

Case Study: A comparison between Barcelona and Malpensa de-hubbing.

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Abstract

In April 2008, Alitalia implemented a new industrial Plan, which aimed at reducing cost and redefining the network. These applied on a new strategy of Alitalia from a multi-hub system to one-hub system.

SEA, Milan airport's operator, decided to react in two directions. First, changing strategy from hub&spoke to a point to point network model. Second, lobbying national Government to liberalize bilateral agreements. This paper examines these two strategies and the results that were achieved. The Spanish flagship carrier Iberia made an important de-hubbing in the second airport of Spain, Barcelona.

In these two cases, there are some similarities but also differences. Malpensa and Barcelona made agreement with low cost carrier Easyjet to substitute national flagship carriers. They have a similar competition by a secondary airport in the catchment area, where main airline is Ryanair. However airport operator is managed by AENA, a state-owned company, while Malpensa is managed by SEA, controlled by municipality of Milan.

This paper analysed data from AENA and internal data from SEA. This availability allows a statistical comparison between the different reaction's strategies.

The goal of this paper is to make a comparison between the airport operator's reactions face to dehubbing. In Malpensa's case an individualized one, and a centralized in Barcelona's case. I study how these different strategies have impact on type of carriers that invested in the airport to substitute flagship carrier and on new network model after dehubbing.

## **Case Study: A comparison between Barcelona and Malpensa de-hubbing.**

### **Introduction**

European air transport, fully liberalized on 1<sup>st</sup> of April 1997, has gone under a very important evolution, or revolution. (Oum, 2009). Market growth has reached over 100 per cent in many European states, Spain and Italy between them. Both countries achieved to catch the air traffic, in particular low costs' one. Low cost companies has become essential players in the air transport field, and actually two of the four main European companies, in terms of carried passengers, are low cost carriers.

The flagship carriers of those two countries, Iberia in Spain and Alitalia in Italy, had to face difficulties in a new competition situation, but reacted in a different way. The Spanish flagship carrier has deeply reorganised and has been privatized by the Government between the end of the nineties and the beginning of 2000. The same didn't take place in Italy, where the different Governments, centre-left winged and centre-right winged, have been keeping on giving public funds – more than 4 billion Euro between the 1996 and the 2008 – to save Alitalia. Even so the Italian carrier underwent bankruptcy in 2008, as it was not able to compete anymore in a market getting more and more competitive, despite of a business reorganization attempt tried with the so called Piano Prato, enacted in the end of March 2008.

The air sector needs the companies, in order to withstand the competitive pressure, to have an extreme flexibility. In this, Iberia succeeded, as during the last years it has been reorganizing completely. This reorganization involved its own operative type, being the company focusing over Madrid's airport Barajas and with the creation of a low cost subsidiary, ClickAir, which has been able to feed the regional traffic in a hub&spoke network.

Alitalia, instead, even suggesting five industrial plans between 2001 and 2007, has never been able to enact them. The insurances coming from politics and syndicates (Ponti, 2007), exerted over a company controlled by a public main shareholder (Ponti and Boitani, 2004), Economy and Finance Minister, kept the company stuck in a continuous loss status. Between 2003 and 2008 the flagship company overtake losses higher than 3,5 billion Euro. The carrier has been keeping since the beginning, a double hub structure, with Milan Malpensa and Rome Fiumicino, tough owning only 24 long range aircraft. The reorganization took place with the Piano Prato, from the name of Alitalia's CEO, which removed the double hub structure and focused the traffic over Rome

Fiumicino. This strategy was headed to attract the incoming air traffic from abroad to the Rome hub, instead leaving the outgoing traffic generated over Milano Malpensa unprotected.

Those two flagship carrier's strategies had important consequences both on Barcelona's hub and Milan Malpensa's one, which underwent a dehubbing process.

This paper's aim is to analyse first the dehubbing process in the two different European hubs enacted by the two national carriers, started, anyway, from two extremely different regulations conditions of the airport's branch. Then I take account of the existing competition of other airports in the same catchment area, in particular the one made by the two regional airports Girona and Bergamo Orio al Serio. The low cost carriers growth in regional airports situated near the main hubs played an important role.

The different regulation and properties between the Italian airport system and the Spanish one had stimulated different reactions from the airport operators after the dehubbing process. Reported data aims to show the different reactions strategies of the hubs, if they took place.

