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New air travel opportunities for Ceuta, a Spanish remoter region in Northern Africa, generated by air transport liberalisation in neighbouring Morocco. Spatial discontinuity and lack of seamless transport connections between Ceuta and the Spanish mainland pose significant accessibility challenges for the Spanish exclave





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ransport in remote regions of the world

Remoter regions around the world are usually denied sufficient surface transport services to metropolitan centres. This may be the result of a fragmented pattern in physical geography (e.g. islands separated from the mainland by sea), which renders surface transport impossible; and/ or the outcome of socio-political geography friction (e.g. disputed areas close to the frontier of neighbouring countries) which makes investment in expensive surface transport infrastructure very unappealing. For these reasons, remoter regions and their local societies depend heavily on air transport to ensure accessibility and economic and cultural connectivity to the wider world. Local airports provide the necessary means for airlines to operate their services; in certain cases, however, such airports may be located in a neighbouring country thus raising the levels of complexity in the transport system. Studying, therefore, the range of an airport's catchment area becomes of great significance.

The role of the catchment area

An airport catchment area may be defined as the area around the airport from which the latter attracts its passengers. The size of this area depends on factors that determine airport choice from passengers such as ease of access and services offered by the airport in terms of fares, frequencies and infrastructure facilities compared with the other airports located in the vicinity. An integrated intermodal transport system, with seamless connections of different public transport modes, may positively affect an airport enhancement of its catchment area. This is because the development of, for example, a fast railway or a new highway make the access to an airport easier and reduce the time required to reach it (Versperman and Wald, 2011). With the continuous development of regional airports in Europe and elsewhere in the world, passengers now have a wider range of choices than ever before. This means that catchment areas of different airports overlap with each other in a constantly evolving competitive marketplace (Poulaki and Papatheodorou, 2013).

Interestingly, many regional airports owe their popularity to Low Cost Carriers (LCC) also known as Low Fare Airlines (LFA), i.e. carriers such as Ryanair and EasyJet. LCC market penetration in Europe emerged in the mid-1990s thanks to air transport liberalisation that took place over that period. LCC focus predominantly on offering a basic service at the lowest possible cost luring customers by low fares; in many cases they have managed to generate new traffic from new origin-destination pairings in addition to any diverted passenger flows from competing traditional airlines (Papatheodorou, 2002).

Airline routes to Morocco

Since a liberal, open skies agreement was signed between the European Union (EU) and Morocco in 2006, air transport services between the two signatories have literally boomed. In January 2015 LCC accounted for 42% of regular seat capacity in a market dominated by European leisure passengers to Morocco and Moroccans visiting their friends and relatives (VFR market) in Europe (Dobruszkes et al, 2016). Although Royal Air Maroc, the flag carrier of Morocco, still dominates the market, the two leading European LCCs, Ryanair and EasyJet are now ranked second and third respectively in terms of total seat capacity.



Ryanair offers 70% of Royal Air Maroc capacity as its main competitor from/to Europe having launched services from countries strongly related with Morocco such as France, Belgium and Spain. The following table shows that LCCs are as a major driver of network dynamics in the area having opened half of the new routes in the EU-Morocco market. This development has proved to the benefit of all major international airports in Morocco.

Ceuta

Ceuta is a Spanish autonomous city-region of about 82,000 citizens. In terms of physical geography it is located opposite Gibraltar in the northwest coast of Africa, bordering to the west and south with Morocco. Not surprisingly, Ceuta is facing serious problems of isolation as a result of not only physical but also political geography with potentially negative implications for the local society. Being a Spanish exclave in Northern Africa, Morocco has challenged the Spanish dominance in Ceuta as a relic of Spanish colonialism, and argues that Ceuta should be annexed by Morocco as a city in the region of Tangier. On the other hand, Spain considers Ceuta as Spanish territory upon conquest, long before the Treaty of Lisbon (1668), when Portugal accepted Ceuta as Spanish territory (Vernet, 2010).

