

THE EFFECT OF HOTELS' TRAINING ON OVERNIGHTS, REGIONAL GROWTH AND EMPLOYMENT

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Abstract: The role of human capital and, more specifically, the role of on the job training, has been widely analysed in the economic literature. Moreover, in the field of hospitality and tourism some studies focus on the relationship between training and hotel performance. This paper goes beyond this goal. It analyses the role of training on the hotel occupancy but, furthermore, it measures the impact of this human capital investment on the growth of a region, measured in terms of production, added value and employment. It combines both, microeconomic data from a database of two hundred hotels and the macro perspective of the Balearic Input-Output table, allowing measurement of the positive externalities that human capital investment in the hotel sector generates through the rest of the economy. Results show a positive and significant impact on potential growth and employment that goes beyond the strictly tourism-related sectors. In terms of policy recommendations, this work gives meaning to the promotion of public policies encouraging training practices at hotel level.

Key words: human capital, on-the-job training, hotel occupancy, tourism impact, regional growth

INTRODUCTION

There are several contributions which show the importance of human capital investment and, in particular, the role of education and in-firm training investments as a competitive strategy to generate sustainable growth and wealth (Becker, 1962; Mincer, 1974; Bishop, 1994). Human capital is expected to contribute to value added, either through higher direct productivity of more educated workers or because of better decisions or work organisation (Rosen, 1982). The importance of considering training decisions as a key element of successful performance arises as a key element for increasing competitiveness in tourism firms and tourism destinations.

In the general economic literature numerous studies have undertaken an empirical analysis of the relationship between training and firm performance. For instance, Molina and Ortega (2003), using a survey of senior executives in human resources, found that, overall, higher training is associated with significant benefits that increase firm value. Also using a dataset of American firms, Bartel (1989) obtained a significant rate of return on investment in training. The same result is obtained by Carriou and Jegger (1997) and Sheehan (2013). However, sometimes, as in the case of Black and Lynch (1996), the effect is not significant.

In the context of tourism literature, the studies quantitatively assessing the impact of human capital related variables on firm performance are fewer. Some studies have found that training programs positively impact manager and customer satisfaction, without using direct measures of productivity (Davies et al., 2001; Hocutt and Stone, 1998; Jameson,

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2000) and some of them do not find clear evidence of significant effects on the productivity of tourism establishments, as it is the case of Cho et al. (2006) for lodging and restaurants. However, most of the papers focus their analysis strictly on the hotel industry. In a number of papers studying the determining factors of productivity for firms in the hospitality industry, evidence has been found of training activities having an impact on hotel productivity. In Georgiadis and Pitelis (2012) small and medium-sized enterprises in the UK Tourism Hospitality and Leisure sector were analysed to test the impact of human resources (HR) on price minus cost margin. They discovered that a highly skilled workforce result in more profitable firms. Such Devesa and Mendieta Peñalver (2013), who developed a DEA study for a sample of representative Spanish hotels, found that, among other characteristics, hotels with training in new technologies are more efficient. Finally, in Garcia and Tugores (2015), the impact of different human capital characteristics and human resource policies in analyses on three different performance indicators, occupancy rates, GOP and customers' satisfaction. Their findings suggest that both educational and training variables play a role when it comes to explaining hotel performance, with training outperforming education, in broad terms.

At a regional or macroeconomic level, the role of human capital in determining the level and growth of GDP has been analysed the last three decades. Aghion and Howitt (1988) summarize much of the earlier works that are mainly theoretical and deals with different growth model specifications. Despite the specific model that is used, there is strong evidence that higher educational inputs increase productivity and so produce higher levels of national growth. Temple (2000) distinguished two main groups of model specification, the first group assume that the stock of human capital is the engine of economic growth such as secondary school enrolment rates, whereas the second group attribute growth to the accumulation of education and training in a given period. However, Koch and Reuling (1998) pointed out some of the difficulties of measuring training investments.

The current paper should be contextualised within this body of empirical literature addressing the role of training on the hotel occupancy in an important mature tourism destination in the Mediterranean. Furthermore, how this growth in hotel occupancy, due to training activities, increases directly and indirectly production, added value and employment of other sectors of the economy is discussed. In a destination for which tourism activity is the main driver of the economy, with over 41 per cent of the Balearic Gross Value Added in the islands (Polo and Valle, 2008); the total impact on the Balearics of training activities in the Balearic hotel industry is calculated.

Thus, the importance of training is assessed, in this paper, both combining microeconomic and macroeconomic data. It is innovative in the analysis of on the job training impact both at sectoral and regional levels. In doing so, it allows measuring the scope of the positive externalities that training activities in the hospitality sector, has on other related sectors of the economy.