## 1 Regulatory framework and air transport market evolution

European air market underwent a strong growth over the last decade thanks to liberalization. On consequence the airports fronted a quick traffic growth. In particular, secondary hubs had developed, thanks to the coming of the low cost companies. Not all of those carries decided for a development model focused on regional hubs. In fact, Easyjet, the second European low cost company, mainly makes use of principal hubs and this is the case for Barcelona's and Milan Malpensa's airports. The Milan hub is the second European airport for the British company, which in 2009 will carry about 5 million passengers from and to this hub. Ryanair, the main European low cost company, with almost 70 million customers in 2009, makes instead use of secondary hubs, and in the particular case of Barcelona and Milan, utilised airports are Girona and Bergamo Orio al Serio.

Low cost companies introduced some competition in the European panorama, even the business remaining characterised by an almost monopoly positions. If the competition is necessary, as underlined also in the London area by the English Office of Fair Trading<sup>1</sup>, it is important to highlight that there is an issue regarding the argument of the airport subsidies or the companies' ones from the Local Institutions. European Commission had faced this problem in the well know verdict about Brussel's Charleroi airport on the 12<sup>th</sup> of February 2004, where it was traced which could be the aids in a new route start-up. However a judgement of the Court of First Instance of 17 December 2008 revoked the Commission Decision 2004/393/EC of 12 February 2004 concerning advantages granted by the Walloon Region and Brussels South Charleroi Airport to the airline Ryanair in connection with its establishment at Charleroi. Thus the problem remains unsolved and, maybe, the most problematic cases stand in the Spanish case.

In fact, in Spain all the airports are managed by an unique State-owned Enterprise, AENA, which applies the same fares in every hub in the Spanish country. In 2009 has been introduced the possibility to lower the airport fares of a 20 per cent for those companies which in 2009 increased the number of carried passengers compared to 2008. This decision should be a benefit for Ryanair, which is one of the few companies able to increase the offer and the carried passengers in Spain. Probably, after the merger between Clickair and Vueling, even this new company, majority share-held by Iberia, could profit by this fares advantage.

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1 In April 2007 the Office of fair Trade formally referred BAA to the Competition Commission and invited the Competition Commission to investigate the supply of airport services within the UK under section 131 of the Enterprise Act 2006

Airports in the Barcelona catchment area, Girona, Reus and the city hub, show a strong presence of both Ryanair and the Iberia's low cost company. Thus the effects of this Government measure will show even on those airports.

Thus, AENA, which applies the same fares for every company and for every airport, doesn't allow a competitive management of the airports. In addition the structure is strongly focused on Madrid, so Barcelona's airport manager can't search for agreements with any air company in order to develop the traffic over his hub. The problem is really relevant as any airport, in Spain, can't manage its own customer base and can't look the market for eventual operators which would like to invest on a certain airport.

AENA management, strongly centralized, over the last years seems to have been focusing its own interests on the development of Madrid Barajas, the main Spanish hub with almost 50 million carried passengers in 2008. The Spanish capital's airport is the hub of the flagship company Iberia and over this hub the investments have been focused during the last years.

The persisting lack of competition issue between the Spanish airports and the lack of a direct administration from the management of a certain hub is, thus, a serious limit. Another issues adds to this. Generalitat Catalunya subsidizes flights in the secondary Reus and Girona airports. This last airport, in which Ryanair set one of its own main headquarters in Europe, pays about 2 Euro for each carried passenger. Thus, this competition alteration brings further issues to the main Catalunya's hub, which can't manage directly the operations with the air companies, plus has to face an inner competition by means of regional subsidies.

In Italy the airport administration is completely different. Often private players step on the airport control, as it's the case of Rome, where Aeroporti di Roma is controlled by Gemina. Regional airports, instead, are often managed by Local Governements, and this situation can be found in the Milan catchment area.

In this area there are three airports: Malpensa, Linate and Orio al Serio. First two are held by SEA, controlled for the 85 per cent from Milan Municipality and for the rest 15 per cent by the Provincia di Milano. The company which manage the Orio al Serio hub is SACBO, which is held by various shareholders, mostly public and mirror of the Local Agencies. In this case there really is a competition between hubs, as the various airport operators can look the market for companies which would like to invest in the development of a network and have the possibilities to

differentiate the fares. Both the societies since several years have been writing balance profits. The differences between Italy and Spain in the management of the airport societies are really important and this influenced the strategical and operative reaction once the flagship company decided for a dehubbing.

There's, anyway, a similarity between Milan Malpensa's and Barcelona's case. In both countries the airport fares are the lowest in Europe and this had a certain influence over the air traffic development.

