# THE INFLUENCE OF LOW-COST FLIGHT ROUTES ON CHOICE OF TOURIST DESTINATION ${ }^{1}$ 

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Low-cost carriers have played an important role in the revitalization and modernization of some regional airports generating the development of new routes (Vera Rebollo and Ivars, 2009), raising the number of flights as well as passengers and enlarging their catchment area (Pantazis and Liefner, 2006). Rey and Inglada (2006) argue that low-cost carriers are the main reason for the rebirth of Spanish regional airports, so it is not surprising there are attempts to attract and retain low-cost carriers at those airports.

The majority of low-cost airline demand is by leisure travellers (Graham, 2006), despite there being an evident increase of business travellers (Mason, 2005; Williams and Balaz, 2009). Tourism is one of the economic activities to benefit from low-cost carrier development, opening new tourist markets (Bieger and Wittmer, 2006) and also explaining the increase in international tourism in several European Mediterranean regions, as noted by Martínez et al. (2005), Quintiliani (2009), Graham and Dennis (2010) and Donzelli (2010), among others.

According to Cortés-Jiménez et al. (2014), the existence of a low-cost flight route does not guarantee that a certain destination will be chosen for a holiday. Moreover, the existence of such a route may not be necessary if there are alternative ways available to travel to the destination and/or passengers are willing to pay higher fares. Nevertheless, the existence of the low-cost route increases the probability of visiting a destination because it adds another way get to it. This increase is defined as the difference between the probability that a potential visitor will come to a destination because of the availability of

[^0]a low-cost flight and the probability that the visit would have been made anyway if the low-cost flight did not exist.

Taking the above as a starting point, the main objective of the present study is to analyse the influence exerted by the availability of a low-cost flight route on choice of tourist destination, concretely English tourists flying between East Midlands airport (England) and Reus airport (Catalonia) and spending their holidays in the Costa Daurada and in Tarragona province.

Data used for the analysis was obtained from a survey conducted in 2010. Four hundred and forty-five English passengers on 19 flights operated by Ryanair were interviewed in the embarkation lounge of Reus airport immediately before their flights were scheduled to leave for East Midlands airport. Some respondents were discarded from the survey because they did not answer the survey appropriately or had not flown to Reus from East Midlands airport. So, the final sample consisted of 338 respondents.

Analysis has been performed by means of the Causal Chain Approach (Young et al., 2004, 2005 and 2007). This is a causal probabilistic method that allows analysing if exposure to a certain product or information has an effect on the decision to consume such product. The key questions in order to calculate the increase in probability ( $\Delta \mathrm{p}$ ) created by the availability of low-cost flights from East Midlands airport to Reus airport are defined as follows:
a) On a scale of 0 to 10 , how true is it to say that you came to the destination because of the low-cost flights to Reus?
b) On a scale of 0 to 10 , how true is it to say that you would have come to the destination even if there were no low-cost flights to Reus?

The first of these questions is designed to elicit the probability of the visit being made given the existence of the low-cost flights or the probability in causality ( $\mathrm{k}_{\mathrm{i}}$ in equation 1 ). The second elicits the probability that without the low-cost flights the visitor would have come to the destination anyway, or the background probability of the visit being made (1$\mathrm{c}_{\mathrm{i}}$ ). Then, $\mathrm{c}_{\mathrm{i}}$ (equation 1 ) is the probability that without the availability of low-cost flights no visit would have been made (probability in causation).

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\begin{equation*}
\Delta \mathrm{p}_{\mathrm{i}}=\mathrm{k}_{\mathrm{i}} * \mathrm{c}_{\mathrm{i}} \tag{1}
\end{equation*}
$$

The extremes of the range of responses are: visitors saying the availability of lowcost flights has played no influence at all and that they would definitely have visited the destination anyway ( c and k values equal to 0 ), and visitors saying they would not have picked the destination if low-cost flights had not been available, so they decided to book their visit because of the availability of low-cost flights ( c and k values equal to 1 ). In the first group, low-cost flight availability does nothing at all to make the visit more likely, while in the second group the availability of the low-cost flights raises the probability of this visit from 0 to 1 .

