

ACTES PRIMER CONGRÉS D'OCI I TURISME
ACTAS PRIMER CONGRESO DE OCIO Y TURISMO
PAPERS OF FIRST CONGRESS OF LEISURE AND TOURISM

OCITUR 2012



ISBN: 978-84-695-3343-7

**Escola Universit ria
del Maresme**

Centre adscrit a:



**TecnoCampus
Matar -Maresme**

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Does travelling with low cost affect the trip duration?

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RESUM

El treball analitza els determinants de la durada de l'estada del turisme receptor en un dels països més turístics del món, Espanya, amb especial èmfasi en els efectes que pot tenir el fet d'organitzar el viatge amb paquet turístic o sense i viatjar amb una aerolínia de baix cost (LCA) o una de tradicional. S'estima un model logit on les variables explicatives rellevants estan relacionades amb les preferències i característiques dels turistes, les característiques del viatge, les característiques de l'estada i les activitats en destinació. Un dels principals resultats fa referència als efectes moderadors que té viatjar amb un paquet turístic o amb una companyia de baix cost, en particular.

Paraules clau: Logit ordinal, turismo de baix cost, efecte moderador, durada de l'estada

ABSTRACT

The paper analyses the determinants of the length of stay of inbound tourism in one of the world most touristic countries, Spain, with special emphasis on the effects of organizing the flight with package or by oneself and travelling with a low cost airline (LCA) or a legacy one. An ordered logit model is estimated. Relevant explanatory variables are related to tourists' preferences and characteristics, trip characteristics, stay characteristics, and activities at destination. One of the main relevant results concerns the moderating effects of travelling with an organised package and with a LCA, specifically.

Keywords: Ordered Logit, Low Cost tourism, moderating effect, length of stay

1. INTRODUCTION

The increasing expansion and consolidation of no-frills airlines, also referred to as low cost airlines (LCA), results in a significant reduction in travel costs, thereby bringing destinations closer to a greater number of tourists while allowing an increasing number of trips throughout the year, especially abroad, as opposed to what might be a single annual holiday typically made in summer. All of the above would appear to contribute to a trend in reducing the average length of stay at destination.

The aforementioned expansion of LCA flights is particularly evident in Spain, one of the world's most important tourist destinations. According to IET (*Instituto de Estudios Turísticos* – the Spanish Institute for Tourism Studies), Spain received 52.7 million tourists in 2010, 77% of whom travelled by air. Of the latter, 56% flew with an LCA and 84.3% lived in a European country.

The relevance of low-cost tourism today is also reflected in the increasing number of academic studies emerging on the subject, although these are still among a minority. For its part, microeconomic research on the determinants of trip duration has increased in recent years (see Alegre, Mateo & Pou, 2011; Alegre & Pou, 2006; Barros & Machado, 2010; Martínez-García & Raya, 2008; Menezes, Moniz & Vieira, 2008; Yang, Kevin & Zhang, 2011, among others) probably due to destinations' growing interest in obtaining more information on said determinants, given the observed reduction in trip length and in many cases its associated lower expenditure. However, to the best of our knowledge no study has yet analyzed the moderating effect on length of stay of booking the trip as a package or not and of travelling with an LCA or a legacy airline.

The main aim of this paper is to study the length of stay at destination of tourists travelling to Spain by air. It analyzes the impact of them booking the trip themselves and travelling with an LCA, booking it themselves and flying with a legacy company, or travelling as part of an organized package holiday. Besides the usual explanatory variables relating to individual, trip and stay characteristics, the moderating effects between booking the trip and the remaining explanatory variables are also of key interest. This paper has some other new elements with respect to that published to date. Firstly, the inclusion of activities undertaken at the destination. Secondly, the scope of the study, which is for a whole country (Spain) rather than just an airport or airline.

Thirdly, the use of multinomial logit models to account for the multimodality observed in the trip duration variable.

