Chapter 13
Factors Influencing Tourism Expenditure on Accommodation in World Heritage Cities

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13.1 Introduction

Expenditure is one of the economic variables that has been most profoundly analyzed in studies of tourism in recent decades, especially with respect to cultural destinations. Over time, the interest of researchers has become focused on the identification and understanding of the factors that condition tourism expenditure as a key variable to ensure the multiplier effect of tourism on the territory and, thereby, on the competitiveness of tourism destinations overall.

The analysis of the expenditure made by tourists in cultural destinations and, more specifically, in World Heritage Cities is based on the symbiosis of culture and tourism, have, which are currently linked in a joint and necessary cooperation for economic development of certain geographical areas. The need for economic resources has led to destinations putting the spotlight on tourism expenditure, generating a growing need to determine the components of that expenditure and to what extent it can be increased (Lara and Lopez-Guzman, 2004).

Authors including Brida, Monterubbianes, and Zapata-Aguirre (2013b), Disegna, Scuderi, and Brida (2012) and Pulido-Fernández, Cárdenas-García, and Carrillo-Hidalgo (2016) have studied expenditure in the cultural tourism sector. But there have been very few authors, who have specialized in the study of the factors that influence expenditure on accommodation by tourists in World Heritage Cities.

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Starting from the case of Úbeda and Baeza and by using a multivariate double-hurdle model, which allows analyzing the probability of making an expense and, subsequently, the quantification of the it, it has been possible to identify the factors that influence the tourist spending on accommodation made in this kind of destinations.

13.2 Literature Review

In order to carry out an analysis of the variables that influence the expenditure by tourists in World Heritage Sites, a comprehensive review of the scientific literature found in the Scopus and Web of Science databases was carried out, following the proposal of Webster and Watson (2002).

Table 13.1 shows the variables which, according to the authors analyzed, influence the spending of tourists in World Heritage Cities. The variables marked in the table with a tick, are those for which a relationship with tourism expenditure has been identified.

13.3 Methodology

13.3.1 Case Study

Úbeda and Baeza are two cities located in the province of Jaén whose main sources of revenue are tourism, agriculture and artisan workshops (Cárdenas-García, Pulido-Fernández, & Mudarra-Fernández, 2014). They have known tourism since the late 19th and early 20th century, but it was not until 2003, when UNESCO declared them a World Heritage Site under the title "Úbeda and Baeza: Urban Duality and Cultural Unity", that the development of tourism was promoted in the cities. Today, Úbeda and Baeza have very diverse resources which can meet the needs of cultural tourists, thanks to their rich heritage and the many festivals, fairs and events that are held.

As well as the tourism resources, these cities also have a large number of public and private services offering accommodation, restaurants, transport, information and interpretation services, which are revalorized by means of tourism products such as cultural routes, gastronomy related to the olive oil culture, artisan products, events, fairs, etc.

Both cities have belonged to the group of World Heritage Cities since 2014. Furthermore, they devote significant effort to their promotion so that potential tourists are aware of the different resources and activities offered and decide to make the visit.

All of these efforts have been rewarded by the increase in tourism expenditure in both cities since they were declared World Heritage Sites, rising from a mean daily spend in 2003 of €74.94 to €196.80 in 2012 (Cárdenas-García et al., 2014).

Table 13.1 Variables that influence the spending made by tourists in World Heritage Cities, according to the literature reviewed

		Andrade (2016)	Serra, Borges, and Marujo (2016)	Amir, Osman, Bachok, and Ibrahim (2015)	Brida, Pulina, Riaño, and Zapata (2013c)	Siebinga (2013)	Esteban, Mondejar, and Cordente (2009)	Molina, Martin-Consuegra, Esteban, and Diaz (2007)	Troitiño (1998)
Socio-economic variables	Age	✓		✓	✓		✓	✓	
	Level of education	✓						✓	
	Occupation	✓							
	Nationality		✓			✓			
Variables related to the characteristics of the trip	Duration of the stay		✓	✓	✓			✓	✓
	Type of accommodation	✓		✓			✓		
	Places visited				✓				
	Loyalty to the destination				✓	✓			
	How the trip was organized							✓	
	Means of transport				✓				
	Type of tourist and accompanying persons	✓							
Variables related to the destination	Participation in activities in the destination	✓	✓	✓					
Psychological variables	Reasons for the trip								✓
	Satisfaction		✓				✓		

Source Own elaboration

These figures are explained by the consolidation of Úbeda and Baeza as cultural tourism destinations which have attracted tourists with a high disposable income, thereby increasing the mean expenditure in the destination. This has not only affected expenditure, but also the length of stay in the destination and the number of tourists, which have also risen, though to a lesser extent than the mean daily spent.

