THE DEVELOPMENT OF LOW-COST AIRLINES AND TOURISM AS A COMPETITIVENESS COMPLEMENTOR: EFFECTS, EVOLUTION AND STRATEGIES

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ABSTRACT

This paper addresses the relationship between the development of the airline industry and tourism. On the one hand, air transport has triggered the growth of tourism throughout the world, while, on the other hand, tourism has acted as a complementary product for developing new flight routes. This process has intensified with the emergence of low-cost carriers. A profound change has been observed in companies' strategy to adapt to the demands of this type of market.

To conduct this study, a review of the existing literature related to tourism and low-cost carriers was carried out. To conclude, an analysis of the positioning and price-fixing strategies of low-cost airlines operating on some of the most important tourist routes in Europe was performed. The results indicate different level of fares among the five companies in the sample, especially between Ryanair and easyJet, but similar pricing behaviour on the routes studied.

Keywords: Low-Cost Carriers, Pricing, Tourism, Airline Industry

JEL Classification: L93, Z32, L11

1. INTRODUCTION. GLOBALISATION, TOURISM AND AIR TRANSPORT DEVELOPMENT

In recent decades, commercial air transport growth has been closely linked to different parameters, such as higher incomes, lower average costs per flight and the global economy phenomenon (Ishutkina and Hansman, 2009). Airlines have given rise to a socioeconomic interconnection between different countries worldwide, especially in those activities with a high international component, such as tourism (in fact, tourism seems to be the most important effect in the international movement of people). It is well known that there is reciprocity between airlines and globalisation: both traditional and low-cost airlines foster global economic development, and at the same time, the globalisation phenomenon can explain the exponential development of airlines (Button and Taylor, 2000; Williams and Baláž, 2009).

The adjustment of airlines to the global market was no coincidence. Airlines have been constantly adapting to the ever-changing air transport environment (Zhang and Round, 2009), which has included a concentration process, the formation of international alliances and the inclusion of ICTs in airlines' business models (Goetz, 2002). The emergence of low-cost airlines is explained by these and other political changes, particularly the deregulation

processes in the US and Europe (Mason and Alamdari, 2007).[1] Since the US deregulation in 1978, many authors have studied which variables determine the number of operations and passengers per route. For instance, Gillen (2009) showed that *distance*, *population*, *industry liberalisation* and particularly *the kind of economic activities developed in a place* explain the air transport demand. Therefore, tourism is one of the activities that increase the air transport development in a region.

Tourism and air transport have been studied as complementary products for many decades. For instance, Graham (1995), Abeyratne (2000), Bieger and Wittmer (2006) or Rey *et al*. (2011), among many others, studied the air transport evolution effect in different countries, observing that it has led to a more sophisticated tourism supply. In the future, air transport will have a greater impact on tourism, according to some authors, like Poon (1993), Buhalis (2003) or Buhalis and Law (2008). These and other authors have defined *new tourism* as being dependent on low-cost airlines, without intermediaries, and based on travelling longer distances.

However, air transport is needed for the whole globalisation process, not just that in tourism. According to Zhang and Round (2009), and based on the experiences of Europe and the US, over the next few years, the BRICS countries will have to create efficient air transport systems to facilitate their economic growth based on deregulation, privatisation and modernisation. All of the major countries have followed these steps in terms of economy and finance.

These changes have given rise to important analyses related to air transport and how airlines respond to the new globalised panorama. The main areas of study are the relationship between airlines and airports (Barbot, 2008; D'Alfonso and Nsatasi, 2012; Graham, 2013), competition between airlines and with other means of transport (Pitfield, 2008; Jiménez and Betancor, 2012), the international expansion of airlines (Ramón-Rodríguez *et al*., 2011) and, particularly, changes in pricing strategies and the emergence of low-cost airlines (Malighetti *et al.*, 2010; Salanti *et al*., 2012). Some authors, such as Vera and Ivars (2009), have even promoted political and infrastructural changes to increase air transport's impact.

Our aim in this paper is to focus on how tourism is affecting the competitive strategies of the European low-cost carriers. Accordingly, first, we reviewed several previous papers to study the impact of tourism on air transport strategies. Then, we described how some variables related to tourism affect pricing in five different European low-cost carriers, including Ryanair and easyJet.