This paper is structured as follows: we first present the literature relevant to the present study and then introduce the methodology used to estimate the model. This is followed by a description of the variables and the results, and then finally the overall conclusions.

2. LITERATURE REVIEW

Research on length of stay has recently attracted the interest of several researchers. There was little written on the subject prior to 2008, but since then the number of published econometric studies has been rising. Despite this increase, few studies have focused explicitly on the air transportation segment, and only those by Martínez-Garcia and Raya (2008, 2009) and Raya-Vilchez and Martínez-Garcia (2011) referred to LCA demand. Most authors have analyzed different specific regions (Barros et al., 2008; Menezes et al., 2008; Peypoch et al., 2011; Yang et al., 2011) and a few of them, specific demand segments, such as golf tourists (Barros et al., 2010).

Although various different theoretical frameworks have been produced to analyze length of stay, most studies agree on including socio-demographic variables in the model, as well as variables like trip and stay characteristics. In this paper we propose a new factor affecting length of stay: activities undertaken at destination. To the best of our knowledge this has not been taken into account in a systematic manner before. Only Barros and Machado (2010) included a limited number of activities at the destination in their model.

Socio-demographic factors and trip and stay characteristics as determinants of length of stay have already been found in studies by Oppermann (1995, 1997), Seaton and Palmer (1997) and Sung, Morrison, Hong and O'Leary (2001), Peypoch et al. (2011) and Gokovali et al. (2007). Alegre and Pou (2006) and Alegre et al. (2011) also included expenditure, price, loyalty and trip motivation, Barros et al. (2008) destination attributes, Menezes et al. (2008) trip attributes and destination image, Martínez-Garcia and Raya (2008) time constraints, budget restrictions and prices. Martínez-Garcia and Raya (2009)

destination, motivation and season, Barros et al. (2010) climate and events, and Machado (2010) image.

The variable we use as moderator in our study – how the trip is booked – has been employed as an explanatory variable with only main effects in some studies. Alegre and Pou (2006), Martínez-García and Raya (2008, 2009) found that booking a package holiday was not significant. On the other hand, Menezes et al. (2008) claimed that taking a charter flight increases expected length of stay. Yang et al. (2011) went one step further by analyzing subsamples in a particular area in China and found that there were differences in the factors affecting length of stay depending on how the trip was booked (package or individual tourists). Individual tourists stayed significantly longer when their reason for travel was visiting friends and relatives rather than sightseeing. However, package tourists on vacations stayed longer than sightseeing package tourists, while those travelling individually did not. These findings encourage the formal inclusion and testing of moderating effects.

3. METHODOLOGY

The length of stay problem can be approached from general population surveys or from surveys of tourists carried out at their destinations. The type of survey has an influence on the econometric approach, the set of available variables, and the type of tourist decisions which can be modelled. The survey we use was carried out at destination and the methodology review below is centred on this framework.

Estimating equations predicting tourists' length of stay poses considerable econometric challenges due to the limited dependent variable, which is integer and positive. Drawing on analogies with survival research, survival models have been used in a major stream of research (Barros et al., 2008; Barros et al., 2010; Barros & Machado, 2010; Gokovali et al., 2007; Hong & Jang, 2005; Machado, 2010; Martínez-García & Raya, 2008; Menezes et al., 2008; Peypoch et al., 2012; Raya-Vilchez & Martínez-García, 2011). Drawing on the sheer distributional characteristics of the dependent variable, other authors use Poisson regression (e.g. Rodríguez, Dávila & Rodríguez, 2003) or negative binomial regression (e.g. Nicolau & Más, 2006).

Each of these approaches assumes specific data generation processes, which may be considered somehow unrealistic for a model predicting length of tourist stays (Thrane, 2012). In addition, all of the aforementioned methods assume unimodal distributions for the dependent variable. Lengths of stay usually feature multiple modes around a few typical durations (e.g. long week-end, week, two weeks, and the like). Alegre and Pou (2006) encounter a bimodal distribution and group it into two categories to use a binary logit model. Alegre et al. (2011) use finite mixture models to accommodate the multiple modes.

