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THE PRE/ON/POST OF LOW-COST CARRIERS IN SPANISH TOURIST DESTINATIONS

EL PRE/ON/POST DE LAS AEROLÍNEAS DE BAJO COSTE EN LE DESTINO TURÍSTICO ESPAÑA

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ABSTRACT: The low-cost carrier (LCC) model enjoys numerous economic advantages but also suffers some disadvantages. This airline model 'low-cost or budget' which has emerged during the 90s and were launched and grown rapidly in response to the progressive liberalization of both domestic and later international air services. The COVID-19 has changed dramatically tourism and air transport. The high incidence of bankrupt airlines and the COVID-19 pandemic have led to a greater concentration of airlines in the market, flight routes and frequencies have been reduced or closed, amongst many others, which is affecting airports and the economy of Spanish destinations. This study aims to analyze the Pre/On/Post of LCCs in Spanish tourist destinations. Methodology used a combined mapping-analysis method and data collection from primary and secondary sources to assess airlines operating at Spanish airports and how are these conditioning the operation airports and Spanish tourist destinations. The results show LCCs are the ones that guarantee travelers accessibility to Spain. The economic growth of Spanish tourist destinations is sustained in most cases by the air traffic provided by airports.
Keywords: Low-cost carriers; airport; tourist destination; DMO; air cargo; COVID-19.

RESUMEN: El modelo de transportista de las aerolíneas de bajo coste (LCC) disfruta de numerosas ventajas económicas, pero también tiene algunas desventajas. Este modelo de aerolínea surgió durante los años 90 y creció rápidamente en respuesta a la progresiva liberalización de los servicios aéreos tanto nacionales como internacionales. El COVID-19 ha cambiado drásticamente el turismo y el transporte aéreo. La alta incidencia de aerolíneas en quiebra y la pandemia COVID-19 han provocado una mayor concentración de aerolíneas en el

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mercado, se han reducido o cerrado rutas y frecuencias de vuelo, lo que está afectando a los aeropuertos y la economía de los destinos españoles. El objetivo de esta investigación es analizar el Pre/On/Post de las aerolíneas de bajo coste en los destinos turísticos españoles. Este estudio utilizó un método combinado de mapeo-análisis y recopilación de datos de fuentes primarias y secundarias para evaluar las aerolíneas que operan en los aeropuertos españoles y cómo estas condicionan la operación de los aeropuertos y los destinos turísticos españoles. Los resultados muestran que las LCC son las que garantizan la accesibilidad de los viajeros a España. El crecimiento económico de los destinos turísticos españoles se sustenta en la mayoría de los casos en el tráfico aéreo proporcionado por los aeropuertos. **Palabras clave:** Aerolíneas de bajo coste; aeropuerto; destino turístico; Organización de marketing de destino; carga aérea; COVID-19.

INTRODUCTION

Before the pandemic, many airlines had stopped operating due to bankruptcy such as Air Berlin, Monarch Airlines, Germanwings, Thomas Cook Airlines, Flybmi, XL Airways, Avianca Brazil, Avianca Argentina, California Pacific Airlines, Air Philip, among others. On April 2020, the COVID-19 pandemic paralyzes the world economic due to confinement and especially in tourism and air sector, as these are leisure activities depend highly on two variables: safety and security. Air travel has largely ground to a halt as people have grown wary about potentially exposing themselves to coronavirus and not being able to guarantee your safety and security. Following Florido-Benitez (2021a) there are no 100 percent safe spaces, the risks exist, and we have to prevent them. Budd *et al*. (2021) claim that the management challenges will quickly evolve from the immediate short-term crisis response management to ensuring the longer-term safe resumption of a commercially viable flying programme. 'Airports are the Gates of Paradise where tourists enjoy and satisfy their dreams in the desired tourist destination and these are an internal part of the tourism service system' (Florido-Benitez and del Alcazar, 2020).

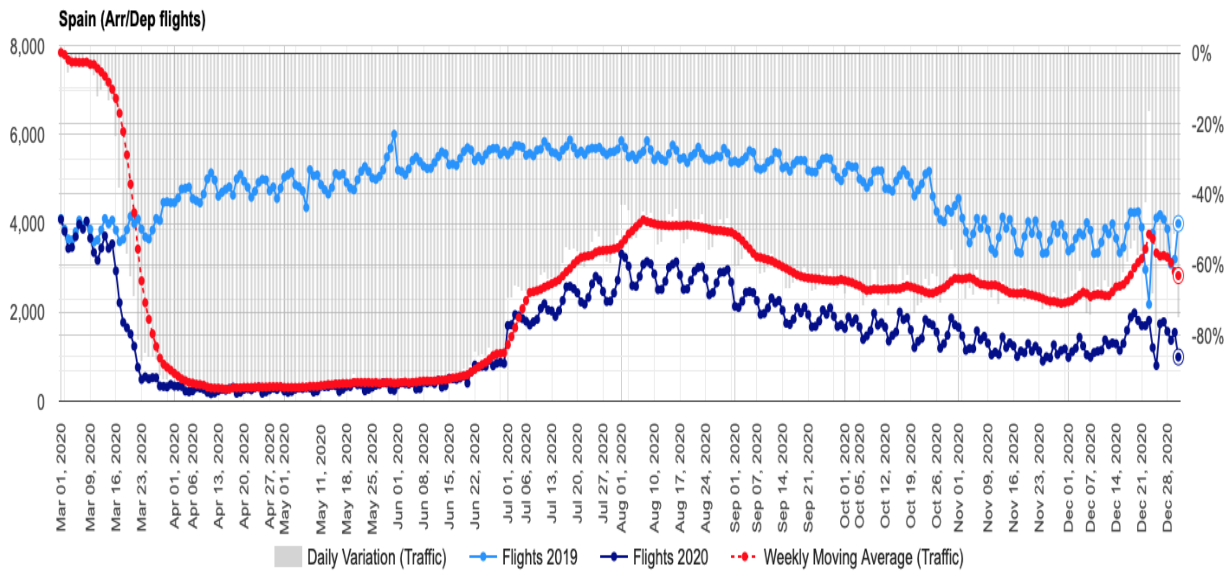
The financial horizon looks uncertain, and particularly for Spanish tourism and airline industry. The main Spanish tourist destinations as the Canary Islands, the Balearic Islands, the Costa del Sol in Malaga, Girona, Barcelona, among others, these are being affected by many airlines like Ryanair, EasyJet, KLM, Vueling, Norwegian, or Jet2 who announced that cancelled all flights to mainland Spain with immediate effect due to coronavirus until October 10, 2020. Following Abate *et al*. (2020) the disruptions caused by the COVID-19 pandemic could affect the aviation sector for much longer than the duration of the emergency. Following Florido-Benitez (2021b) suggests that the interoperability between Destination-Airport-Stakeholders is crucial in the tourism and air transport of the city, especially in these moments of pandemic. The situation on tourism industry requires new challenges and future opportunities (Morrison and Maxim, 2021).

Risk aversion and self-imposed social distancing can modify current trends in aviation demand and user choices. A possible economic slowdown can further complicate the demand and supply of aviation services, as well as investment and innovation in the sector. Several airlines, airports, and other aviation-related operators have lost a significant part of their income since mid-March 2020, raising worries about their financial stability and their capacity to recover their services. Many such operators will potentially require direct or indirect government support, which can distort the competition landscape at domestic and international levels.

