Comprehensive Evaluation of Urban Tourism Development Potential in Anhui Province

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Abstract: in view of the correlation factor analysis and ranking problem of the abstract concept of tourism industry potential, this paper refers to the data of Anhui Statistical Yearbook 2018, and uses clustering analysis and factor analysis to construct the tourism industry potential evaluation index model and the cluster model based on standardized score. Using S PSS、MATLAB software programming and data analysis, the tourism industry related factors and the ranking of different cities are obtained. In constructing the evaluation index system, 13 evaluation indexes were established according to the actual situation, and the corresponding data of Anhui cities were collected in 2018. According to the contribution rate of each index, the factor score function was obtained, the score of each city was further calculated, sorted and the results were obtained. According to the situation of tourism development potential, 16 cities in Anhui Province were programmed by Spss and other software, and the clustered pedigree map was obtained, and classified according to this map. The results further reflect the gap between the development potential of tourism industry in provinces and cities.

Keywords: Tourism Development Potential; Factor Analysis; Cluster Analysis.

1. Introduction
With the continuous improvement of people's living standards, people's consumption of spiritual needs has also increased, and traveling has become a way for people to relax themselves and relieve pressure. The degree of development of tourism in a region is closely related to local scenic spots, culture, transportation, accommodation, shopping and other factors. For cities, tourism can become an important driving force of urban economic growth, and its economic promotion can be investment, consumption and other aspects. As a large tourism province, Anhui has rich natural resources and historical and cultural heritage. Many cities have highly developed...
tourism. For example, Huangshan City, which has many national scenic spots, has a relatively high GDP of tourism industry. But there are also some cities, tourism resources have not been fully developed. Therefore, the demand for reform of tourism industry development is increasing day by day. To study the tourism development of a city, how to grasp the main factors affecting the potential of the local tourism industry, so as to find out the direction of promoting the rapid development of the industry, first of all, we need to establish a reasonable quantitative evaluation system. Tourism is an important part of the tertiary industry. The report of the Nineteenth National Congress of the Party points out that it is necessary to perfect the institutional mechanism to promote consumption and enhance the basic role of consumption in economic development. The development of tourism plays an important role in promoting the expansion of domestic demand and the transformation and upgrading of consumption structure[1] The rational planning and development of tourism will give great impetus to the future economic development of the region. The established tourism development potential index can directly reflect the development potential of different regions, and evaluate the most critical influencing factors against the contribution rate of the main factors, which provides a broader perspective for the development and reform of tourism in this region.

2. Construction and evaluation of a comprehensive evaluation index system on the level of urban tourism development potential

2.1 Construction of indicator systems

The tourism development level of a city is closely related to the two factors of regional economic base and development level, which also play an important supporting role in the development of tourism[2] Therefore, the most important factor in the selection of indicators is the economic development of the region. On the basis of the basic theory and subjective judgment in macroeconomics, the economic development of the city is measured by "the total GDP of each city per capita GDP"， "each city" and "the proportion of the GDP of the tertiary industry" to measure the economic development of the city. The evaluation of urban tourism development potential can not be separated from the current urban tourism development status, and the number of tourism reception, total tourism income and tourism person-time data can reflect the level of tourism development in the region, so these data are selected as indicators to evaluate the current situation of urban tourism development. Also important is the amount of tourism resources. N .leiper[3] According to this paper, the author points out that the development of a tourist system is mainly determined by the four conditions of tourist residence, scenic spot location, tour route and industry itself. Four dimensions are selected to measure the present situation of tourist resources, such as
number of star hotels "," number of guest rooms "," number of scenic spots of 4 A and above" and "number of parks ". At the same time, the environmental factors of a city are closely related to people's perception of urban tourism image, perceived value, satisfaction degree[4]. The urban environment directly determines whether travelers will choose the city as a tourist destination again, and at the same time, it also shows the sustainable development of tourism and customer satisfaction of the city. According to the above ideas, 13 indexes are constructed to evaluate the potential level of tourism development.

2.2 Integrated evaluation

Analyze the potential of tourism industry in Anhui Province, and rank according to tourism potential. We believe that the evaluation of tourism potential of each city should be considered from multiple dimensions, and the proportion of each index should be analyzed from multiple dimensions, so as to determine the tourism potential of each city. Therefore, in view of this problem, after consulting the relevant data, 13 indexes related to tourism industry in Anhui province in 2018 are selected, and these indexes are divided into four categories according to the present situation of tourism industry development, tourism resource potential, urban economic situation and tourism environment potential.