Other feasible approaches are ordered logit models and multinomial logit models, for three or more modes around which a categorical length of stay variable with three or more categories is created (for an overview, see Hosmer and Lemeshow, 2000). To our knowledge, only Yang et al. (2011) have thus far used the ordered logit model, and only Nicolau and Más (2009) have used the multinomial logit model, albeit within the context of a general population survey.

The multinomial model is the most general, as it implies estimating a separate equation for each category, making it possible for each specific length of stay to have predictors operating in a specific way. For K duration categories we have:

$$\frac{\text{Pr } ob(Y = k)}{\text{Pr } ob(Y = 1)} = \exp(\mathbf{x}_i \boldsymbol{\beta}_k) \text{ with } k=2,3,\dots,K \quad (1)$$

where \mathbf{x}_i is a row vector of characteristics of the trip made by the i th individual and $\boldsymbol{\beta}_k$ is the column vector of coefficients for the k th category of the dependent variable. The first category is assumed to be the reference category and does not have any associated $\boldsymbol{\beta}$ vector. The exponential function of each β_i coefficient is interpreted as an odds ratio of belonging to the k th or 1st category, when increasing the corresponding x_i predictor by one unit or when moving to a given category of a categorical binary-coded predictor (1) from the reference category (0). All variables in our model are, in fact, categorical:

$$\frac{\text{Pr ob}(Y = k / x_l = 1) / \text{Pr ob}(Y = 1 / x_l = 1)}{\text{Pr ob}(Y = k / x_l = 0) / \text{Pr ob}(Y = 1 / x_l = 0)} = \exp(\beta_{kl}) \quad (2)$$

Moderating effects, also called interaction effects, can be accommodated in the usual manner as products of variables. In this paper we consider interactions between how the trip is booked (as a package, without package with legacy airline, and without package with LCA) and all other variables in the model.

The multinomial model with moderating effects requires very large sample sizes: the three-way contingency tables between each predictor, each duration and the moderator variable can contain no zeroes. Despite the large sample size used in our study, the moderating effect of type of accommodation could not be estimated.

We draw on a representative sample of European leisure tourists arriving by air at 27 major Spanish airports during 2010 and staying overnight (EGATUR, which stands for *Encuesta de Gasto Turístico* – Survey of tourism expenditure, conducted by the *Instituto de Estudios Turísticos* – Institute for Tourism Studies). Consistent with this definition, we did not consider business trips, study trips, and trips without an overnight stay. We excluded flights from outside Europe because LCA mostly operate regional flights. We also centred our study only on those trips with one single destination, thus excluding multi-stage trips.

Stays of over 120 days (0.3 % of cases) are excluded. The final sample size was $n=61,334$. The large sample size makes it possible to use low p-values. All the variables and moderating effects included in the final model are significant at 0.01. SPSS 19 software is used to estimate all the models.

4. RESULTS

As observed in Figure 1, the duration of stay is multimodal, with modes of 3-4 nights, 7 nights, 10 and 14 nights. Thus, we have created the categorized length of stay variable around these modes: 5 nights and fewer, from 6 to 8 nights, from 9 to 12 nights, and more than 13 nights.