## **2 Iberia, a real dehubbing in Barcelona airport?**

Iberia, after the privatization, carried out various reorganization plans, in order to compete with the low cost companies, which had achieved more and more important shares of the Spanish air market. According to the *Instituto de Estudios Turisticos* during September 2009 51,7 per cent of international tourist which reached Spain made use of low cost companies<sup>2</sup>. This competitive pressure forced the flagship company to change its own strategy. In fact, until 2005 Iberia's traffic structure have been showing a double hub on Madrid and Barcelona. This double hub&spoke structure was getting more and more difficult to be maintained (Wojahn,2001), as low cost carriers were catching more point to point traffic. Local feeding flights were having always more losses and for this reason the company decided to react.

In the end of 2006, Iberia decided to create a low cost subsidiary, Clickair. This one entered directly the competition against low cost companies and was assigned to attract the point to point traffic in order to control the market. This company was focused over Barcelona's market, while Iberia could control Madrid's market with the feeding of regional flights. Thus, Barcelona was losing its Iberic company secondary hub structure. By now, only Lufthansa achieved to create a multi-hub structure, while almost every company had to abandon such a complicated network system.

Iberia, reacting to competitive pressure, totally change its own network and business model, and this, between 2005 and 2006, gives rise to many problems to Barcelona's hub. This hub ends up lacking many intercontinental flights, also it's not able to react, as AENA doesn't allow contacts between the hub management and the air companies. This way Barcelona's hub can't face the new

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2 Informe Mensual Companias Bajo Coste, October 2009

Iberia's strategy and is obliged to accept this decision. During the same period Girona's airport growth was going on, thanks to Ryanair's offer capacity growth, and to public subsidies continuously supplied by Generalitat de Catalunya to the Irish company,

Thus, Iberia's dehubbing take place following the decision to focus its hub&spoke structure on Madrid Barajas. Table 1 highlights the dehubbing made by Iberia in Barcelona's airport, partially replaced by the growth of the flagship carrier low cost company, Clickair. It shows traffic data in Barcelona's hub between 2004 and 2008, and particularly the ones from Iberia's group companies (Iberia, Clickair and AirNostrum), and data concerning the airport traffic total.

<b>Table 1 - Iberia's Traffic in Barcelona Airport in 2004-2008</b>							
<i>Data: thousands of passenger</i>							
<b>Carrier</b>	<b>Year</b>					<b>Differences 08/04</b>	
	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>Abs</b>	<b>%</b>
Clickair	0	0	199	3287	4849	4849	nd
Iberia	9347	9432	8986	6440	2756	-6591	-71%
Air Nostrum	781	898	1045	1039	915	134	17%
Iberia Group	10128	10330	10230	10766	8520	-1608	-16%
Others carriers	14225	16444	19598	22046	21730	7505	53%
Total	24353	26972	29843	32812	30250	5897	24%
<i>Data: Elaboration data AENA</i>							

In five years, Barcelona's airport underwent a significant growth, with almost 5,9 million passengers more. The hub shifted from 24,3 million in 2004 to 30,2 million of passengers in 2008. The peak has been reached in 2007, when the hub achieved 32,8 million passengers. In 2008 it lost more than 2,5 million customers by two main reasons: a) economic crisis in Spain has been strong and showed a generalized decrease in the air traffic; b) the completion of the high speed railway (AVE) between Madrid and Barcelona, working from February 2008, firmly reduced the air traffic between the two cities because of the competition. AVE particularly damaged Iberia, since the company was the main operator in the route between Madrid and Barcelona, as much as the group

lost about 2,2 million passengers between 2007 and 2008.

Iberia's dehubbing is noticeable from the company traffic fall. In 2006 it was carrying in Barcelona's hub almost 9,5 million passengers, while in 2008 it carried only 2,7 million. This traffic decrease has been only partially covered by Clickair growth, which in 2008 showed about 4,8 million passenger's traffic.

Iberia's passengers decreased for about 71 per cent between 2004 and 2008, while Air Nostrum, the local company, showed a 17 per cent traffic growth. The overall value of the company shows a 16 per cent decrease in the number of passengers during the considered period, while the competitor companies showed a 53 per cent traffic increase in the hub.

Those data clearly show the strategy switch performed by Iberia, with the creation of a low cost company and the following relinquishment of the hub&spoke strategy over Barcelona's hub. Other companies have been able to profit from this change and invested on a hub which didn't have congestion problems. The airport, in fact, has nowadays about a 60 million passengers capacity, after the building of the new terminal, while the actual traffic is ranged about the half of this limit. Catalunya's airport is one of the few big airports not dealing with one of the most important problems afflicting European airports: the congestion. This is one of the main reasons for the development possibility of the other competitor air companies.

