The irruption of Airbnb and its effects on hotel profitability: An analysis of Barcelona’s hotel sector


Abstract
The aim of this study is to analyze the existence of a relationship between the presence of nearby substitute products, mainly Airbnb flats or rooms, and the effect on the revenue and profitability of hotels.

Methods
The empirical study is based on the analysis of financial information provided in the annual reports of a sample consisting of 43 hotels (11.78% of the population). As an explanatory variable for profitability, this study has considered the presence of apartments listed in Airbnb that are no farther than one kilometer from each hotel. Considering that most of the variables used do not follow a normal distribution, the existence of a relationship between profitability and the explanatory variables has been tested using non-parametric tests, namely, the Spearman correlation coefficient and Kruskall-Wallis test.

Results
It was found a positive correlation between presence of Airbnb apartments and return on equity. This fact can be explained by considering the presence of Airbnb apartments as a variable that measures the attractiveness of the location from a tourist’s point of view. Hotels located near the city center or main tourist areas of the city have a higher level of profitability. It was also found no evidence of any relationship between profitability and star category; 4- and 3-star hotels have experienced, on average, a lower drop in revenues between 2008 and 2013 and they also obtained a higher average level of profitability in 2013 as compared to the upper segment of 5-star hotels.
Conclusion

The results suggest that location is a key factor in explaining better performance. Being located near to a huge supply of Airbnb apartments is common for hotels in the city center, a location that many customers are willing to pay extra for. On the other hand, it is not clear whether the star rating is still an explanatory variable of profitability. The quality of the service, in a situation