Figure 1. Dependent variable length of stay

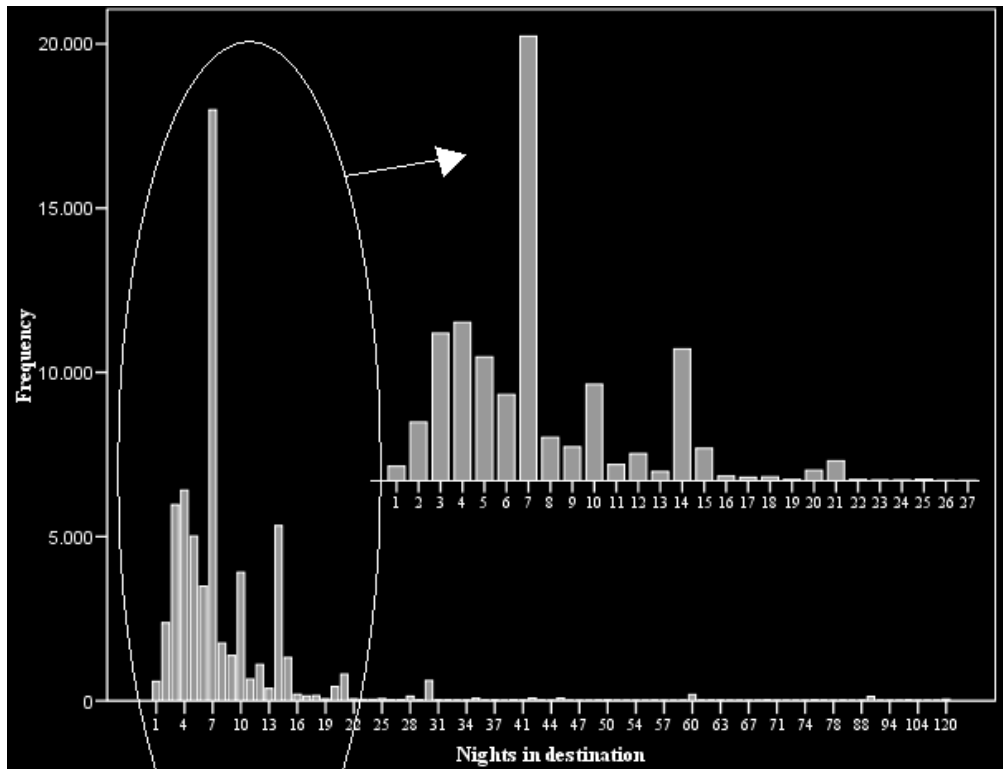


Table 1. Categorized dependent variable by how trip is booked

Length of stay	Legacy	Package	LCA
5 and fewer*	44.7%	11.0%	40.9%
6 to 8	26.8%	57.9%	31.2%
9 to 12	11.1%	11.9%	11.4%
13 and over	17.3%	19.1%	16.5%

* Reference dependent variable category in the multinomial logit model

Table 1 shows the bivariate relationship between length of stay and how the trip is booked. It can be seen that only small differences seem to exist between those tourists arriving with a legacy airline and those arriving with an LCA. The main difference is found between booking the trip oneself (and using either type of airline) and travelling as part of a package.

Table 2 shows frequency distributions of all explanatory variables. As far as activities at destination are concerned, eleven activities are included in the model. Regarding trip characteristics, six variables are included. Previous stays in Spain; the season (coded as binary: summer season vs. otherwise); type of accommodation; travel group; destination (the two Spanish major cities, Madrid and Barcelona, other unique capital cities and other locations); and, finally, time of booking, which has two categories. Socio-demographic variables are age, gender, self-reported income category, country of residence and level of education.

Table 3 presents the multinomial logit results. The large sample size makes it unsurprising that the estimated model was globally significant (overall likelihood ratio test for all variables 33,271 with 243 d.f.). The goodness of fit measures are more informative, Nagelkerke's R-squared being 0.453 and McFadden's 0.211. The large sample size also makes all variables significant individually.

The fact that all variables are treated as categorical and coded as 0-1 dummy variables makes the size of odd ratios comparable across variables. Since all odd ratios are significant, we concentrate our interpretation on those which are furthest from unity. Reference categories are indicated for multinomial predictors in Table 2. Main and moderating effects have already been summed before computing odd-ratios, for an easier reading of Table 3, in which each column represents the odd ratio within a particular way of booking the trip when shifting from the reference category to a given category of the explanatory variable. If the column values differ for a given row, there is a significant moderating effect (p -value < 0.01). Within each variable, rows represent a given trip length, the shortest trips (5 days or shorter) acting as reference category, in other words, as denominators in the odd ratios.