13.3.2 Questionnaire

In order to determine the factors that influence expenditure by tourists in these two cities, data from 2,126 survey questionnaires answered in the cities between June and September 2016 was analyzed. The technical details of the survey are shown in Table 13.2.

For this reason, given the impossibility of limiting the object of the study (all of the tourists who visit the cities during the months in which the survey was taken) and, therefore, being an infinite population, a simple random sample was taken, in which the only criterion for selection was to have spent at least one night in either of the two cities. The surveys were taken in the places in each city which received most visits, such as Plaza de Santa María in Úbeda and the old Antonio Machado University in Baeza.

The survey was structured in seven blocks, four relating to the different types of variables to be analyzed (socio-economic, variables related to the characteristics of the trip, variables related to the destination and the evaluation and opinions of the tourist), and three blocks which were more closely related to the tourist's travel budget and the expenditure incurred by the tourist at the point of origin and in the destination. Different types of questions were used: open, closed (dichotomous and multichotomous, with either a single or a multiple answer) and mixed. The scales used to measure the variables of the study were also of different types: firstly, a

Table 13.2 Technical details of the survey

Population	Spanish and foreign tourists who spend a night in one of the destination cities
Scope	Úbeda and Baeza
Type of survey	Structured questionnaire answered in a personal interview
Sample size	2,126 valid surveys
Sampling error	2.1%
Confidence interval	95% ($p = q = 0.50$)
Period of fieldwork	June, July, August and September 2016

Source Own elaboration

Likert-type measuring scale and, secondly, nominal non-metric scales to identify the categories or options with which the behavior of the interviewee is identified, in the case of qualitative variable analysis without quantitative significance.

13.3.3 Analytical Model

In order to determine the variables associated with the different groups of expenditure incurred by tourists, double-hurdle statistical models were applied, estimating expenditure on accommodation by means of a two-stage system involving the analysis of the probability of incurring expenditure on accommodation and the quantification of the expenditure on accommodation incurred (Blundell & Meghir, 1987; Brida et al., 2013b; Cragg, 1971; Deaton & Irish, 1984; McFadden, 1974; Tobin, 1958; Vuong, 1989). The model allows the different variables in the study to be associated with the probability and quantification of the expenditure. Multivariate models were constructed for each one of the four groups of expenditure considered (accommodation, transport, food, and visits and leisure). It was not possible to adjust a single multivariate model with the information available in the four blocks studied, due to problems of overestimation of the parameters and of co-linearity between some of the variables of the different blocks, as well as asymptotic problems in the adjustment of the model, due to the number of parameters estimated simultaneously.

For these reasons, the models presented are the result of multivariate models selected by the "backward" method of elimination of variables in each block of the survey analyzed. The measurement of the goodness of fit (Vuong, 1989) was checked and the R2 coefficient of each model is presented (McFadden, 1974). The results shown indicate the statistically significant variables associated with the expenditure variables analyzed.

The distribution of probability of the values observed and of the double-hurdle model is a mixed discrete-continuous distribution which assigns a probability mass function of $p(y = 0)$ for $y = 0$ and a density function of $f_+(y)$ for $y > 0$, where:

$$P(y = 0) + \int_0^\infty f_+(y)dy = 1. \tag{13.1}$$

In this way, the double-hurdle model used in the first stage of taking the decision to incur the expenditure and, subsequently, the stage of incurring the expenditure is defined as:

$$1 - \; p(y = 0)$$

$$1 - \Phi_1 \Phi_2 \tag{13.2}$$

$$2 - f_{+}(y)$$

$$\frac{1}{\sigma}\Phi\left(\frac{y - \beta_2^{\mathrm{T}} x_2}{\sigma}\right)\Phi_1 \tag{13.3}$$

where Φ_1 corresponds to the standard normal distribution function of the latent variable defined in the first stage:

$$\Phi_1 = \Phi(\beta_1^T x_1) \tag{13.4}$$

while Φ_2 corresponds to the second stage, in which the latent variable is defined as:

$$y_2^* = \beta_2^T x_2 + \varepsilon_2$$

$$\Phi_2 = \Phi\left(\frac{\beta_2^T x_2}{\sigma}\right) \tag{13.5}$$

Φ being the standard normal distribution function.