2. COMPLEMENTORS, NEW TOURISM AND LOW-COST CARRIERS

Over the last fifty years, the air transport industry has been the principal driving force behind international leisure travel (Dwyer *et al*., 2010). The number of airline users has increased thanks to the decrease in fares (especially because of the low-cost effect) and the existence of new tourism destinations worldwide. At the same time, airlines are taking tourism into account to determine their strategies, both in pricing and in positioning, according to Graham (2000).

Moreno-Izquierdo *et al*. (2015) began a debate on the role of tourism in airline pricing, pointing out that it could perhaps be understood as a new *strategy force* in a revised Porter's five forces model. Complementary products have been considered as a sixth force in previous works, such as Bandenburger and Nalebuff (1996) and Grove (1996). The first of these authors introduced the term *co-opetiton*, referring to a double relationship between

[1] Air transport has always been considered as a strategic industry, even before it was deregulated in the US in 1978. The European liberalisation process started in the mid-1990s. Air transport deregulation underwent "significant changes in industry structure, profitability, employment, volume, and patterns of service and fares, among other characteristics" (Goetz and Vowles, 2009, p. 1).

companies in one industry. Complementors play a main role in the diagrams of both *six forces models*. In the airline industry, complementors could be those businesses that are fostering or supporting the international movement of people, such as hotels, airports or leisure supply.

The emergence of the LCCs has generated a change in the behaviour of users, together with an interest in secondary destinations, which, according to Forsyth (2003), will have an impact in the next few years similar to that exerted by the tourism destinations consolidated in the 1960s. Different authors, such as Poon (1993) or, more recently, Mills and Law (2004), have discussed the configuration of a new type of tourism with preferences that differ widely from those observed until now. Buhalis and Law (2008) explained that new tourists are changing their interests within the destination, transforming themselves from visitors to citizens, fully integrated into the local society. These tourists use online channels to manage and buy their entire tourist package, which benefits those airlines that are well positioned on the Web and foster ecommerce, such as Ryanair or easyJet.

Vera and Ivars (2009) observed strong dependence between intra-European tourism and low-cost airlines, which require many concessions to guarantee a high flow of tourism. For instance, Papatheodorou and Lei (2006) explained that the creation of a multiple-airport system, with a main airport and secondary/regional ones around it, responds to low-cost demands. During the first decade of the twenty-first century, to adapt to the evolving low-cost tourism market, it seemed necessary to create new infrastructure and provide good conditions to attract airlines such as Ryanair. In fact, Barrett (2004), Tinard (2004) and Bel and Fageda (2008) documented the different kinds of subsidies granted to low-cost airlines by local and regional governments to boost the tourism industry.

According to some predictions, it seemed that the new kind of tourists would eliminate traditional tourism in the near future. This would change the tourism industry's parameters, fostering new destinations to the detriment of traditional tourist centres (Morgan, 1991; Knowles and Curtis, 1999). For example, Knowles and Curtis (1999) understood that newly developed areas would substitute the traditional Mediterranean sun and sand destinations. Low-cost carriers would be one of the most important factors in this change.

However, Tretheway (2004) disagreed with the assertion that LCCs will cause such a radical change. This author strongly felt that there are two elements that will maintain the traditional airlines in spite of the advancing low-cost companies: (1) the existence of a segment of people who find traditional transport more useful; and (2) the limited low-cost expansion on long-haul routes. We should also point out that the traditional airlines are taking steps to improve the efficiency of their flights, having partly counteracted the low-cost effect experienced in the first decade of the 2000s (Ramón-Rodríguez *et al*., 2011).