The coefficients of the length categories are nearly always in ascending or descending order within the explanatory variables' categories and booking form. This means that characteristics increasing the probability ratios of greater trip lengths, increase these ratios further for the greatest lengths. Characteristics decreasing the probability ratios of greater trip lengths, decrease these ratios further for the greatest lengths. When the ascending or descending order is broken, certain characteristics are related to specific trip durations, which are neither the longest nor the shortest. This type of

unordered patterns can only be uncovered by the multinomial logit model, and not with any other of the models mentioned in the methodology section.

Table 2. Frequency distributions of explanatory variables

Activities			
Nautical sports		Other cultural activities	
Yes	3.9%	Yes	16.9%
No*	96.1%	No*	83.1%
Hiking		Spa	
Yes	2.2%	Yes	5.6%
No*	97.8%	No*	94.4%
Other sports		Theme Parks	
Yes	6.3%	Yes	9.8%
No*	93.7%	No*	90.2%
Attendance at sport events		Nightlife	
Yes	2.7%	Yes	24.6%
No*	97.3%	No*	75.4%
Cultural visits		Visiting friends	
Yes	45.8%	Yes	15.8%
No*	54.2%	No*	84.2%
Attendance at cultural events			
Yes	10.9%		
No*	89.1%		
Trip Characteristics			
Has been to Spain before		Season	
Yes	20.5%	Not in summer	70.9%
No*	79.5%	Summer*	29.1%
Travel group		Accommodation used	
With friends	14.5%	Other accommodation	6.3%
In family	16.5%	Home ownership	7.3%
Alone	25.6%	Hotel 3-star	16.5%
With partner*	43.4%	Other kind of hotel	17.4%
		Family/friends' housing	27.2%

		Hotel 4-5 star*	25.2%
Destination		How trip was booked	
Unique capitals**	8.5%	Package	28.6%
Madrid	9.0%	No package with LCA	49.0%
Barcelona	14.2%	No package with legacy*	22.4%
Other locations (mostly coastal)*	68.3%		
Time of booking			
Weeks before or less	39.8%		
Months before or longer*	60.2%		
Socio-demographic profile			
Age		Country of residence	
65 and more	8.7%	Austria, Switz. & Liechtenstein	5.9%
15-24	12.8%	France	6.9%
45-64	29.0%	Other European Countries	8.5%
25-44*	49.6%	Nordic Countries	10.2%
		Italy	10.8%
		Benelux	11.2%
		Germany	16.3%
		United Kingdom*	30.3%
Gender		Level of education	
Male	50.6%	Up to high school	37.2%
Female*	49.4%	University*	62.8%
Income category			
Low	5.5%		
High	27.4%		
Medium*	67.1%		

* Reference categories in the logit model: chosen either because they are the largest categories, or because they are the most standard, conceptually considered.

** The capital towns considered unique are: Bilbao, Córdoba, Girona, Granada, Salamanca, Santiago de Compostela, San Sebastián, Sevilla, Tarragona, Toledo and Valencia.

Table 3. Multinomial Logit results. Odd ratios within how trip was booked and airline type

Variable/category	Duration*	Package	Low cost	Legacy
Nautical sports	6 to 8	2,228	2,228	2,228
	9 to 12	2,298	2,298	2,298
	>12	2,323	2,323	2,323
Other sports	6 to 8	1,702	1,702	1,702
	9 to 12	2,032	2,032	2,032
	>12	2,237	2,237	2,237
Spa visited	6 to 8	1,468	1,468	1,468
	9 to 12	2,109	2,109	2,109
	>12	2,314	2,314	2,314
Visited theme parks	6 to 8	1,547	1,547	1,547
	9 to 12	2,079	2,079	2,079
	>12	2,377	2,377	2,377
Hiking	6 to 8	1,402	1,402	1,402
	9 to 12	1,380	1,380	1,380
	>12	1,644	1,644	1,644
Attended sporting events	6 to 8	0,530	0,770	0,929
	9 to 12	0,353	1,274	0,930
	>12	0,368	1,379	0,913
Attended cultural events	6 to 8	1,285	1,285	1,285
	9 to 12	1,366	1,366	1,366
	>12	1,285	1,285	1,285
Nightlife	6 to 8	1,040	1,040	1,040
	9 to 12	1,377	1,377	1,377
	>12	1,207	1,207	1,207
Cultural visits	6 to 8	1,021	1,021	1,021
	9 to 12	1,228	1,228	1,228
	>12	1,172	1,172	1,172

