

Research on Urban Tourism Competitiveness of Anhui Province

Xingyu Ding

Anhui University of Finance and Economics, Anhui, China

Abstract

This paper starts from the tourism competitiveness report released in 2019, selects the calculated TTCI indicators given in the tourism competitiveness report, selects the actual indicators in our province to build the tourism competitiveness index system of each city, and then obtains the comprehensive score and ranking of the tourism competitiveness of 16 cities through factor analysis. And stratified all cities. Analyze the urban tourism competitiveness at different levels, and put forward the countermeasures to enhance the urban tourism competitiveness, in order to enhance the overall level of urban tourism competitiveness in Anhui Province, and promote the economic development of each city.

Keywords

Tourism Competitiveness; Index System; Factor Analysis Method; Anhui Province.

1. Background

Tourism is a comprehensive industry based on tourism resources and tourism facilities, specializing in or mainly engaged in attracting and receiving tourists, and providing them with six links: transportation, sightseeing, accommodation, catering, shopping and entertainment. In the new stage of the new century, the CPC Central Committee and The State Council have established expanding domestic demand and promoting consumption as a long-term strategic policy and basic foothold for promoting national economic development. Tourism is an important part of the tertiary industry, is one of the fastest developing emerging industries in the world, known as the "sunrise industry". With China's continuous construction of a moderately prosperous society in an all-round way, China's tourism industry faces major development opportunities: China's economy continues to achieve rapid growth, It will certainly play a basic supporting role in the growth of tourism demand; Urban and rural household incomes will grow steadily, The GDP per capita will be at around \$3,500 or more by 2020, This will enter the explosive growth stage of the tourism industry recognized by the world tourism industry; The country's economic development strategy of expanding domestic demand and accelerating the development of the service industry, Will create new opportunities for the further development of tourism; China's opening-up to the outside world has been further expanded, It will play a better role for China's tourism industry in the international market and the world stage, Create more favorable conditions; Chinese government harmony and human harmony, public stability, Will become one of the safest tourist destinations in the world; With the improvement of the current vacation system and the implementation of the paid leave system, It will form a huge domestic tourism consumption market. Despite the once-in-a-century international financial crisis, our strategic opportunities for economic and social development have not been reversed, and China's tourism development is still on the rise.

As an important module of tourism, urban tourism plays an irreplaceable role in the competition of national and regional tourism [1]. It is in view of the importance of the "urban tourism industry", that all urban tourist destinations want to have a place in the tourism market, hoping to improve their own popularity and comprehensive strength through tourism. Therefore, the study of urban tourism competitiveness will be very conducive to the

development of regional tourism and related industries, the shaping of urban image and other [2].

2. Data Sources and Index System

2.1. Data Source

The data are mainly derived from the Anhui Provincial Statistical Yearbook 2019, the 2019 Statistical Bulletin of National Economic and Social Development and the statistical Yearbook of each city; part of the data comes from the official website and Internet of the Anhui Provincial Tourism Bureau. At the same time, the data direct acquisition of some indicators is not large, so it can only be obtained indirectly by the secondary calculation.

2.2. Construction of the Evaluation Index System of Urban Tourism Competitiveness

Table 1. Urban Tourism competitiveness Index System of Anhui Province

Level 1 indicators	Secondary indicators	Indicator representation	unit
Contribution rate of domestic tourism performance	Number of domestic tourists	X1	Ten thousand person-time
	Domestic tourism income	X3	Ten thousand person-time
Contribution rate of foreign tourism performance	Number of inbound tourists	X2	100 million
	foreign exchange earnings from tourism	X4	100 million
Tourism facilities to support the force	Number of star hotels	X5	individual
	Number of tourist attractions	X6	individual
	The number of tourist attractions above the 4A level	X7	individual
	Travel agency number	X8	individual
Tourism environment support force	Key key cultural relics protection units	X9	individual
	Highway mileage	X10	km
	Tourism revenue accounts G in GDP	X11	%
	Total annual passenger transport	X12	Ten thousand person-time
	GDP	X13	100 million
	Per capita travel expenditure	X14	first

Urban tourism competitiveness is the result of the comprehensive effect of many aspects. It not only refers to the field of urban tourism, but also the comprehensive performance of economic field, urban environment, urban transportation and other aspects. [3] Based on this, this paper refers to the tourism competitiveness index framework published in the Tourism Competitiveness Report of the World Economic Forum and the indicators selected in previous academic studies, according to the principles of representativeness, scientificity, accessibility and systematization Contribution rate of domestic tourism performance, Contribution rate of

foreign tourism performance14 evaluation index system of urban tourism competitiveness in Anhui Province (as shown in Table 1).