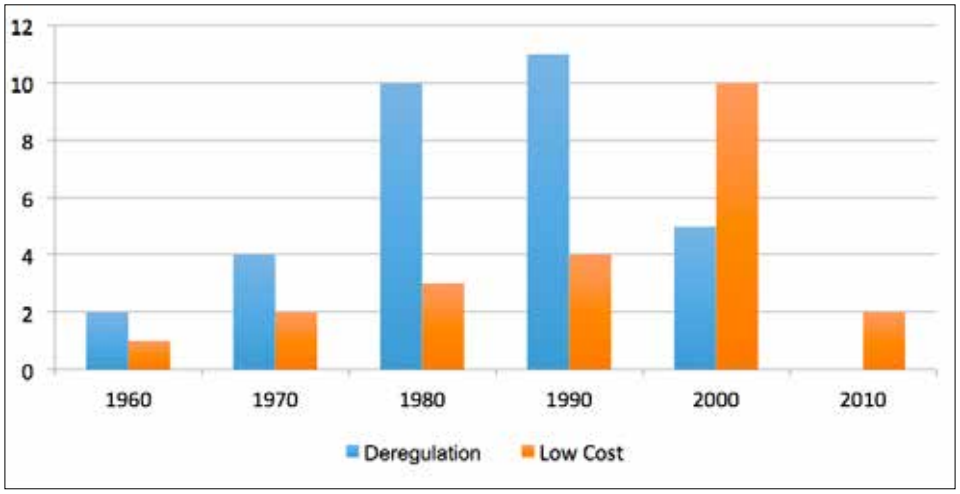
Supporting this idea, the studies by Marrero Rodríguez and Santana Turégano (2008) and Foronda Robles and García López (2009) observed that the decline of traditional tourist destinations would be neither radical nor quick. Today, there is a higher demand for the traditional offer than for emerging destinations with more appeal or social life. The occupancy capacity and the distance between receiving and issuing countries could explain why traditional tourism patterns are even increasing. In fact, European low-cost carriers have grown due to the regional leisure market. It is because of this that Vera and Ivars (2009) suggested that traditional tourism cities should be interested in increasing the number of low-cost flights so as not to lose competitiveness against developing destinations.

2.1. Literature on tourism in airline strategies

Throughout the existing literature, for example Moreno Izquierdo (2013), we can observe that tourism is one of the key factors determining airline strategy. Based on a study of more than 100 articles, it is apparent that there has been an increase in the number of studies

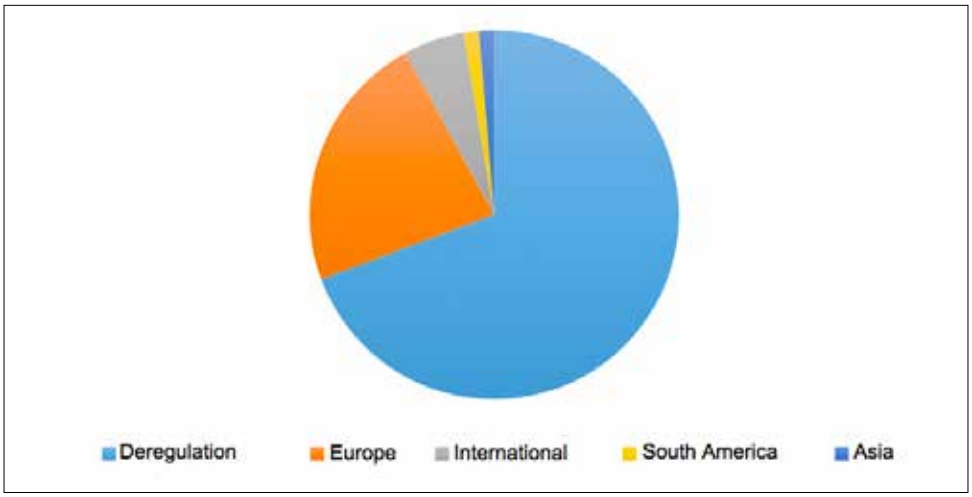
analysing the air transport industry since the 1970s for two main reasons: the effects of the deregulation process and, subsequently, the emergence of the low-cost airlines (Figure 1).

Figure 1. Evolution of studies relating to deregulation and the low cost carriers



To gain an idea of the impact of the low-cost carriers, we can refer to Porter (2008), who made a brief application of his five forces model to the American air transport sector. He concluded that it was one of the least profitable industries due to the strength of the forces of his model. The emergence of the low-cost airlines - particularly in Europe - has changed the make-up of the sector, especially for the traditional companies. In fact, previous authors, such as Lawton (2002), Francis *et al*. (2006) and Graham and Shaw (2008), have considered the emergence of the LCCs to be the principal repercussion of the deregulation of the European air transport market, and others, such as Alderighi *et al*. (2012), have pointed out that the *low-cost revolution* has transformed the airline industry's environment. According to Moreno Izquierdo (2013), the role played by the low-cost companies in Europe has shifted the interest of researchers from the United States to Europe (Figure 2).