Barcelona's airport couldn't negotiate the entry of new operators in the hub, but those decided to invest because of a strong growth air market with really low airport fares and, at the same time, a good slot offer.

Thus, Iberia's dehubbing showed an increase in the number of passengers on the traffic side, but also a worsening on the quality side. Barcelona's hub is used by always more low cost passengers and always less intercontinental passengers, which, instead, pass through the main hub, Madrid Barajas.



### **3 Alitalia's privatization and Malpensa's dehubbing**

The flagship company, after the liberalization of European air transport market, started accumulating operating budget losses. Those losses were promptly restored by majority shareholder, Italian Economy Minister; economic inefficiency was not even coming with the maintenance of market shares, which have continuously been decreasing during last 10 years (Beria, Scholts, 2009).

In 2000, before the Twin Towers attack, the company was transporting 26.7 million passengers from and to Italy, while competing carriers was transporting about 42 million (Arrigo, 2004). Generally Italian market was characterized by 68.7 million passengers yearly and the Alitalia market share was 38.9 per cent of the whole Italian market. In the domestic market the flagship company had still 63.7 per cent of the market share, carrying about 14.4 million passengers of the total 22.6 million. The international market share was already decreased to 26.7 per cent in year 2000, caused by incoming of traditional carriers over international Italian segment. Low cost carriers would have arrived only later and during the next decade would gradually have been conquering market shares, further weakening Alitalia.

At the period when flagship company privatization process started (October 2006 by Prodi's Government), the company were by then in a position of extreme weakness not only financial, but even on the presence on the market side. In 2007 market shares were about halved respect to 2000, such as Alitalia had by then only the 23 per cent of national market share. In the international market the share was decreased under the 20 per cent, while in home market it couldn't reach the 40 per cent. Such a weakness wasn't rising from a decrease in carried by the company passenger's number, that have anyway happened, but from a permeation of other carriers over Italian market. During the period 2000-2007, Italian market passed from 68.7 million passengers to approximately 107 million. The 40 million passengers variance have been totally carried out by carrier competitors to Alitalia, and mainly by low cost companies.

Alitalia's privatization, ended with the carrier bankruptcy in the end of August 2008, has been moved not much from the wish to take the managing of the company completely away from political influences as from politic wish to get rid of a company which kept on loosing continuously.

Year 2008 has so been crucial for Milan Malpensa airport. Starting from April 2008, "Prato Plan" and airport de-hubbing by Alitalia have become effective. This strategy has been confirmed by CAI and the airport also underwent the abandon by AirOne, that after the fusion with Alitalia, followed the strategy of the flagship company.

The de-hubbing of Alitalia is observable by data put on tap by SEA (Table 2); on the whole

Milan Malpensa lost 4.7 million passengers between 2007 and 2008. This loss is caused completely by the abandon by Alitalia, which had reduced the number of passengers carried from Milan hub of about 70 per cent. The total number of flagship company passengers passed from 11.4 million to 3.6 million. Other carriers enhanced their presence, even being 2008 a particularly difficult year for worldwide air transport.

<i>Data: in million passengers</i>				
Carrier	Year		Pax 2008-2007	% 08/07
	2007	2008		
Other Carrier	12.29	15.39	3.10	25.2%
Alitalia	11.42	3.62	-7.80	-68.3%
<i>Total</i>	<i>23.72</i>	<i>19.01</i>	<i>-4.70</i>	<i>-19.8%</i>
<i>Font: Sea</i>				

The company decided to redefine its own network, by removing the double hub structure (Bergamini et al.,2008) which was costing about 200 million Euro per year losses. Milan Malpensa's airport became a secondary one and all the activities were focused on Rome Fiumicino's hub. This shift took place with the summer 2008 timetable and for this reason it is interesting to analyse the offer data from the third trimester 2007 and the third trimester 2008.

Table 3 shows weekly seats offer data in the third trimester 2007 and 2008, divided by Alitalia and other operators. Data from Milan Malpensa and Rome Fiumicino are one near the other, in order to highlight the dehubbing from Milan and the consequent strengthening over the Rome hub.

