

Environmental management and firm performance in the hotel sector

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Objectives | The environment is being used by firms as a differentiating element to increase market competitiveness. This behaviour, which is driven by changes in demand, highlights the need to understand the relationship between the hotels' commitment to the environment and its outcome in terms of economic performance. In this sense, environmental sustainability has an impact on the competitive positioning of firms, generating new markets for environmentally benign products and a new field of academic studies. This work has two main aims: to classify the hotels in Andalusia into strategic groups in terms of how they use the variable 'environment' as a factor in competitive positioning, and to assess the economic impact of the strategy adopted by the analysed establishments.

Methodology | In order to compare the results to those obtained in previous studies conducted in Spain, the methodology and a set of variables similar to those used by   lvarez-Gil, de Burgos and C  spedes (1999, 2001); Claver-Cort  s, Molina-Azor  n and Pereira-Moliner (2006); and Claver-Cort  s, Molina-Azor  n, Pereira-Moliner and L  pez-Gamero (2007) was chosen, but it was also used additional information available in the researchers database. It was used a database including representative parameters from 216 of these establishments (91 classified as 3 star, 116 as 4 star, and 9 as 5 star), that offer a total of 58,088 beds. Therefore, the sample includes 26.3% of the establishments in the region, representing a confidence level of 94.28%. These parameters were obtained from semi-structured questionnaires applied, by the researchers, to the hotel managers. The economic data was obtained directly via those questionnaires and from the annual accounts filed by firms in the mercantile registry. The position of the establishments towards the environment was assessed using the labels awarded to the hotel by qualified certification bodies, such as ISO 14001, EMAS, and Biosphere, and other specific labels, either awarded by hotel chains or public administration bodies, such as the 'Q-Verde'. Eight questions were used to evaluate the environmental strategies and for improving the interpretation of the results, some descriptive variables were included. Finally, objective measurements were selected to assess the economic consequences of implementing environmental strategies and to compare the different groups.

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In order to classify the hotels in terms of the environmental strategies implemented, a non-hierarchical cluster analysis was performed assuming that each establishment is represented by a vector that includes the values of the variables outlined above. Thus, these variables provide the necessary data to generate the aggregation variable to group the establishments.

Main results and contributions | The results show that the most common environmental strategies applied by the sample hotels are related to energy and water savings and recycling waste. However, the scores provided by the managers to some of the other questions suggest that other environmental strategies are also applied. It should be noted that these business management tools have only recently been introduced in the Spanish hospitality sector.

Concerning the variables of economic character, the representative hotel would show a labour productivity of € 31,620.91, an average wage per worker of € 22,581.36, a mean annual occupancy of 65.06%, a gross operating income of € 26,935 per room, and Gross Value Added per room of € 13,016.14.

Although it appears that some of the environmental variables have little influence on the management of hotels, our hypothesis is that by identifying the environmental strategies followed by hotels we can classify them into strategic groups that demonstrate how the implementation of certain environmental measures may have a positive economic impact in this highly competitive market. Subsequently, and based on the studies of Alvarez et al. (1999) and Henriques and Sadorsky (1999), groups were identified according to the hotels' environmental positioning: proactive (6.94%), accommodating (18.6%), defensive (20.83%) and reactive (54.17%).

Limitations | It should be noted that to further analyze the differences between environmental strategies, the explanatory power of the model would need to be increased by including more descriptive variables. Some of these variables could refer to the age of the establishment, the date of the last refurbishing, whether the propriety is leased or owned by the establishment, the nationality of the customers, and the strategic plans of the establishment or hotel chain. This information should be included in further studies in this field.

Conclusions | Two main conclusions were found: (i) it was demonstrated the existence of four strategic groups based on their position towards the environment and a positive association between proactive environmental strategies and the economic performance of hotels in Andalusia; (ii) the results show that strategies that make clients aware of the environmental measures implemented by hotels may improve occupancy levels, and increase sales and the added value generated by the establishment.

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