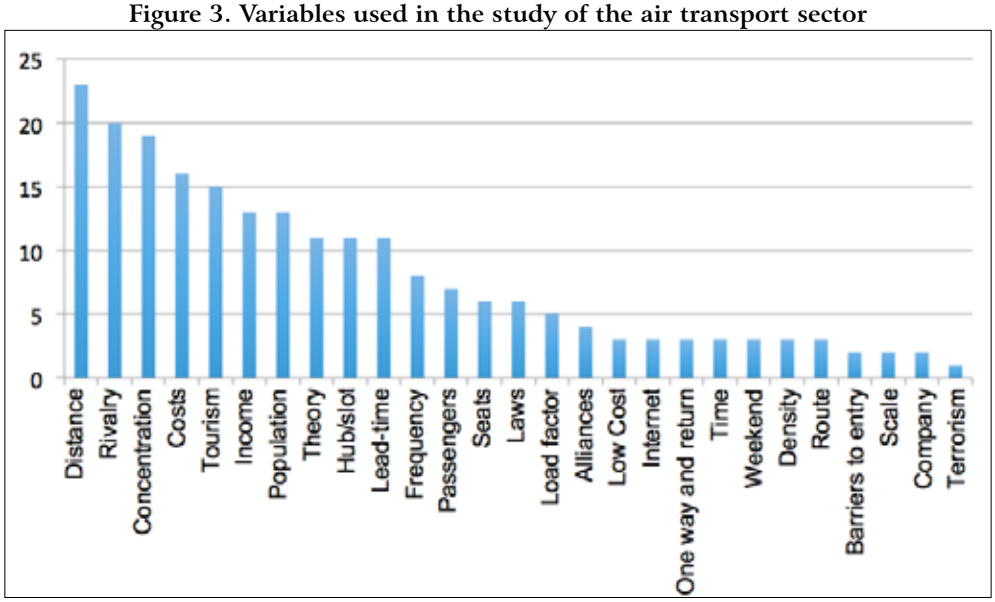
Figure 2. Areas of study in the sample observed



Within the strategic analysis of the air transport sector, and more specifically the case of price fixing, tourism has been a recurrent variable for segmenting the different products. Together with objective data such as distance, the number of rivals, income, the population

or the concentration on routes, tourism in any of its dimensions is understood as an element that can lead to alterations in companies' strategies (Figure 3).

Figure 3. Variables used in the study of the air transport sector



In the case of air transport, in most cases, the idiosyncrasy of the demand and the routes has been reduced to two typologies: *business* and *leisure*. According to the literature, the *leisure* routes show greater elasticity in terms of the average price than the *business* routes, as indicated by Oum *et al*. (1986), Windle and Dresner (1995) or Graham (2000); therefore, price alterations seem to affect the business demand to a lesser extent, as highlighted by Salanti *et al*. (2012). Similarly, Brons *et al*. (2002) stated that "overall, business travelers are less elastic to rates changes than leisure passengers", since the former value a series of determinants even more than the cost of transportation (p. 167); hence, the *tourism* factor often shows a negative sign with respect to airfares (Figure 4).

Figure 4. Effect of tourist demand on pricing strategies

	YEARS	MARKET	RESULT
Bailey *et al.* (1985)	1976-1981	United States	(-)
Borenstein (1989)	1987	United States	(-)
Windle and Dresner (1999)	1993-1996	United States	(-)
Richards (1996)	1995	United States	(-)
Dresner, Lin and Windle (1996)	1991-1994	United States	(-)
Park and Zhang (2000)	2000	US and Europe	(-)

3. CASE STUDY OF PRICE-FIXING STRATEGIES IN TOURIST DESTINATIONS

To carry out the analysis, it was decided to select a series of tourist routes in Europe, using a sample of more than 2,600 direct international flights from the Mediterranean region of Spain to England or Ireland and vice versa. The time frame used for the study covered a total of four months, between June and September 2011, in line with the current trend of

studies that analyse price dispersion, in which the samples rarely exceed twelve months, such as Giaume and Guillou (2004), Escobari and Jindapon (2008), Alderighi *et al.* (2011) or Salanti *et al.* (2012), to name some examples.