The rest of the paper is organized as follows. First, the theoretical framework that will be used is explained and, at the same time, there is a description of the different data sources used. Coming up next, the empirical work relating training and overnight stays at the firm level is developed. The next section focuses on the relationship between training and regional growth and employment creation, disaggregating the spill-over effects for the

different sectors of the economy. The main findings and their economic policy implications are discussed in the concluding section.

DATA AND METHODOLOGY

In this paper, an empirical exercise is performed to analyse the importance of training investments in explaining the performance of hotels and rest of the Balearic economy. In doing so, two different datasets are used. The first one is a 200 hotels sample which is representative of a population of 743 hotels in Majorca, the main island that represents the 80 per cent of the total number of hotels of the Balearics. It is representative with a confidence interval of 95% and under the least favorable condition $p=q=0.5$, with a sampling error slightly under 5%. Data were collected during summer and early autumn 2008, coinciding with the high season at the destination by means of personal interviews with hotel managers.

Its strategic weight in the economy explains why any improvement in this sector has an important impact on the rest of the economy that should be taken into consideration. In order to study the relationship between the hotel industry and the rest of the Balearic economy, and in particular in some related sectors, it is used a second database: the Input-Output Table of the Balearic Islands for 2004 published by Conselleria d'Economia, Hisenda i Innovació del Govern de les Illes Balears (2007).

The connection between the two databases in order to analyze how an improvement in a specific hotel can affect the other sectors as well as the regional economy as a whole has been planned as follows.

From the first database, the variable overnight stays is created using the information of one variable that directly observes at the hotel demand, the occupancy rate, but also taking into account the number of rooms the hotel has and the number of months that it remains open, as well as the standard number of beds of a room. Coming up next, a regression analysis is developed and the marginal effect of training activities on the number of overnights is founded. Taking into account the number of hotels in the Balearics as well as the average expenditure per overnight stay in the islands officially published by the Balearic government (Conselleria de Turisme i Esports, 2007), the increase of tourism expenditure due to training activities organised by hotels can be obtained. Finally, the Input-Output Table allows us to estimate the impact on production, GDP and employment of the Balearic economy if 100% of the hotels carry out training activities.

TRAINING AND OVERNIGHTS

In this section the focus is on the relationship between the hotels' training activities and the number of overnights. The hotel database contains information about training organization developed by hotels. It is found that the 47.50% of the hotels in the database develop and organize this type of activity. In addition, there is also information about the number of euros spent by hotels on training activities. However, this variable is less useful in the analysis because of the lower response rate and also because the relationship between hotels training workers and positive expenses is not perfect. Some hotels train workers say that their expenses are 0 because they are supported by public funds, for example.

Figure 1 presents the overnight stays (in thousands) and occupancy rates differentiating between training and non-training hotels. Like in Cho *et al*, (2006) it is found that there is only a slightly but non significant difference between the occupancy rates of training and non-training hotels (77.98% vs 77.50%). However, the number of overnights appears significantly higher for those hotels that organize training activities (63638.53 vs 44771.27). After performing mean difference tests, overnights are significantly better for training hotels. In fact, overnight stays will be the dependent variable in the regression analysis because it is the one that permit us to relate occupancy, tourism expenditure and growth.

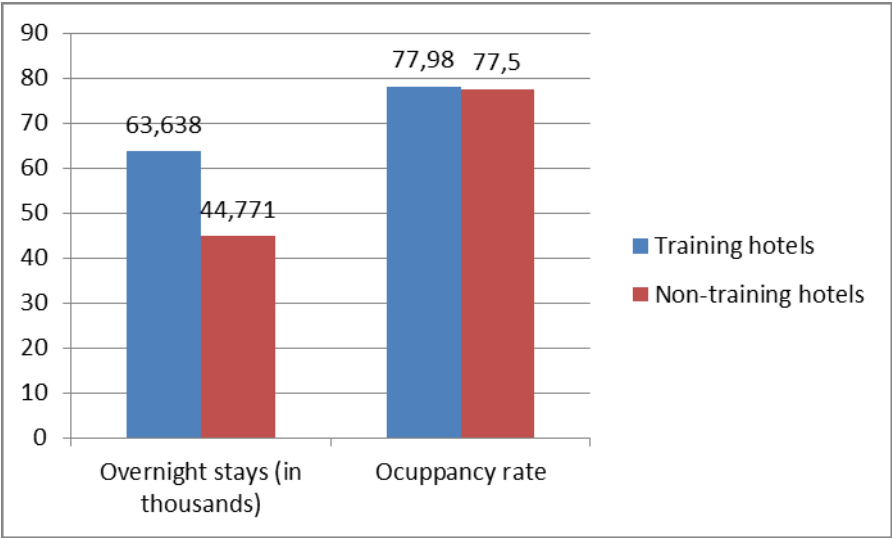


Fig. 1: Training and non-training hotels, overnights and occupancy rates

However, a simple descriptive analysis is not enough. Different variables, other than the training decisions, are obviously strongly related to occupancy numbers. As an example, Figure 2 shows the relationship overnight stays and the level of seasonality of the hotel, measured with the number of months opened, revealing the need to take into consideration these findings.