<table>
<thead>
<tr>
<th>Criteria layer</th>
<th>Project tier</th>
<th>Indicator layer</th>
<th>Unit</th>
<th>Variable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tourism Industry Potential</td>
<td>Status of Tourism Development</td>
<td>Total tourism revenue</td>
<td>Billions</td>
<td>$x_1$</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Average cost per person</td>
<td>Yuan</td>
<td>$x_{12}$</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Travel</td>
<td>10 000</td>
<td>$x_3$</td>
</tr>
<tr>
<td></td>
<td>Potential for tourism resources</td>
<td>Number of star hotels</td>
<td>A</td>
<td>$x_{14}$</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Number of rooms</td>
<td>A</td>
<td>$x_5$</td>
</tr>
<tr>
<td></td>
<td></td>
<td>4A or above</td>
<td>A</td>
<td>$x_6$</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Number of parks</td>
<td>A</td>
<td>$x_7$</td>
</tr>
<tr>
<td></td>
<td>Economic developments</td>
<td>GDP per person per municipality</td>
<td>Yuan</td>
<td>$x_8$</td>
</tr>
<tr>
<td></td>
<td></td>
<td>GDP total per municipality</td>
<td>Billions</td>
<td>$x_9$</td>
</tr>
<tr>
<td></td>
<td></td>
<td>GDP share of tertiary industry</td>
<td>%</td>
<td>$x_10$</td>
</tr>
<tr>
<td></td>
<td>Public Transport</td>
<td>Passenger Transport</td>
<td>10 000</td>
<td>$x_{11}$</td>
</tr>
</tbody>
</table>
In view of the above established index system, we will process the collected data as follows: first, standardize the relevant data of each city, then establish a model and analyze several principal components. Combined with the score of each index in the factor component, the standardized score function is developed, and the final score is obtained and sorted.

At the same time, 16 cities in Anhui Province were classified according to the level of tourism industry potential by stratified clustering method.

Preparation for the establishment of an evaluation indicator system

Data preprocessing

Because there are obvious differences in the order of magnitude between the collected data, it is necessary to standardize the data first, and convert the index value from the initial value to the standardized value. The specific formula is as follows:

\[
x_{ij} = \frac{x_{ij} - \frac{1}{16} \sum_{j=1}^{16} x_{ij}}{\sqrt{\frac{1}{16} \sum_{j=1}^{16} (x_{ij} - \frac{1}{16} \sum_{j=1}^{16} x_{ij})^2}}
\]

\(i = 1, 2, ..., 16, j = 1, 2, ..., 13\)

After bringing the data into the SPSS software for standardized processing, the following data are obtained:

<table>
<thead>
<tr>
<th>City</th>
<th>(x_1)</th>
<th>(x_2)</th>
<th>(x_3)</th>
<th>(x_4)</th>
<th>(x_5)</th>
<th>(x_6)</th>
<th>(x_7)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hefei</td>
<td>3.16143</td>
<td>2.23039</td>
<td>2.96939</td>
<td>2.0276</td>
<td>2.71148</td>
<td>1.34024</td>
<td>3.34135</td>
</tr>
<tr>
<td>Huaibei City</td>
<td>-0.81331</td>
<td>-1.00946</td>
<td>-1.01191</td>
<td>-1.33125</td>
<td>-0.98188</td>
<td>-1.00236</td>
<td>-0.53451</td>
</tr>
<tr>
<td>Bozhou City</td>
<td>-0.57958</td>
<td>-0.53373</td>
<td>-0.64486</td>
<td>-0.51202</td>
<td>-0.44337</td>
<td>-0.82216</td>
<td>-0.45025</td>
</tr>
<tr>
<td>Suzhou</td>
<td>-0.64393</td>
<td>-0.89314</td>
<td>-0.67452</td>
<td>-1.08548</td>
<td>-0.77211</td>
<td>-1.00236</td>
<td>0.09742</td>
</tr>
<tr>
<td>Bengbu City</td>
<td>-0.35891</td>
<td>-0.99901</td>
<td>-0.01906</td>
<td>-0.34817</td>
<td>-0.31663</td>
<td>-0.28156</td>
<td>-0.53451</td>
</tr>
<tr>
<td>Fuyang City</td>
<td>-0.58771</td>
<td>-0.67806</td>
<td>-0.62087</td>
<td>-1.24933</td>
<td>-0.7993</td>
<td>-0.64196</td>
<td>0.39233</td>
</tr>
<tr>
<td>Huainan City</td>
<td>-0.62716</td>
<td>-0.97575</td>
<td>-0.61371</td>
<td>0.38914</td>
<td>-0.24428</td>
<td>-0.10136</td>
<td>-0.6609</td>
</tr>
<tr>
<td>Chuzhou</td>
<td>-0.49649</td>
<td>-0.00911</td>
<td>-0.62889</td>
<td>-0.67587</td>
<td>-0.7556</td>
<td>-0.64196</td>
<td>0.81361</td>
</tr>
<tr>
<td>Lu'an City</td>
<td>-0.38159</td>
<td>-0.39413</td>
<td>-0.31747</td>
<td>0.14337</td>
<td>0.01599</td>
<td>0.97984</td>
<td>-0.28174</td>
</tr>
<tr>
<td>Ma'anshan</td>
<td>-0.34338</td>
<td>-0.4421</td>
<td>-0.2297</td>
<td>-0.26625</td>
<td>-0.29575</td>
<td>-1.00236</td>
<td>-0.61877</td>
</tr>
<tr>
<td>Wuhu City</td>
<td>0.6606</td>
<td>1.76227</td>
<td>0.42368</td>
<td>0.71683</td>
<td>0.57879</td>
<td>0.07884</td>
<td>-0.28174</td>
</tr>
<tr>
<td>Xuancheng City</td>
<td>-0.30911</td>
<td>-0.07843</td>
<td>-0.29517</td>
<td>0.22529</td>
<td>-0.01217</td>
<td>0.97984</td>
<td>0.39233</td>
</tr>
<tr>
<td>Tongling City</td>
<td>-0.63653</td>
<td>-0.32578</td>
<td>-0.79997</td>
<td>-1.08548</td>
<td>-0.96926</td>
<td>-1.00236</td>
<td>-0.53451</td>
</tr>
<tr>
<td>Chizhou City</td>
<td>0.62461</td>
<td>1.05343</td>
<td>0.65351</td>
<td>0.47106</td>
<td>0.12525</td>
<td>0.07884</td>
<td>-0.87154</td>
</tr>
</tbody>
</table>
Theoretical Basis of Factor Analysis

After the standardized data have been obtained, in order to test whether the data is valid or not, the validity of the standardized data is analyzed by SPSS software, and the following results are obtained:

<table>
<thead>
<tr>
<th></th>
<th>KMO sampling suitability number</th>
<th>Test of Bartlett's Spherical Shape</th>
<th>Degree of freedom</th>
<th>Significant significance</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Approximate chi-square</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>250.073</td>
<td>78</td>
<td>0.000</td>
</tr>
</tbody>
</table>

According to the data, we know that when the KMO value is greater than 0, the data has a certain validity, our data result is 0.653, which shows that it is effective and can be carried out factor analysis. At the same time, Bartlett test spherical test significance is significantly lower than 0.005.

With regard to the construction of specific models, factor analysis is used to reduce the dimension of multivariate statistical analysis. The mathematical models are as follows:

\[ x_j = \mu_j + \alpha_1 F_1 + \ldots + \alpha_m F_m + \epsilon_j \quad m \leq p \]

Let the variable be expressed as:

\[ x_j = \mu_j + \alpha_1 F_1 + \ldots + \alpha_m F_m + \epsilon_j \quad m \leq p \]
If it is called a common factor, the front coefficient becomes a load factor, called a special factor, which can not be included in the previous m common factors.

Solution of the Model
Bring the data in Table 2 into the SPSS software, Using factor analysis, First we come up with a total variance explanation for the data, By looking at Table 4 and Figure 1, we can see that, If the initial eigenvalue is greater than 1, Four factors were proposed, The contribution rate of each common factor is 36.355%, 32.584%, 10.949% and 8.923%, These four factors cover a total of 13 categories of indicators 88.81% of the information.