Each flight was observed 60, 30, 25, 20, 15, 10, 5 and 1 day(s) in advance. The observed sample falls entirely within the direct low-cost European flight category, assuming that the trips are independent (not round trips). Only those low-cost companies (LCCs) that operated flights for the whole period were included: *Ryanair* (*FR*), *easyJet* (*U2*), *Jet2* (*LS*), *BMI Baby* (*WW*) and *Monarch Airlines* (*ZB*) (Figure 5). A total of 17,664 observations were finally included in the analysis.

We divided the airports in the sample into five zones: Zone A (Alicante, Valencia, Murcia and Almería), Zone B (Barcelona, Girona and Reus), Zone C (London, Stansted, Luton, Bournemouth and Gatwick), Zone D (Manchester, Liverpool, Leeds, Birmingham, Sheffield, Nottingham and Blackpool) and Zone D (Dublin). The information was collected from websites that integrate flights (principally trabber.com, kayak.com and liligo.com). These types of websites have been used by other authors, such as McAfee and te Velde (2006), Law *et al.* (2011), Puller and Taylor (2012) and Domínguez-Menchero *et al*. (2014), to obtain their respective samples, as they provide fast and reliable information. Other authors, for instance Pels and Rietveld (2004), Piga and Bachi (2007), Malighetti *et al*. (2009) and Alderighi *et al.* (2012), use the airlines' own websites, although this method is only recommended when only one airline is being analysed.

Figure 5. Low cost carriers in the sample

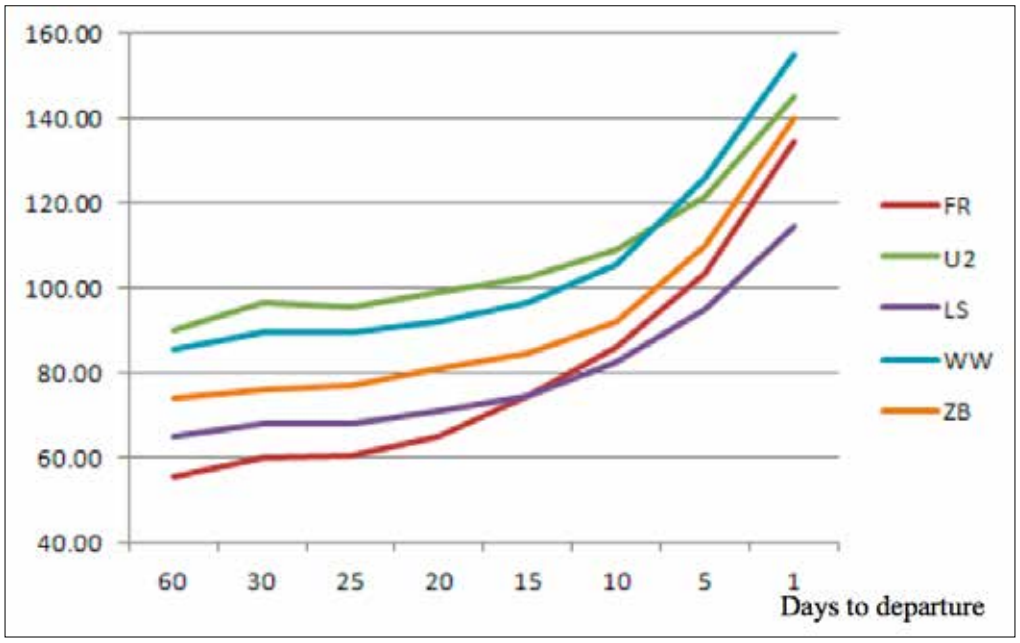
AIRLINE	CODE	COUNTRY	NO. OF FLIGHTS OBSERVED	MOST FREQUENT ROUTE	AVERAGE DISTANCE
Ryanair	FR	Ireland	1,098	ALC - LGW	1482.76
easyJet	U2	UK	798	BCN - LGW	1365.82
Jet2	LS	UK	116	ALC- MAN	1607.12
Bmi Baby	WW	UK	72	ALC - EMA	1567.73
Monarch	ZB	UK	188	ALC - LGW	1509.69