3. Urban Tourism Competitiveness Evaluation of Anhui Province

3.1. Data Standardized Processing Test and Extraction of Main Factor

According to the basic principle of factor analysis method, first standardize the data, and then test the factor analysis conditions, finally after data analysis processing the correlation coefficient matrix, which can see the correlation between multiple variables, correlation between the variables is strong [4], and can be extracted from public factors, and then that can conduct factor analysis. Subsequently, in the KMO test, the KMO value is equal to 0.576, barely using the public factor analysis, and the Bartlett test was 324.557, the significance level was 0.000, lower than 0.001, so that there is a significant correlation among the variables, so the factor analysis method is reasonable and effective. Under the condition that the characteristic value is greater than 1 and the cumulative contribution rate is greater than 85%, the factors can be extracted by principal component analysis. From Table 2, the cumulative variance contribution rate of the three main factors (F1, F2 and F 2) reached 88.92%, indicating that the three main factors can fully reflect the tourism competitiveness of various cities.

Table 2. Total variance interpretation

principal component	Initial eigenvalue			The sum of square load was extracted			Rotate the sum of the square payload		
	altogether	variance /%	accumulation /%	altogether	variance /%	accumulation /%	altogether	variance /%	accumulation /%
F1	7.77479	55.53	55.53	7.77479	55.53	55.53	5.06088	36.15	36.15
F2	3.55129	25.37	80.90	3.55129	25.37	80.90	4.71059	33.65	69.80
F3	1.12223	8.02	88.92	1.12223	8.02	88.92	2.67685	19.12	88.92

3.2. Factor Rotation

Table 3. Component coefficient matrix

evaluating indicator	Principal component factors		
	F1	F2	F3
X1	0.3400	0.8331	0.3508
X2	0.9386	0.1189	-0.0121
X3	0.3210	0.8991	0.2600
X4	0.9269	0.3057	-0.0355
X5	0.4597	0.7023	0.4238
X6	0.3401	0.3673	0.8289
X7	0.6042	0.3078	0.6428
X8	0.4959	0.6904	0.3643
X9	0.8792	0.1006	0.1620
X10	-0.3373	0.2347	0.8324
X11	0.9358	0.0651	0.0464
X12	-0.3085	0.6179	0.5641
X13	-0.3692	0.8893	0.1540
X14	0.4127	0.8118	0.0951

Table 3 is the matrix of component coefficient obtained by rotation during the factor analysis method. the rotating component coefficient matrix represents the correlation coefficient of the variable and the main factor, and the larger the absolute value of the load on a certain master factor indicates that the variable is more closely related to the main factor, namely, the main factor can fully contain information about the variable. It can be drawn from Table 3,Entry tourism visitors, tourism foreign exchange income, above 4A tourist scenic spots, the national key cultural relics protection units and tourism income accounted for the proportion of GDP the five indicators in the first main component F1 occupy a large load, load coefficient mostly above 0.8, that the first main component can basically comprehensively reflect the information of these indicators, its contribution rate is 36.15%.From the perspective of social statistical analysis, these indicators are related and closely related, mainly measure the contribution rate of foreign tourism performance and tourism facilities; domestic tourists, domestic tourism income, star hotels, travel agencies, annual passenger transport, GDP and per capita tourism expenditure have large load on the second main component F2 and the number of tourist attractions, tourist attractions above 4A and road mileage on the third main component F3, which mainly measure the support of tourism facilities.

3.3. Comprehensive Score and Ranking of Various Factors in Each City

Using the proportion of the contribution rate of variance to the cumulative variance contribution as the weight value and the principal component factor score, the comprehensive score F and ranking of the tourism competitiveness of 18 cities in Henan Province (as shown in Table 4).

