

RELIABILITY OF AUTHENTICATED VERSUS NON-AUTHENTICATED HOTEL REVIEWS: TRIPADVISOR AND BOOKING.COM CASE

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This study analyzes the Electronic Word Of Mouth (eWOM) in the tourism sector through TripAdvisor and Booking.com.

TripAdvisor is a website that allows to worldwide travellers plan their trips by consulting the advice from other real travellers about a wide variety of opinions of different hotels, restaurants and tourist attractions. TripAdvisor offers as well direct links to different booking tools to the site visitors.

The website has achieved a remarkable success, earning a great reputation worldwide with more than 260 million unique monthly visitors (Google Analytics, June 2013).

It is perhaps due to the importance that TripAdvisor has reached as a travel website 2.0 that, since the beginning, TripAdvisor has been surrounded by criticisms and considerable controversies (Mellinas, 2012; Palmer, 2013; Rawlinson, 2011; Shankman, 2013; Smith, 2012).

However, while some tourism professionals consider that TripAdvisor is a great promotional tool for their business, others contemplate it as an enemy, depending on whether what appears about their property on this website it is positive or negative. Thence some hoteliers consider that TripAdvisor is a threat for their interests and criticize that anyone, under a pseudonym and an email account, can share an opinion freely. They accuse that this freedom has led to malpractices within the website (Canalis, 2012a, 2013; Nadal, 2012).

Meanwhile and according to SimilarWeb, Booking.com received 108 million visitors in October 2013, making the website the one most visited of online booking sites. Behind Booking.com there was TripAdvisor, with 48,5 million visitors and 2.74 minutes less of permanency spent inside the website than on Booking.com.

After booking a room through Booking.com and to have stayed in the hotel, customers receive an invitation by mail to write a comment about their experience in the establishment.

So you can only write if you have booked a room on Booking.com and you have actually stayed in the hotel. Therefore this site is an example of reliability on the comments which are just published by real travelers ensuring that the published criticism corresponds to a real experience.

The main difference between TripAdvisor and Booking.com is the reviews published in each site. While all Booking.com reviews belong to users that have booked and have been lodged, at least for one night, in an establishment through Booking.com, TripAdvisor publishes reviews from any user registered in the website regardless if they have been lodged or not in the establishment. So anybody can publish on TripAdvisor. However, Booking.com has an important disadvantage about participation because, despite of being the world leader in booking accommodation online, excludes the publication of other opinions from travelers who have been in an establishment but they have booked the room through different channels.

The overall aim of this study is to check whether the possible false reviews that may appear on TripAdvisor alter the ranking, which is compared with Booking.com, the site where all the opinions issued represent real users who have actually stayed in the establishment because if not, they would not be possible to judge. Furthermore, it is also intended to check if other parameters, like the hotel category and the total amount of reviews, influence in a better or a worse position in the global ranking.

Consequently and regarding to the different studies conducted on the importance of TripAdvisor and the *eWOM* and, at the same time, the controversy caused among the hotel industry because of the fact that the reviews are published without being demonstrated, this study pretends to contrast the following hypotheses:

- H1. False reviews posted on TripAdvisor alter the ranking, comparing it to Booking.com
- H2. The higher hotel category obtains a better position in the ranking.
- H3. The greatest number of reviews gives a better position in the ranking.

It has been decided to analyze the hotels of the five Spanish cities with the higher RevPar (Revenue Per Average Room), according to the Profitability Barometer of the Spanish tourist destinations for 2012, produced by Exceltur.

To the present study, the variables collected through TripAdvisor and Booking.com websites were: number of posted reviews, position held in the ranking, the average mark that the users conferred in Booking.com, and finally, the hotel category of each establishment as classified by Booking.com, being from 1 to 5 stars.

Hypothesis 1 and 3 were tested by Spearman and Kendall correlation coefficients, which are measures of association or interdependence between two linear related variables. The interpretation of the coefficients is the same as the Pearson correlation coefficient, where ranges from -1 to +1 indicates negative or positive associations respectively, and zero means no correlation exists.