This unresolved diplomatic issue between the two countries means that regular transport connections between Ceuta and the Spanish mainland have always been of strategic importance. Nonetheless, ferryboat services have not proved sufficient to cover Ceuta's transport needs. For this reason, a heliport was constructed in 2004 by Aeropuertos Espanoles y Navegacion Aerea (AENA), the Spanish Airport and Air Navigation Company, to serve Ceuta's citizens. It is the only heliport operating scheduled domestic flights into Spain and the only heliport in the world connecting two continents.

Ferryboats connect Ceuta's port with the port of Algeciras (Cadiz) in approximately 75 minutes, while helicopter flights operate between Ceuta's heliport, the airport of Malaga and the heliport of Algeciras (Cadiz). The company *Ceutahelicopters* was until recently the operator of those flights, while such operations are not under the EU Public Service Obligation (PSO) regime, thus are not eligible to receive blanket public subsidies. Nevertheless, there a special pricing policy is implemented as Ceuta citizens pay a half fare upon production of ID, i.e. around 80 euros for the helicopter service, while all other passengers (i.e. non Ceuta Spanish citizens and foreigners) have to pay the normal fare of 160 euros.

Challenges for the Ceuta population

This transport regime has presented several challenges that have affected the normal operations on the routes Ceuta-Malaga / Ceuta-Algeciras. Legal, institutional and economic issues between the helicopter company, AENA and/or the Spanish government have led the first to suspend its operations periodically. For example, flights were suspended was from the early August 2013 until May 2014. The company announced its inability to continue operations due to insufficient demand and high operational costs. Scheduled helicopter flights resumed from May 2014 until July 2014 when the company suspended again its operations; since then, only emergency flights for health reasons have been operating from Ceuta heliport. Therefore and from 15,772 passengers in 2004 and a peak of 46,754 passengers in 2011, the heliport served only 1,089 passengers in 2015 (AENA, 2016).

This situation has proved very inconvenient for the citizens of Ceuta in terms of transport to the Spanish mainland, but also internationally. Even though helicopter fares themselves were not very expensive for Ceuta citizens, the latter had to incur an additional transport cost to reach their inal destination (e.g. Madrid, Barcelona or any other national or international destination). Consequently, the total Origin-Destination (OD) fare ended up being very expensive. Alternatively, and given the current suspension of helicopter services Ceuta citizens have to spend significant time for ferry connections to be transferred from the port of Algeciras to the airport of Jerez de la Frontera (XRY) in Cadiz region or the airport of Malaga (AGP); then fly to Madrid or Barcelona and then continue further to international destinations (if applicable). XRY serves only domestic destinations during winter season and a few international ones during summer period. AGP has an extended network but is farther away. Another travel alternative for Ceuta citizens involves Tangier airport (TNG). In this case one should cross the surface border with Morocco and drive for approximately 50 kilometres to reach the airport and travel to a number of international destinations. In summary, travel scenarios from Ceuta include the options shown in Table 2:

Airline Type	Routes Opened	Market Share (%)
LCCs	63	50.4
Traditional	23	18.4
Ex Charter	24	19.2
Hybrid Cases	15	12.0
Total	125	100.0

 TABLE 1 Route evolution in the Morocco – EU market between 2005 and 2015

Source: Dobruszkes	s et al. (2016)), adapted by	the authors
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Malaga (AGP)	Jerez (XRY)	Tangier (TNG)
Ferry To Algeciras port 1h15min	Ferry To Algeciras 1h15min	Ferry n/a
Helicopter 30min (currently suspended)	Helicopter To Algeciras heliport 15min (currently suspended)	Helicopter n/a
Car/bus 3h50min from Algeciras port, i.e. a total of 5h	Car/bus 1h17min from Algeciras port, i.e. a total of 2h30min	Car/bus 1h by crossing the border with Morocco

TABLE 2 Travel Scenarios from Ceuta to the three closest airports

Source: www. and a lucia.com, www. distancia sent reciudades. com, www. rome 2 rio.com

Given the above, the best case scenario is to travel via TNG from/to Ceuta considering that it has the highest accessibility degree from Ceuta, compared to the two Spanish airports. Taking into account that the helicopter flights will remain suspended, AGP has the lowest accessibility degree from Ceuta since total time to access it is 5 hours and 5 minutes with a cost of 156 euros (Rome2rio, 2015). On the other hand, XRY has a medium accessibility degree from Ceuta since a passenger needs 75 min to reach Algeciras port with a ticket fare of 50 euro and then about 77 min (108 km) by car or bus to access Jerez airport and fly to the limited international destinations during summer or, domestically, in Madrid or Barcelona throughout the year. For all the above reasons, and in spite of the political issues between Spain and Morocco, further exploring the Tangier option is very valid from a local Ceuta society perspective.