According to Henríquez *et al*. (2020) the COVID-19 outbreak has led to an unprecedented crisis in Spain. The Spanish authorities undertook exceptional measures based on a generalized lockdown by which the majority of the economic activity ceased for several weeks. Serrano and Kazda (2020) suggest that airports will face unpleasant issues caused by the pandemic such as fewer passengers, costly health regulations and airlines that do not pay their bills on time. Let us take Norwegian Air Shuttle as example, this airline warned it was facing a 'very uncertain' future after Norway's government turned down the low-cost airline's request for additional support to survive the coronavirus crisis (Financial Times, 2020). Conversely, in Spain the Spanish government returned to rescue Globalia' holding, and its airline Air Europa with 235 million euros (Marco, 2020). In September 2020, the first rescue by the Spanish government to the airline Air Europa was 475 million on account of the new solvency support fund (CincoDías, 2020).

Based on this introduction and situation about COVID-19. This study aims to analyze the Pre/On/Post of LCCs in Spanish tourist destinations. In the context of the present study, the Figure 1 shows the loss of flights at Spanish airports compared to 2019. Traffic reached its lowest point mid-April with -95% of 2020 and stayed below -90% until mid-June experiencing a smooth recovery until December 2020. On March 14, the Spanish government declared a state of alarm throughout the national territory and the fall in flight frequencies began to drop drastically to historical levels never seen before. The Spanish GDP fell by -12% in 2020 (Eurocontrol, 2021a), this pandemic context suggests a complicated future for the Spanish economy where tourism and airline sector are the key to the success of this tourist destination.

Figure 1. COVID-19 impact on Spanish airports from March to December 2020.



Source**.** Eurocontrol (2021a).

LITERATURE REVIEW

THE LOCATION OF SPAIN AS GATEWAY OF EUROPEAN CONTINENT

Airports have become fundamental axes of the economy of many countries (Galeote and Mestansa, 2021). The focus of this study is located in Spain, including the Balearic and Canary Islands. The selected Spanish airport-destinations are Barcelona, Mallorca, Malaga, Gran Canaria, Tenerife South, Ibiza, Lanzarote, Fuerteventura, Tenerife North, Menorca, Girona, La Palma, Reus, El Hierro, La Gomera and San Bonet (sea Figure 2), all of them have one characteristic in common, these are coastal tourist destinations. In particular, we choose the coastal destinations of Spain, because Spain is one of the most important tourism destinations in the world. According to World Tourism Organization WTO (2020), Spain places second in the ranking of countries by international tourism earnings (after the EE. UU) or by international tourism arrivals (after France) in 2019. As a consequence, the Spanish economy is heavily dependent on tourism. In fact, international tourism contributes to about 12,9% of the country's GDP and the component with the greatest contribution to domestic tourism consumption the inbound tourism expenditure, with 54.7% of the total in 2019 (INE, 2020).

According to these figures it seems relevant to study the determinants of the volume of inbound tourism to Spain by LCCs. In Spain, all airports operate under the AENA group, but competition for new routes, infrastructure expansion, improvement and implementation of new security technologies, etc., is latent between airports. Following Blancas *et al*. (2020) Spanish government is trying to establish a model involving diversity, beach and sun tourism remains the principal segment of Spanish tourism. Destinations along the Spanish coast receive a large number of tourists, these are zones where sustainability management is more complex. Muñoz (2007) argues that to attract more tourists to Spanish destinations, the suppliers of tourism products/services should improve their service quality. The presence of repeat guests may also possibly be considered as a deterrent to quality cheating.

As Covid-19 continues to reduce air travel and airline capacity, future analyses could provide the implications to employment that is tied to the transport of passengers and cargo via air travel. Without the tourism, business travel, flow of goods, hospitality industry, etc., these indirect employees will likely experience workforce reductions as well (Sobieralski, 2020). In the other hand, inbound tourism has a profound impact on a society, and alongside its positive effects, it can interfere with the social and economic well-being of residents in tourist destinations (Jordan *et al*., 2019; Coca-Stefaniak, 2019). The negative impacts of inbound tourism may be exacerbated in times of crisis and disaster (Qiu *et al*., 2020). Following World Health Organization WHO (2020) the world is facing such a crisis in the form of the novel coronavirus disease 2019 COVID-19 pandemic, which has spread to 206 countries or territories.

Figure 2. Location of airport-destinations the specific object of study.

Source. Own elaboration.

With international travel bans affecting over 90% of the world population and community mobility, tourism is susceptible to measures to counteract pandemics because of restricted mobility and social distancing (Gössling *et al*., 2020). An added problem for the transportation industry has been the flight cancellations and capacity reductions. The airline industry has experienced a decrease in capacity of roughly 60–80% at major carriers (Josephs, 2020). According to Benítez-Aurioles (2021a;2021b) revealed that tourist demand of residents of the Balearic Islands is relatively sensitive to changes in economic uncertainty. As for the rest of the regions, there are several geographic groupings in function of the elasticity of overnight stays with respect to uncertainty. The Spanish Mediterranean coast is where tourism has come to accelerate the process of transferring assets from inland areas to the coast (Baños, 2009; Baños and Cánovas, 2016).

DEMAND VIRTUALLY NONEXISTENT IN AIRLINES AND AIRPORTS

With demand virtually nonexistent, the airline industry is approaching collective bankruptcy and it is unknown when people will be able and willing to resume taking regular flights across the country. It could be years before air passenger traffic reaches the levels attained before the public health emergency (Barger and Branson, 2020). An airline that goes bankrupt won't necessarily be liquidated. For instance, Alitalia has been in some stage of bankruptcy proceedings since 2017 yet has continued to fly. Colombia's Avianca airline, one of Latin America's largest airlines, filed for bankruptcy protection on Monday May 18, but Avianca hopes to get back in the air once the coronavirus pandemic subsides (Passy, 2020).

Chapter 11 bankruptcy protection of the United States Bankruptcy Law is a mechanism that allows firms to organize and restructure. It is only available to US firms. Under Chapter 11 protection, the bankrupt firm can implement cost reduction strategies. Filing a Chapter 11 petition also automatically facilitates a stay to recover a claim or to enforce a judgement against the debtor. This procedure prevents creditors from recovering claims against the debtor. A case filed under chapter 11 of the United

States Bankruptcy Code is frequently referred to as a 'reorganization' bankruptcy (United States Courts, 2020). These options can result in significant annual cost savings providing the debtor with a competitive advantage over competitors (Bock *et al*., 2020). Following McCormack and Wan (2019) a good restructuring and insolvency legal regime is vital to the broader economy in promoting the restructuring of viable businesses and efficient closure and transfer of assets of failed businesses. One can observe that nearly every aviation organization worldwide is challenged to secure the long-term survival of their organization (Linden, 2021).

The aviation consultancy CAPA (2020) claimed that most airlines in the world would be bankrupt without coordinated government and industry intervention. The list of airlines that have filed for bankruptcy as below. However, that list may be longer if the COVID-19 pandemic did not end soon. On the contrary, following Ciliberto and Schenone (2012) suggest that bankruptcy filings are the result of wars of attrition over capacity and network cutbacks. Once a firm enters bankruptcy protection, it enjoys some advantages not available to other firms in the industry, while facing a detrimental risk of moving into Chapter 7 (Bock *et al*., 2020).