Table 4 eigenvalues, variances, and cumulative contribution rates of each factor

<table>
<thead>
<tr>
<th>Composition</th>
<th>Initial eigenvalue</th>
<th>Cumulative variance</th>
<th>Percent variance</th>
<th>Total</th>
<th>Percent variance</th>
<th>Total</th>
<th>Percent variance</th>
<th>Cumulative variance</th>
<th>Percent variance</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
<td>7.611</td>
<td>58.549</td>
<td>58.54</td>
<td>7.611</td>
<td>58.54</td>
<td>7.611</td>
<td>58.549</td>
<td>58.549</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>1.885</td>
<td>14.498</td>
<td>73.04</td>
<td>1.885</td>
<td>14.49</td>
<td>1.885</td>
<td>73.047</td>
<td>73.047</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>1.121</td>
<td>8.623</td>
<td>81.66</td>
<td>2.121</td>
<td>8.623</td>
<td>1.121</td>
<td>81.669</td>
<td>81.669</td>
</tr>
</tbody>
</table>

Figure 1 Dimensions of each factor
According to the four kinds of factors, we calculate the composition matrix of the selected 13 kinds of indicators. By observing, we can find that the present situation of tourism industry and the potential of tourism development account for a large proportion of the first public factor; the present situation of tourism industry and the potential of tourism environment account for a large proportion of the second public factor; the potential of tourism resources and economic development account for a large proportion of the third public factor; and the resources of tourism environment account for a large proportion of the fourth public factor.

For more specific quantification of the tourism industry potential of each sample, we also use SPSS software to obtain the score matrix of various indicators in different factors, as shown in Table 5:

<table>
<thead>
<tr>
<th>Variable</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>$x_{11}$</td>
<td>0.109</td>
<td>0.111</td>
<td>0.013</td>
<td>-0.135</td>
</tr>
<tr>
<td>$x_{12}$</td>
<td>0.162</td>
<td>0.049</td>
<td>0.068</td>
<td>-0.232</td>
</tr>
<tr>
<td>$x_{13}$</td>
<td>0.145</td>
<td>0.065</td>
<td>0.007</td>
<td>-0.111</td>
</tr>
<tr>
<td>$x_{14}$</td>
<td>0.249</td>
<td>-0.127</td>
<td>0.108</td>
<td>0.047</td>
</tr>
<tr>
<td>$x_{15}$</td>
<td>0.192</td>
<td>-0.023</td>
<td>0.018</td>
<td>0.01</td>
</tr>
<tr>
<td>$x_{16}$</td>
<td>0.318</td>
<td>-0.183</td>
<td>0.015</td>
<td>-0.089</td>
</tr>
<tr>
<td>$x_{17}$</td>
<td>-0.017</td>
<td>0.05</td>
<td>0.417</td>
<td>0.09</td>
</tr>
<tr>
<td>$x_{18}$</td>
<td>0.202</td>
<td>-0.126</td>
<td>-0.213</td>
<td>0.206</td>
</tr>
<tr>
<td>$x_{19}$</td>
<td>-0.156</td>
<td>0.319</td>
<td>-0.047</td>
<td>0.077</td>
</tr>
<tr>
<td>$x_{20}$</td>
<td>0.036</td>
<td>-0.143</td>
<td>0.702</td>
<td>-0.015</td>
</tr>
</tbody>
</table>
Based on the score coefficient matrix, we can get the final score function of each factor:

\[ Y_1 = 0.109x_1 + 0.162x_2 + 0.145x_3 + 0.249x_4 + 0.192x_5 + 0.318x_6 - 0.017x_7 + 0.202x_8 \\
-0.156x_9 + 0.036x_{10} + 0.104x_{11} - 0.153x_{12} - 0.135x_{13} \\
Y_2 = 0.111x_1 + 0.049x_2 + 0.065x_3 - 0.127x_4 - 0.023x_5 - 0.183x_6 + 0.05x_7 - 0.126x_8 \\
+0.319x_9 - 0.143x_{10} + 0.061x_{11} + 0.318x_{12} + 0.35x_{13} \\
Y_3 = 0.013x_1 + 0.068x_2 + 0.007x_3 + 0.108x_4 + 0.018x_5 + 0.015x_6 + 0.417x_7 - 0.213x_8 \\
-0.047x_9 + 0.702x_{10} - 0.007x_{11} - 0.055x_{12} - 0.199x_{13} \\
Y_4 = -0.135x_1 - 0.232x_2 - 0.111x_3 + 0.047x_4 + 0.015x_5 - 0.089x_6 + 0.09x_7 + 0.206x_8 \\
+ 0.077x_9 - 0.015x_{10} - 0.938x_{11} - 0.055x_{12} - 0.091x_{13} \\

By bringing the standardized data into the above score function to solve and sort, we can get the scores of each city in four kinds of factors and the total ranking.

