



## Article Title

Sustainability Commitment, New Competitors' Presence, and Hotel Performance: The Hotel Industry in Barcelona

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## Abstract

The hospitality industry is facing major challenges, among them the new competition from novel forms of supply in the sharing economy. Airbnb, Homeaway, and Niumba, among other websites offering accommodations, are having an important impact in the sector, changing existing conditions and the market for the traditional hospitality industry. In this context, a strategy based in differentiation can help to prevent drops in revenues and profitability. The main objective of this paper is analyze if commitment towards sustainability has a positive impact on financial performance and can be considered a positive strategy in this new environment. The empirical data refer to a sample of hotels in Barcelona, one of the most important tourist cities in Europe. Our results suggest that there is no clear relationship between sustainability and better financial performance; however, sustainability commitment is associated with a minimum size, which can also have positive effects in terms of economies of scale and finally affect profitability. Hotels more committed to environmental issues are located in areas with a lower density of Airbnb apartments, and this geographical distribution can be more positive than a situation of massive tourist concentration in specific areas with negative externalities for neighbors.

## Methods

Four hypothesis were considered in this study:

H1. Hotels with a higher commitment to sustainability have better valuations when customers rate their experience at the hotel.

- H2. A minimum size is required to be capable of applying for sustainability certificates.
- H3. Hotels with a higher commitment to sustainability are more profitable.
- H4. Airbnb is negatively affecting hotels' financial performance.

To test the hypotheses, a sample of hotels located in Barcelona is used. In 2013, Barcelona had 365 hotels. The distribution of hotels according to the star category system is as follows: Sustainability 2016, 8, 755 7 of 13 the low categories, one and two stars, represents 9.32% and 9.86% of the total number of hotels; the bulk of the industry concentrates in three and four star hotels, with 31.78% and 41.92%, respectively. Finally, the higher category, five star hotels, represents 7.12%, but it is the one that has grown at a higher rate. In December 2000 just six hotels were rated with five stars, in December 2013 the number reached 26 hotels.

## Results

There is no evidence of a relationship between better financial performance and environmentally-oriented management. There is a growing concern among customers surrounding environmental responsibility but, although this process has already started, the effects on hotel profitability remain unclear. To check if the characteristics of hotels committed to sustainability are different to the ones without such a commitment, we compared the average values for most of the variables included in our study using the Mann-Whitney U test is not significant for the variables analyzed. Although the average values are different from a statistical point of view, the difference is not significant; however, the differences observed are interesting. Hotels with ISO 14001 certificates are larger in size, considering the number of workers or total assets; they have higher gross profit in terms of sales, a variable that is used to measure efficiency in the operations performed by the firm, and the ROE is higher than for hotels without the certificate. In terms of competence and pressure from the supply of accommodation provided by the sharing economy that has been measured by number of Airbnb apartments within a 1 km radius, hotels with the ISO 14001 experience lower pressure. Airbnb apartments are highly concentrated in the more tourist-heavy areas, with some negative externalities for the neighbors living in these areas. The environmentally-responsible hotels are less geographically concentrated in these areas, with positive effects in terms of economic activity, but less pressure on ordinary life for citizens of Barcelona.

## Conclusion

Some results do encourage future studies. Hotels with a greater environmental commitment are located in areas with less tourism pressure. In our sample the number of Airbnb apartments is lower on average for this category of hotels. This could be an important factor in terms of the overall effect of their activity. These hotels contribute to economic growth but in a more sustainable way, reducing the negative effects associated with a massive concentration of tourists in a particular area. On the other hand, although more data are needed to validate these results, hotels with the ISO certificate have a higher ROE and higher gross profits, on average. Previous

analyses of profitability

and environmental commitment have not shown clear results as the literature review summarises. The further confirmation of the hypothesis of a positive effect of sustainability on profitability is important because, in the actual context of new supply from the sharing economy, building a mechanism that reinforces profitability is critical for the traditional hospitality sector.

Sustainable hotels make a positive contribution in terms of economic growth, employment, and other positive effects related to the hospitality industry. The fact that these hotels exhibit more responsible consumption of production factors, and as our results suggest, that they are located in areas with lower tourism concentration, means that the negative externalities associated with their activity are reduced by this specific type of hotel.