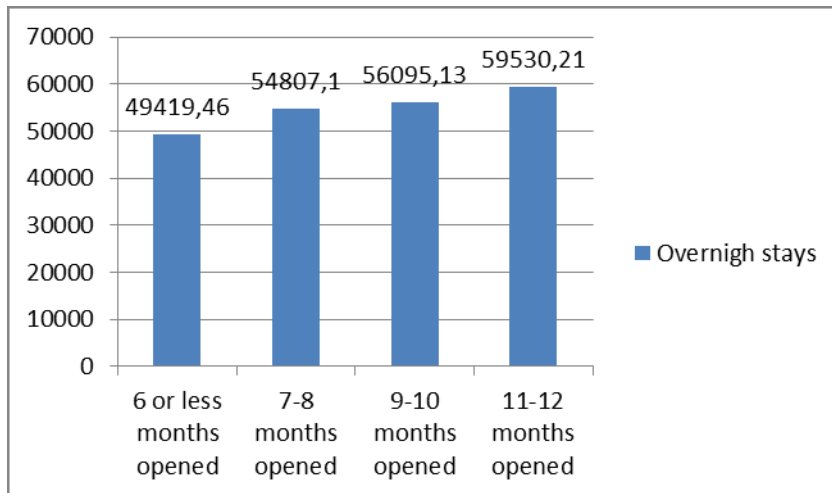


Fig. 2: Relationship between overnights and number of months opened

Thus, the higher level of overnights of hotels with training activities cannot lead to conclude that the implementation of training courses in the previous year increase hotel occupancy. In order to state that, other variables such as the number of months opened, size, etc... that through the descriptive analyses it have been seen directly related with the hotel occupancy or with training, should also be taken into account.

An econometric exercise is conducted to analyse the performance results achieved by hotels in the Balearic hotel industry, specifically an ordinary least-squares regression model (OLS) is applied to explaining the number of overnight stays.

The model includes the variable that organization and implementation of training activities by hotels and other controls including education, some management variables as well as the structural characteristics of the hotel.

Table 1 presents the results. The estimated coefficients and their degree of significance are presented for the final specification of the model. Those variables with insignificant results are dropt from the final specification. It is the case of hotel category, among others.

Tab. 1: OLS of the determinants of hotel occupancy

Variable dependence:	Overnights
Training activities	2613,575*
University education	-451,400***
Size	351,009***
Months opened	4962,955***
Owners management	-5227,082**
Chain	4938,687**
Repitors	4320,262**
Beach near the main city	4047,152**
Pseudo R2	0.9248
Number of observations	165

Note: *** Significant to 1%, ** significant to 5%, * significant to 7%

Results show that the size of the hotel, measured with the number of rooms, and the number of months opened contribute positively to the number of overnight stays of a given hotel. The location near the beach but close to the main city is also a determinant factor for the hotel performance. Some commercialization and marketing traits of hotels also contribute to increase the number of overnights. It is the case of the hotels marketing strategy directed to tourists that go to the same hotel more than just one time.

It can also be observed that belonging to a chain also increases overnights in a significant way. However, the number of overnight stays is significantly lower in those hotels for which the management is carried out by the owners themselves. Thus, it is evidenced that the enthusiasm as well as the professional management are key aspects of the hotel performance.

Education is also an important control for the occupancy regression. In coherence with Ramos et al. (2004), it is found that those hotels that education is not so relevant to get better results at the hotel level. In particular, hire people with high educational levels show a lower level of occupancy stays than others with the same characteristics but only middle education workers.

The major result is that this specification shows that those hotels that had trained their workers in the previous year register on average 2613 overnight stays more than one that does not train their workers, even when controlling for the other variables.

REGIONAL EMPLOYMENT AND GROWTH

After analysing microeconomic training impact of the workers in overnight stays in the Balearic Islands hotels, we estimate the impact on production, GDP and employment of the Balearic economy if 100% of the hotels carry out training activities.

If we have obtained that one hotel would increase its overnight stays in 2613 units through training and we know the average spending per overnight stay in the Balearics and the number of hotels, we can calculate that the increase in tourism expenditure which would occur in the islands if all hotels undertake training activities would be 2.33 percent.