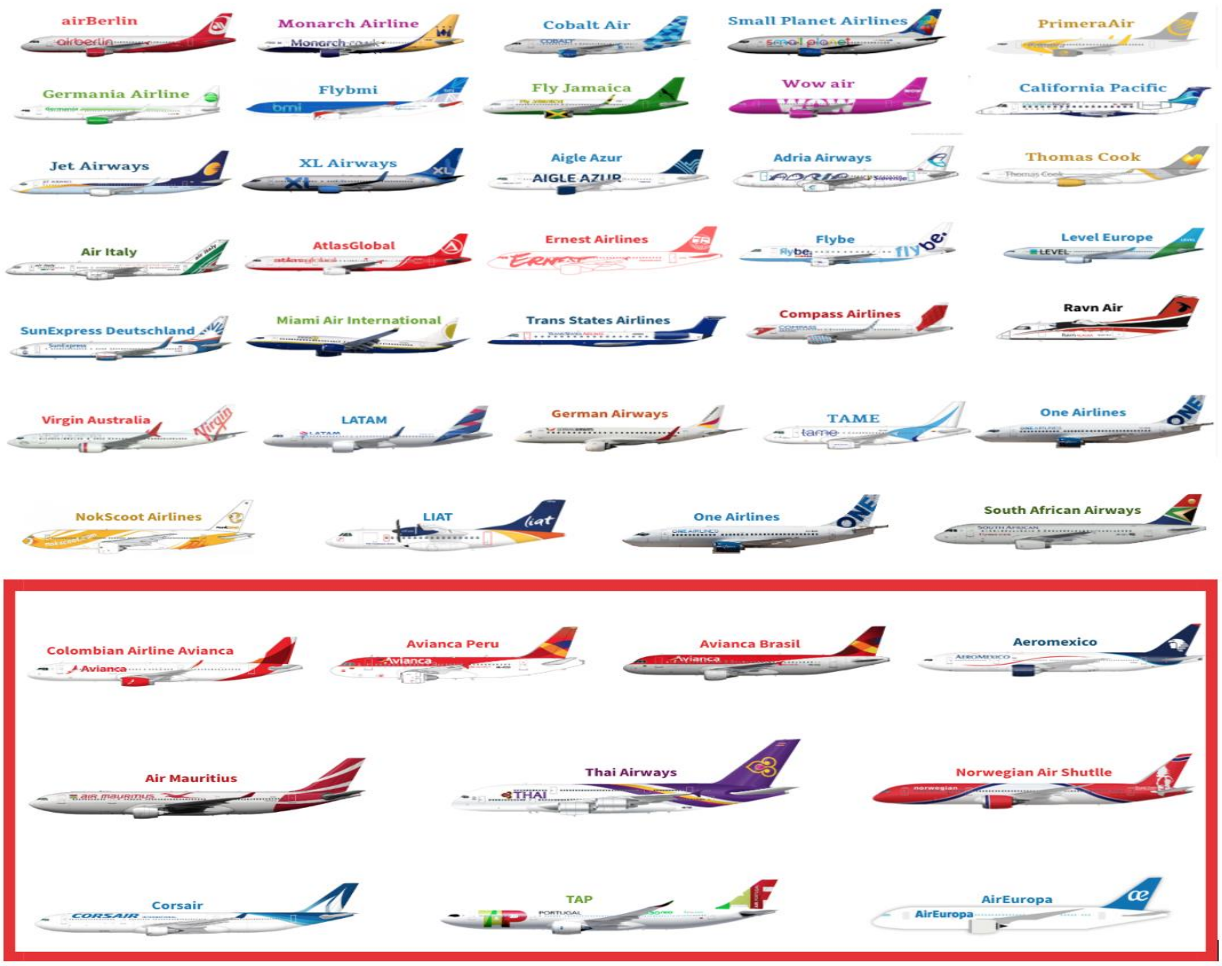
The Dutch, French, German, and Italian governments are handing out billions of euros to their national airlines, even under the auspices of the European Commission 'EC' (Patel and Wilkes, 2020). The gates for financial are open again, justified by the unprecedented magnitude of the SARS CoV-2-induced crisis (Sinha, 2019), but exceptional measures will not prevail forever. Relations between airlines and states in Europe have been complex (Doganis, 2019; Levy and Ziegler, 2016). After its initial generosity in approving COVID-19-related state aid packages, the EC has recently returned to a more restrictive stance (The Economist, 2020). In a European Union committed to the common market, a key principle of which is fair competition (Gerard, 2010), the EC's mandate is to ensure equal competitive conditions and enforce them for airlines (Albers and Rundshagen, 2020).

Following Button *et al*. (2018) claim that the presence of a greater number of LCCs increase the economic efficiency of regional and tourist airports. These airlines positively stimulate the flow of tourists to the airports' hinterland. This influence varies over time as the number of LCCs fluctuates. The Figure 3 shows the airlines that have ceased operations from 2015 to 2021. Of course, a picture says a thousand words. Destination Marketing Organization (DMO) and airport operators benefit directly and indirectly from the presence of multiple LCCs, because LCCs feedback and stimulate the local economy and hospitality at tourist destinations. The DMOs and airport operators' interests is to ensure the number of carriers at tourist destinations. The reduction of LCCs in the airline market implies the market concentration in the airline industry, loss of competition in the sector and greater control of prices by the airlines. LCCs provide more accessibility and connectivity than legacy carriers, because their strength lies in the fact that they operate in regional and secondary airports. Many Spanish and world tourist destinations have seen an increase in the number of tourists and their local economy thanks to the LCCs. Following Grosche *et al*. (2020) claim that Lufthansa Group becoming more dominant in the German air transport market after the collapse of Air Berlin.

In the last 6 years, airlines have suffered a major blow in their income statements, neither external financing, nor the increase in passengers reflected in the seats of their fleets, have saved the bankruptcy of airlines such as: Air Berlin, Monarch, Flybmi, Sterling Airways and finally the giant operator Thomas Cook. Obviously, many factors affect the closure of a short and long-haul or LCC, management of the management team, short and long-term financing, hired staff, etc., but one of the main factors is the price war that they have imposed the low-cost model in the air market. Everyone wants to be the cheapest, but that model is not always viable. You have to pay fuel, aircraft maintenance, pay staff, etc., and the low-cost leaves very few benefits. If we bet our market on a single letter, it is most likely that before unstable economic cycles we suffer a great loss of tourists or, for example, the closure of an airline such as Thomas Cook, in which the DMOs are running its contingency plans and the corresponding actions to solve and deal with this serious problem.

According to Hosteltur (2019a) the bankruptcy of Thomas Cook meant that, when the company ceased its activity a total of eleven Spanish destinations were left without approximately 400.000 air places in 2019. From January to August 2020, the lost capacity was 830.000 seats. But this cessation of activity mainly affected the Canary Islands and the Balearic Islands. DMOs, airports and hotel operators have to polarize the flow of tourists, to reduce the dependence of their main suppliers of travelers. It is the principle of not putting all your eggs into one basket, so tourist destinations will avoid that before unstable economic cycles we suffer a great loss of tourists or, for example, in the closure of an airline such as Thomas Cook, in which the DMOs are running its contingency plans and the corresponding actions to solve and deal with this serious problem.

Figure 3. Airlines ceased operations and airlines that continue operate under file for administration/declared bankruptcy to avoid going bankrupt from 2015 to 2021.



Source. Own elaboration.
* Red box shows airlines are still operating under declared bankruptcy (Use Chapter 11 Bankruptcy) or filed for administration to avoid going bankrupt. The rest of the airlines have ceased operations due to liquidation, insolvency, or bankruptcy.

THE PANDEMIC AT SPANISH AIRPORTS AND TOURISM

Tourism is a very lucrative activity, but this is a two-edged sword. When economic activity is good, tourism activity is better, but when the world economy goes into crisis, tourism demand disables the local economy of tourist destinations. For instance, when the economic situation is buoyant, the growth of the demand for employment in the hotel sector increases exponentially, but the boom is over the local authorities and the tourism enterprises have to adjust their operations to the real demand. The need to guarantee the sustainability, efficiency and projection of the brand image airports, have made that airports and private and public organizations reach an extraordinary achievement in the management and interoperability relationship of the Spanish tourist destination. This joint cooperation has managed to control rising costs, optimize processes, reallocate resources, and especially improve access by air (Florido-Benítez, 2020). Yuen *et al*. (2017) suggest that in a gateway-hinterland transport system, it is crucial to have good connectivity between the gateway and the hinterland because coordination between the two areas is necessary for improving the connectivity. Airports' management must integrate the commercial perspective since commercial income is a significant source of financing capabilities (Florido-Benitez, 2021c).