Tangier Airport

As a result of the 2006 Open Skies Agreement between Morocco and the European Union, the air transport market of Morocco has experienced significant growth in terms of both network and frequencies served. This is also the case with TNG – from 268,829 passengers in 2002, the airport recorded 365,750 passengers in 2007 (first year after liberalisation) and 787,399 in 2015. So it experienced a rise of over 100% since the opening-up of the market (ONDA, 2016). This is undoubtedly good news for the Moroccan government, which aims to promote tourism in the country through traffic development based on low fares and new routes. In particular, the network served by TNG includes the following airlines and destinations:

- Royal Air Maroc: Casablanca, Paris (Orly), Brussels, Amsterdam, Gibraltar, Madrid, London (Heathrow), Barcelona
- Iberia: Madrid



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- Vueling: Paris (Orly), Barcelona
- Ryanair: Madrid, Paris (Beauvais), Marseille, Brussels (Charleroi)
- Jet Air Fly: Rotterdam, Brussels, Charleroi
- Air Arabia Maroc: Brussels, Amsterdam, London (Gatwick), Barcelona, Madrid, Istanbul (Sabiha), Montpellier
- Corendon: Amsterdam
- Germanwings: Cologne
- Air Portugalia (TAP): Lisbon

Bearing the above in mind, the crucial question to ask is whether it would be beneficial for Ceuta citizens to fly via TNG to international destinations directly, or even to other Spanish cities and vice versa. In other words, should Ceuta be included into the TNG catchment area? This issue is very topical especially if Ryanair ends up realising its plan to launch an extremely low fare of 3 euros for Ceuta citizens to fly to/from Madrid with its flights from TNG, as well as a shuttle bus company to transfer passengers from/to Ceuta.

Primary data research was undertaken to examine the potential of TNG based on telephone interviews and email communication in Spanish and English with representatives from involved parties as follows:

- Destino Ceuta: official website of Ceuta tourism promotion body in social networks;
- AENA: the company that manages all Spanish airports
- Tourism Office of Ceuta City
- Ex manager of a major airline operating from TNG

Efforts were also made to approach ONDA, the state company that manages Moroccan airports, but eventually these proved futile.

The content of each interview was approximately the same with minor adjustments made each time to better fit the interviewee's professional context.

Main findings

Destino Ceuta confirmed that international tourists do arrive to Ceuta via Tangier airport; this is also occasionally used by citizens of Ceuta to travel to other Spanish cities. The Ceuta Tourism Office was also affirmative of the importance of TNG. Their representative confirmed that there is no problem in crossing the Moroccan border for Ceuta citizens who only have to show their passport to enter Morocco. All other travellers – foreigners or people from other Spanish places – need to go through formal immigration control which may prove inconvenient. Regarding the number of tourists to Ceuta travelling via TNG and crossing the borders the representative of the Ceuta Tourism Office repeatedly argued that no accurate related records exist. In his opinion, around 30,000 people cross the borders every month but it is impossible to classify them as leisure tourists and/or in any other groups. In any case, flights from TNG could prove to the benefit of Ceuta citizens for international destinations while for domestic ones (i.e. within Spain) ferry connections to mainland Spain and then transfers to Malaga or Jerez airports are adequate. Interestingly, though the representative of Ceuta Tourism office did argue that tourists visiting Ceuta from Madrid prefer to come to the city from Madrid Barajas Airport (MAD) via TNG.