A 2.33% increase in tourism expenditure would cause a direct and indirect increase of the total production in the Balearic Islands of 0.73%, direct and indirect GDP growth of 0.62% and an increase in employment by 2,333 workers (0.51%) as shown in Table 2. If we consider the induced effect, the figures increase to 0.93%, 0.85% and 0.76% (3,462 workers) respectively.

Tab. 2: Impact on production, GDP and employment in the Balearic economy of an increase in tourism expenditure through training investment in the hotel industry

		Absolute Value	%	Potential growth
PRODUCTION	Direct and indirect impact	264,009	0.73%	0.38%
	Direct, indirect and induced	335,553	0.93%	0.49%
GDP	Direct and indirect impact	108,459	0.62%	0.32%
	Direct, indirect and induced	148.946	0.85%	0.45%
EMPLOYMENT	Direct and indirect impact	2,333	0.51%	0.27%
	Direct, indirect and induced	3,462	0.76%	0.40%

These calculations are not considering business spending on training, only the increase in tourism expenditures because of increasing overnight stays due to training. It is possible that a hotel does not spend anything on training but its workers participate in training courses funded, for example, by the government.

Table 2 also considers that there are a percentage of hotels that already conduct training, specifically 47.5%, so if the other hotels began to perform training, potential direct, indirect and induced growth in production would be 0.49%, 0.45% in GDP and 0.40% in jobs.

We have estimated that the training in the hotel industry causes an economic impact on other sectors due to the total increase in tourism demand. All sectors of the economy increase production and therefore increase the hiring of workers. Table 3 show the ten main sectors affected by this training impact on tourism demand. They are accommodation services, restaurants, passenger support services, recreational and cultural activities, road transport services, and also retail trade services and construction, among others. For example, “Passenger support services” would hire 182 people, which mean 2.09% of the total workforce, if we consider direct and indirect effects whereas “Accommodation services” would need 539 more workers (2.08%) direct and indirectly. “Restaurants” would hire 440 people (0.97%) if we analyse direct and indirect effects and 624 (1.37%) if we include induced effects.⁴⁶

Tab. 3: Sector breakdown of the impact on employment

Direct and indirect impact		%	Direct, indirect and induced impact		%
Accommodation services	539	2.08	Restaurants	624	1.37
Restaurants	440	0.97	Accommodation services	547	2.11
Retail trade services	240	0.48	Retail trade services	481	0.96
Passenger support services	182	2.09	Services provided by households with domestic service	258	0.80
Other business services	115	0.38	Passenger support services	183	2.11
Recreational, cultural and sporting activities market	97	1.19	Other business services	169	0.57
Renting (Non-real estate)	77	1.62	Recreational, cultural and sporting activities market	120	1.47
Construction	68	0.10	Construction	113	0.17
Non-scheduled road transport services of passengers	65	1.58	Renting (Non-real estate)	81	1.70
Services provided by households with domestic service	41	0.13	Market health, veterinary and social services	80	0.93

⁴⁶ The authors made available to those concerned full sectoral disaggregation.

In this way we demonstrate that improvement in training of workers in this important sector in the Balearic Islands, as the hospitality industry, increases the need for workers in other economic sectors of the islands.

CONCLUSIONS

The importance of training workers in the hotel sector to improve the results of their particular hotel and the whole economy in general has been shown in this article through a micro-macro model.

From the microeconomic point of view, the exploitation of a survey of 200 hotels allows us to calculate, through an ordinary least-squares regression model, that even controlling for other variables the implementation of training activities is statistically significant and have a positive impact on overnight stays hotel. Specifically, the number of overnight stays increased 2613.

From a macroeconomic point of view, the increase in overnight stays in hotels due to the training of workers in the sector will cause a total increase of 2.33% in tourism expenditure, whose impact we have analyzed through an input-output model. GDP growth will be between 0.62% and 0.85% as only consider direct and indirect effects, or induced effects are also included. Given that 47.5% of hotels do training, potential GDP growth of the Balearic economy would be between 0.32% and 0.45%. The total effects can be disaggregated by sectors and we paid special attention to the creation of new jobs required to satisfy the increase tourist demand.

Thus, it turns out that the investment in training activities appears an important competitive element in the hospitality sector. Hotels should take it into consideration when comparing with other hotel establishments offering a similar product in terms of location, manager structure and services. However, the macroeconomic perspectives of the results permit us to beyond the hotel industry. The scope of these effects goes far beyond the strictly tourism-related sectors such as accommodation, restaurants or transport services. It also affects retails trade services or construction, and cultural and sport services, among others. The positive externalities of having trained workers in the hotel industry for the rest of the economy justify continuous training policy making investment in the hotel sector.

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