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Research note: Who is the charter passenger? Characteristics and attitudes of the least-known passenger.

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Abstract

Despite the fact that charter flights have become a hybrid model between the low-cost carriers and the network carriers, the charter passenger's profile presents important differences from those of the passengers of the other two types of airline. This article analyses those differences. The authors use a multinomial logit model and a broad database of almost 40,000 passengers. Their results break with certain stereotypical assumptions, such as that charter passengers are low-income, that they use the services of travel agencies to a greater degree, or that they show a clear bias for travel for vacation purposes. Their profile is of infrequent flyers with a longer waiting time before boarding, although this does not mean that they make more purchases at the airport. Furthermore, they look to travel to more remote destinations, with no intermediate stopovers, which are not usually served by the low-cost carriers, as a result of which they have a greater presence at hub airports.

Keywords

Charter airline, passenger profile, multinomial logit model

Introduction

Charter flights usually form part of ‘package holidays’ sold by tour operators along with accommodation, board and other services, all at a single price. The development of charter flights has gone through a number of stages. From the 1960s onwards, charter airlines gained a significant proportion of the air transport market in Europe although its poor image with travelers led tour operators to set up their own charter airlines, turning them into a part of vertically integrated organizations (Williams, 2001). From the

beginning of this century there has been a fall in the market share of charter flights due to the expansion of the Internet, which has been to the benefit of consumers creating their own 'package holiday', and the appearance of low cost carriers (Rosselló and Riera, 2012). The tough competition from the low cost carriers (LCCs), which offer a wide choice of alternative destinations and are supported by regional authorities (Gil-Moltó and Piga, 2008), has displaced charter flights in the market, especially on shorter distanced routes (Graham and Dennis, 2010; Williams, 2008). Some tour operators and charter airlines have even set up their own LCC affiliates (Gil-Moltó and Piga, 2008).

Charter flights are currently a hybrid model between the LCCs and the network carriers (NC). They are similar to the former with respect to their cost reduction model (Papatheodorou and Lei, 2006; Williams, 2001), lower price (Rosselló and Riera, 2012) and the use of satellite airports (Papatheodorou, 2002), whilst they have also adopted their strategy for improving their product from the NC, with two-class seat configurations and in-flight meals (Papatheodorou, 2002), for example.

Although the charter airline business model has been studied (Papatheodorou and Lei, 2006; Williams, 2001), the study of the passenger profile for this type of airline is an under investigated field. The need for this profile is even more justified when we consider that recent papers suggest that the profile could be different to that of LCC (see Graham and Dennis, 2010) and NC (see Kirschenbaum, 2013) passengers. The objective of this research note is to overcome this evident lack of literature by providing the fullest charter passenger profile to date and comparing it to those of NC and LCC passengers.

Data and methodology

We use data collected through surveys conducted by the Spanish Public Airport Authority (AENA) in summer, 2010. In the year of the study, 2010, the charter airlines were responsible for 9.20% of all traffic in the Spanish airport system, i.e., over 17.5 million passengers. Spain is both the final destination for millions of European charter passengers and the point of origin for passengers flying to the Latin American Caribbean.

Our research uses a database of almost 40,000 passengers, 37,226 to be precise, who were interviewed in the departure lounges at 8 different Spanish airports, namely, Almeria, Alicante, Barcelona, Madrid-Barajas, Santiago de Compostela, Seville, Tenerife Sur and Valencia. This paper clearly overcomes the barriers of the typical local case study due to the breadth of the sample and the large number of travelers of multiple nationalities. In fact, almost 44% of the sample were foreign, 16,266, to be precise.

The passengers will be divided into three categories according to the type of airline on which they fly, i.e., charter, LCC and NC. For this, a multinomial logit model was used to analyze the factors that define the characteristics of passengers in the three categories. As in other discrete-choice models, in multinomial models only the sign of the coefficient has a direct interpretation. In order to facilitate interpretation of the results, we calculate the marginal effects across all considered options (Table 1).