<table>
<thead>
<tr>
<th>City</th>
<th>Principal component 1</th>
<th>Principal component 2</th>
<th>Principal component 3</th>
<th>Principal component 4</th>
<th>Total score</th>
<th>Ranking ranking</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hefei</td>
<td>3.3139</td>
<td>-0.1024</td>
<td>4.027</td>
<td>-3.7736</td>
<td>1.4363</td>
<td>1</td>
</tr>
<tr>
<td>Huaibei City</td>
<td>-1.617</td>
<td>0.8661</td>
<td>-1.0662</td>
<td>0.7151</td>
<td>-0.4037</td>
<td>16</td>
</tr>
<tr>
<td>Bozhou City</td>
<td>-0.7513</td>
<td>-0.2649</td>
<td>-0.276</td>
<td>0.4233</td>
<td>-0.3962</td>
<td>14</td>
</tr>
<tr>
<td>Suzhou City</td>
<td>-1.166</td>
<td>-0.0257</td>
<td>0.092</td>
<td>0.7443</td>
<td>-0.4006</td>
<td>15</td>
</tr>
<tr>
<td>Bengbu City</td>
<td>-0.1848</td>
<td>-0.497</td>
<td>-0.2029</td>
<td>0.0175</td>
<td>-0.2812</td>
<td>11</td>
</tr>
<tr>
<td>Fuyang City</td>
<td>-1.2727</td>
<td>0.6865</td>
<td>-0.223</td>
<td>-0.2504</td>
<td>-0.3218</td>
<td>13</td>
</tr>
<tr>
<td>Huaian City</td>
<td>-0.457</td>
<td>-0.1482</td>
<td>-0.2972</td>
<td>0.4088</td>
<td>-0.237</td>
<td>9</td>
</tr>
<tr>
<td>Chuzhou City</td>
<td>-0.4797</td>
<td>-0.335</td>
<td>0.3441</td>
<td>0.1146</td>
<td>-0.2653</td>
<td>10</td>
</tr>
<tr>
<td>Lu’an City</td>
<td>0.0069</td>
<td>-0.2264</td>
<td>-0.1078</td>
<td>0.0815</td>
<td>-0.0853</td>
<td>7</td>
</tr>
<tr>
<td>Ma’anshan City</td>
<td>-0.3915</td>
<td>0.0401</td>
<td>-0.6198</td>
<td>0.8266</td>
<td>-0.1389</td>
<td>8</td>
</tr>
<tr>
<td>Wuhu City</td>
<td>1.3305</td>
<td>-0.7985</td>
<td>0.6056</td>
<td>-0.2919</td>
<td>0.297</td>
<td>4</td>
</tr>
<tr>
<td>Xuancheng City</td>
<td>0.3792</td>
<td>-0.5472</td>
<td>0.0016</td>
<td>0.3488</td>
<td>-0.0103</td>
<td>6</td>
</tr>
<tr>
<td>Tongling City</td>
<td>-1.0339</td>
<td>0.5952</td>
<td>-1.1816</td>
<td>0.5987</td>
<td>-0.2903</td>
<td>12</td>
</tr>
<tr>
<td>Chizhou City</td>
<td>0.3045</td>
<td>0.3971</td>
<td>-0.888</td>
<td>-0.0375</td>
<td>0.1571</td>
<td>5</td>
</tr>
<tr>
<td>Anqing City</td>
<td>0.8353</td>
<td>-0.0705</td>
<td>0.1298</td>
<td>-0.2461</td>
<td>0.3073</td>
<td>3</td>
</tr>
<tr>
<td>Huangshan City</td>
<td>1.1836</td>
<td>0.4305</td>
<td>-0.3376</td>
<td>0.3202</td>
<td>0.633</td>
<td>2</td>
</tr>
</tbody>
</table>
Through the above table, we can find that Hefei City, relying on the present situation of tourism industry and the great advantages of economic development, ranks first in the cities of Anhui Province, and has great tourism industry potential; Huangshan City, relying on great tourism resources potential, tourism environment potential and better tourism resources potential, ranks second in the cities.