Clearly, the population is learning to live with COVID-19, knows its limitations and its future plans to travel abroad when the vaccine eliminates the virus. Citizens will travel to their most immediate destinations in their own car, increase domestic consumption and take this pandemic period to enjoy more deeply their natural resources, tourist attractions and gastronomy. This is a great opportunity for companies and DMOs help add value to local products, bet on tourist quality and design customized products with high added value (Florido-Benitez, 2021d). According to Halpern (2022), the core product of an airport is to offer airlines the ability to land and take off, and to offer passengers the ability to board and disembark an aircraft. For airlines, airports also offer infrastructure and services that are needed to handle an aircraft and its payload (i.e., passengers and cargo).

In a globalized economy managed by interactive media and new technological supports, the interaction and role of agents in the air and tourism sector change rapidly. The ubiquity of information and services in the operation of both sectors is generating new business opportunities and repositioning of activities such as air cargo at this time of the COVID-19 pandemic. This speed of information and processes generated by new technologies has an exponential impact on the territories that have airports, given that tourism, warehouses, logistics and business activities pivot around the airport. This new and ubiquitous digital scenario demands an adapted model with interconnected interface domains and interoperability that reinforce the sustainability and productivity of commercial airport activities at the airport and tourist destination within the territory in the short and long term: well-being of citizens, economic development, land use, infrastructures and Governance. An example is the interrelations between the Malaga Costa del Sol airport and hinterland's factors: airlines, air traveler, air cargo, infrastructure development, companies inside of Malaga city, technology, government policies, location of the territory, and Destination Marketing Organizations, considering the impacts related directly and indirectly.

Most of the countries have imposed travel bans, lockdowns, and shutdowns to enforce social distancing measures in their efforts to prevent further rapid spread of the disease and to safeguard the effectiveness of national healthcare systems. The travel and hospitality industry in general, and airlines in particular, are in dire straits: more than 60 percent of the world's commercial aircraft have been grounded (Hollinger, 2020). Traditional response strategies (Wenzel *et al.*, 2020) are insufficient. Following Forsyth *et al*. (2020), airports need financial assistance; assistance could be made conditional on keeping charges low in the crisis. The length and impact of the crisis on airports will depend on the containment of the virus and on the effectiveness of the monetary and fiscal stimulus programs. The International Air Transport Association 'IATA' (2020), which includes 290 airlines among its members, said that the sector faces a revenue drop of a mammoth US$133 billion due to the COVID-19 pandemic.

All big carriers announced fleet downsizing variations (and accompanying layoffs) so that acquisitions of other carriers. Hence, beyond a few exits of smaller carriers due to bankruptcy that have occurred and may follow, it is unlikely that European industry consolidation will see a revival soon (Albers and Rundshagen, 2020). Let us take Easyjet as example, this airline has slumped to £1.3bn full-year loss and has cut back to around 20% of its planned winter schedule after further travel restrictions were imposed by the UK government and other countries in the next months (Kollewe and Topham, 2020). Clearly the news about Pfizer and Moderna vaccines are good news but the industry will have many difficulties in the next 3 years. The restoration to normality will not be easy, because people want guarantees of traveling without infection, airlines will have to encourage passengers to travel with low ticket prices and airports will seek new business models in order to reduce dependency of the airlines.

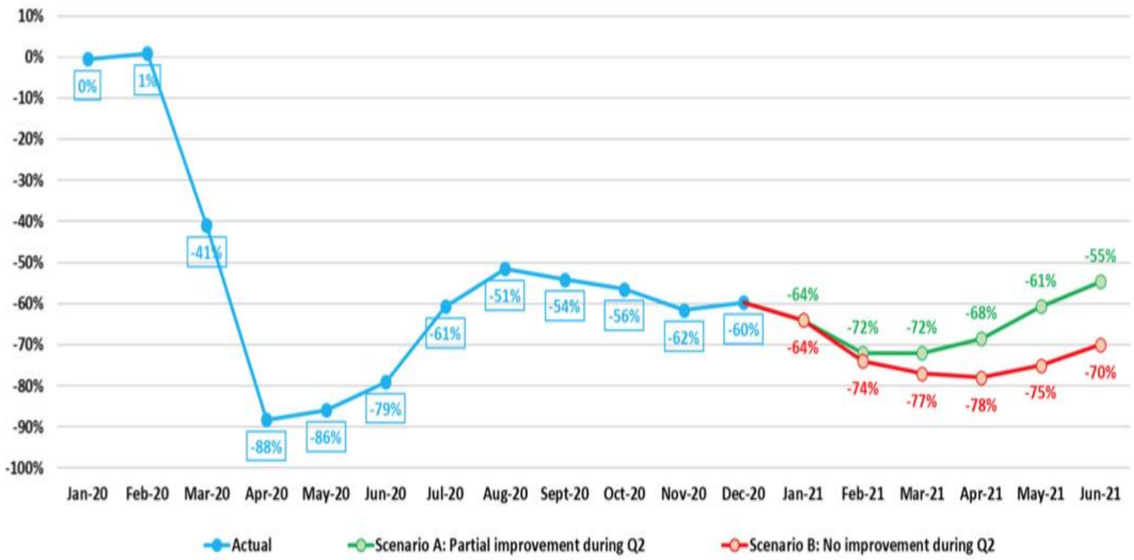
LIVING WITH COVID-19 FOR THE FOLLOWING YEARS

The challenge for the wider tourism industry is lift, and route and connectivity support is the major challenge. After all, it is the air routes and their connectivity that breathe life into many of our economies. The strategies to support tourism development will need to be broadened to serve a much wider range of cities that are left with little or no air service in the aftermath of the virus (Eccles, 2020). Conversely, Butler (2020) suggest that we can't return to normal: committing to tourism equity in the post-pandemic age. Ecological grief generates desire for environmental healing in tourism after COVID-19 `Post COVID-19 ecological and social reset: as Buen Vivir`. While some may see such articles as typical academic negativity about tourism, the challenge is the sustainable tourism. Following the World Economic Forum 'WEF' (2019) Spain is the most competitive country in the world in terms of tourism.

The Covid-19 pandemic could present a case for governments to play a larger and more active role to improve their citizens' quality of live. These would include an enhanced focus on job creation (which would reduce the high unemployment rates in France and Spain) through different initiatives including increased public infrastructure investments, increased support in non-economic areas like healthcare and education for their citizens and a larger role in regulations and enforcement that ensures safety and well-being of everyone within their territorial jurisdiction (Koh, 2020). There is much evidence that air transport creates opportunities as well as risks (Gössling, 2020).

The epidemiological situation will have improved in many European states by Q2 2021, and that the most vulnerable citizens across Europe will have been vaccinated. This would facilitate an improvement during this period, followed by a larger recovery in the summer season. If that's the case, we could see levels around -55% of 2020 by June (see Figure 4). However, it is also reasonable to expect that, even if the epidemiological situation has improved by Q2 2021, many States may potentially choose not to relax their national travel restrictions, which will severely curtail demand and any possibility for air travel to improve until the summer period at the very earliest. If that's the case, then we're still looking at -70% by June 2021 (Eurocontrol, 2021b). As aviation is a recognized actor in biosecurity (Hall, 2019), naturally there will be interest among states in aligning health policy with aviation policy.

Figure 4. Traffic Scenarios for the period up to June 2021 in Europe.



Source. Eurocontrol (2021b).
* Published on 28 January 2021.