Results and conclusions

Table 1 shows the marginal effects obtained for the 38 explanatory variables used. The first result that should be highlighted is that charter passengers form a clearly differentiated category that bears little relationship to the other two. On the one hand this is shown by the fact that in the broad group of 11 variables (Gender, Education, Housewife, Travel agency, Internet, Length of stay, Rent-a-car, Public Transport, Family, Farewell and Purchase) there is a significant statistical substitution effect between LCCs and NCs. Passengers of these two types of airline are therefore defined as opposed to each other, without the variables defining the charter passenger. On the other hand, there is a second broad range of another 11 variables (Student, Self-employed, Unemployed, Frequent flyer, Taxi, Courtesy Bus, Group size, Children, Friends, Hub and Food and Drink) that are only significant for the charter passenger and which provide a quite distinct image from the other two passenger categories.

Detailed observation of the results shows that charter passengers are younger; that there is no gender bias, which might indicate that they usually travel in twos, with their partners; and they do not usually travel in large groups, with the nuance that these are the passengers who are most usually accompanied by children (see variables: gender, age, group size, friends and children).

Furthermore, charter passengers have a higher average income level than the other categories as it is the category where fewer students and unemployed are found. This finding would break with the association of charter airlines with low-income tourism (Papatheodorou, 2002). This theoretical higher level of income would also explain the category's level of expenditure, which is under that of NC passengers, but clearly higher than that of LCC passengers. However, this might also be due to the fact that they are

the passengers who on average spend most time in the airport before boarding, a finding that coincides with Papatheodorou and Lei (2006). Nevertheless, although their level of expenditure is higher, there is no greater likelihood that they will make purchases at the airport, contrary to what Papatheodorou and Lei (2006) state.

Our findings differ from the idea that charter airlines are more oriented towards the transportation of holidaymakers to tourist destinations (see Kirschenbaum, 2013 on this function). Table 1 shows that there is no clear skew towards travelling because of the vacation motive, especially when compared to LCC passengers. This would therefore confirm that there is an ongoing trend of typical charter customers transferring to the LCCs (Williams, 2001), whether because of reasons of holidays, or for VFR.

In addition, although 'package holidays' are usually sold through retail travel agencies (Rosselló and Riera, 2012), our empirical evidence shows that charter passengers are not the passengers who use the services of travel agencies to a greater extent, but that, rather, those who do are the NC passengers. However, the all-in-one 'package holiday' purchase, with transfers, and room and board would explain why charter passengers are those who most use courtesy buses to get to the airport and are the least likely to consume F&B at the airport.

In other respects, charter airlines are clearly the most common option for people who wish to travel to more remote places outside Europe, especially to Latin America, obviously on account of the Caribbean, and to more exotic continents for Europeans, such as Asia. If their destination is any of the above, there is a 50% increase in the likelihood that they will opt for a charter airline. The explanation lies in the fact that for

many of these destinations the price of a 'package holiday' can be less than the cost of an NC airline ticket as, among other reasons, there is no LCC alternative available. This finding would demonstrate the current strategy of charter flights, based on finding alternative destinations, especially with regard to long haul operations, and reducing their dependency on short haul markets (Williams, 2008), where there is ferocious competition from the LCCs.

Finally, charter passengers are infrequent flyers, which is in line with what is stated by Papatheodorou (2002), that charter carriers do not run loyalty schemes; they go after point-to-point flights (Papatheodorou and Lei, 2006) and, especially, weekend flights. Their greater presence at hub airports is enlightening in this respect, as it makes this last feature compatible with their greater demand for exotic intercontinental flights, and hubs are obviously the only airports that cater for direct flights to destinations of this type.

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References

Gil-Moltó, M.J., and Piga. C.A. (2008), "Entry and exit by European low-cost and traditional carriers", *Tourism Economics*, Vol 14, pp 577–598.

Graham, A., and Dennis, N. (2010), "The impact of low cost airline operations to Malta", *Journal of Air Transport Management*, Vol 16, pp 127–136.

Kirschenbaum, A. (2013), "The cost of airport security: The passenger dilemma", *Journal of Air Transport Management*, Vol 30, pp 39-45.

Papatheodorou, A. (2002), "Civil aviation regimes and leisure tourism in Europe", *Journal of Air Transport Management*, Vol 8, pp 381–388.

Papatheodorou, A., and Lei, Z. (2006), "Leisure travel in Europe and airline business models: A study of regional airports in Great Britain", *Journal of Air Transport Management*, Vol 12, pp 47–52.