Hypothesis 2 was tested by contingency tables and independence tests using the Person's Chi-squared test (χ^2) with the corresponding significance test to determine if the two variables are related (associated) and the strength of association between them or to check if there are statistically significant differences between the two distributions.

Table 1
SAMPLE INFORMATION

| Concept | Booking.com | TripAdvisor |
|---|--------------------|--------------------|
| Total hotels | 754 | 1,120 |
| Selected Hotels (that coincide in both sites) | 697 | 697 |
| Total reviews posted | 348,645 | 244,670 |
| Average of reviews posted | 403.5 | 275 |
| Minimum of reviews posted | 13 | 1 |
| Maximum of reviews posted | 3,478 | 2,701 |

Table 2
HOTELS CATEGORY FROM THE SAMPLE

| City | Category | | | | | Total |
|-------------------|-----------------|-----------|------------|------------|-----------|--------------|
| | 1* | 2* | 3* | 4* | 5* | |
| Barcelona | 6 | 10 | 49 | 252 | 20 | 337 |
| San Sebastián | 3 | 6 | 4 | 12 | 1 | 26 |
| Cádiz | 1 | 1 | 6 | 7 | 0 | 15 |
| Madrid | 4 | 21 | 74 | 153 | 21 | 273 |
| Palma de Mallorca | 0 | 3 | 8 | 28 | 7 | 46 |
| TOTAL | 14 | 41 | 141 | 452 | 49 | 697 |

Table 3
CORRELATIONS BETWEEN BOOKING.COM
AND TRIPADVISOR RANKINGS

| | Spearman correlation | Kendall correlation |
|-------------------|-----------------------------|----------------------------|
| Barcelona | 0.865 | 0.689 |
| San Sebastián | 0.894 | 0.735 |
| Cádiz | 0.850 | 0.695 |
| Madrid | 0.839 | 0.651 |
| Palma de Mallorca | 0.646 | 0.484 |

Table 4
INFLUENCE BETWEEN THE HOTEL CATEGORY AND
THE POSITION IN THE RANKING

| | TripAdvisor | Booking.com |
|-----------|----------------------------|-----------------------------|
| Barcelona | $\chi^2 = 3.884$; p= 0.04 | $\chi^2 = 5.189$; p= 0.03 |
| Madrid | $\chi^2 = 3.891$; p= 0.04 | $\chi^2 = 4.857$; p= 0.028 |

To check if the hotels published in TripAdvisor with a large amount of reviews posted obtain a better position in the global ranking, it has been demonstrated through the Spearman correlation, which obtains a result of -0.513 that indicates that there is a negative lineal correlation. Kendall correlation (-0.367) confirms that the amount of reviews posted about an establishment grants a better position on TripAdvisor's ranking.

In the case of Booking.com, with a Spearman correlation of -0.192, a result very close to 0, it indicates that is very weak and there is practically no linear relation. The Kendall correlation (-0.129) confirms that the amount of reviews posted does not grant a better position in Booking.com's ranking.

Based on this study, it can be confirmed that the existing correlation between Booking.com's ranking and TripAdvisor's ranking, also known as the *TripAdvisor Popularity Index*, is high and obtains similar positions in many occasions. Therefore it is concluded that the possible manipulation and falsification of the reviews on TripAdvisor is not characteristic in the five Spanish cities studied compared to Booking.com, where all the reviews are reliable.

Besides, it is concluded that the hotel category exerts a certain influence in the position occupied in the ranking because in many cases, hotels with a major category are located in better positions in the global ranking.

Regarding to the amount of opinions published in both sites, it is extracted that these influence on a better position in the ranking. It should also be mentioned that there are differences between the size and the nature of the establishments, as the small independent hotels do not have a big booking engine and they may be booked directly or through Booking.com. Accordingly, many small hotels have more reviews posted in Booking.com than on TripAdvisor.