Determination of the image of Lisbon as a tourism destination
Analysis of Perceptions on Arrival and Departure and Implications for Tourist Satisfaction

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Abstract
The main purpose of this study is to identify the attributes or dimensions that most affect the tourist satisfaction regarding Lisbon as tourism destination. Tourists perceptions were collected on arrival and on departure and it was also studied the correlation between satisfaction and loyalty.

This study was supported by 104 questionnaires. The survey was carried out at three 4-star hotels in Lisbon, during the last week of July, August and the first two weeks of September 2010.

The perceptions of Lisbon after the trip exceeded the expectations in all attributes. The attributes with larger differences were the “good nightlife”, the “diversity of monuments” and the “accessible price for transportation”.

Factor analysis, to identify which factors contributed the most to the tourist’s satisfaction, was explored. However, it was found that the data obtained did not meet the application’s requirements for performing the analysis.

Multiple regression analysis was carried out using satisfaction as the dependent variable and the attributes of performance as independent variables. It was verified that the attributes that most explain the satisfaction associated with Lisbon were the high levels of “good safety and security”, “good nightlife”, “accessible price of transportation” and “accessible price of attractions and activities”.

Finally, cluster analysis was applied in order to find out different homogeneous groups of tourists that visited Lisbon.

Key words: Image destination, satisfaction, Lisbon, multivariate statistical analysis

1. INTRODUCTION
The tourism industry is one of the industries that has experienced high levels of development over the last decade. This industry generates jobs that have played an increasingly important role in the world economy and contributes positively to the development of various countries.

In the field of marketing, the image of a tourism destination has been the object of considerable research over the past three decades. The image of a destination has been considered a complex and important concept in the process of selecting the destination.

The first objective of this study is to measure the image of Lisbon by analysing the expectations and the perceptions of the tourists, comparing them so as to evaluate the satisfaction and consequently the loyalty towards the city.

The second objective is to perform a factor analysis to determine dimensions of the perceptions on arrival, or expectations (image₀), perceptions on departure, or performance (image₁) and the variation of these perceptions (image₁-image₀).

The third one is to execute a multiple regression analysis to establish the main attributes or dimensions of the image₁ and of the variation of the image, that explain the satisfaction with the city.

Finally, the forth objective is to perform a cluster analysis in order to study the existence of groups and characterize them. These groups are identified in terms of the attributes of performance (image₁).
2. LITERATURE REVIEW

Reynolds (1965) describes the formation of an image as a mental construct based on very few impressions taken from a lot of information. In this case, that information may come from advertising, travel agencies, opinions from family or friends, or the media (newspapers, magazines, television).

On the other hand, Chon (1990) claims that satisfaction depends heavily on the comparison of expectations based on those previous images with the reality found by the experience of the trip. So, if the level of expectation of the tourist is better than he expect, he will be satisfied. Alternatively, if the performance is worse than expect, the tourist will be dissatisfied (Engledow, 1977).

The destination’s image has a positive influence on the perceived quality and satisfaction. The more positive image will lead to an increase in tourist satisfaction. Therefore, the evaluation of the tourist destination experience will influence and modify the image (Echtner and Ritchie, 1991; Fakeye and Crompton, 1991).

According to several authors, cited by Chi and Qu (2008), in a tourism context, the satisfaction with the travel experience contributes to the loyalty of the tourist. The degree of loyalty to a tourism destination is reflected in the travellers’ intention to return and their willingness to recommend it to family or friends (Oppermann, 2000).

After the literature review, the following model emerges:

3. METHODOLOGY

A questionnaire answered by 104 tourists was used to assess the perceived expectations and performance of the attributes that influence the image of Lisbon as a tourism destination, and to measure tourists’ satisfaction and loyalty.

The survey was conducted at three 4-star hotels in the city’s centre during the last week of July, August and the first two weeks of September of 2010. The questionnaire contained four sections: social and demographic profile, expectations about the image of Lisbon, performance of the image of Lisbon and tourist satisfaction.

The respondents were asked to evaluate the level of 27 attributes that influence the image of Lisbon regarding the expectations and the performance, using a seven point Likert scale. The scale ranged from 1 (completely disagree) to 7 (completely agree). The 27 evaluated attributes were selected based on previous studies.

4. DATA ANALYSIS AND RESULTS

First of all, descriptive statistics were performed to determine the expectations and the performance of each attribute of Lisbon as a tourism destination.

Table 1 shows the expectations (Image₀) and performance (Image₁) means for each variable. All these values are relatively high.
“The scenery is beautiful” was the variable that yielded the highest mean score not only in the expectations but also in the performance.