Rosselló, J., and Riera, A. (2012), "Pricing European package tours: the impact of new distribution channels and low-cost airlines", *Tourism Economics*, Vol 18, pp 265–279.

Williams, G. (2001), "Will Europe's charter carriers be replaced by ''no-frills'' scheduled airlines?", *Journal of Air Transport Management*, Vol 7, pp 277–286.

Williams, G. (2008), "The Future of Charter Operations", in: Graham, A., Papatheodouru, A., and Forsyth, P., (Eds), *Aviation and Tourism*. Hampshire: Ashgate Publishing, pp 85-102.

Table 1. Description of Explanatory Variables and Marginal Effects at the Mean.

Variable		Explanation	Marginal Effects at the Mean		
			NC	LCC	Charter
Gender.		1 if male, 0 if female.	∇ 1.591%(0.622)**	Δ 1.465%(0.537)***	Δ 0.126%(0.1289)
Age.		1 < 30; 2 = 31-49; 3 = 50-64; 4 > 65.	Δ 4.168%(2.070)**	∇3.947%(2.042)*	∇0.221%(0.064)***
Nationality. Base category: Spanish.	**Foreigner from Europe**	1 if passenger is foreigner from a European country, 0, otherwise.	Δ 0.958%(3.926)	∇1.053%(3.370)	Δ 0.095%(0.618)
	Foreigner from outside Europe	1 if passenger is a foreigner from outside Europe, 0, otherwise.	Δ 7.220%(1.836)***	∇6.127%(1.485)***	∇1.093%(0.419)***
Education.		1 = no formal or only primary education; 2 = completed secondary education; and 3 = holds university degree.	Δ 2.406%(0.343)***	∇1.993%(0.512)***	∇0.412%(0.339)
Reason for travel. Base category: business passenger.	**Vacation**	1 if flight is for a vacation, 0, otherwise.	∇11.490%(1.961)***	Δ 10.724%(1.854)***	Δ 0.766%(0.377)**
	Visiting Friends and Relatives (VFR)	1 if flight is for VFR reasons, 0, otherwise.	∇7.251%(0.557)***	Δ 7.538%(0.608)***	∇0.286%(0.115)**
Employment status. Base category: employee.	**Housewife.**	1 if passenger is a housewife, 0, otherwise.	Δ 6.281%(2.243)***	∇5.948%(2.273)***	∇0.332%(0.3539)
	Student.	1 if passenger is a student, 0, otherwise.	Δ 0.057%(2.042)	Δ 0.705%(1.972)	∇0.763%(0.104)***
	Retired.	1 if passenger is retired, 0, otherwise.	∇0.380%(0.864)	∇0.066%(1.064)	Δ 0.446%(0.316)
	Freelance or Self-employed.	1 if passenger is freelance or self-employed, 0, otherwise.	Δ 2.371%(2.765)	∇1.822%(2.672)	∇0.549%(0.167)***
	Unemployed.	1 if passenger is unemployed, 0, otherwise.	Δ 1.358%(3.158)	∇0.374%(2.648)	∇0.984%(0.527)*
Connecting flight.		1 if passenger is connecting to another flight at the airport, 0, if flying no further.	Δ 22.813%(4.585)***	∇20.964%(3.853)***	∇1.849%(0.801)**
Destination. Base category: domestic flight	**Eurozone international destination.**	1 if passenger is taking an international flight with a final destination in a Eurozone country, 0, otherwise.	∇21.549%(2.985)***	Δ 17.456%(3.209)***	Δ 4.093%(1.734)**

