

## Research on Evaluation of Tourism Industry Competitiveness in Huanggang City

Jiang Weijun\*, Ke Jinglin, Ma Yingshuang, Ai Yi, Wang Qing

Huanggang Normal University, School of Business, Huanggang, Hubei 438000

\*email:glitter05@163.com

**Abstract:** By constructing evaluation index system of regional tourism competitiveness, this paper analyzes tourism competitiveness of various cities of Hubei Province in 2015 by means of factor analysis, and finds the main factors that affect tourism competitiveness of Huanggang City through analysis and comparison. It is found that the main reason for the weak tourism competitiveness of Huanggang City is that its tourism resource attractiveness is weak and its tourism resource advantage fails to be transformed into economic advantage. On this basis, the countermeasures to enhance the competitiveness are put forward.

**Keywords:** tourism industry, competitiveness, evaluation index

### 1. Raising of the problem

The competitiveness of tourism industry is an evaluation technique and method for comparing tourism destinations (Pierce, 1997). With the raising of concept of sustainable development, some scholars believe that tourism competitiveness is the ability to bring excess value based on sustainable development (Hastel, 2000), and the ability to be more competitive than other tourist destinations, attract consumers and promote the industry's fast and good development (Yi Lirong, 2007). The cornerstone for foreign scholars to build evaluation index of tourism industry competitiveness is Porter's diamond model. Hassan (2000) argues that index system of industrial competitiveness includes four aspects: industrial structure, competitive advantage, tourism demand and environment. The World Economic Forum (2007) holds that the tourism competitiveness evaluation index system consists of comprehensive competitiveness index of tourism, three key indexes and 13 emerging indexes. Domestic scholars' construction of evaluation index system of tourism industry competitiveness is also based on Michael Porter's "diamond model". Wan Xucai et al. (2001) decomposed international tourism industry competitiveness into tourism resources and product conditions, socio-economic conditions and other conditions, each part of which was decamped into three levels.

### 2. Construction of index system

#### 2.1 Construction of index system

To research evaluation of regional tourism competitiveness, first of all, it is necessary to propose a set of evaluation index system which can reflect tourism competitiveness. On the basis of referring to other scholars' research results, this paper constructs the competitiveness evaluation index system of regional tourism industry, and the index system adopts two primary indexes of tourism resource competitiveness and tourism service competitiveness. Among them, tourism resource competitiveness is divided into two secondary indexes of urban infrastructure competitiveness and tourism resources endowment. Urban infrastructure competitiveness is divided into three third-grade indexes of per capita road area, public transport vehicles per ten thousand people, total passenger capacity. Tourism service competitiveness is divided into one secondary index of tourism service competitiveness, and three third-grade indexes of number of inbound tourists, average length of stay of inbound tourists; per capita

consumption (dollar / person days) of inbound tourists, number of domestic tourists, average length of stay of domestic tourists; per capita consumption (yuan / person days) of domestic tourists.

## 2.2 Data source

In this paper, relevant data of each city of Hubei Province in 2015 were selected from "Hubei Statistical Yearbook 2015" and each city's 2015 statistical report.

### III. Empirical analysis

(1). Standardize the index data. The original data were subjected to dimensionless standardization, so that the indexes were nondimensionalized.

$$X_{ij} = \frac{X_{ij} - \bar{X}_j}{S_j} \quad (1)$$

Wherein,  $\bar{X}_j$  and  $S_j$  are sample mean and sample standard deviation of the Jth mean.

(2). Conduct factor suitability test. In this paper, KMO statistics and Bartlett spherical test method are used, KMO is 0.621 and SIG = 0.000 < 0.001, there is no significant correlation between the variables, and factor analysis can be carried out.

(3). Construct factor variables and extract common factors.

The common factor is a factor with an eigenvalue greater than 1 and variance cumulative contribution rate greater than 80%. It is estimated that eigenvalues of the first four factors are greater than 1, and the cumulative contribution rate reaches 82.324%. The eigenvalues are less than 1 from the fifth common factor. Hence, it is more appropriate to extract the first four common factors.

(4). Calculate the common factor score. According to the results of factor extraction, variable score of each common factor was calculated by means of regression analysis method. Finally, score of the comprehensive factor was measured according to score of each common factor. The measure formula is:

$$F = \sum_{i=1}^p \frac{\lambda_i}{\sum_{k=1}^p \lambda_k} F_i \quad (2)$$

In formula (2), F is the comprehensive factor score;  $F_i$  is the  $i$ th common factor score;  $\lambda$  is the variance contribution rate after rotation of the  $i$ th common factor,  $\sum \lambda_k$  is the cumulative variance contribution rate of the extracted common factor, and the overall score is as follows