For further details about the mathematical formulation of the model used, see the paper by Carlevaro, Croissanty, and Hoareau (2012) and, specifically, in the context of tourism, the work by Brida et al. (2013b).

R computer software was used for the statistical analysis, with the mhurdle package, which is specifically for double-hurdle models (Carlevaro et al., 2012). The statistical testing was performed at a significance level of 5%.

13.4 Results and Discussion

The results obtained are grouped into two large blocks. In the first (Sect. 13.4.1), there is a descriptive analysis of the four groups of variables included in the questionnaire (socio-demographic variables, variables related to the characteristics of the trip, variables related to the characteristics of the destination and the psychological variables of the tourist), as well as other aspects related to the budget for the trip and the expenditure incurred. To perform this analysis, the tables with data obtained through SPSS 21.0 have not been included in order to avoid the repetition of information and, above all, to abbreviate this article.

The second block, which includes all of the other subsections of this Sect. 13.4, shows the results of the double-hurdle model for expenditure on accommodation to analyze the factors influencing it.

13.4.1 Descriptive Analysis

Using descriptive statistical tools, by means of the SPSS 21.0 statistical software, an initial analysis was performed in which the categorical variables were described, using frequencies and percentages. The quantitative variables gathered were summarized through the mean, standard deviation, median, maximum and minimum, and the confidence interval of 95% for the mean value is given.

The distribution of interviewees was practically even, with 50% of men and women. Of the interviewees, 50% were between 45 and 65 years of age, the majority with university education and income falling in the medium-high band (49.9% had an income of between €1,200 and €2,100, although 23.2% declared a disposable income of less than €655). With respect to the country of residence, the interviewees were mainly resident in Spain (88.2%), and a similar percentage were of Spanish nationality.

With respect to the employment situation, most were employed (65.8%), followed by students (18.8%). The largest groups by professional category among the employed were liberal professionals (23.2%) and public employees with university qualifications (23.7%). Only 4.2% of interviewees made the visit accompanied by persons residing in Úbeda or Baeza. Of the interviewees, 56.4% spent the night in Úbeda, while 43.6% did so in Baeza. Lastly, it can be seen that the predominant value among interviewees was a comfortable life (61.3%), followed by a stressful life (19.5%) and an exciting life (12.4%).

A description of the responses to the variables related to the characteristics of the trip is given below. Practically all of the tourists would recommend the city in which they were surveyed as a tourism destination. The most common type of trip was a visit by a couple with or without children, at around 31% each, followed by a trip with friends (29.3%). It can be seen that the majority of interviewees were new to the destination cities (60.4% had never visited them), that most did not visit other places (62%) and that 87.5% answered affirmatively with respect to the possibility of returning to Úbeda or Baeza.

As regards the organization of the trip, almost all visits were organized privately, with half of the interviewees staying in three-star hotels (followed by two- or one-star hotels) and making little use of the Internet for transport, vehicle rental or tickets for cultural attractions, in contrast to the use made for accommodation, where 90.8% of interviewees made the purchase online. Almost 50% of the interviewees used the Internet to search for restaurants. The same occurs with places to visit, with 54.9% of interviewees declaring that they had used the Internet to seek information about attractions. It is also notable that, among almost all of the interviewees, there were no problems regarding payments, that is, when they paid for the services and products acquired in the destination, they were able to pay in cash, with a credit card or even with gift vouchers.

With respect to the means by which interviewees heard of the destination, a higher proportion of them learned of it through friends or relatives, personal experience or through the knowledge that it was a World Heritage Sites (34.5%, 19.6% and 23.8%,

respectively), while, at the other extreme, the least relevant sources of information were press publicity (0.2%) and offers and catalogues (0%). Likewise, regarding the resources by which the tourists learned about the city, there is a tendency to low use of search engines and social media, with the values of 26.5% and 18.9%, respectively. With respect to the means of transport used, private cars predominated (89.3%).

With respect to the quantitative variables, it can be seen that the mean duration of visits was around 2–3 days, by 4–5 persons spending 2 or 3 nights in the destinations. The existence of such variability is explained by the heterogeneity of the interviewees since, despite the mean values falling within said intervals, there were minimums and maximums of 1 and 20 (in the case of days/nights) and of 1 and 50 (in the case of the number of persons).