The reasons for selecting the routes forming the sample include:

- their importance within the European area since the movements between Spain and the British Isles are very significant in terms of international tourism in Europe, especially during the summer season.
- Spain and the United Kingdom's special idiosyncrasy in terms of airport policy, which combines a high number of airports with different management strategies,
- The low-cost airlines' support in exploiting the westernmost European routes, with easyJet and Ryanair as references, the results of which are carefully observed by the rest of the industry worldwide.

There is a vast amount of information pertaining to the five airlines included in the sample that may be considered as highly relevant. It is worth noting, for example, how they set their prices according to the days prior to take-off. According to our database, we can identify two chief elements: overall stability in all the companies' prices set between 60 and 25 days prior to take-off and a marked increase in the last 10 days (figure 6).

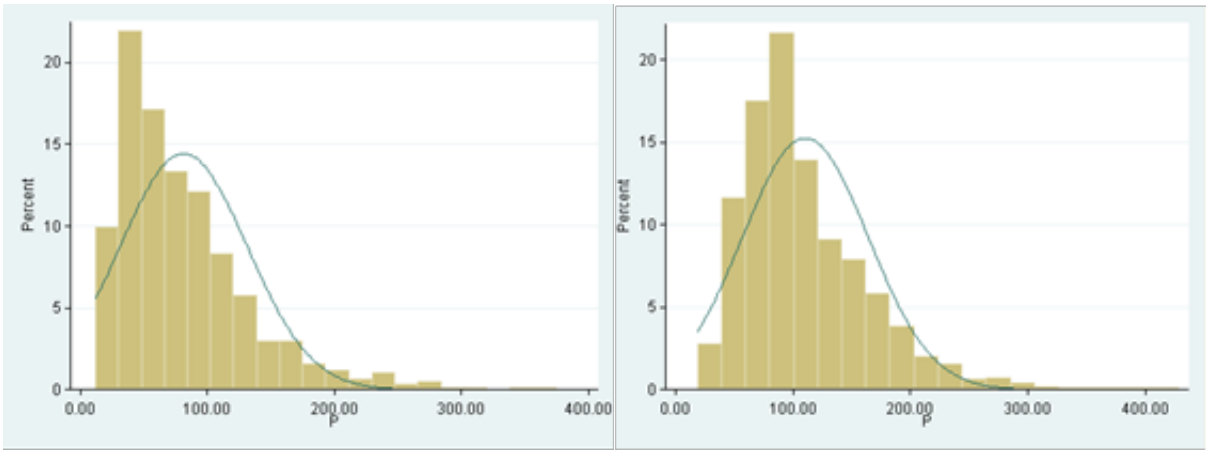
Figure 6. Evolution of pricing by days to departure



By breaking down the data by company, we can see that Ryanair is the cheapest airline for almost the whole period, but this company also shows the most variance. In fact, in the last 10 days, its price increase is greater than that of any other company (Button and Vega, 2007). On the other hand, easyJet is the company that, on average, shows the highest prices, although it maintains more stable prices than its principal rival Ryanair during the 60- and 15-day periods prior to take-off. This strategy is also used by Monarch and Jet2, while BMI Baby seems to employ a pricing strategy that is more similar to Ryanair's.

Both strategies can be observed in greater detail in the histograms shown in figure 7 for the segment's two leading companies. The result shows that the minimum and maximum prices of easyJet and Ryanair are very close, although the difference lies in easyJet's greater emphasis on average prices and Ryanair's tendency to make numerous discounts on its fares.

