A Brief Review of Changes in European airports policies

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ABSTRACT

The purpose of this article is to gather and sum up selected identified trends and policies related to the aviation market. The article mentions deregulation of airline industry in the USA in 1970's and the results suchas the 'hub-and-spoke' model of aviation or low-cost-carriers appear. The second part of article is dedicated to changes in airport policies. Under the pressure of growing competition between airports, some of them started to search for new opportunities to develop their competiveness changing from places where passengers arrived and departed to multifunctional centres connecting traditional transport functions with entertainment, conference and retail services – 'airport cities' – closer integration with local and regional governments and searching theirown paths of development result in a more careful approach to surroundings and environment.

Introduction

Over the last decades aviation has developed on an incredible scale - from the very beginning when air travel was available only to a chosen few, to the present day, now that flights are relatively cheap and definitely more accessible. During these years changes affected almost all areas of air transport including, in particular, aircraft and airports as well as procedures, policies and development strategies.

The purpose of this article is to identify and sum up selected identified trends and policies related to the aviation market. For several years now, they have also been clearly visible in Poland. Since the accession to the European Union, these changes have been stimulating the Polish aviation market, resulting in an increase in passengers and construction of new airports. Currently, there are two international airports in the Mazovia Region – Warsaw Chopin Airport and Warsaw Modlin Airport. A new aiport , in Radom, is due to start operating shortly. Each one is a different type of airport – Warsaw Chopin Airport, the main airport in Poland, where LOT Polish Airlines are based, aspires to becoming a regional hub, Warsaw Modlin Airport, a former military regional airport, is a secondary/complementary airport for the Warsaw Metropolis and Radom Airport with its relatively small catchment area and uncertain future, will require a meticulously thought-out growth strategy. The processes which determined the development of such structures were common in many other European countries.

Hub-and-spoke

One of the milestones, in a certain sense leading to modernization, was the deregulation in the 1970's of the airline industry in the USA. The 'hub-and-spoke' model of aviation was rapidly adapted by several airlines and soon became the norm in the United States. That model, introduced by Delta Airlines in 1955, is based on a system of connections arranged like a chariot wheel, in which all traffic moves along 'spokes' connected at the centre – the 'hub'. The hub model came to Europe in the 1980s, the system was successful, just as it was in the United States, and through the 1990s became an increasingly popular sight in the European skies [ARC 2013].

The 'hub-and-spoke' model, in which we travel from one spoke to another via the hub is very economical. It is the most efficient way to connect one location with another without a direct service and enables airlines to operate more routes with comparable costs, acceptable to passengers.

So how is a hub defined? According to the definition used by the Airport Regions Conference, numerous factors must be satisfied: a minimum 20% of transfer passengers, structured flights operations (peak hours), annual passenger number exceeding 20 million and a home base of a major network carrier.

There are a few European airports on the list of the largest hubs in the world, in particular London Heathrow, Amsterdam Schiphol, Paris Charles de Gaulle and Frankfurt Airport.

Many other airports fulfil certain conditions but are less significant. Warsaw Chopin Airport together with LOT Polish Airlines do not meet these requirements but aspire to create a local hub offering 'chariot wheel connection' flights to selected destinations in Asia and America.

However, many researchers are of the opinion that the era of rapid growth of hubs in Europe is coming to an end. They are slowly losing in competition to primarily Middle Eastern carriers which are changing the dynamics of not only European but international aviation as a whole. Emirates, Qatar Airways and Etihad Airways have rapidly become the new global challengers. In 2008, passenger growth rates for the Middle East reached seven per cent – more than four times the global average. If we look at the map, we can clearly see that 4.5 billion people living within an eight hour flight range from the Middle East, provide the potential for a large part of the world's population to connect through a single stop [ARC 2013].

But not only is the localization worrying European hubs and major airlines. Almost all of them are facing the problems of operating at full capacity and lack of space for expansion resulting in congestion and delays occurring in hub airports. Moreover, due to European environmental policies every investment process must be agreed not only with many levels of national and local government but also with many groups of stakeholders, who may have a radically different perception of how the airport should or should not develop. Social and environmental aspects play the most important role in airport politics. The significance of reducing the disadvantages for the local neighbourhood resulting from the close proximity to the airport and the need to provide these residents with relevant information and compensation procedures is growing. However, all of the trends mentioned above reduce the flexibility of European airports which are no longer able to react quickly to market changes and are steadily losing in competition to hubs in Doha, Abu-Dhabi and Dubai. If we take into consideration the fact that medium-sized airports at the same time are very interested in hosting Middle-East carriers' 'spoke' connections, then the future of current European hubs is threatened.

Low-cost-carriers

Deregulation on the aviation market in the United States in the 70's resulted not only in the popularization of the hub-and-spoke, but also created favourable conditions for low cost carriers (LCC) to be established, causing crucial changes in the whole aviation market and attracting millions of new passengers.