Figure 2 shows the variation of the image of Lisbon. All the variables had a positive variation; this means that performance exceeded the expectations in all variables. The variables that most surprised the tourists were the “good nightlife”, the “good variety of monuments” and the “accessible price for transportation”. On the other hand, the variables with lower difference between the performance and the expectation were the “efficient service at the restaurants”, the “accessible price for attractions and activities” and the “professionalism of the taxi drivers”.

As mentioned in the literature review, according to Engeldow (1977), when performance (image₁) exceeds the expectations (image₀), the tourist is satisfied. So, since the values of performance exceed the values of expectation in all the attributes, it is expected that the tourists are satisfied.

Table 1 – Expectations (Image₀) and performance (Image₁) means

<table>
<thead>
<tr>
<th>Variables’ name</th>
<th>Image₀</th>
<th>Image₁</th>
</tr>
</thead>
<tbody>
<tr>
<td>Good safety and security</td>
<td>4.43</td>
<td>5.16</td>
</tr>
<tr>
<td>The climate is pleasant</td>
<td>4.74</td>
<td>5.31</td>
</tr>
<tr>
<td>The scenery is beautiful</td>
<td>4.90</td>
<td>5.65</td>
</tr>
<tr>
<td>The city is clean</td>
<td>4.50</td>
<td>5.14</td>
</tr>
<tr>
<td>Good nightlife</td>
<td>4.63</td>
<td>5.51</td>
</tr>
<tr>
<td>Good quality of cultural events</td>
<td>4.68</td>
<td>5.29</td>
</tr>
<tr>
<td>Good variety of cultural events</td>
<td>4.68</td>
<td>5.42</td>
</tr>
<tr>
<td>Good variety of museums</td>
<td>4.46</td>
<td>5.07</td>
</tr>
<tr>
<td>Good quality of museums</td>
<td>4.66</td>
<td>5.33</td>
</tr>
<tr>
<td>Beauty of the squares</td>
<td>4.67</td>
<td>5.42</td>
</tr>
<tr>
<td>Good variety of monuments</td>
<td>4.58</td>
<td>5.44</td>
</tr>
<tr>
<td>Good diversity of shopping facilities</td>
<td>4.27</td>
<td>5.08</td>
</tr>
<tr>
<td>Easy access to communications networks</td>
<td>4.41</td>
<td>5.08</td>
</tr>
<tr>
<td>Accommodation facilities</td>
<td>4.79</td>
<td>5.51</td>
</tr>
<tr>
<td>Good accessibility and transports</td>
<td>4.48</td>
<td>5.08</td>
</tr>
<tr>
<td>Professionalism of the taxi drivers</td>
<td>4.43</td>
<td>4.99</td>
</tr>
<tr>
<td>Good rent-a-car service</td>
<td>4.42</td>
<td>5.18</td>
</tr>
<tr>
<td>Good hospitality</td>
<td>4.60</td>
<td>5.31</td>
</tr>
<tr>
<td>Friendliness of local people</td>
<td>4.43</td>
<td>5.17</td>
</tr>
<tr>
<td>Good tourist information and support</td>
<td>4.76</td>
<td>5.40</td>
</tr>
<tr>
<td>Accessible price for food and accommodation</td>
<td>4.72</td>
<td>5.41</td>
</tr>
<tr>
<td>Accessible price for attractions and activities</td>
<td>4.39</td>
<td>4.87</td>
</tr>
<tr>
<td>Accessible price for shopping</td>
<td>4.56</td>
<td>5.16</td>
</tr>
<tr>
<td>Accessible price for transportation</td>
<td>4.36</td>
<td>5.21</td>
</tr>
<tr>
<td>Good quality of restaurants</td>
<td>4.53</td>
<td>5.27</td>
</tr>
<tr>
<td>Diversity of restaurants</td>
<td>4.71</td>
<td>5.39</td>
</tr>
<tr>
<td>Efficient service at the restaurants</td>
<td>4.65</td>
<td>5.05</td>
</tr>
</tbody>
</table>
Regarding global satisfaction and loyalty, the mean scores are listed in table 3.

**Table 2– Satisfaction and loyalty**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Global satisfaction</td>
<td>5.08</td>
</tr>
<tr>
<td>Intention to revisit</td>
<td>5.38</td>
</tr>
<tr>
<td>Recommendation</td>
<td>5.45</td>
</tr>
</tbody>
</table>

It is important to highlight the fact that the “recommendation” mean had a higher value than the mean of the “intention to revisit”. This happens because a tourist maybe satisfied with Lisbon but not have the opportunity to return to the city or may prefer to visit another not yet visited city, but still want to recommend Lisbon to their family or friends.