European Market from MXP				European Market from FCO			
<i>Data: Weekly seat offer in third Quarter</i>				<i>Data: Weekly seat offer in third Quarter</i>			
Carrier	Year		YoY	Carrier	Year		YoY
	2007	2008			2007	2008	
Alitalia	110 455	22 768	-79.4%	Alitalia	53220	70658	32,8%
Others Carriers	124 936	169 803	35.9%	Others Carriers	144243	141679	-1,8%

Total	235 391	192 570	-18.2%	Total	197462	212336	7,5%
<i>Font: Elaboration from OAG Data</i>				<i>Font: Elaboration from OAG Data</i>			

The offer on European market was higher in Malpensa than in Fiumicino in 2007. The Italian flagship company dehubbing, caused a change in 2008, as much as Rome weekly seats exceeded those offered by Milan for about 20 thousands. Alitalia's data highlight an almost 80 percent fall in the offer from Malpensa and a 33 per cent increase from Fiumicino. Altogether, in the two airports, the decrease of Alitalia's offer for European flights has been noticeable, rating about 80 thousand weekly seats less.

The dehubbing is also clearly visible by the fact that the Italian company was offering, in Malpensa, about 50 per cent of the 2007 offer, while in 2008, the market share decreased to a bit more than 12 per cent. Anyway, other companies increased their offer of 45 thousands weekly seats, with a 36 per cent growth. This has been possible even because of the capacity availability of the Milan's airport and, at the same time, by the air liberalization in the European area. The weekly seats offer decrease has been about the 18 per cent because of the almost total Alitalia's withdrawal from Milan Malpensa's hub.

Instead Rome Fiumicino is characterised by an offer increase due to the focus of Alitalia's hub&spoke system on this airport. Companies' weekly seats had increase about 18 thousands and on the whole the Rome airport offer had a 7 per cent growth,

Alitalia's dehubbing from Milan Malpensa data are even more clear when analysing the intercontinental market. The following tables show the weekly seats offer flow from Malpensa and Fiumicino in the third trimester 2007 and 2008 to South American, North American, African and Asian market.

<b>Table 4 - Weekly Offer in third quarter 2007 and 2008 in MXP and FCO in the Intercontinental Market</b>							
<b>South American Market from MXP</b>				<b>South American Market from FCO</b>			
<i>Data: Weekly seat offer in third Quarter</i>				<i>Data: Weekly seat offer in third Quarter</i>			
<b>Carrier</b>	<b>Year</b>		<b>YoY</b>	<b>Carrier</b>	<b>Year</b>		<b>YoY</b>
	<b>2007</b>	<b>2008</b>			<b>2007</b>	<b>2008</b>	
Alitalia	4 271	873	-79.6%	Alitalia	1.301	5.281	305,9%

Others Carriers	2 575	2 559	-0.6%	Others Carriers	996	1.407	41,2%
Total	6 846	3 432	-49.9%	Total	2.297	6.688	191,2%
<i>Font: Elaboration from OAG Data</i>				<i>Font: Elaboration from OAG Data</i>			
<b>North American Market from MXP</b>				<b>North American Market from FCO</b>			
<i>Data: Weekly seat offer in third Quarter</i>				<i>Data: Weekly seat offer in third Quarter</i>			
Carrier	Year		YoY	Carrier	Year		YoY
	2007	2008			2007	2008	
Alitalia	9 370	1 498	-84.0%	Alitalia	5.284	12.768	141,6%
Others Carriers	6 558	11 502	75.4%	Others Carriers	20.780	18.989	-8,6%
Total	15 928	13 000	-18.4%	Total	26.064	31.757	21,8%
<i>Font: Elaboration from OAG Data</i>				<i>Font: Elaboration from OAG Data</i>			
<b>African Market from MXP</b>				<b>African Market from FCO</b>			
<i>Data: Weekly seat offer in third Quarter</i>				<i>Data: Weekly seat offer in third Quarter</i>			
Carrier	Year		YoY	Carrier	Year		YoY
	2007	2008			2007	2008	
Alitalia	10 101	3 735	-63.0%	Alitalia	5.055	10.031	98,4%
Others Carriers	5 515	7 253	31.5%	Others Carriers	11.658	10.010	-14,1%
Total	15 616	10 988	-29.6%	Total	16.713	20.040	19,9%
<i>Font: Elaboration from OAG Data</i>				<i>Font: Elaboration from OAG Data</i>			
<b>Asian Market from MXP</b>				<b>Asian Market from FCO</b>			
<i>Data: Weekly seat offer in third Quarter</i>				<i>Data: Weekly seat offer in third Quarter</i>			
Carrier	Year		YoY	Carrier	Year		YoY
	2007	2008			2007	2008	
Alitalia	17 069	2 964	-82.6%	Alitalia	3.867	13.158	240,3%
Others Carriers	13 797	16 944	22.8%	Others Carriers	22.446	22.790	1,5%
Total	30 867	19 908	-35.5%	Total	26.313	35.949	36,6%
<i>Font: Elaboration from OAG Data</i>				<i>Font: Elaboration from OAG Data</i>			

In every intercontinental market, the dehubbing performed by Alitalia is clear. The decrease of the weekly seats offer percentages vary between 63 per cent of African Market, to 84 per cent of North American market. It is also clear in every market the hub shift to Rome Fiumicino, where the increase in weekly seats is almost always higher than 100 per cent. In any case Alitalia had an offer market share higher than 60 per cent in 2007 in Milan Malpensa and often, at a one year distance, the market share fell near 10 per cent.