Ye *et al*. (2020) claim that customer's airline choice strategies, they find that the local effective demand can be much lower than the average one, especially for companies that are not monopolistic. Even if the average demand comes back to 60% of the total capacity, results show that between 46% and 59% of the companies could experience a reduction of more than 50% of their traffic, depending on the type of competitive advantage that drives customer's airline choice. With the flow of international and domestic travelers stopped, a portion of businesses tailored to tourism services are left with few clients (Lapointe, 2020). Airports enjoy a high market power due to their location, speed offered by airlines in travel, attract tourist flows and open new markets. Nevertheless, airports also have their weaknesses and threats, and that is that airlines and especially those of LCCs have great bargaining power with airports and DMOs and this allows them to have the capacity to change to other airports and destinations when they please, affecting seriously to the economic and social future of tourist destination. LCCs are the cornerstone of tourist destinations, the local economy and the well-being of the population.

According to Abate *et al*. (2020) claim that most governments give a high priority to maintaining air transport connectivity in order to protect economic activity and jobs, in aviation itself and in related sectors such as tourism. Following Brennan (2020) suggests that even in the most positive scenario, air sector does not expect a recovery to 2019 levels before 2024. There is a very real prospect that this recovery could take even longer, perhaps to as far out as 2029. This is a catastrophic picture for the aviation industry and tourism. That's why the continued digital shift to transform border management processes is essential. Only by digitalizing border operations can we accelerate our ability to coordinate and manage a global response to threats of new epidemics before reaching pandemic-level crisis and, ideally, pre-empt the need to lock down borders (SITA, 2021).

METHODOLOGY

The aims of the research method adopted here is to review the specific paradigm of research which discusses, investigates and to analyze the operation of LCCs before and during the pandemic in Spanish tourist destinations. The research conceptually classify focuses of research and will analyze papers discussing these subjects. The outcomes will provide longitudinal perspective around research themes and trends, and areas of greater and lesser research. This collective intelligence will cover the papers identified, but not limited, in Tourism Review, Journal of Hospitality and Tourism Management, Annals of Tourism Research, Journal of Transport Geography, Journal of Travel Research, Gran Tour, Journal of Airline and Airport Management, Journal of Air Transport Management, Tourism Management Perspectives, Transportation Research Part E, etc. Data was collected from journals using University of Malaga databases and verified with reference to Google Scholar searches (Buhalis and Law, 2008), an approach also adopted by Leung, Law, van Hoof, and Buhalis (2013) and Standing, Tang-Taye and Boyer (2014). This involves a review of existing literature produced by academic journals, government organizations, magazines, consulting firms and industry bodies (Tisdall and Zhang, 2020).

This exploratory research is based upon theory building from case studies. This approach is especially appropriate for obtaining complex details and helps to focus the research objectives in a more efficient way (Eisenhardt, 1989). Regarding the information of the airlines that ceased their operations, filed for insolvency or bankruptcy, filed for administration to avoid bankruptcy, etc., all these data were collected and updated from 2015 to January 2021 by the major international magazines such as: Financial Times, BBC, CincoDías, Hosteltur, Economist, etc. The economic situation data in Spain has been collected from AENA, Turespaña, and National Institute of Statistics of Spain (INE), these results are the sample of the succession of the pandemic effects in LCCs, Spanish tourist destinations and airports.

Moreover, this research also uses secondary data from IATA, WEF, AENA, Eurocontrol, WTO, OECD, INE, Turespaña, etc. The data collected in Figures 5 and 7 show aircraft movements and air cargo at sixteen Spanish airports from 2015 to October 2020 in order to calculate interannual rates and analyze the evolution of tourist arrivals to Spanish tourist destinations (see Table 1), especially in 2020 due to the impact of COVID-19 in tourism and air transport. We acknowledge the limitations of using capacity data in this analysis, given the fact that, for different reasons, some airlines were flying empty aircraft or cancellation of unaccounted flights. Another limitation has been the accuracy of INE, Eurocontrol, IATA, and AENA data set given the sudden unprecedented market changes. These data represent quantitatively the basic core of why airports are the gateway to tourist destinations and their importance in the accessibility of tourists and companies on the territory. Therefore, the scope of study of this research project has been international, collecting data and patterns of success that support the objectives of this research.

Finally, we conducted a questionnaire for airport operators and DMOs managers (From October to 2020 to January 2021), in order to assess the true impact of the reduction of flights by airlines in destinations and analyze the impact of COVID-19 at Spanish tourist destinations. We only got survey responses from Girona and Malaga Costal Sol DMOs (Survey link: https://forms.gle/Mjod8cFJU8YzSUfu7). The bias of this information on the part of the main actors shows the uncertainty and fear of the organizations in publishing data, this can suppose them a weakness in their tourist and airport activity. Following Papatheodorou (2021) the air transport and tourism nexus has very important implications for the economic, social, and environmental sustainability of destinations.

RESULTS OF RESEARCH

WHEN DATA SHOW A REALITY, GOVERNMENTS MUST PLAN THEIR STRATEGIES

Without a medical solution to the pandemic, tourists will be reluctant to travel, despite the protective measures taken by transport and hospitality companies. 2020 must be counted as an almost total loss for the industry, since the drop for this year exceeds 98%, while predictions in some scenarios for June 2021 are even graver (Fotiadis *et al*., 2021). On the contrary, Sharma *et al*. (2021) claim that the involvement of local communities is going to be immensely critical in post-COVID-19 era, as the restrictions on international travel may stay longer than anticipated. These local authorities would widen the base of the tourism industry and present opportunities for less-developed tourism spots to grow further.

This paper suggests the obligation of Spanish government to change its business model based mainly on tourism. It is necessary to diversify the economy, especially in sectors that guarantee stability in the medium and long term, such as the automotive, agri-food, and technological industries. Tourism and airline sector are very unstable sectors in periods of political instability, distrust of markets, pandemics, social events, geopolitical and health uncertainties, etc. Airports and airlines not only bring passengers, but these infrastructures are also drivers of productive synergies. Destinations have to see airports as a market where you can exchange, send and receive the products and services that you produce. Let us take as examples the three main cargo airports: Hong Kong, Memphis, and Shanghai airport.

According to AENA (2020) Spanish airports obtained the best traffic balance in their history, with a total of 275 million passengers in 2019. The Table 1 shows the statistics on passenger arrivals from 2015 to 2020, including the effects of the COVID-19 pandemic at sixteen Spanish airport-destinations, given the clear public interest in passenger arrivals since the pandemic, this data is made available as a supplement to the data published in the Eurocontrol statistics. The growth in the number of passenger arrivals at these airports has been exceptional from 2015 to 2019, but the pandemic is seriously affecting Spanish airport-destinations, the drop in passengers was -63% on average in 2020 compared to the previous year. In percentage terms, the most affected have been Reus (-98.2%), Girona (-91.1%) and Mallorca with -79.4%. In volume of passenger arrivals, the most affected destination was Barcelona in 2020, nearly 36 million passenger arrivals stopped coming to this city, followed by Mallorca with 23.6 million passengers and Malaga with 13.7 million passengers. These are too many tourists for a Spanish economy that depends mainly on the tourism sector. For this reason, Spain has to diversify the business sector. Following Iacus *et al*. (2020) the impact of the pandemic on aviation differs and it will differ depending on the different strategies across different countries. This impact in lower income countries will be disproportionately considerably greater (Gössling *et al*., 2020).

Additional data drawn from AENA can be used to illustrate the proportion of aircraft movements and air cargo at these sixteen Spanish destinations. The results are showing that airlines, airports and tourist destinations enjoyed the good health and relevance on Spanish economy before the pandemic. The Figure 5 shows a drastic drop in air movements in 2020, especially in Mallorca with -64.6% compared to the previous year, followed by Barcelona (-64.4%) and Malaga (-58.8%). The average aircraft movements analyzed at these airports fell by -45.3% in 2020. Air transport and tourist destinations are always connected by two matrices 'Accessibility and Connectivity'.