(3) Clustering based on standardized scores
First, the model is established.
It is difficult to explain the differences between cities only by the ranking given in the above model. According to the standardized scores of cities on tourism development potential, we classify the tourism development potential of each city. The classification reflects the general level of tourism potential in Anhui Province, and further verifies the correctness of ranking results.
The method used in this paper is systematic clustering, the specific clustering method is Wald method, and the method of measuring sample interval is square European distance. The specific clustering steps are as follows:
The distance between 16 samples is calculated initially, and each sample is classified into 1 class at the first classification; according to the calculated distance result, the two samples are classified into a new class; the distance between the new class and other samples is calculated, and the closer group is obtained according to the distance between the two classes.
By introducing the scores of four factors in 16 cities in Table 10 into the SPSS software, we get the clustering pedigree as the clustering result. The concrete results are as follows:

![Figure 2 pedigree diagram of Ward connection](image-url)
According to the figure above, we grouped the cities according to the tourism potential. We are divided into four groups: tourism industry potential is excellent, tourism industry potential is good, tourism industry potential is general, tourism industry potential is poor, combined with the results of factor analysis, determine the final city grouping situation.

Table 7 Classification of cities by tourism grade

<table>
<thead>
<tr>
<th>Grade</th>
<th>Sample</th>
</tr>
</thead>
<tbody>
<tr>
<td>Excellent Tourism</td>
<td>Hefei</td>
</tr>
<tr>
<td>Potential</td>
<td></td>
</tr>
<tr>
<td>Tourism potential</td>
<td>Anqing, Huangshan, Chizhou, Wuhu</td>
</tr>
<tr>
<td>Tourism potential</td>
<td>Bozhou, Huainan, Bengbu, Ma'anshan, Suzhou, Liu'an, Chuzhou, Xuancheng</td>
</tr>
<tr>
<td>Poor tourism</td>
<td>Huaibei, Tongling, Fuyang</td>
</tr>
<tr>
<td>potential</td>
<td></td>
</tr>
</tbody>
</table>

After the above analysis, we cluster the cities of Anhui Province according to the scores of the previous factors, and classify the cities according to the potential of tourism development. It can be found that the classification results are roughly the same as the ranking situation. Can explain the sorting results are more reasonable.

3. Conclusions and recommendations for countermeasures

Through the above research, we know that the tourism potential of a city in Anhui Province in a certain year mainly depends on four factors, namely, the per capita GDP of the city, the proportion of the added value of the tertiary industry, the total number of road mileage and the number of employment in the tertiary industry. These factors are very obvious in the analysis of the first question. It can be determined that the development of tourism potential in Hefei is inseparable from these four factors, but we need to realize that we should not ignore other factors that are not included in the model. The evaluation system of ranking also explains the tourism potential ranking of various cities in Anhui Province from different angles, and thinks that Hefei has excellent tourism potential.

In addition, the analysis of these factors can not escape the specific of every traveler. From the traveler's point of view, the main cost of going to a city is transportation, accommodation, food and shopping. From the analysis of traveler's behavior, the purpose of a day tour or overnight tour of Hefei is not only sightseeing, vacation, visiting relatives, medical recuperation and shopping, but also participating in meetings or engaging in economic, cultural and sports activities. Therefore, in order to promote the development of tourism, we should first pay attention to the level of urban economy and related policies. Urban tourism potential can not be separated
from macroeconomic conditions. Besides the popularity of the city itself, the annual per capita GDP reflects not only the level of urban development, but also the density and value of personnel exchanges. These personnel are also the key factors that make up Hefei tourism data. Therefore, in order to develop tourism better, the tourism sector should not ignore the level of urban economic and technological development that seems to have little to do with tourism itself. By consulting the data, we can know that Hefei has developed a series of cutting-edge high-tech enterprises, such as Kechuang, relying on China University of Science and Technology, which has a certain popularity in medicine, photoelectricity and so on, so it can be used in tourism propaganda or in formulating tourism potential development plan.Secondly, it is necessary to ensure the sustainable development of urban hardware facilities. Good urban transportation, convenient and comfortable living environment and so on, is the first factor to leave a first impression on travelers\[^5\]. It can also be seen from the model of correlation analysis that road mileage is also one of the four most important factors to evaluate urban tourism potential. Tourism related departments can consider continuously improving these hardware facilities, increasing the total mileage of effective roads, strict supervision and evaluation system of hotels, and striving not to leave a short board on the basic hardware measures of tourism.

**References**