	Latin American international destination.	1 if passenger is taking an international flight with a final destination in Central America, South America or Mexico, 0,	∇25.132%(7.240)***	∇25.192%(1.894)***	Δ 50.325%(9.025)***
	North American international destination.	1 if passenger is taking an international flight with a final destination in USA or Canada, 0, otherwise.	Δ 10.661%(3.795)***	∇17.197%(5.585)***	Δ 6.536%(3.115)**
	Rest of world.	1 if passenger is taking an international flight with a final destination outside Europe or America, 0, otherwise.	∇49.135%(5.628)***	∇6.881%(9.408)	Δ 56.106%(8.932)***
Travel agency.		1 if passenger has purchased his ticket using the services of a travel agency, 0, otherwise.	Δ 18.321%(1.379)***	∇18.642%(1.846)***	Δ 0.321%(0.493)
Internet.		1 if passenger has purchased his ticket over the Internet, 0, otherwise.	∇11.390%(1.010)***	Δ 12.004%(1.470)***	∇0.615%(0.495)
Frequent flyer.		Number of flights taken by passenger in previous twelve months: 1 = 0 flights; 2 = 1–3; 3 = 4–12; and 4 = more than 12 flights	∇0.643%(0.708)	Δ 1.026%(0.741)	∇0.383%(0.193)**
Length of stay.		1= Same day return; 2 = 2 to 7 days; 3 = 8 to 14 days; 4 =15 to 30 days; 5 = more than 30 days	Δ 3.457%(0.826)***	∇3.517%(0.606)***	Δ 0.060%(0.278)
Waiting time prior to boarding.		1 <1 hour; 2= 1-2 hours; 3= 2-3 hours; 4> 3 hours.	∇1.772%(0.642)***	Δ 0.818%(0.500)	Δ 0.954%(0.162)***
Weekend.		1 if the survey was taken on a Saturday or Sunday, 0, otherwise.	∇0.181(0.304)	∇0.661%(0.323)**	Δ 0.843%(0.253)***
Accessibility. Base category: private vehicle.	**Taxi.**	1 if passenger has travelled to the airport by taxi, 0, otherwise.	∇1.073%(1.695)	Δ 1.548%(1.684)	∇0.474%(0.184)**
	Courtesy bus.	1 if passenger has travelled to the airport by courtesy bus, 0, otherwise.	∇6.859%(6.393)	∇1.443%(7.262)	Δ 8.302%(1.804)***
	Rent-a-car.	1 if passenger has travelled to the airport by rental car, 0, otherwise.	∇9.051%(2.805)***	Δ 8.441%(3.072)***	Δ 0.610%(0.805)
	Public transport	1 if passenger has travelled to the airport by public transport, 0, otherwise.	∇9.9222%(3.966)**	Δ 9.684%(3.776)**	Δ 0.238%(0.213)
Group size.		1 = travelling alone; 2 = 2 people; 3 = 3 or more people.	Δ 1.744%(1.027)*	∇1.313%(0.917)	∇0.401%(0.201)**

Children.		1 if passenger is flying with children, 0, otherwise.	∇1.184%(2.327)	∇1.477%(1.360)	Δ 2.661%(1.188)**
Accompaniment.	**Friends.**	1 if passenger is travelling with friends, 0, otherwise.	∇2.830%(1.744)	Δ 2.308%(1.639)	Δ 0.522%(0.228)**
	Family.	1 if passenger is travelling with family, 0, otherwise.	∇2.490%(0.725)***	Δ 2.295%(0.627)***	Δ 0.195%(0.266)
Hotel.		1 if passenger was staying in a hotel prior to travelling to the airport, 0, otherwise	∇0.852%(2.610)	Δ 0.549%(2.794)	Δ 0.303%(0.262)
Farewell.		1 If someone goes to see off the passenger at the airport, 0, otherwise.	∇8.177%(1.573)***	Δ 8.295%(1.366)***	∇0.119%(0.345)
Airport traffic.		Thousands of passengers per week at each airport at the time that the surveys were taken.	Δ 0.092%(0.009)***	∇0.080%(0.010)***	∇0.013%(0.002)***
Hub.		1 If the airport is Madrid or Barcelona, 0, otherwise.	∇1.006%(6.135)	∇0.523%(5.829)	Δ 1.528%(0.602)**
Food and drink.		1 if the passenger purchases food or drink, 0, otherwise.	∇1.056%(0.819)	Δ 1.685%(1.053)	∇0.629%(0.279)**
Purchase.		1 if the passenger makes a purchase, 0, otherwise.	∇2.823%(0.807)***	Δ 3.111%(0.670)***	∇0.287%(0.196)
Expenditure at the airport.		Logarithm of Euros spent by passengers at stores and catering establishments.	Δ 2.020%(0.282)***	∇2.404%(0.242)***	Δ 0.384%(0.073)***

Note: Standard errors robust to heteroscedasticity and clustered by airport of origin are presented in brackets. One, two or three asterisks indicate coefficient significance at the 10%, 5% and 1% levels, respectively.