific connotation of high-quality development.

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