Table 3 shows the correlation between satisfaction and loyalty. The loyalty variable was created by the average of the variables “intention to revisit” and “recommendation”, based on the model suggested at the end of the literature review chapter. Surprisingly, the correlation between these two variables is weak (0.223). It was expected that this value was much stronger because if an individual is satisfied with a city, it was expected that he would want to repeat it and/or recommend it to family or friends.

**Table 3– Correlation between global satisfaction and loyalty**

<table>
<thead>
<tr>
<th>Loyalty</th>
<th>Pearson Correlation</th>
<th>Pearson Correlation (2-tailed)</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Loyalty</td>
<td></td>
<td></td>
<td>104</td>
</tr>
<tr>
<td></td>
<td>0.223</td>
<td>0.023</td>
<td>104</td>
</tr>
</tbody>
</table>

One of the objectives of this work was to apply factor analysis to the performance attributes, as well as to the variation between the performance and the expectations, in order to obtain dimensions to reduce the number of attributes, and to use them as independent variables in a multiple regression.

However, it was verified that the data was not appropriated to the application of factor analysis, due to the weak correlations between the variables (as confirmed by the low values of the KMO measure of sample adequacy).

Then, multiple regression analysis was performed, which enabled to find the main attributes that determine “global satisfaction” with the city of Lisbon.

Since factor analysis was not applied, a multiple regression analysis was performed with the global satisfaction as dependent variable and the original variables of performance (Image₁) as independent variables. This method was also applied using the values of the variation of the image as independent variables.

Regarding the variation of image, the equation obtained was:

\[
\text{satisfaction (variation)} = 4.898 + 0.277 V_1
\]  \hspace{1cm} (1)

\[
(t=27.75) \quad (t=2.20)
\]

Where:

\( V_1 \) – Variation of the variable “Good safety and security”

This model explained only 3.6% of total satisfaction.

On the other hand, when the performance variables were used, the model obtained explains 59% of the satisfaction – equation (2).

\[
\begin{align*}
\text{Satisfaction(image)}_1 & = -1.64 + 0.71 V_1 + 0.18 V_2 + 0.23 V_3 + 0.18 V_4 \\
 & (t=-2.47) \quad (t=-10.30) \quad (t=-2.55)
\end{align*}
\]  \hspace{1cm} (2)

\[
(t=-2.92) \quad (t=-2.92)
\]

Where:

\( V_1 \) – Good safety and security
\( V_2 \)–Accessible price for transportation
\( V_3 \)– Good nightlife
\( V_4 \)–Accessible price for attractions and activities

It was also performed a multiple regression analysis with the variable variation of “good safety and security” and the performance variables. However, the model obtained was the same as equation 2. Therefore, it was concluded that the satisfaction only depends on the performance variables (image₁). The model with the variables that influence the global satisfaction with the city is shown in figure 3 with the respective correlations.
Finally, cluster analysis was used to isolate distinct groups of tourists by examining common characteristics of the performance attributes. A hierarchical cluster analysis, using squared Euclidean distance with Ward’s method, was performed to divide the sample into homogeneous groups of tourists. Three clusters with 31, 50 and 23 tourists respectively were selected.

Figure 4 shows the mean of the performance variables for each group. In general, the respondents from cluster 1 are those that evaluate the city with higher mean values.

Cluster I: “Unconditionals”. This group gave higher values specially to variables regarding the environment and prices, such as “scenery is beautiful”, “climate is pleasant”, “accessible price for attractions and events”, as well as “accessible price of food and accommodation” and “accessible price of transportation”. This group represent about 30% of the total and is mostly female (64,5%) and aged between 20 and 29 or between 40 and 49. The predominant nationality in this cluster was the French, with a total of about 26%, followed by German and Italian, with 16.1% each. 67.7% of respondents remained in Lisbon a period of 2 to 5 days, 87,1% went to Lisbon for vacations and more than half were visiting the city for the first time.