Further elements can be found by analysing single markets. North American market is the best in reacting Alitalia's dehubbing. The decrease has been around 18,4 per cent, likely the one registered on European market. This has been possible because of the coming effective of Open Sky's agreement between United States and European Union. This liberalization allowed different carriers from Alitalia to get an increase over 75 per cent. It's shown, instead, that substantially Alitalia is not replaceable in the South American market from Milan Malpensa, because of very constrained bilateral agreements.

A very interesting data is the lobbying action by Regione Lombardia together with airport operator SEA, in order to open new routes by changing the existing bilateral agreements. This strategy succeeded very well mostly towards some Asiatic and African routes, so much that those two markets showed a partial Alitalia substitution by other carriers. This action is significant because a strategical reaction by local Governments to open the market to competition and to substitute with new companies the carrier which de-hubs from a hub.

#### **4 Competition in the catchment area**

The situation regarding the two different dehubbing is complicated by the local airport growth in the same catchment area. This is the case of Girona for Barcelona and of Orio al Serio for Milan. Milan also shows an issue regarding Linate airport, the City Airport, which has been limited in the timetables movement in 1999, but that still shows a traffic near 10 million passengers per year. A similarity between Milan and Barcelona, instead, is the traffic developed by the two catchment areas. In 2007 Generalitat the Catalunya's airports have been passed through by 40 million passengers, as 40 million were in Regione Lombardia area.

The Spanish situation shows a strong growth by local airport Girona, where the low cost

company Ryanair put its base. Table 5 shows the airport traffic flow in Barcelona's, Girona's and Reus' hubs between 2004 and 2007.

<b>Table 5 - Number of Passengers in Barcelona Catchment Area</b>							
<i>Data: thousands of passenger</i>							
Carrier	Year					Differences 08/04	
	2004	2005	2006	2007	2008	Abs	%
Barcelona	24353	26972	29843	32812	30250	5897	24%
Girona	2959	3531	3613	4847	5509	2550	86%
Reus	1136	1381	1379	1305	1276	140	12%
Total	30452	33889	36841	40972	39043	8591	28%
<i>Font: Elaboration Data AENA</i>							

The number of passengers passed in the Generalitat had an increase of almost 8,6 million, equal to a 28 per cent growth, notwithstanding Iberia's dehubbing. Barcelona's airport has grown a bit less than the average (plus 24 per cent), but on absolute terms it has been the one showing the best traffic increase, plus 5,9 million passengers. About the percentages, Girona's airport had a 86 per cent growth, going over 5,5 million passengers in 2008. The peak has been reached in 2007, before the economical crisis and before the AVE got into operation.

Table 6 shows airport traffic shares flow in the Generalitat de Catalunya between 2004 and 2008.

<b>Table 6 - Passenger's Market share of Airports in Barcelona Catchment Area</b>					
Carrier	Year				
	2004	2005	2006	2007	2008
Barcelona	80,0%	79,6%	81,0%	80,1%	77,5%
Girona	9,7%	10,4%	9,8%	11,8%	14,1%
Reus	3,7%	4,1%	3,7%	3,2%	3,3%

Barcelona Area	100%	100%	100%	100%	100%
<i>Font: Elaboration Data AENA</i>					

This table highlights that Barcelona's airport keeps almost 80 per cent of the traffic. During the last year there has been a market share decrease, but the air traffic has much concentrated in this hub. Over the last 5 years Girona's airport increased the passengers-passing-through share in the Region, going over the 14 per cent.

The situation is extremely different for Milan. The three airports have a bigger fragmentation and this is due to a bigger competition by the Bergamo hub, Orio al Serio, and to the keeping in function of Milan Linate City Airport. Table 7 shows the traffic flow in Milan area between 2002 and 2008 and the first months of 2009.