Figure 7. Pricing histogram: Ryanair and EasyJet



Ryanair EasyJet

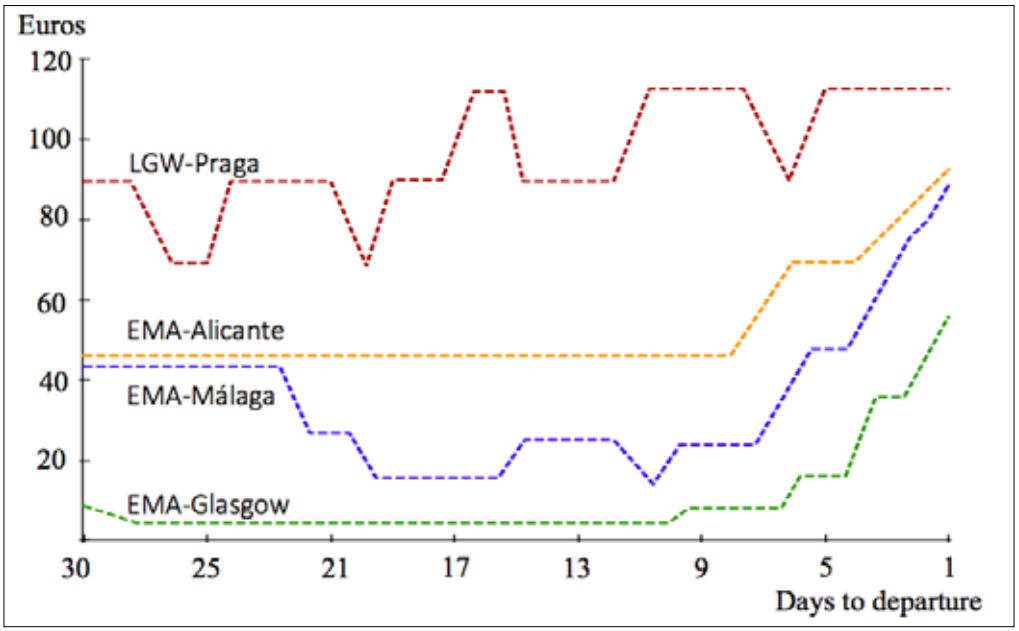
Nevertheless, as users, we must be careful not to assume that these trends with respect to advance purchase are true for all markets. Although some authors, such as Pels and Rietveld

(2004) and Salanti *et al.* (2012), claim that companies seem to behave as described in our sample, Pitfield (2005) clearly clarified that this is not always the case. His work shows that airlines can implement completely different strategies depending on the market, which is the case of easyJet. This company uses very different strategies for the "East Midland-Alicante" and "East Midland-Málaga" routes, for instance (figure 8). Button and Vega (2007) reached the same conclusion after reviewing some of the articles referring to different markets both in the United States and in Europe: there is no behavioural pattern for pricing in terms of time or advance purchasing. The authors continued by observing that prices adopt this rising trend merely due to the nature of the market's structure. We can therefore state that airlines set their prices according to the environment in which they operate.

Another relevant observation is how prices evolve in terms of the season. As we can see in figure 9, the average prices of the airlines in our sample increase up to mid-August, coinciding with the peak tourism season on the Spanish coasts; they then decrease abruptly in the month of September, returning to similar levels to those observed in June. Additionally, a clear increase in the Monday, Saturday and Sunday rates can be appreciated since these days are considered to have the highest number of passengers using low-cost airlines.

The very same results were observed by Salanti *et al.* (2012) in their study of European tourism routes, which highlights an increase, particularly in April and August, coinciding with Easter and the summer holidays. The same results can be obtained if we observe the difference between prices on Fridays, Saturdays and Sundays in comparison with the rest of the weekdays.