Multiple regression analysis was performed for this cluster and the equation obtained was equation 3 and the adjusted coefficient of determination was 72,5%.

\[ \text{Satisfaction (cluster 1)} = 0.68 + 0.78V_1 + 0.29V_2 \]  
\( (t=0.10) \quad (t=8.02) \quad (t=2.73) \)

Where:
- \( V_1 \) - Good safety and security
- \( V_2 \) - Good variety of museums

Cluster II: “Friends” These tourists revealed that the variables “good hospitality”, “good variety of cultural events”, “friendliness of local people” and “good tourist information and support” were the variables with higher mean scores. This group owns most respondents, with a percentage of 48% of the total and is the group more balanced regarding gender. Regarding nationalities, 14% of respondents were French, representing the largest percentage, followed by Polish, Germans and English, with equal percentages of 12%. Almost of the group, 92%, was visiting Lisbon for the first time and 46% stayed in Lisbon for a period of 2 or 3 days. The equation obtained by the multiple regression for this cluster was:

\[ \text{Satisfaction (cluster 2)} = -0.72 + 0.74V_1 + 0.25V_2 \]  
\( (t=-0.08) \quad (t=6.09) \quad (t=2.04) \)

Where:
- \( V_1 \) - Good safety and security
- \( V_2 \) - Accessible price for transportation

The adjusted coefficient of determination was 42,5%.

Cluster III: “Cultural”. Tourists from cluster 3 classified as the best variables “good variety of monument”, “good quality of museums” and also “good quality of cultural events”. This group was also half male, half female and had 43,5% of people with age between 30 and 39. The nationalities most common were French, Italian and Irish with 17,4% each. The equation obtained by the multiple regression analysis for this cluster was the equation 5 and the adjusted coefficient of determination was 71,4%.

\[ \text{Satisfaction (cluster 3)} = -0.14 + 0.44V_1 + 0.55V_2 + 0.24V_3 - 0.26V_4 \]  
\( (t=-0.18) \quad (t=-4.02) \quad (t=-4.09) \quad (t=2.55) \quad (t=2.21) \)

Where:
- \( V_1 \) - Good safety and security
- \( V_2 \) - Good nightlife
- \( V_3 \) - Efficient service at the restaurants
- \( V_4 \) - The climate is pleasant
Since tourists from cluster are those that evaluate the city with higher values, they are also the most satisfied and they were the ones that most intend to return to Lisbon and to recommend the city to others as Figure 4 shows. On the other hand, the tourists who evaluated with lowest values were the tourists from cluster 3.

5. CONCLUSIONS AND LIMITATIONS

This work was started with a literature review which allows getting a model that defends the fact that the tourists’ satisfaction depends on not only the image after the trip but also on the variation of the image. The model also defends that the satisfaction influences the tourists’ loyalty.

The tourists’ image is based on a set of attributes used in previous studies. In order to evaluate these attributes, 104 questionnaires were collected in three 4-star hotels located in the centre of Lisbon.

Factor analysis was intended to be performed but it was verified that the data was not adequate to the application due to the weak correlations between the variables.

Then, multiple regression analysis was applied using as dependent variable the “global satisfaction with the city” and with the performance attributes as independent variables. A similar multiple regression was performed with the variation between the performance and the expectations as independent variables.

The most important variables on satisfaction determination were “good safety and security”, “good nightlife”, “accessible price for transportation” and
“accessible price for attractions and activities”. It was not included any variable computed as the variation between the performance and the expectations.

Finally, in the last part of this work, a cluster analysis was performed in order to cluster the tourists in homogeneous groups regarding the 27 opinions about the performance variables. This method of analysis demonstrated that the clustering procedure yields meaningful insights into the satisfaction and loyalty of the tourist experience.

The first group, the “unconditionals”, proved to be the most satisfied and loyal to the city, presenting values of satisfaction and loyalty higher than those of the other groups. This group also evaluated the majority of the performance variables with the highest values. For cluster 1, the attributes with the highest mean values were related with environment and the prices in Lisbon, namely the “scenery is beautiful”, the “climate is pleasant”, the “accessible price of attractions and activities” and also “accessible price of transportation” and “accessible price for food and accommodation”.

The second group, the “friends” corresponds to the largest group, with a percentage of 48% of the total sample. This group appreciated the most variables associated with the hospitality of the city of Lisbon, such as “good hospitality”, the “friendliness of local people” and “good service of tourist information”.

Finally, the third group, the “cultural” was the smallest group, with only 23% of the total sample. This group can be considered a more intellectual group, since their members are interested in historic and cultural events.

The main limitation of this study is the fact that it was used a convenience sample to select the respondents and the hotels where the questionnaires were collected. Therefore it is important to remember that the results from this study cannot be generalized to the population.

Another limitation was due to the period of time that the surveys were available at the hotels, covering just the end of July, the month of August and early September; in spite of being considered high-season months, these do not cover all of the season.

6. REFERENCES