<b>Table 7- Number of Passengers in Milan Catchment Area</b>					
Data: thousands of passenger					
Airport	Year			Jan-Sep	
	2002	2007	2008	2008	2009
Malpensa	17441	23885	19222	15094	13525
Linate	7815	9927	9266	7213	6389
Orio al Serio	1253	5742	6483	4968	5471
Milan Area	26509	39554	34970	27275	25385
<b>Italy</b>	91768	136193	133800	105677	100933
<i>Font: Elaboration Data Assaeroporti</i>					

Milan Malpensa's airport showed a traffic increase from 17,4 million in 2002 to 19,2 million in 2008. The peak has been reached in 2007, before Alitalia's dehubbing, when the hub reached the 24 million passengers threshold. Linate's airport caught a growing part of the market, mostly business, because of its proximity to the city centre and it had a growth ranging about 1,4 million passengers in the considered period.

Bergamo Orio al Serio competition is getting always bigger. The Bergamo airport passed in the considered period from about 1,2 million passengers to almost 6,5 million passengers, with a focus on point to point traffic developed by low cost companies. This trend continues even during 2009, year in which global air traffic is in particular difficulties. In fact, Bergamo keeps on increasing the airport traffic, while both Malpensa and Linate had shown a decrease in the first three trimester of 2009.

Table 8 better highlights Bergamo potentiality to catch part of the traffic of the Milan catchment area, by analysing the market shares of those three airports.

Airport	Year			Jan-Sep	
	2002	2007	2008	2008	2009
Malpensa	65,8%	60,4%	55,0%	55,3%	53,3%
Linate	29,5%	25,1%	26,5%	26,4%	25,2%
Orio al Serio	4,7%	14,5%	18,5%	18,2%	21,6%
Milan Area	100%	100%	100%	100%	100%

Font: Elaboration Data Assaeroporti

Market shares shows the loss in importance of Malpensa during the last years, as much as the airport passed from 66 per cent to 53 per cent over 7 years. Even Linate's hub lost market shares, coming down from 30 per cent to 25 per cent over the same period. Bergamo Orio al Serio, being able to attract many low cost companies, showed its market share increasing from less than 5 per cent to more than 21 per cent in few years.

Competition between airports has complicated the situation for SEA, which found itself with the dehubbing by the main Italian operators, and also had to face the low cost companies entry in the Orio al Serio hub. Despite of those difficulties the airport operator succeeded to react, as it will be shown in the next paragraph.



## 5 Different exit strategies of AENA and SEA

The dehubbing performed by Iberia in Barcelona and by Alitalia in Milan Malpensa's airport lead to different reactions by the management of the airport administrators. It is necessary to remind that AENA administrate not only Barcelona's hub, so doesn't have the need to work for the benefit of a certain airport. The individualized administration made by SEA, instead, had been characterised by an active management of the problem.

Most particularly SEA had the possibility to perform two different actions: a) to look the market for alternative companies which would wish to substitute Alitalia; b) it performed a lobbying action together with Regione Lombardia, to have Italy liberalizing some intercontinental routes with few foreigner partners countries.

Those two actions had a certain positive result, even being in such critic times for the global air transport. The market share of carriers different from Alitalia has growth up to 81 per cent in 2008, compared to 52 per cent in 2007. Milan Malpensa's airport is not depending by a unique air company anymore. During the first dehubbing year other carriers than Alitalia increased their number of passengers of almost 3,1 million, in an European market which was under crisis. The overall loss of the hub, anyway, has rated about 19.8 per cent during the first dehubbing year, because, in opposition to Iberia with Barcelona, Alitalia didn't substitute the traffic with any affiliated company.

Table 9 focus on the passenger traffic in the first part of 2009, with a market in a worsening crisis and, at the same time, the continuous dehubbing by Alitalia. Data shown regards the traffic data of the main air company working on the Milan hub.

<b>Table 9 - Passengers' Traffic in Milano Malpensa Airport in 2008-2009</b>				
<i>Data: thousands of passenger</i>				
<b>Carrier</b>	<b>Jan-Jul (1)</b>		<b>Differences</b>	
	<b>2008</b>	<b>2009</b>	<b>Abs</b>	<b>%</b>
Easyjet	1963	2944	981	50%
Lufthansa	552	1072	520	94%

Others Carrier	6231	6040	-191	-3%
<i>Total Others Carrier</i>	8746	10056	1310	15%
Alitalia	3840	967	-2873	-75%
Malpensa	12586	11024	-1562	-12%
<i>(1) Until 28 July</i>				
<i>Font: Sea</i>				

SEA has been able to reach the air companies market and performed two important operations. First, it helped the development of a new air company, Lufthansa Italia, which put an operative base in the airport. Second, it keeps on supporting the growth of the second European low cost company, Easyjet, so much that this company made Malpensa the second European base.