So, $\Delta \mathrm{p}_{\mathrm{i}}$ (equation 1) is the fraction of the individual visit that can be ascribed to the availability of low-cost flights. This allows measuring the contribution of all passengers
( $\Delta \mathrm{p}$ in equation 2 ) rather than performing a binary classification of visitors. The effect of the low-cost flights on any group of visitors would be missed in case of the individual contribution was not sought.

$$
\begin{equation*}
\Delta \mathrm{p}=\sum^{\mathrm{N}_{\mathrm{i}}=1}\left(\mathrm{k}_{\mathrm{i}} * \mathrm{c}_{\mathrm{i}}\right) / \mathrm{N} \tag{2}
\end{equation*}
$$

According to the sample profile, on average tourists are 42.7 years old and more than a half of them ( $52.3 \%$ ) are between 35 and 54 . More than $80 \%$ of the respondents organized the trip by themselves and only $14.8 \%$ booked a holiday package through a travel agency. According to the structure of the group, $41.1 \%$ were families with children under 13 years old, followed by relative adults above 35 years old ( $24 \%$ ) and families with children between 13 and 17 years old ( $8.6 \%$ ).

Taking into account the locations where the tourists stayed, Salou received the highest number ( $63 \%$ ). Cambrils, La Pineda and Tarragona city all recorded under $10 \%$, and almost $25 \%$ stayed in other locations in Tarragona province. Hotels was the most frequent type of accommodation chosen by $60.9 \%$ of respondents followed by those staying at friends' or relatives' lodging ( $11.8 \%$ ), rented apartments ( $11.2 \%$ ), campsites ( $7.1 \%$ ), their own lodging (5.9\%), and others (3.1\%).

The average number of nights spent on the trip was 8.5 . The most frequent length of stay was 7 nights ( $55 \%$ of respondents), followed by those answering 14 nights ( $13.9 \%$ ). This could be related to low-cost route flight frequency when the survey was conducted in 2010: twice per week. More than half of the passengers ( $57.7 \%$ ) said it was not their first visit to the destination and most of the latter (85.6\%) had flown to Reus airport previously, 7 times on average. Here, it should be highlighted that the East Midlands airport to Reus airport low-cost route has only been operating since 2009.

Answers to the question regarding the main reason for deciding to fly the low-cost route between East Midlands airport and Reus airport show that $47.9 \%$ did so because of the short distance between Reus airport and the final destination, while $39.1 \%$ expressed that it was due to the price of the flight. Together they account for almost $90 \%$ of the respondents.

The existence of the low-cost Ryanair flights to Reus was the reason why $29.3 \%$ of the passengers had decided to come to the destination, while $6.5 \%$ were not influenced by this at all (10 and 0 to question 18, respectively). On the other hand, $19.5 \%$ answered that they would have come to the destination even if there were no low-cost flights to Reus, and $3.5 \%$ would not have come to the destination in the event that low-cost flight routes had not been available ( 10 and 0 to question 19 , respectively). The most common response to question 18 was 10 , while for number 19 it was 5 .

Taking into account the combined answers to questions 18 and 19, nine of the 338 can be considered «loyal low-cost tourists» because their responses to these questions were 10 and 0 , respectively. Conversely, 12 respondents can be considered «loyal destination tourists». They answered 0 to question 18 and 10 to question 19. Nevertheless, these two groups only represent $2.7 \%$ and $3.5 \%$ of the whole sample, respectively. So, if applying causal chain analysis to the whole sample, the results show a strong k value (probability of the visit being made given the existence of the low-cost flight route) of $71 \%$. Availa-
bility of the low-cost route clearly influenced their decision. However, the background probability (1-c) that respondents would have come to the tourist destination irrespective of the low-cost route is $63.3 \%$. So, the equivalent of $28.4 \%$ of the respondents (calculated from the fractional responses) travelled there only because the low-cost route from East Midlands airport to Reus airport was available. It is the increase probability (ck).

Influence is not homogeneous. The greatest influence (46.7\%) takes place in passengers located in a hotel of Salou on their first visit to the destination and the price of the flight was the main reason for deciding to fly to Reus airport. However, the lowest influence $(9.8 \%$ ) is in tourists staying in the rest of Tarragona province and in their own, a relative's or a friend's lodging.

These results should be taken into account by all stakeholders: accommodation and hospitality providers, destination managers and low-cost carriers. There is no doubt the introduction of low-cost flights has brought new tourists to the mature destination as well as the mature destination is well supported by 'captive' tourists who would still come there even if the low-cost flights were not available. Accommodation and hospitality providers would be well advised to build up a loyal clientele who are less dependent on the presence of the low-cost flights for their attraction to the destination. Therefore, in the light of this case study, similar research could be done in other regional airports to test whether that we have found in Reus airport is being replicated in other mature destinations where lowcost flights have been introduced.


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