**Table 1 Overall score and ranking table**

City	F1 score	F2 score	F3 score	F4 score	Overall score	Ranking of Urban Competitiveness in Hubei Province
Wuhan	2.067	0.183	-0.009	0.103	2.344	1
Huangshi	-0.033	-0.287	-0.044	0.222	-0.142	7
Ezhou	-0.464	0.058	-0.061	0.015	-0.452	16
Xiaogan	-0.041	-0.099	0.004	-0.078	-0.214	10
Huanggang	-0.177	-0.262	0.171	0.105	-0.163	8
Xianning	0.000	-0.174	0.000	-0.056	-0.230	11
Xiantao	-0.115	0.112	-0.126	-0.120	-0.250	12
Tianmen	-0.535	-0.021	-0.118	0.177	-0.497	17
Qianjiang	-0.402	0.218	-0.172	0.047	-0.309	14
Yichang	-0.169	0.340	-0.001	0.102	0.272	3

Xiangyang	0.059	-0.063	0.037	-0.115	-0.082	5
Jingmen	-0.147	-0.073	-0.033	-0.006	-0.260	13
Shennongjia	-0.154	-0.026	-0.172	-0.038	-0.391	15
Suizhou	-0.161	0.255	-0.177	-0.096	-0.179	9
Enshi	0.055	-0.071	0.022	-0.006	0.000	4
Jingzhou	0.158	-0.124	-0.071	-0.098	-0.135	6
Shiyan	0.207	-0.137	0.073	0.193	0.336	2

### **3. Conclusion analysis**

#### **3.1 Data analysis**

Judging from comprehensive index ranking of regional tourism competitiveness, Huanggang ranked eighth, which was in the middle level of tourism industry competitiveness in Hubei Province. Huanggang boasts rich tourism resources featuring high taste, big density, strong complementarities, superior location, initially forming three products of red tourism, eco-tourism and cultural tourism. Hence, specific analysis should be made on the four principal components that impact regional tourism competitiveness. In the first principal component F1, Huanggang City ranked 14th. The contribution rate of the principal component to regional competitiveness was 44.138%, which was the main reason for lower ranking of tourism competitiveness in Huanggang City. This principal component mainly reflects tourism reception capacity, market share. Although Huanggang City boasts many A-level tourist attractions, characteristic and boutique tourism resources are few, failing to form strong brand effect. The city's tourism image is unclear, although it is famous for education and red tourism, the two are not organically combined to form a clearer urban tourism image and attract domestic and foreign tourists. In the second principal component F2, Huanggang City ranked at the bottom. The principal component reflects attraction of the region's tourism resources to tourists. The abundant tourism resources of Huanggang City are scattered in the counties, relevancy between the destinations is not high, so average length of stay of tourists to Huanggang is 1.59 days, which is significantly less than the average length of stay of 2.36 days in Hubei Province. The development level of scenic spots is not high, and more attractions mainly rely on ticket sales, failing to form a series of tourism development projects arousing consumers' consumption desire. In the third principal component F3 and the fourth principal component F4, Huanggang City ranked higher, indicating that Huanggang City's supporting services for tourism development were relatively complete.

#### **3.2 Countermeasures and suggestions**

(1). Make best efforts to build a new image of Huanggang tourism, accelerate development of high-quality tourism products.

Huanggang, as a city with rich and characteristic tourist resources, not only owns lofty educational tourism resources, renowned celebrity tourism resources at home and abroad, unique red tourism resources, but also enjoys long-standing religious tourism resources, eco-tourism resources infinite in charm (Wang Qing, 2013). Therefore, we should vigorously carry out the project of shaping and promoting urban tourism image, and proceed from red tourism, eco-tourism and cultural tourism to find an overall image that best represents tourism in Huanggang City.

(2). Establish strategic alliance of resource integration, and effectively integrate tourism resources in counties of Huanggang City

The main reason for short length of stay of tourists in Huanggang City is its dispersed tourism distribution and an effective whole does not form. The counties should change the traditional

development model, agglomerate into a tourism strategic alliance with highlighted focus according to heterogeneity and complementarity of resources in counties, give full play to characteristics and advantages of tourism resources in Huanggang City with red tourism resources as the basis, cultural and educational resources as the main line and economic experience as the link, price reciprocity, joint development, joint promotion, and launch cross-regional boutique and featured lines.

(3). Establish long-term linkage collaboration mechanism, implement joint promotions, and speed up efforts in tourism promotion & propaganda.

Counties in Huanggang City should strengthen administrative cooperation, make reasonable adjustment of tourism products according to counties' tourism resources, regional characteristics and following existing development characteristics and advantages of each county, make division of labor among the scenic spots, avoid repeated construction and vicious competition, offer preferential package, joint tickets for combination of different scenic spots, create barrier-free tourist areas and achieve common development.

(4). Strengthen talent support for tourism development

During the development of tourism in Huanggang City, talent shortage has become a short slab that constraints even bigger and stronger development of tourism in Huanggang City. Therefore, it is needed to attract outstanding tourism talents to tourism work in Huanggang City by creating a good external environment. In addition, for the current situation that education level of tourism workers in Huanggang counties and cities is not high, it is possible to improve the overall quality of existing tourism talent, enhance their service concept, improve their sense of service through "order training" approach and various trainings by relying on educational resources of Huanggang Normal University, Huanggang Polytechnic College, and build a batch of high-quality tourism personnel.

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