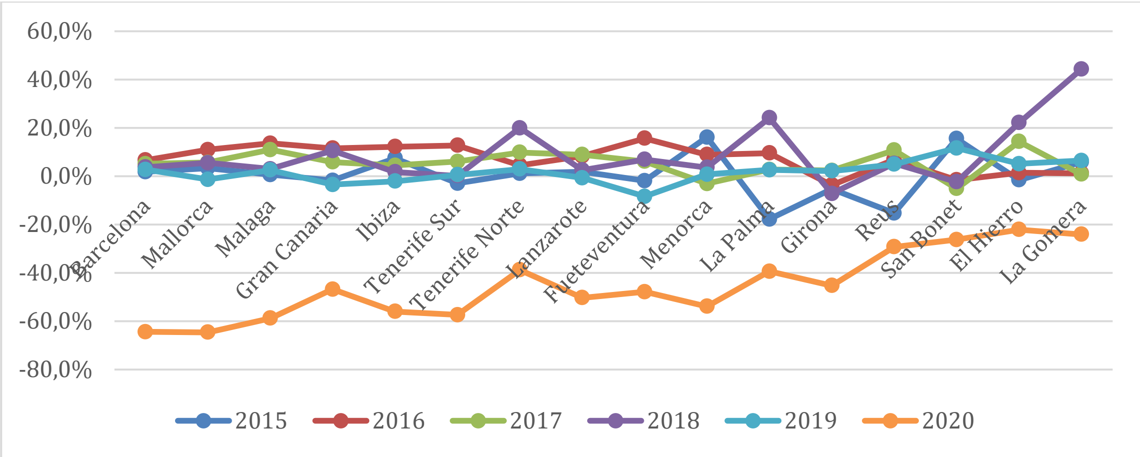
Table 1. Passenger arrivals at sixteen Spanish airport-destinations (2015-20).

Airport-destination	2015	2016	2017	2018	2019	2020
Barcelona	39,711,237	44,154,722	47,284,346	50,890,057	52,688,455	17,112,389
Mallorca	23,745,023	26,254,110	27,970,656	29,081,446	29,721,142	6,108,486
Malaga	14,404,206	16,673,151	18,626,581	19,021,779	19,856,299	6,161,636
Gran Canaria	10,627,218	12,093,646	13,092,475	13,573,304	13,261,228	5,134,372
Tenerife South	9,117,514	10,472,713	11,248,882	11,042,412	11,168,707	3,392,329
Ibiza	6,477,283	7,416,161	7,903,928	8,104,453	8,155,626	2,110,348
Lanzarote	6,128,971	6,684,564	7,388,964	7,327,129	7,293,087	2,538,338
Fuerteventura	5,027,415	5,676,323	6,049,291	6,118,840	5,635,417	2,144,178
Tenerife North	3,815,316	4,219,633	4,706,827	5,492,324	5,839,638	2,795,952
Menorca	2,867,521	3,178,284	3,434,615	3,442,742	3,495,025	1,076,952
Girona	1,775,326	1,664,856	1,946,694	2,020,138	1,933,049	172,213
La Palma	971,676	1,116,146	1,302,485	1,420,277	1,483,778	721,337
Reus	705,038	817,765	1,018,889	1,037,765	1,046,249	39,460
El Hierro	146,789	156,441	199,380	247,204	268,895	178,526
La Gomera	34,954	38,043	48,711	61,943	77,584	54,388
San Bonet	3,538	3,180	2,159	3,425	4,122	3,281

Source. Own elaboration based on data from AENA (2021).

The strength of this connection is provided by the flow of passengers and the tourist promotion strategies managed by DMOs. Design new strategies and policies pursuing the attraction of new airlines to the destination by DMOSs and airports must be a priority. Legacy carriers must be maintained at airports to operate specific routes in order to maintain long-distance tourist arrivals. Long-haul tourist arrivals in Spain depend on the airline market, its size and the degree of competition between airports. Conversely, Eugenio-Martín and Perez-Granja (2020) claim that LCCs crowding out effects cannot be generalized and that their impact depends more on the origin airline market structure than destinations.

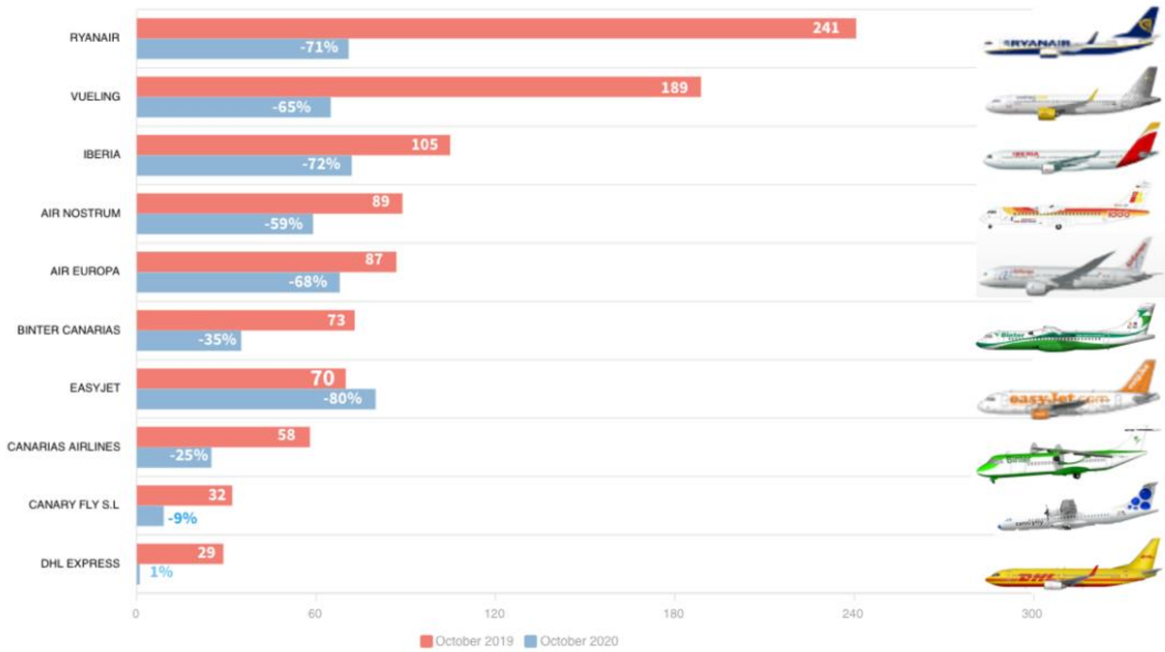
Figure 5. Aircraft movements at sixteen Spanish airport-destinations (2015-20).



Source. Own elaboration based on data from AENA (2021).

Overall, Spain ranks 3rd in Europe (after UK and Germany) in terms of flights lost with -0.88 million and has lost -150 million passengers. Major airlines operating in Spain are similarly affected with Ryanair operating by -71%, Vueling -65% and Iberia -72% (From 19 October to 25 October 2020, YoY). Airlines operating mainly in the Canary Islands (Binter, Canarias Airlines and Canary Fly) have suffered much smaller reductions (see Figure 6). Domestic flows remain the top flows (-44% over 2019) followed by flows from/to the UK, Germany and France (Eurocontrol, 2020).

Figure 6. Top 10 aircraft operators in Spain. Average daily flights 2019 (dep/arr) vs % 2020.