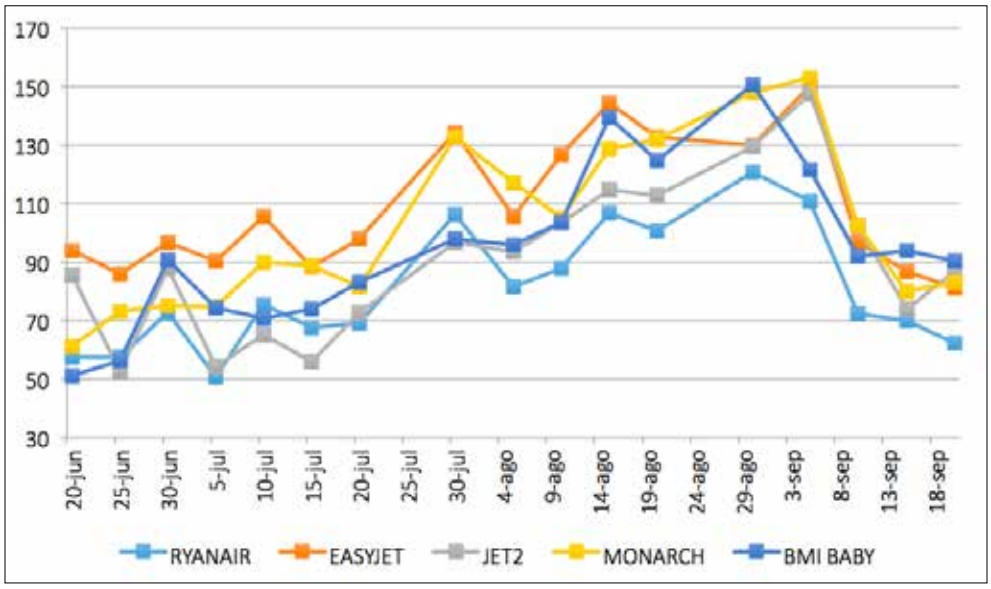
Figure 8. Different EasyJet pricing strategies



Resource: Pitfield (2005)

Therefore, we can conclude that there is a clear trend in pricing that is consistent with the proposal of dynamic prices defined within yield management (in the higher-demand periods, such as at weekends or during the month of August, the price increase is inevitable, as well as the abrupt decline during the summer season). However, beyond this seasonal variation, no common strategy has been found that enables us to define the behaviour in different markets; therefore, it is necessary to perform a thorough route analysis to comprehend companies' tactical decisions.

Figure 9. Average airline prices by day of departure



4. CONCLUSIONS

Throughout this article, we have observed the close relationship between the development of the air transport sector and the tourism industry. Without the existence of one, we cannot explain the current situation of the other, and vice versa. On some occasions, the airline sector has been observed as an element integrating the tourism sector of a region or at least as having a complementary role.

However, the development of the low-cost carriers, particularly in Europe, has given rise to a whole range of studies in which tourism has become an element of airlines' strategies. In fact, as we have seen, low-cost carriers have the capacity to modify, in part, the flow of tourists to new markets; in this way, we can understand that tourism is a complementary element of the development of the air transport sector.

In studies referring to pricing strategy, tourism has been seen as a "negative" element for airlines. On the one hand, prices are usually higher in regions where tourism is not the principal economic activity, which is the case of large cities. On the other hand, tourists usually pay less than business passengers. This does not mean that *tourism per se* is negative. The airlines take advantage of the demand in consolidated and emerging tourist regions to generate new routes and, within them, use the fluctuations in demand to modify their prices.

Based on the data collected for this article, we can observe this strategy with two very clear examples: first, the number of days prior to departure and, second, the seasonality of sun and beach tourism. According to our observations, users should purchase their seats between 60 and 30 days in advance. In the 30-day period prior to the flight, prices gradually rise until the day of departure, which could represent an increase of up to 300% compared with 1 month beforehand.

However, there are significant differences between the companies. When comparing Ryanair and easyJet, we can observe different strategies in the markets studied. We can see that Ryanair generally has lower prices than its rival but penalises those users who do not know how to optimise their purchase. However, the variability of easyJet's prices is much lower, providing a different package of services to users. The two companies also use different strategies with respect to the markets in which they operate, with easyJet being more oriented towards the large airports than Ryanair.

However, despite this difference in strategies, both airlines display the typical inertia of low-cost carriers with respect to the days before departure and an adjustment to demand. Future studies should continue to analyse the behaviour of low-cost carriers in tourist markets, particularly in comparison with traditional airlines. On the other hand, it would also be interesting to analyse whether this pattern exists on non-tourist routes or on those with a different seasonality.

The success enjoyed by the low-cost airlines, with growth that was impossible to imagine a few decades ago, invites us to continue to study their strategies, particularly now that more mature sectors in European economies are having to reinvent themselves.

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