Research on Tourist Satisfaction of Local Cuisine Based on IPA Analysis Method—Case Study in Heilongjiang Province

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Abstract. Local cuisine in Heilongjiang province is called as Longjiang cuisine, which is an important part of tourism catering in the province. This paper made a survey on the tourist satisfaction of local cuisine in Heilongjiang province with IPA analysis method. With the questionnaires to tourists, 22 variable factors were extracted to survey their satisfaction and importance for Longjiang cuisine. The results showed that tourists were more satisfied with good dishes color, dishes aroma, dishes taste, raw material freshness, local characteristics and the price level, therefore these factors belong to dominant area; the richness of raw materials, the size of dishes, the types of dishes, food utensils and restaurant style belong to maintain area, which tourists’ evaluation was beyond expected; modelling of dishes, nutritional value, menu making, restaurant layout, food explanation, and public facilities belong to the repair area, which still has large space for improvement; culinary arts, service attitude, sanitary conditions, dining environment, and diet culture belong to the vulnerable area, that is the major disadvantage of Longjiang cuisine. Based on the existing problems of Longjiang cuisine, this paper puts forward some countermeasures and suggestions for the perfection of the dominant area, the proper regulation of the maintenance area, the active expansion of the repair area, and the improvement of the vulnerable area.

1. Introduction

The local cuisine in Heilongjiang province is named as Longjiang cuisine, with its nickname as “dragon food”. Longjiang dietary culture (dragon dietary culture) has a long history of 3000 years, in adhering to the local traditional food culture which is simple, natural, and affordable. Longjiang cuisine absorbed both cooking techniques from cuisines from Beijing, Sichuan, Guangdong, etc., and the essence of Russian dietary culture, which makes Heilongjiang dietary colorful and unique [1]. Longjiang cuisine is characterized by sweet and salty taste, strong flavor, tender, crisp, sufficient materials. Several cooking techniques, baking, rinse, stewing, steaming, diving and so on are used in this cuisine style. There are many famous dishes in Longjiang cuisine, such as Pork with Garlic Sauce, Soft Fried Salmon, Stewed Chick with Mushroom, etc. [2].

In order to promote the development of local dietary in Heilongjiang province, it is of great importance to make a study on tourist satisfaction according to current situation of Longjiang cuisine, to find out the vulnerabilities of its development. The paper applied questionnaires and IPA analysis to analysis tourist satisfaction with Longjiang cuisine, in order to get the corresponding countermeasures to the existing problems.

2. Method

The questionnaire is divided into three parts, including tourists’ sociological characteristics and behavioral characteristics, selecting 22 effect representative factors whose importance and satisfaction are evaluated with Likert five scales [3], and the overall evaluation and recommendation intention of the questionnaire respondents.

The data collected through the network distribution and paper questionnaire, survey for the respondents were tourists from outside the province who had traveled to Heilongjiang province and
tasted more than 5 dishes in Longjiang cuisine style. The effective rate is 89% with 180 valid among total of 203 questionnaires. SPSS 21.0 statistical analysis is used then.

In order to ensure the reliability and consistency of the survey data, SPSS 21.0 is used to test the reliability of the importance-satisfaction scale in the questionnaire coefficient test. After inspection, the reliability coefficient of importance scale of the questionnaire is 0.934, the reliability coefficient of satisfaction scale is 0.954, the overall questionnaire reliability is 0.929, and it shows that the scale has high reliability and can be used for the next analysis of data.

After calculating the numerical value of each influence factor, the factor of importance is taken as the x axis, the factor of satisfaction is taken as the y axis, to build two-dimensional axis, forming four quadrants, named IPA quadrant diagram [4].

3. Result

3.1 General information analysis of tourists

The first part of the questionnaire includes tourists gender, age, education background, monthly income, the level of understanding of Longjiang cuisine, ratio of catering cost and the number of tourism to Heilongjiang, the statistical results are as shown in Table 1.

<table>
<thead>
<tr>
<th>Statistical Indicators</th>
<th>Characteristics</th>
<th>Number</th>
<th>Proportion</th>
<th>Statistical Indicators</th>
<th>Characteristics</th>
<th>Number</th>
<th>Proportion</th>
</tr>
</thead>
<tbody>
<tr>
<td>gender</td>
<td>male</td>
<td>74</td>
<td>41.1%</td>
<td>very unfamiliar</td>
<td>2</td>
<td>1.1%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>female</td>
<td>106</td>
<td>58.9%</td>
<td>unfamiliar</td>
<td>26</td>
<td>14.4%</td>
<td></td>
</tr>
<tr>
<td>age</td>
<td>below 18</td>
<td>4</td>
<td>2.2%</td>
<td>little known</td>
<td>66</td>
<td>36.7%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>18-30</td>
<td>114</td>
<td>63.3%</td>
<td>known</td>
<td>60</td>
<td>33.3%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>30-50</td>
<td>62</td>
<td>34.4%</td>
<td>very familiar</td>
<td>26</td>
<td>14.4%</td>
<td></td>
</tr>
<tr>
<td>education</td>
<td>High school and below</td>
<td>8</td>
<td>4.4%</td>
<td>Ratio of catering cost</td>
<td>10%</td>
<td>36</td>
<td>20.0%</td>
</tr>
<tr>
<td></td>
<td>College bachelor</td>
<td>12</td>
<td>6.7%</td>
<td>20%</td>
<td>48</td>
<td>26.7%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>bachelor</td>
<td>120</td>
<td>66.7%</td>
<td>30%</td>
<td>68</td>
<td>37.8%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Master and above</td>
<td>40</td>
<td>22.2%</td>
<td>40%</td>
<td>28</td>
<td>15.6%</td>
<td></td>
</tr>
<tr>
<td>monthly income (Yuan)</td>
<td>below 2000</td>
<td>16</td>
<td>8.9%</td>
<td>Number of trips</td>
<td>once</td>
<td>46</td>
<td>25.6%</td>
</tr>
<tr>
<td></td>
<td>2000-3000</td>
<td>46</td>
<td>25.6%</td>
<td>twice</td>
<td>16</td>
<td>8.9%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>3000-4000</td>
<td>28</td>
<td>15.6%</td>
<td>three times</td>
<td>2</td>
<td>1.1%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>4000-5000</td>
<td>32</td>
<td>17.8%</td>
<td>four times and above</td>
<td>116</td>
<td>64.4%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>above 5000</td>
<td>58</td>
<td>32.2%</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