The calculation formula is as follows:

$$F = \frac{36.15F1 + 33.65F2 + 19.12F3}{88.92}$$

Table 4. Comprehensive Evaluation Form of Urban Tourism competitiveness in Anhui Province

	F1	F2	F3	Comprehensive score
Hefei city	4.904229	16.31002	8.822627	10.06308
Huangshan city	14.41912	4.534598	2.383422	8.090549
Chizhou city	8.336117	2.491902	0.1686251	4.368278
Anqing city	2.357564	4.736041	4.849105	3.793394
Liu'an city	0.4002056	2.055819	3.989444	1.798515
Wuhu city	1.660957	2.744695	-0.1583311	1.679884
Xuancheng city	0.9983746	-0.5766026	1.578497	0.5270966
Chuzhou city	-3.914739	-1.66597	-0.6099101	-2.353117
Ma'anshan city	-1.91662	-2.856307	-2.689439	-2.438401
Huainan city	-2.324174	-3.25915	-1.696824	-2.543101
Bozhou city	-3.209209	-2.920516	-0.8026084	-2.58248
Bengbu city	-2.672583	-3.495836	-2.533887	-2.954304
Fuyang city	-6.184535	-1.689951	-0.587482	-3.280144
Suzhou city	-4.940005	-4.199284	-2.421882	-4.118235
Tongling city	-3.586925	-5.508935	-4.813294	-4.577971
Huaibei city	-4.327783	-6.700521	-5.478063	-5.473037

Type: F represents the comprehensive score of its tourism competitiveness, whose value reflects the strength of a city's tourism competitiveness. F1, F2 and F3 represent the three public factor scores respectively.

4. Analysis of Urban Tourism Competitiveness Results in Anhui Province

According to the results of the factor analysis, the urban tourism competitiveness of Henan Province was analyzed from two dimensions of horizontal difference and spatial distribution.

4.1. Difference in Urban Tourism Competitiveness Level in Anhui Province

The tourism competitiveness level of the cities in Anhui Province is obvious (see Table 4). The development is inadequate and unbalanced, and it is greatly affected by the two main factors: the economic role of tourism and the tourism resource endowment. Hefei, Huangshan, Chizhou, Anqing, Lu'an, Wuhu and Xuancheng seven cities of tourism competitiveness comprehensive seven in the province, significantly higher than the average level, and as the capital of Anhui province and the most famous tourist resort in Anhui province, their comprehensive score is more than 8, far ahead of other cities, it fully shows that Hefei and Huangshan in economic basic conditions and tourism resources endowment has absolute advantages compared with other cities. The comprehensive urban tourism competitiveness of Chuzhou, Ma'anshan, Huainan, Bozhou, Bengbu, Fuyang, Suzhou, Tongling and Huaibei, all score less than 0, and the tourism competitiveness is at a low level.

From the perspective of various factor scores: the first public factor F1 is to measure the contribution rate of foreign tourism performance and the support force of tourism facilities. Huangshan has the highest score on public factor F1, indicating that it can attract foreign tourists by its abundant tourism resources and provide strong support for the development of tourism industry. Secondly, Hefei and Chizhou, not as high on F1, are still highly attractive to foreigners. Anqing, Lu'an, Wuhu and Xuancheng are not above the average. the remaining nine cities all scored less than 0 in the first main component, indicating that the contribution rate of foreign tourism performance is low. The second public factor F2 represents the contribution rate of domestic tourism performance and tourism environment support. For domestic tourists, Hefei, as the capital of Anhui Province, so it is a quite good choice for both short-term tourism and short-term temporary stay. in addition, under the condition of development in the new era, Hefei's economy has increased significantly in recent years. Under the conditions that people meet the needs of normal life, more people will choose to travel as a way to enjoy life, so that Hefei's tourism environment support occupies a large proportion. Although the five cities, Huangshan, Chizhou, Anqing, Lu'an and Wuhu, score far less than Hefei in terms of public factor F2, they all exceed the average level, indicating that the development of these five cities is still lower than Hefei to a certain extent. The remaining 10 cities all scored F2 below 0, indicating that these cities are generally poor and less attractive to domestic tourists. Public factor F3 said is the support of tourism facilities, for a city's tourism facilities support, he cannot leave the support of the social environment. The reason Hefei scored so high is because it is the provincial capital of Anhui province, so regardless. The number of star hotels, tourist attractions, the number of travel agencies or highway mileage are quite high; and the five cities, Huangshan, Chizhou, Anqing, Lu'an and Xuancheng, rely on their tourist attractions to increase the number of star hotels and travel agencies; the remaining 10 cities have an F3 score of less than 10, indicating that their tourist attractions or geographical location is relatively poor.