Another interviewee used to work as a senior manager for a LCC operating from TNG to several European destinations. This particular LCC has managed to substantially expand its operations out of TNG since Morocco has signed an Open Skies agreement with the EU. According to this interviewee TTU (i.e. Tetouan Airport which is located south of Ceuta) is much closer to Ceuta than TNG (i.e. in a distance of 38km) but offers very few travel alternatives. In respect of the commercial strategy of the LCC that he used to work for, he argued that the population of 83,000 inhabitants of Ceuta hardly adds significant value to

any airport catchment area. Moreover, the particular LCC does not investigate or even know if and how many passengers that travel from its bases come from municipalities or cities in the geographical vicinity of airports. In any case, he did confirm that a more organised surface transport system from Ceuta to TNG could help expand the catchment area of TNG but he remained doubtful of the commercial justification behind such a project. Moreover, this particular interviewee had no knowledge of any inconvenience when crossing the border with Morocco.

When asked to propose measures that could enhance Ceuta's potential to be included in TNG's catchment area the interviewee commented that Ceuta's population is very small and its tourism incoming flows insignificant. He also thought that the helicopter flights to Algeciras and Malaga respectively were expensive before suspension. He compared passenger traffic of Ceuta which is on average 20000 per year with Melilla's (i.e. another Spanish exclave on the Northern Africa coast near the border between Morocco and Algeria) airport traffic which is 287000 per year adding that access to Ceuta is basically realised by ferry connection with ports in southern Spain and that anyone who wishes to travel from TNG airport would do that anyway. He completed his interview assuming that if the tourism authorities of Ceuta were interested in increasing inbound tourism in the city, they could approach the Moroccan Ministry of Tourism to talk with LCC about getting them to fly from TTU too. This could prove an opportunity for Ceuta, but considering the political situation between Spain and Morocco regarding Ceuta and Melilla, such a venture could prove more complicated.

A senior member of Ceuta heliport's management team accepted to participate in the research on behalf of AENA. Regarding the suspension of helicopter flights, he argued that this happened as a result of commercial reasons since both routes (i.e. Ceuta-Malaga and Ceuta-Algeciras) were characterised by low capacity and high operational costs. When asked whether TNG could be considered as a competitor to Ceuta heliport or Malaga airport, he argued that these airports are not in direct competition. Nonetheless, he admitted that a connection between Ceuta heliport (JCU) and TNG for business and leisure traffic could bring positive results and for this reason he stated that JCU should be considered as an international heliport. When asked about the use of TNG by Ceuta citizens to travel to MAD and/or to international destinations he claimed that for while there are certainly people from Ceuta that use TNG to fly with LCCs to MAD, he was not able to provide specific statistics on this. He just underlined that these are primarily leisure travellers as there is no significant business traffic from Ceuta to MAD via TNG with LCCs. He also added that although the distance between Ceuta and TNG is slightly more than an hour by car, crossing the borders is somewhat 'inconvenient'.

Conclusions

Bearing in mind these data, we may conclude that there seems to be a passenger flow from Ceuta to TNG regarding both domestic (i.e. within Spain) and international destinations. The fact that helicopter operations remain suspended and that travelling by ferry from Ceuta to Algeciras port and then by car or bus to Malaga or Jerez airports may prove inconvenient in terms of both time and monetary costs, seems to further support the TNG travel alternative. This mobility from Ceuta City to TNG airport may be also enhanced by initiatives that are related with direct surface connection between the two points and a more convenient border crossing. An additional motive may be given by LCCs offering low fares with direct flights from TNG to Spanish and European destinations.

Therefore, and even if the small size of the Ceuta market may render any discussions regarding its inclusion in the TNG airport catchment area of small commercial significance, it is evident that the physical geography (i.e. geographical proximity) may override political geography issues (i.e. the exclave concept) if people are forward-looking and open-minded. In fact, local societies are usually the ones suffering from political conflicts arising between metropolitan governing centres located far away from borderlands. Opening up the markets, creating trade interdependence and using tourism for peace may set the fundamentals for the removal of suspiciousness among nations and the true enhancement of accessibility and prosperity for remoter regions not only in the Mediterranean but all over the world.





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