3.2 IPA quadrant diagram analysis

It is shown from the data of analyzing with SPSS 21.0 that the importance of general average value of Longjiang cuisine tourist satisfaction is 4.006, the total satisfaction is 3.657. The IPA quadrant diagram with 22 factors mapped on it is shown as Figure 1.
The IF (Impact Factor) in the first quadrant (Dominant area): according to IPA, the factors including color, aroma, taste, raw material freshness, local characteristics, price level, are considered with high importance and satisfaction [5]. The region is a relatively satisfactory area for tourists and is also with great advantages for Longjiang cuisine development.

The IF in the second quadrant (Maintain area): the richness of raw materials, the size of dishes, the types of dishes, food utensils, style of restaurant. They are considered to be of low importance and high satisfaction. The region is in a high degree of satisfaction and it needs to be continued and developed.

The IF in the third quadrant (Repair area): modeling of dishes, nutritional value, menu making, restaurant layout, food explanation, public facilities. According to the principle of the IPA, they are considered low importance and low satisfaction. This region is a relatively unsatisfactory area for tourists but has large space for improvement.

The IF in the forth quadrant (Vulnerable area): culinary arts, service attitude, sanitary conditions, dining environment, dietary culture. According to IPA, the factor that falls within this quadrant is considered high importance and low satisfaction, this region is a very unsatisfactory area for tourists. It is also the weakness in the development of Longjiang cuisine. What’s more, we must strive to improve in future development.

4. Suggestions

4.1 Promotion strategy for dominant area

The IF (impact factor) of the quadrant area is the advantage of Longjiang cuisine. In the area, raw material freshness has the biggest difference between satisfaction and importance, whose tourist satisfaction degree is far lower than expectation. So the procurement process is recommended to be strictly controlled, in order to avoid the loss of quality of ingredients caused by long time transportation. It is also recommended to demonstrate “local characteristics” of Longjiang cuisine. In the process of developing Longjiang cuisine in the future, the six factors in the dominant area should continue to be improved based on maintaining the current level, in order to continuously reduce the difference between the expectation and satisfaction of tourists, truly extend the advantage, and gain more good reputation and development prospects.
4.2 Moderate regulation strategy for maintain area

The richness of raw materials and the types of dishes are basically reached the level of importance of the tourists’ expectation, because of the rich products and complete cooking materials in Heilongjiang province. On the other hand, the tourists’ expectations to Longjiang cuisine dishes are not high, which is suggested that Longjiang food publicity should be strengthened and the innovation level of dishes should be improved.

4.3 Positive expansion strategy for repair area

For the development of Longjiang cuisine, the IF falls in the repair can also be seen as the Longjiang cuisine development opportunity area, both the importance and satisfaction of IF in this area are low. First of all, it is important to improve the aesthetic quality of the diet and improve the status of Longjiang cuisine. Secondly, to spread scientific diet, changing dishes flavor of salty and heavy oil, reducing the amount of oil and salt, realizing food nutrition collocation, and to try to acquire delicious and healthy at the same time. Thirdly, the level of restaurant layout should be improved and the design of the menu should be innovated. Finally, the fine interpretation process should be added to improve public facilities and equipment.

4.4 Major improve strategy for vulnerable area

According to the analysis of IPA quadrant, IF in this region are the factors that need to be paid much more attention during Longjiang dishes development, among which two factors, culinary arts and dietary culture, are dissatisfied by tourists, and other three factors including service attitude, dining environment, sanitary conditions are more dissatisfied. They are all urgently to be solved.

Firstly, to improve the cooking process and catering culture. Secondly, to make clear the importance of service management, including establishing the correct service consciousness, improving service attitude, strengthening the service management, and comprehensively improving the overall quality of Longjiang food service. Finally, to pay attention to hygiene supervision, controlling the whole process of the dishes sanitary standard. At the same time, to pay attention to the dining environment, strengthen the health inspection management, make tourists’ dining environment always clean and tidy.

5. Summary

Through the study on tourists’ satisfaction with Longjiang cuisine, there are certain advantages and potential factors to further development. The tourists are satisfied with the good color, the flavor of the dishes, the taste of the dishes, etc. The richness of raw materials, the size of dishes, the types of dishes, food utensils, etc. which tourists’ evaluation was beyond expectation, but on the whole, there are still significant differences between tourists’ expectation and perception of Longjiang cuisine. And the modeling of dishes, nutritional value, public facilities, etc. has large space for improvement. Sanitary conditions and service attitude, dining environment and so on need to be improved. In the process of future development of Longjiang cuisine, improving tourists’ satisfaction, eliminating the negative factors, so as to further promote the healthy development of the catering industry and tourism industry in Heilongjiang province are of great importance and significance.

Acknowledgment

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References
[1] Information on http://www.agri.cn