Source. Own elaboration based on data from Eurocontrol (2020).
* From 19 October to 25 October 2020 compared to the previous year

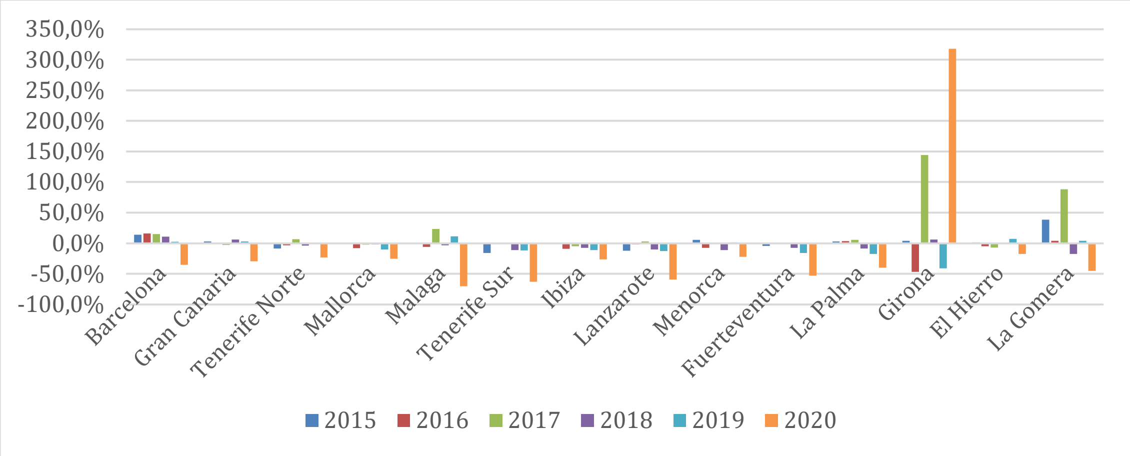
Following Florido-Benitez (2021e) in 2018, the distribution of passenger traffic in Spain by airlines showed the consolidation of LCCs in this territory. LCCs reached 55.4% of the total market, while the remaining 44.6% was from Legacy carriers. Nevertheless, this high dependence on the tourist destinations of LCCs represents a risk and instability for the economic and social future of the destinations and this was recognized by Turespaña in its Strategic Marketing Plans '2018-20', this weakness was accentuated much more in the Canary and Balearic Islands, since the main access is by air. In its report of July of Turespaña (2019) showed a decrease in passengers in LCCs in their interannual variation of July 2019: Fuerteventura (-23.4%); Lanzarote (-9.6); Gran Canaria (-16.5%); Tenerife South (-2.3%); Palma de Mallorca (-0.6%); and increases in Ibiza (20%).

These data were from the month of July 2019, high season, these negative indicators put Spanish government on alert of what was really happening, add the withdrawals from the Ryanair bases in Tenerife South, Las Palmas, Lanzarote and Girona in January 2020, where according to Hosteltur (2019b) 'these destinations were affected by home markets: 535.000 seats in the British market; 253.000 seats in the Spanish market and 172.000 seats in the German market'. The difficulty of reducing costs, relocating operational bases to other countries with cheaper labor and reducing aircraft fleet, it was already present before the disaster of the COVID-19 pandemic. As stated by Florido-Benítez (2021f; 2021b) airports have spatial spillover effects in local economy and urban zone development and suggest that airport's zone of influence is a significant factor of tourism flows, the establishment of companies in its hinterland and creates employment.

On the other hand, Girona airport has seen increased its air freight volumes by 318% in 2020, the pandemic favored the movement of medications and healthcare products in this airport, due to its location at an industrial and logistics zone. The rest of the airport has experienced a notable decline in air cargo, especially Malaga and Tenerife South with -70.4% and -63.2% respectively (see Figure 7). In terms of cargo volume, Barcelona airport was the most affected, with a loss of 63 million tons in 2020 compared to the previous year. Air cargo activity is a great opportunity to diversify airport business models, as well as an alternative to reduce the high dependency that airports have on passengers. Airports and airlines not only bring passengers, but these infrastructures are also drivers of productive synergies.

Destinations must see airports as a market where you can exchange, send and receive the products and services that you produce. Following Doganis (2019) air cargo is a source of income for passenger airlines, but in the case of LCCs, air cargo is not a priority, they are focused on ancillary services. The operation of air cargo in some airports makes a big difference over those that are only promoted as tourist airports. Following Azadian (2020) argues that manufacturing industries show a preference for all-cargo carriers. Conversely, service industries as travel agencies, transport, hospitality & leisure generate low demand for air cargo (all-cargo) and they prefer passenger–cargo carriers. Moreover, this author suggests that it is reasonable to expect that the decline in the GDP during a recession reduces the air cargo traffic. Some researchers such as Zhang (2003); and Kasarda and Green (2005) claims that the growth of trade and the GDP of the countries is linked to air freight, these are interdependent in a globalized economy. In this line, Rodriguez (2019) suggest that the transport is an indicator of very procyclical activity, in which the economic cycle can be anticipated, that is, in periods of economic recession it falls more strongly than GDP and in periods of economic growth it presents growth rates above GDP.

Figure 7. Air cargo at sixteen Spanish airport-destinations (2015-20).



Source. Own elaboration based on data from AENA (2021).

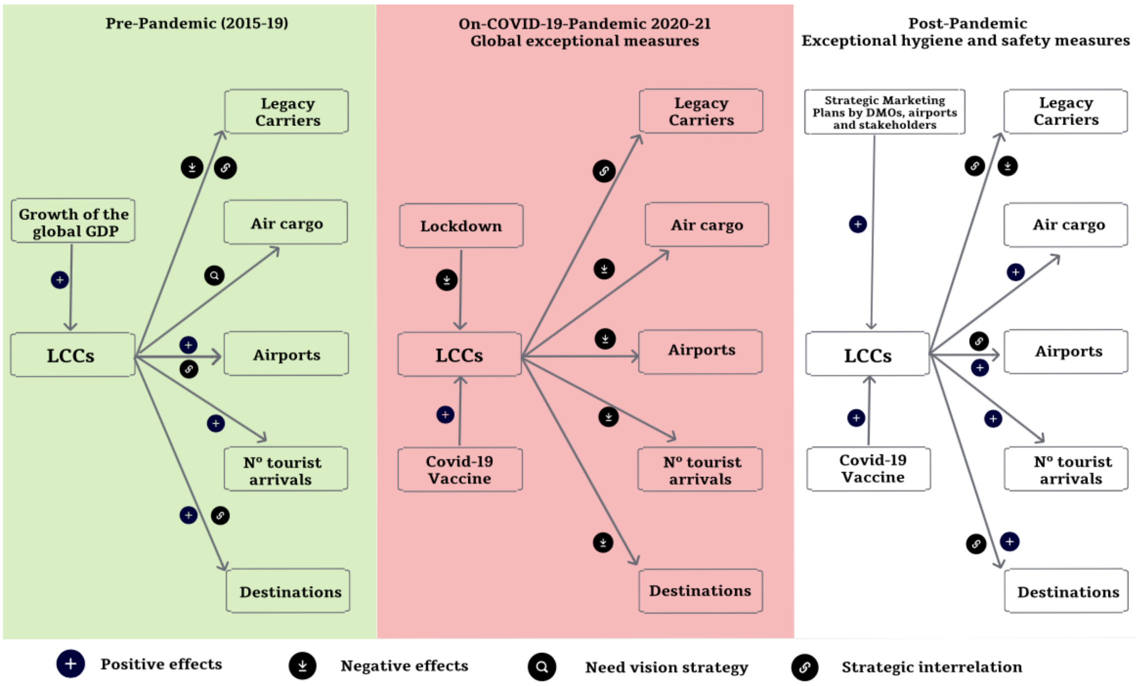
CONCLUSIONS AND IMPLICATIONS

In this study we claim that LCCs are the ones that guarantee travelers accessibility to Spain. The economic growth of Spanish tourist destinations is sustained in most cases by the air traffic provided by airports. Spain has a high dependence on tourism and airports as a transport link and this is confirmed by Turespaña organization. The airport is the heart of the human body, with two cavities, one in and one out, where each heartbeat and blood flow distributes to all parts of the body the oxygen that the human needs to live, in short, airport and destination are communicating vessels that make the economy flourish in destinations.