	6 to 8	0,730	0,928	1,264
Other cultural activities	9 to 12	0,691	0,978	1,058
	>12	0,627	0,927	1,254
	6 to 8	1,093	1,093	1,093
Visited friends/relatives	9 to 12	1,219	1,219	1,219
	>12	1,376	1,376	1,376
	6 to 8	0,075	0,350	0,285
Destination unique capitals	9 to 12	0,040	0,259	0,275
	>12	0,024	0,255	0,164
	6 to 8	0,008	0,174	0,157
Destination Madrid	9 to 12	0,011	0,132	0,171
	>12	0,007	0,119	0,098
	6 to 8	0,019	0,205	0,168
Destination Barcelona	9 to 12	0,014	0,152	0,132
	>12	0,004	0,144	0,085
	6 to 8	2,686	2,686	2,686
Other accommodation	9 to 12	3,904	3,904	3,904
	>12	7,576	7,576	7,576
	6 to 8	2,612	2,612	2,612
Home ownership	9 to 12	4,928	4,928	4,928
	>12	13,805	13,805	13,805
	6 to 8	0,881	0,881	0,881
Hotel 3 star	9 to 12	0,745	0,745	0,745
	>12	0,685	0,685	0,685
	6 to 8	1,800	1,800	1,800
Other kind of hotel	9 to 12	2,100	2,100	2,100
	>12	2,524	2,524	2,524
	6 to 8	1,992	1,992	1,992
Family/friends housing	9 to 12	3,529	3,529	3,529
	>12	4,446	4,446	4,446

Table 3. Continued

Variable/category	Duration*	Package	Low cost	Legacy
	6 to 8	0,973	0,973	0,973
Has been to Spain before	9 to 12	0,695	0,695	0,695
	>12	0,576	0,576	0,576
	6 to 8	0,427	0,605	0,765
Season: not in summer	9 to 12	0,215	0,411	0,548
	>12	0,254	0,360	0,454
	6 to 8	0,771	0,771	0,771
Booking weeks before or less	9 to 12	0,606	0,606	0,606
	>12	0,508	0,508	0,508
	6 to 8	0,373	0,613	0,790
Travel group with friends	9 to 12	0,353	0,549	0,728
	>12	0,245	0,346	0,467
	6 to 8	1,649	1,505	1,570
Travel group in family	9 to 12	1,910	1,817	1,439
	>12	1,996	1,690	1,733
	6 to 8	0,532	0,726	0,85
Travel group alone	9 to 12	0,574	0,824	0,847
	>12	0,543	0,930	0,937
	6 to 8	3,043	1,564	1,545
Age 65 and more	9 to 12	8,298	3,130	2,620
	>12	19,434	7,463	5,675
	6 to 8	1,068	1,088	1,126
Age 15-24	9 to 12	0,935	1,126	1,172
	>12	0,720	1,219	1,112
	6 to 8	1,221	1,241	1,081
Age 45-64	9 to 12	1,680	1,451	1,411
	>12	2,368	1,833	1,495
	6 to 8	1,021	0,798	0,610