In the main, during the first 7 months of 2009, the hub kept on loosing traffic, passing from 12,6 million passengers between January and July 2008, to 11 million passengers in the same period in 2009. Analysing SEA's data, anyway, we can see how the substitution strategy is working good. The overall traffic decrease is to be assigned to the continuous dehubbing by Alitalia, which lost about 2,9 million passengers. Easyjet instead, increased its traffic with more than 980 thousand customers, while Lufthansa Italia quite doubled its passengers number, going over the threshold of 1 million during the first 7 months.

Barcelona's situation is different, as Iberia partially substituted its own traffic with the new low cost company Clickair. However, as it is shown in Table 10, Iberia's group lowered its traffic for a 16 per cent during the 5 years considered, even though the market was in strong growth.

<b>Table 10 - Passengers' Traffic in Barcelona Airport in 2004-2008</b>							
<i>Data: thousands of passenger</i>							
Carrier	Year					Differences 08/04	
	2004	2005	2006	2007	2008	Abs	%

Clickair	0	0	199	3287	4849	4849	nd
Spanair	2562	3265	3931	4244	4135	1573	61%
Vueling	259	1333	2144	3090	3043	2784	1073%
Iberia	9347	9432	8986	6440	2756	-6591	-71%
Easyjet	1572	1558	1687	1860	2094	521	33%
Lufthansa	435	506	575	568	395	-40	-9%
Alitalia	188	231	275	269	279	92	49%
Iberia Group	10128	10330	10230	10766	8520	-1608	-16%
Others carriers	14225	16444	19598	22046	21730	7505	53%
Total	24353	26972	29843	32812	30250	5897	24%
<i>Data: Elaboration data AENA</i>							

Barcelona's airport, not having an individualized administration has not been able to change its strategy, having to undergo the network shift from Iberia. From the previous table, it's highlighted that the whole passengers number increase have been performed by low cost carriers, as Clickair, Vueling and Easyjet. The airport changed itself, passing from an hub&spoke structure held by Iberia, to a point to point structure held by many companies. This change has been suffered by Barcelona's hub, which was not allowed to directly negotiate with the air companies.

Low cost traffic growth has been really important after both the dehubbing of Milan Malpensa and Barcelona. However, SEA has been able to help the birth of Lufthansa Italia, and in the meanwhile underwent a growth of many traditional air operators (full service carriers). Intercontinental traffic, in Barcelona's case, hasn't been substituted, while in Milan, also thanks to the pressure for the liberalization of the bilateral agreements, it gave its first effects, with a partial substitution of Alitalia by other operators. Malpensa is by now not depending by Alitalia and thus, diversified the risk, on opposition to Barcelona, which , even though the dehubbing was less strong, is still depending by Iberia's low cost subsidiaries.

Table 11 shows Herfindhal Hirschmann index for the two airports before and after the dehubbing.

<b>Table 11- HHI pre and post dehubbing</b>		
<b>Airport</b>	<b>HH Index</b>	
	<b>Pre-dehubbing (1)</b>	<b>Post-dehubbing (2)</b>
Malpensa	2458	799
Barcelona (with Iberia Group)	1991	1216
<i>(1) 2004 in Barcelona, 2007 in Malpensa</i>		
<i>(2) 2008 in Barcelona and Malpensa</i>		
<i>Font: Elaboration data SEA and AENA</i>		

Before Alitalia's dehubbing, Milan Malpensa was completely dependent by the flagship company, as much as the index was near 2500 points. After the almost complete abandon of the hub by the carrier, the index shows a good competition between the different operators, and by the fact, the airport has been able to diversify the risk. Barcelona shows a decrease of the HH index, but still the hub is dependent by the choices made by Iberia's group.

## **Conclusions**

The individualized administration and the centralized one could make the difference in the presence of a dehubbing performed by a company over an airport. Barcelona's and Milan's case, which shows many similarities, is a good example of this.

In both cases, the presence of a secondary airport with a leisure low cost traffic focus lead to a trouble in the reaction of the airport operators. However, SEA, the Milan Malpensa's airport operator has been able keep the traditional traffic on a good level, thanks to its own autonomy, and by an aid action towards the creation of a new air company with a base on the hub, Lufthansa Italia, and the liberalization of some intercontinental routes.

Barcelona's airport instead, not having an independent administration chance, as it's controlled by AENA, had to stand Iberia's choices and underwent the turn of the hub into an airport focused on low cost traffic.

Individualized administration allowed Malpensa to react, even though in a period in which the market shows a big decrease in the traffic volumes. Barcelona, on the opposite couldn't have a reaction, but has been able, anyway, to catch the growth of the low cost companies.

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