The first stage (Pre-pandemic): the average growth in global GDP was 3.1% from 2015 to 2019 (OECD, 2020), the world experienced a period of strong economic growth. This period of economic plenty was reflected in both tourism and air transport sectors, and probably this period before the pandemic will be known as 'revolution dystopic'. Instead of planning and undertaking new business models to guarantee the future, people continue to consume and spend money as though there were no tomorrow. This consumer synergy has been very productive by the travel and leisure sector. LCCs channeled the demand for the democratization of cheap flights and these have become the standard of accessibility and air connectivity in most of the world's tourist destinations. This first stream displays an obligatory interrelation between Legacy carriers and LCCs, in order to cooperate on economies of scale and scope. Alliances provide marketing branding to facilitate travelers making inter-airline codeshare connections within countries (e.g., Star Alliance, SkyTeam and Oneworld), but LCCs at the same time are Legacy carriers' main competitors on short or medium haul international and national flights (see Figure 8).

LCCs are focused on ancillary services and for them the air cargo was not a priority, during the pre-pandemic and on-pandemic. The interrelation between Spanish airports and LCCs has been linear, that is, economic and business development with positive results for both parties from 2015 to 2019 (e.g., Ryanair, EasyJet and Jet2.com have operational bases in the most important Spanish tourist destinations as Barcelona, Madrid, Malaga, Palma de Mallorca, Ibiza, among others). Most of the tourist destinations analyzed have had a stable economic and business relationship with the main LCCs, especially with Ryanair and EasyJet, these two airlines have been the main suppliers of English passengers to Spain.

Figure 8. The Pre/On/Post of LCCs in Spanish tourist destinations.



Source. Own elaboration.

The second stage (On-COVID-19 pandemic): but what should have been a joyous 2020 became a living nightmare, the pandemic has weakened all business relationships and social strata. Most of the population and companies have no prospects due to the uncertainty generated by the effects of COVID-19 and government security measures. The lockdown by all countries now makes it possible for LCCs and Legacy carriers to scrap flights in line with falling demand beyond the planned minimum usage. These decisions by airlines dramatically affect airports and tourist destinations, since both depend on the number of tourist arrivals. The effects of the pandemic are provoking great losses and bankruptcies in the airline sector, especially in the LCCs. The market concentration is increasing due to the reduction of LCCs and the purchase and integration of LCCs by Legacy airlines to dominate the domestic market (e.g., Iberia and British Airways 'IAG' bought Vueling and recently Air Europa to increase the Spanish aviation market positioning. IAG is putting pressure on their competitors in order to reduce their ability to compete actively). During the pandemic we will see business coalitions never seen and unthinkable.

Months before the pandemic in some destinations the relationship between LCCs and airport-Spanish tourist destinations was being quite complicated and disastrous. For example, Ryanair decided to close its Spanish bases in Canary Islands (Las Palmas, Tenerife South and Lanzarote) and Girona in Catalonia. Airports also have their weaknesses and threats, airlines and especially LCCs have great bargaining power with airports and DMOs. This allows them to have the capacity to change to other airports and destinations when it is in their interests, affecting seriously to the economic and social future of tourist destination. We do not attempt to overlook that airports are within the tourism supply chain. From the point of view of local tourism authorities, it would be convenient for DMOs to help interested parties develop crisis or contingency management plans, with an explicit knowledge of the effects, barriers and facilitating factors in relation to Implementation of these plans.

The results of the survey carried out in this study, and that we only obtained responses by Girona and Malaga Costal Sol DMOs, it shows the uncertainty and a lack of knowledge for the tourist and airport organizations to face this pandemic period never seen before. The responses from these two organizations were quite moving, both are implementing the hygiene and safety measures imposed by the Spanish government. These two organizations have integrated the total digitization of their processes, analysis, marketing and management of the tourist destination. They are using digital media as a means of communication for extraordinary advertising campaigns and testimonies from tourists who are visiting these destinations with total safety.

Moreover, the planning with the airlines for the new season, commercial flights have been completely eliminated, during the winter season at Girona Costa Brava airport, but both DMOs are coordinating strategies with the airlines to promote the reactivation of flights. Surprisingly, a quite significant answer was that both organizations do not have strategic cooperation and interoperability plans (DMOs and airport) for the improvement of tourist activity, airport efficiency and development of the local economy. The managers of these two DMOs answered that tourism promotion resources have been adjusted to the real situation of the pandemic, expenditure on promotion campaigns have been focused on domestic and local tourism. They are not spending economic resources on campaigns aimed at tourism source markets, due to the closure of borders applied by most of the countries.

The third stage (Pos-pandemic): the future scenario of tourism and the air sector will be linked to the vaccination of the entire world population, implementation of safety and hygiene measures and the development of marketing strategies to attract tourists again by DMOs, airlines and stakeholders. 'The air sector must ensure the health and safety of passengers, as well as of the aviation personnel, by maintaining safe and secure operations, while minimizing the risk of COVID-19 transmission' (EASA, 2020).

This is the perfect time for LCCs to rethink their business strategies and focus on the air cargo activity to diversify their business models. Low-cost is a very attractive topic in logistics, air transport and supporting online companies in sending packages. For example, Amazon has bought its first fleet of plans, as it expands its growing air freight network (BBC, 2020). The vaccination of the entire population will advance the recovery of tourism and air transport. We are all aware of the difficulties involved in this, and possibly the recovery of both sectors will be slow and complicated. DMOs have to design strategies focused on domestic tourism, this tourism modality helps the local economy of Spanish tourist destinations and the survival of many companies dependent on the tourism sector. Airlines will tackle the most immediate scene, a market where the conflict will be between low-cost or to change to new business models more sustainable and safer in the long-term. It would be interesting a complementarity in the air market between LCCs and Legacy carriers, instead of a competition between them, where the main losers are always the same 'LCCs'.

Finally, this study considers DMOs, airports, LCCs and stakeholders as the decision makers for development in Spanish tourist destinations. DMOs and airports provide plans for future directions in growth while proposals are forwarded by airlines to meet the demands and growth of Spanish destinations. It is understandable that airlines have their own business strategy interests, decision making structures and an economic-commercial interest in their future decision outcomes. The economic and business strategies of all of them are not necessarily compatible with one another. The tourist development within a destination and airport provides a context where goals and economic interests overlap by (DMOs, airport, airlines and stakeholders), and sometimes is very hard to advance a common set of interests.

LIMITATION AND FUTURE STUDY

This study has contributed to expanding knowledge about the effects of the COVID-19 pandemic in LCCs, airports and tourism sector, from a global point of view and interdependent between airports-airlines-destination. However, this study has some limitations that need to be addressed. First, this research project only focused on Spanish airport-destinations where the main economic activity is tourism. However, this does not include detailed breakdowns (such as nationality or routes) for arriving passengers. The effects of the COVID-19 pandemic at LCCs may not have the same effects in other regions that have diversified their productive activity and do not depend solely on tourism. Second, government agencies and airport managers are reluctant to give information on current statistics, possibly due to poor economic and health results. Third and last, this paper analyzes the pandemic effects on LCCs, airports and Spanish destinations, but to our surprise, we only got survey responses from Girona and Malaga Costal Sol DMOs. The bias of this information on the part of the main actors shows the uncertainty and fear of the organizations in publishing data. As regards the freedom of opinion by DMOs and airport managers, we respect their decisions. Future research should be focused on analyzing the effects of COVID-19 on tourism and the airline sector in different regions where the main economic activity is tourism. Furthermore, to analyze those airlines that are receiving financial aid from governments, in order to evaluate the operability and accessibility in tourist destinations.

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