Thirdly, descriptive results are given of the variables related to the characteristics of the destination. All of the interviewees declared that they had found what they expected on the visit, and so it can be concluded that the visit satisfied their expectations. With respect to the activities in the destinations, the short daytrip (99.9%), guided routes (88.9%), going out for *tapas* (96.2%) and, to a lesser extent, going for a drink (46.7%), were the main activities undertaken by the interviewees, contrasting with buying books (1.1%), visiting museums (2.8%), buying artisan products (3.8%) or cultural routes (9.7%).

There follows a description of the responses to the questions related to the psychological variables of the tourists and the motives for the trip. The most significant data shows that 53.1% of interviewees considered themselves to have an open mentality, together with 29.7% who had a jovial personality. Other qualities, such as serenity, responsibility and courtesy, scored lower. With respect to the motive for the trip, leisure and holidays (96.4%) predominated, followed, at a great distance, by visits to relatives and friends (2.5%), with the rest of the categories being of little relevance. In response to the question regarding satisfaction with the trip, the highest percentages of interviewees declared very positive or positive satisfaction (67.3% and 30.8%, respectively).

With respect to the quantitative variables, the responses of interviewees to a number of aspects related to the destinations analyzed must be considered. Scores close to 10 express greater satisfaction with these aspects. Accommodation, cultural activities, value for money, leisure and enjoyment, landscapes, restaurants, tranquility and public transport receive a mean score greater than 8, and are, therefore, the characteristics which are most highly valued by the interviewees. In contrast, signage/tourist information and traffic/roads generated the greatest dissatisfaction among visitors.

With respect to the economic aspect of the trip, among the most relevant data we can highlight that the mean budget per person per day of the tourists is €129.43, although the value that is most repeated in the survey (the median) is a budget of €110. Most of the tourists visiting Úbeda and Baeza (99.2%) did not make any payments related to the trip in their place of residence and, furthermore, none of them bought package tours.

Finally, with respect to expenditure by the tourists, it should be noted that the main item of expenditure was accommodation, on which the interviewees had a mean daily spend of €50.47, followed by the purchase of food (€48.81), vehicle rental (€35.95),

meals (€30.94) and transport in the destination (€29.45). In all events, it should be noted that 85.75% of interviewees did not make any purchases of food, and so this is really a token item of expenditure, in comparison with meals, on which 98.35% of interviewees incurred expenditure. Only €14.58 was spent on organized visits and excursions. It is particularly striking that 93.93% of the interviewees did not incur any expenditure on gifts, souvenirs, etc., while 61.71% did not spend on leisure (museums, exhibitions, sporting activities, etc.).

13.4.2 Expenditure on Accommodation

Table 13.3 shows the results of the estimates for the parameters of the variables associated with accommodation expenditure. It can be observed that the probability of expenditure on accommodation is lower in the 19–29 age group, which is the group which spends least on accommodation, which coincides with all of the bibliography analyzed in the previous section, except Brida, Pulina, Riaño, and Zapata (2013c). The unemployed are less likely to spend on accommodation, although their expenditure is the same amount as the employed. However, the retired/homemakers spend a significantly greater amount on accommodation than the employed, which contradicts the results of Brida et al. (2013b). Visitors with post-secondary or university education are more likely to spend on accommodation, as are tourists in the liberal professions, who also have a higher mean spend then managers and other professionals.

Tourists with an income of between €901 and €1,200 are less likely to spend on accommodation than tourists with a lower income, and the higher their income, the higher their expenditure (Marrocu, Paci, & Zara, 2015). The probability of foreign visitors spending on accommodation is lower than among Spanish visitors, and the latter spend more, according to Brida, Disegna, and Scuderi (2013a). Tourists whose values are liberty/emotion and those who are stressed are more likely to spend on accommodation than tourists whose values are comfort/safety, although the latter have higher expenditure. The probability of spending on accommodation was higher among tourists staying in Baeza than in Úbeda, although those staying in Úbeda spent more.