5. Conclusion and Countermeasures and Suggestions

The 16 municipalities were divided into 4 layers by K-mean clustering analysis, as shown in the table below:

Table 5. Classification of urban tourism competitiveness in Anhui Province

classify	city	top class	number
I	Hefei	Strong area	1
II	Huangshan, Chizhou	Strong area	2
III	Xuancheng, Lu'an, Wuhu, Anqing	Weak area	4
IV	Bozhou, Bengbu, Ma'Anshan, Tongling, Huainan, Suzhou, Chuzhou, Fuyang, and Huaibei	Weak area	9

The research perspective of this paper is not simply to reveal the results of the tourism competitiveness of various cities, but to explore the deep reasons for the differentiation behind them. Through the above analysis, it can be seen that the tourism competitiveness of a city is different from the comparative advantages and synthetic forces of a city and other cities in its tourism performance contribution, supporting tourism facilities, tourism environment construction, tourism industry upgrading and tourism resource utilization and other aspects. The article selects 15 indicators from the three dimensions of tourism performance contribution, tourism facilities support and tourism environment support to build the quantitative evaluation system of urban tourism competitiveness, and conducts the empirical evaluation and research on the tourism competitiveness of 17 cities in Anhui Province. According to the comprehensive score and ranking of tourism competitiveness of cities in Anhui Province, 17 cities can be divided into four levels: strong, strong, weak and weak areas, so as to clarify the positioning and development ideas of different types of cities.

1. (Strong Zone) --relies on its own advantages to build a domain-wide tourism demonstration area

The urban tourism industry of strong areas is relatively mature and is in the stage of tourism development shift and upgrading. First, we should continue to give full play to the advantages of transportation location, and rely on the advantages of national airports to improve the accessibility of tourists from the country and even the world; secondly, we should make full use of our own economic basic advantages. Hefei in the high level of economic development in the province, should make full use of domestic such as sanhe town, package park, big shushan famous tourist attractions, improve the tourism supporting facilities, improve tourism service level, in the future on the basis of maintaining the current situation should pay attention to the Internet with culture and tourism, build regional tourism brand, enhance popularity, in order to form the wisdom of regional tourism demonstration area.

2. (Strong area) --to improve infrastructure construction and improve its own economic development level

Compared with other cities, although they have the best tourism resources endowment of Mount Jiuhua Mountain and Mount Huangshan Mountain, the construction of regional transportation lags behind the economic development and cannot enhance the satisfaction of people's life. Therefore, we need to find a stable road that can promote economic growth and improve the per capita income. We should not only rely on tourism income to drive economic development.

3. (Less vulnerable area) --actively develops the economy and fully excavates the domestic tourism resources

The comprehensive competitiveness of urban tourism in the weak areas is generally poor, and the convergence is that there is no enough economic strength to develop the tourism resources allocated in China. Therefore, for a period of time, belong to this level of cities, on the one hand, should take the initiative to attract investment, and strive to develop the economy, improve their own hard strength. Only after having enough strength, can we build supporting tourism

infrastructure, fully tap the domestic tourism resources, and then create a good tourist attractions. On the other hand, it is necessary to carry out the construction of scenic spots, and give priority to building high-known and attractive scenic spots to increase tourism publicity.

4. (Weak areas) --relies on government leadership to play its advantages to make up for the deficiencies

Cities that belong to weak areas with weak economic strength and poor tourism resource endowment. Therefore, the region should give full play to the leading role and policy support of the government. First of all, it should focus on the excavation and development of tourist attractions with typical representatives, such as the Grand Canal site in Suzhou and Langya Mountain in Chuzhou. Secondly, the government should attach great importance to the construction of tourism think tanks, which have a professional level and a unique development perspective, and can make suggestions for the development of local tourism. Finally, we should fully rely on the strength of the government and the society to build a high-level of tourism supporting service facilities and services.

References

- [1] Mengyu Gan, Jigang Bao: A Preliminary Study on Urban Tourism Competitiveness [J]. Modern Urban Studies, (2003) No.4, p.22-25.
- [2] Anjing Yu, Yuezheng Li, Haixu Jiang: Study on Urban Tourism Competitiveness of Heilongjiang Province Based on Principal Composition Analysis [J]. Guide to Economic Research, (2014) No., p.236-240.
- [3] Stansfield CA: A Note on the Urban-nourban Imbalance in American Recreational Research [J]. Tourism Review, 1964.
- [4] Guanghai Zhang, Xue Li: Comprehensive Research on Tourism Competitiveness at Home and abroad [J]. Marine University of China News (Social Science Edition), (2006) No.5, p.28-30.
- [5] Shiyun Gu, Jigang Bao: Research Progress in Urban Tourism Research [J]. Journal of Tourism, (1999) No. 02, p.15-20 + 78.