Country of residence Austria, Switz. & Liechtenstein	9 to 12	1,395	1,090	0,775
	>12	1,732	1,331	0,688
	6 to 8	1,324	0,882	0,629
Country of residence France	9 to 12	1,160	1,064	0,862
	>12	1,362	1,102	0,694
	6 to 8	1,978	0,955	0,792
Country of residence other European Countries	9 to 12	2,702	1,441	1,165
	>12	2,617	1,495	1,200
	6 to 8	2,280	1,171	1,140
Country of residence Nordic Countries	9 to 12	0,747	1,419	1,507
	>12	2,664	1,726	1,554
	6 to 8	1,385	0,701	0,799
Country of residence Italy	9 to 12	1,297	0,728	0,685
	>12	1,296	0,607	0,614
	6 to 8	1,137	0,755	0,656
Country of residence Benelux	9 to 12	2,883	1,005	1,017
	>12	1,758	0,914	0,748
	6 to 8	1,027	1,014	1,443
Country of residence Germany	9 to 12	3,337	1,665	1,142
	>12	2,583	1,782	1,120
	6 to 8	0,873	0,724	0,745
education up to high school	9 to 12	1,079	0,783	0,954
	>12	0,871	0,696	0,534
	6 to 8	1,122	1,122	1,122
Low reported income	9 to 12	1,142	1,142	1,142
	>12	1,241	1,241	1,241
	6 to 8	1,021	1,021	1,021
High reported income	9 to 12	1,133	1,133	1,133
	>12	1,265	1,265	1,265
	6 to 8	0,908	0,908	0,908

Gender male	9 to 12	0,952	0,952	0,952
	>12	0,883	0,883	0,883

* 5 or fewer days is the reference category

The inclusion of activities undertaken by tourists at destinations is one of the new features included in this paper, and overall it has been found to be relevant to trip duration. Specifically, the effect of undertaking activities on the probability ratios of higher trip durations is mostly positive (odd ratios larger than 1). This means that duration is longer for almost all activities undertaken when compared with the reference of doing no activities. The odd ratios of the length categories are in ascending or descending order within the groups of tourists who undertake activities. For instance, for those who visit Theme Parks, odd ratios increase from 1.547 for the group spending 6 to 8 nights compared to the reference category (<6 nights), to 2.377 for the group spending more than 12 night compared to the reference category. No relevant moderating effects emerge in the case of nautical sports, hiking, cultural visits, going to a spa, going to a theme park, nightlife, visiting friends and relatives, other sports or attendance to cultural events, in other words, on the whole tourists doing these activities spend more days at destination and how the trip is booked is of no importance. For the remaining two activities, moderating effects are found. For those who attended sporting events, only LCA users increase the probability ratios of stays above 9 nights over stays below 6 nights. The remaining probability ratios are below one, thus showing lower probabilities for longer trips for those tourists attending sporting events. For those who undertake other cultural activities, only legacy travellers extend trip duration, even if in that case the order of odd ratios from shorter to longer stays is broken. Legacy carrier flyers attending these activities tend to stay either 6 to 8 nights or above 12 nights.

Regarding trip characteristics, length of stay varies substantially depending on the variable categories. Tourists coming to Spain outside the summer season, or with friends, tend to spend considerably fewer days (odd ratios are smaller than 1) than those coming in summer or those travelling with a partner. In both cases, the order within the length categories is descending. Also in both cases, the moderating effect is significant and the odd ratios are similar

regardless of airline type, but different when booking packages. Conversely, tourists coming with their families, have higher probabilities of longer trips.

As far as accommodation is concerned, ratios are mostly larger than one, thus showing the reference 4-5-star hotels to be related to the shortest stays. Tourists who own a second residence at the destination are those who spend the most days (the coefficients are ascending from 2.612 for the 6 to 8 night group compared to the reference category, to 13.805 for those who stay more than 12 nights); in fact, this is the most distinct category for the length of stay variable. The coefficients of the 3-star hotel category are closest to 1, meaning that tourists using them are indistinguishable from the reference category (4-5-star hotels). As said before, the moderating effect of type of accommodation could not be estimated.

Concerning destination, going to any main city considerably reduces length of stay. Airline type seems to be fairly irrelevant but booking the trip as part of a package makes stays in these main cities even shorter. This reduction is largest in Madrid (odd ratios being 0.008, 0.011 and 0.007), closely followed by Barcelona (being 0.019, 0.014 and 0.004).