The number of days spent planning the stay was associated with lower expenditure on accommodation, despite Marrocu et al. (2015) finding the reverse. It was also observed that those who spent most and showed greater probability of spending were tourists visiting with friends, followed by couples without children and, with a lower spend on accommodation, those who were travelling alone, despite Andrade (2016) finding that family with children spent more than friends or tourist were traveling alone. The probability of spending when the tourist had not previously visited the city was significantly greater than when they had visited previously on one or more occasions (Brida et al., 2013a), as occurred with those persons who would not return to the destination in the future, although, in this case, these findings contradict part of the literature analyzed (Brida et al., 2013a).

Table 13.3 Results of the double-hurdle model adjusted to expenditure on accommodation

Expenditure on accommodation model	Stage 1			Stage 2		
	Estimate	S.E.	P-value	Estimate	S.E.	P-value
Age 19–29 versus ≤18	−0.874	0.243	<0.001	−6.104	2.403	0.011
Age ≥30 versus ≤18	−0.347	0.308	0.261	3.926	2.905	0.177
Education: Occupational versus up to secondary	0.981	0.261	<0.001			
Education: University versus up to secondary	0.442	0.231	0.056			
Employment: Unemployed versus employed	−1.171	0.283	<0.001	4.082	3.413	0.232
Employment: Retired/homemaker versus employed	0.290	0.200	0.147	4.637	1.195	<0.001
Employment: Student versus employed	−0.649	0.421	0.123	2.970	3.106	0.339
Category: Management versus liberal professions	−0.498	0.160	0.002	−4.607	1.319	<0.001
Category: Public service and workers versus liberal professions	0.095	0.142	0.502	−3.410	0.971	<0.001
Income: 901–1200 versus ≤900	−0.810	0.350	0.021	−0.840	2.021	0.678
Income: 1201–1800 versus ≤900	−0.410	0.335	0.221	2.084	1.817	0.251
Income: >1800 versus ≤900	−0.134	0.344	0.696	3.693	1.826	0.043
Country: Foreign versus Spain	−0.568	0.131	<0.001	6.414	1.295	<0.001
Values: Exciting life/liberty versus comfortable life/security/pleasure/wisdom/equality	0.343	0.150	0.022	−3.238	1.059	0.002
Values: Stressful life versus comfortable life/security/pleasure/wisdom/equality	0.477	0.148	0.001	−1.741	0.972	0.073
Place of stay: Baeza versus Úbeda	0.208	0.105	0.047	−7.559	0.763	<0.001
R^2	0.150					
No of days				−0.893	0.254	<0.001
Type of Trip: Family with children versus couples without children	0.690	0.366	0.060	−3.107	0.933	0.001
Type of Trip: Friends versus couples without children	3.267	0.803	<0.001	3.015	0.984	0.002
Type of Trip: Alone/other versus couples without children	2.061	2.392	0.389	−9.843	2.101	<0.001

(continued)

Table 13.3 (continued)

Expenditure on accommodation model	Stage 1			Stage 2		
	Estimate	S.E.	P-value	Estimate	S.E.	P-value
Visits: 1 or 2 versus none	−1.075	0.429	0.012			
Visits: 3 or more versus none	−0.775	0.334	0.020			
Accommodation: Rural houses/apartments and rented houses/owned property versus hotels/apartments	−3.781	0.652	<0.001			
Hotels/apartments 1–2* or more versus hotels/apartments 3* or more				−1.781	0.801	0.026
Accommodation: Rural houses/apartments and rented houses/owned property versus hotels/apartments 3* or more				−10.344	1.715	<0.001
Visits to more places: Yes versus No	2.032	0.576	<0.001			
Return in the future: Yes versus No				−4.932	1.181	<0.001
No use of the Internet versus use of the internet for accommodation	−4.153	0.847	<0.001			
No use of the Internet versus use of the internet for places to visit	−2.247	0.500	<0.001	3.727	0.805	<0.001
No use of the internet versus use of the internet for restaurants				−2.398	0.768	0.002
Use of search engines: Yes versus No	1.719	0.524	0.001	−10.346	1.527	<0.001
Use of social media: Yes versus No				−10.097	1.529	<0.001
Use of institutional portals: Yes versus No				−5.501	1.856	0.003
Use of Google maps: Yes versus No				−8.884	1.504	<0.001
Use of other resources: Yes versus No				−11.669	1.665	<0.001
Knowledge of destination through travel agent recommendation: Yes versus No				25.167	2.267	<0.001
Knowledge of destination from personal experience: Yes versus No				2.903	1.018	0.004
Knowledge of destination through own initiative: Yes versus No				3.173	1.306	0.015
Knowledge of destination—other: Yes versus No				8.729	1.941	<0.001
Means of transport—car: Yes versus No				11.387	4.827	0.018

(continued)

Table 13.3 (continued)

Expenditure on accommodation model	Stage 1			Stage 2		
	Estimate	S.E.	P-value	Estimate	S.E.	P-value
Means of transport—bus: Yes versus No				−11.955	3.598	0.001
Means of transport—train: Yes versus No				29.110	5.531	<0.001
Means of transport—plane: Yes versus No				6.817	1.560	<0.001
R^2	0.436					
Residents Úbeda/Baeza: Yes versus No	−1.640	0.157	<0.001			
Cultural activities—guided routes: Yes versus No	0.816	0.126	<0.001			
Cultural activities—shopping in the area: Yes versus No	−1.027	0.200	<0.001	10.072	2.388	<0.001
Cultural activities—going for drinks: Yes versus No	0.355	0.111	0.001	4.545	0.804	<0.001
Cultural activities—going for *tapas*: Yes versus No	−1.509	0.292	<0.001	−12.135	2.500	<0.001
Cultural activities—other: Yes versus No	0.801	0.190	<0.001	6.126	1.054	<0.001
R^2	0.124					
Personality—open-minded: Yes versus No				−3.088	1.026	0.003
Personality—jovial: Yes versus No	−0.389	0.109	<0.001	−3.739	1.152	0.001
Personality —affectionate: Yes versus No	−1.068	0.198	<0.001	−9.339	2.666	<0.001
Satisfaction with tourism signage	−0.128	0.029	<0.001			
Satisfaction with landscapes	−0.182	0.062	0.003	−1.385	0.429	0.001
Satisfaction with internet access	0.153	0.050	0.002	1.225	0.399	0.002
Satisfaction with roads and communications				0.771	0.257	0.003
Satisfaction with cleanliness				2.142	0.421	<0.001
Satisfaction with health services				2.392	0.439	<0.001
Satisfaction with tourist information				−1.627	0.237	<0.001
R^2	0.115					

Sources Own elaboration

The tourists with a lower probability of spending on accommodation were those who stayed are in rural houses/rented accommodation/owned property. Furthermore, the amount spent on accommodation was significantly lower when 1–2 star hotels (Marrocu et al., 2015 and Amir et al., 2015) or rural houses/rented accommodation/owned property were chosen than when staying in hotels of three stars or more.

The probability of spending on accommodation was significantly lower when the tourist did not seek accommodation on the Internet and did not seek places to visit. However, those who stayed and who had not used the Internet to seek places to visit spent significantly more on accommodation than those who did use it. Furthermore, Internet searches for restaurants and places to visit were directly associated with the higher or lower cost of accommodation, respectively. With respect to knowledge of the destination and its association with expenditure on accommodation, no relationship was found between the variables and expenditure on accommodation, although it was observed that those with prior knowledge of the destination spent significantly more. Tourists who travelled by coach spent less on accommodation than those who used other means of transport.

In the case of tourists accompanied by residents (Brida et al., 2013) of Úbeda/Baeza, the probability of spending on accommodation was significantly lower. Persons who followed guided routes, went out for drinks and engaged in cultural activities showed a higher probability of spending on accommodation, while persons who shopped in the area or went out for *tapas* were less likely to spend on accommodation.

Persons with an open-minded personality spent less on accommodation than the rest. Jovial and affectionate persons were the least likely to incur this expenditure.

Those who expressed greatest satisfaction with tourism signage and landscapes were least likely to spend on accommodation and, if they did, they spent less. Those with the highest probability and the highest spending on accommodation were those persons who were most satisfied with Internet access, roads and communications, cleanliness and health services. Greater satisfaction with tourist information implies lower expenditure on accommodation.

13.5 Conclusion and Implications

Firstly, it should be noted that the objectives proposed at the beginning of this research have been achieved. The variables that influence expenditure by tourists in the cities studied have effectively been identified, even detecting some factors hitherto not identified in the literature.

The socio-demographic variables of the sample analyzed in this study show that tourists who visit Úbeda and Baeza are persons of between 45 and 65 years of age, with a university education, Spanish nationality, who are not accompanied by residents of these destinations, who are employed and who consider that they have a comfortable life.