No significant moderating effects emerge in the case of having previously been to Spain (odd ratios smaller than 1 and thus negative effect of loyalty on length) nor booking shortly before travelling (negative effect of last-minute booking on length); in both cases, odd ratios are descending orderly (from 0.973 for the 6 to 8 nights group compared to the reference category, to 0.576 for the group staying more than 12 nights, in the case of having been to Spain before, and from 0.771 to 0.508 in the case of last-minute booking).

How the trip is booked moderates length of stay for almost all sociodemographic variables included in the model (only income category and gender have no moderating effect). The oldest tourists stay considerably longer than other age groups, and when they travel as part of a package their stay is even longer (the odd ratio is 19.434 for the group spending more than 12 nights compared to the reference category). The 15-24 age group behaves similarly to the reference 25-44 group. The 45-64 age group behaves similarly to the oldest group, but with lower odd ratios. As with other variables, larger differences are found for package travellers than between airline types.

With regard to the country of residence, the ascending and descending order of odd-ratios is often broken. Differences depending on the way the trip is booked and on airline choice emerge in all directions and differ across countries, reflecting country specific habits regarding trip lengths or country specific policies of tour operators. Large odd ratios are found, for instance, among German and Benelux package travellers staying 9 to 12 nights, among Nordic package travellers staying more than 12 nights, among residents in other European countries booking packages of any length except 5 nights and fewer, and among residents in Germany flying with LCA and staying 9 nights or more.

Tourists who have up to secondary school education tend to stay shorter than those with a university education. The main differences are found between booking oneself and package trips, the latter group showing nearly no effect in terms of education (odd ratios around 1). In this case, as it happens with the country of residence variable, the descending order is broken, and those with high school education or less tend to do stays both below 6 days and from 9 to 12.

Finally, self-reported income and gender have very little impact on duration, all odd ratios being close to 1.

5. CONCLUSIONS

The purpose of this study was twofold. Firstly, to analyze the determinant factors of length of stay at destination for all European tourists arriving in Spain by air (most inbound tourism in Spain is European and travels by air). Secondly, to study the impact of tourists booking the trip themselves and flying with an LCA or legacy airline or travelling as part of an organized package, both in terms of main and moderating effects. The large sample and the multinomial model allow us to analyze how tourists behave regarding each category of the explanatory variables in terms of the probabilities of each length of stay at destination and within each way of booking the trip.

Unlike previous studies, we have subdivided this variable into three categories rather than two (package or not package). Package users and non-package users face different decision constraints for obvious reasons, but we wished to

also highlight differences within non-package users who choose between LCA and legacy airlines.

Some results presented in this study are not unexpected, such as tourists over 65 or those who have a second residence and those accommodated in cheaper accommodation types generally staying longer at destination. In fact, as we observed in the literature review, socio-demographic factors play an important role and country of residence and age are the main variables. In addition to this, we have confirmed other effects such as later bookings producing shorter stays, or travelling outside the summer season also producing fewer days spent at destination.

Another important aspect to highlight, since it is one of the new features included in our research, is that tourists who declare to have done some activity at the destination generally stay longer and no moderating effects emerge for mostly of the activities. When these interactions exist, LCA users are not always the segment with the shortest trips, as it has some times been suggested. For instance, it seems that LCA users are the only ones to increase length of stay when attending a sporting event.

In summary, what this research has told us about air travellers is that the moderating effect of how the trip is booked is generally much more important than that of type of airline. If we compare package travel to choice of airline, many more variables substantially change their effect on length of stay with the former. The fact that LCAs are currently so consolidated appears to have resulted in them gradually capturing more different market segments, leading to increasing similarity between users of the two airline types. The stereotype that LCA users spend less time at their destination is becoming just that, a stereotype. Consequently, Destination Management Offices should not be any less interested in LCA travellers than in legacy company travellers.

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