All of the interviewees would recommend Úbeda and Baeza as destinations to visit and would return. The trip is organized privately by the tourists, using the Internet, especially to reserve or purchase accommodation, and using a private car to reach the destinations. Furthermore, the majority of tourists who visit these destinations travel in groups of 4 or 5 persons, for a mean stay of 2–3 days.

Most of the interviewees were not accompanied by residents of the area and stated that they found what they expected in the place visited. In general, they make short daytrips, follow guided routes and go out for *tapas*. Most of them consider themselves to be open-minded, and they visit these destinations for holiday or leisure reasons, declaring a very high degree of satisfaction with the visit.

The results obtained after the application of the analytical model have allowed us to determine that there is a relationship between expenditure on accommodation and the age, educational level, nationality, duration of stay, category of accommodation, places visited during the trip, loyalty to the destiny, type of tourist and the accompanying person, participation in activities in the destination, reasons for the trip and satisfaction obtained by the visitors from the trip. The relationship is as indicated by previous authors who have addressed this question. Therefore, the hypothesis that gave rise to this research has been verified.

Furthermore, this study has made it possible to discover new variables that influence the expenditure on accommodation of tourists in World Heritage Cities. Specifically, it has been demonstrated that, depending on the values and personality of the tourist, they will have a specific pattern of behavior with respect to expenditure on accommodation in World Heritage Cities. Moreover, it has been shown that whether the tourists stay in Úbeda or in Baeza will influence both the probability of spending on accommodation, which is greater in the case of those accommodated in Baeza, and also the amount of expenditure on accommodation finally incurred, which is higher when the tourist is accommodated in Úbeda. The fact that the tourist is accompanied by residents in the destinations under study also has an influence, since they tend to spend less on accommodation. The intention to return to the destination in the future and the repetition of the visit are variables that also impact on spending on accommodation in the cities analyzed.

A more in-depth study has also been made of the influence on expenditure on accommodation of the type of activities undertaken in the destination. The analysis has also looked more profoundly into the influence of tourist satisfaction on tourism expenditure on accommodation in these cities, since the authors analyzed did not study this variable.

The analysis of the "use of Internet" variable shows the impact that the Internet has on tourism expenditure on accommodation in these cities, and that the impact depends on the use made. In order to reach a grounded conclusion on this aspect, a more detailed analysis has been made, distinguishing between the different uses that can be made of the Internet and which have a different influence on the expenditure on accommodation of tourists. Furthermore, it has been determined that prior knowledge of the destination and how that information was obtained by tourists directly affects spending on accommodation in the cities analyzed, as does the fact that the tourist has made prior bookings.

The research has a number of limitations that must be recognized and which must be overcome in future studies. Firstly, the survey was performed in specific months of the year (June, July, August and September 2016), and so the final result may be biased. The special relevance of seasonality in the tourism sector—which can even change the preferences of tourists, depending on the moment at which they visit the destination, requires that the survey be taken over a longer period. In all events, it should be noted that the period when the survey was taken was the high season.

Secondly, with respect to the model used, and as has already been stated, it was not possible to adjust a single multivariate model with the data available in the four blocks of information studied due to problems of overestimation of parameters and of co-linearity between variables in different blocks, as well as asymptotic problems in the adjustment of the model as a consequence of the high number of parameters simultaneously estimated. In this regard, it is necessary to continue testing with other types of models that will allow these limitations to be overcome and to estimate the variables that influence the total expenditure made by tourists visiting these cities.

Despite these limitations, the novel aspect contained in this study with respect to existing literature is the fact that it has identified the variables that condition expenditure on accommodation by tourists who visit the cities studied.

This information is enormously useful to policymakers, destination managers and companies, since it informs decision-making with respect to the measures to be taken in order to attract and retain tourists with a higher mean daily spend. In this way, the stakeholders can focus their marketing efforts, develop products, activities and services that will increase tourist interest in visiting these destinations, improve the quality of the services and resources which are of more interest to the visitor in order to increase their satisfaction, etc.

Finally, given the volume of information provided by this study, there are questions pending which it has not been possible to address and which we intend to analyze in future research. Specifically, it would be interesting to segment the tourists on the basis of the expenditure incurred on the different items considered. This segmentation would furthermore allow us to characterize each one of the segments identified, determine the composition of the expenditure, the level of satisfaction of each segment with respect to the destinations visited, etc.

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