Shortly after liberalization in the USA Europe also decided to follow their example. Three deregulating packages in 1988, 1990 and 1993 enabled the growth of LCC. Ryanair was one of the airlines which took advantage of the new opportunities by rapidly adapting the point-to-point model in the 1990s and operating at secondary and regional airports in order to reduce costs. Many of these smaller airports were former air force bases which had been reduced in size or closed after the fall of the Soviet Union. *Ryanair used these to pioneer its point-to-point model and has become one of the many success stories of the single market* [ARC 2013]. These changes enabled development and rapid growth of small and medium sized airports which are often second or even third airports servicing metropolises. Today, Ryanair is one of the ten largest airlines carrying 79.3 million passengers in 2012[1].

The Polish aviation industry spread its wings after joining the European Union in 2004. European regulations, the common market, increasing competitiveness and the fact that it was an attractive option for tourists created favourable conditions for its rapid growth. Together with entry onto the market by LCCs, the role of regional airports started to grow in importance. After some time, ownership of regional airports appeared to be not only an economic necessity but also prestigious for local authorities.

The following data clearly illustrates all the changes described above: in 2004 Warsaw Chopin Airport – the main airport in Poland – serviced 69% of all passengers, whereas in 2006 this number dropped to 53%. Today it is less than 40%. At the same time the share of the LCC's passengers grew from 13.3% in 2004 to 46.13% in 2006 and remains stable at around this level[2].

However the success of the LCC does not guarantee success of the regional airport. This is because one of the greatest weaknesses of low cost carriers is their volatility. Since they are not based in the area, these airlines are able to move easily from one regional airport to another, especially if they have no historical, functional or economic dependency on the region. This also creates competition between regional airports who want to attract such airlines. Too often airports are served by only one main LCC and are dependent on its terms to a large extent.

This is a significant concern for many regional airports in Poland and sometimes causes adverse situations when smaller airports have to pay to maintain unprofitable connections. That situation contributes to changes in European Union authorities policies, which actually are not keen to co-found new regional airports.

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[1] www.ryanair.com

[2] *Analiza rynku transportu lotniczego w Polsce w latach 2004-2006*, Urząd Lotnictwa Cywilnego, Warszawa, 2008

Non-aviation airport services

Under the pressure of growing competition between airports, some have started to search for new opportunities to develop their competiveness. A wide offer by the airlines and airports gives passengers the opportunity to choose the best solutions for them. This is why it is so important for airport management to find their own, original and unique development path. Once a place where passengers arrived and departed only, airports have now become multifunctional centres combining traditional transport functions with entertainment, conference and retail services – *'airport cities'*.

The traditional model of airports lists 3 main functions:

- departing passengers,
- departing baggage and cargo,
- departing airplanes and service of aircraft [Haenecke 2010, 23-25].

Nowadays 2 more functions are significantly growing in importance . The first is **additional passenger services** and second is **additional services for companies**. In the first group we have shops, entertainment, rest and relaxation or healthcare. In the second are technology parks, offices, conference and logistics centres. The limited area of a terminal is optimal for services based on the face-to-face model connected directly with arrivals and departures such as trade, gastronomy, car rental, hotel and offices of companies which are dependent on passengers and cargo flow. Such simple effect is particularly intense in hub airports in which the number of passengers and cargo cumulates at the 'spokes airports' [Kujath 2010, 14-16].

Investment and permanent development of various fields of activity at the airport is crucial to their competitiveness and helps to generate independent income of airports only from the aviation service – mostly exposed to fluctuations. The part of an airport's activity strictly connected with aviation has decreased in importance in airport development strategies. New priorities connected with the role of a participant in the regional economy have come to the forefront. A large airport with good connections has become a driving force for the regional economy not only from the transport and transfer services. The largest hubs are able to exceed the factual potential of the parent region. Profits connected with convention and conference services, exhibition areas, branch-offices of international companies, international distribution centres and technology parks are due to the proximity of both hub and metropolis.

Because of the expanded functions of airports we now think of them not only as points drawing the global and regional economy but rather as places creating self-sufficient business complexes. They are only indirectly connected with the regional economy and are able to offer better conditions and opportunities than big cities [Kujath 2010, 14-16].

There are also numerous disadvantages for the surrounding communities, such as noise, pollution and traffic congestion. It could also contribute to an increase in land and house prices in one area and decrease in another. It is why the social and environmental aspects of development of airports and airport cities are so important.

Focus on environment

Rapidly growing competition between the airports, strengthening integration with local and regional governments and forging their own paths of development result in a more considerate approach to the surroundings and environment.

It is also especially important in a situation where capacity is exhausted and it is necessary to improve infrastructure, and extension, as mentioned previously. Usually this causes resistance of local communities, environmental organizations and in some cases could delay and even stop the investment process.

Airport managements must deal with the local neighbourhood on issues of compensation as well as reduction of inconveniences and more involvement in airport development policy. These issues which are becoming increasingly important, were the subject of studies and a part of airport policies. In 2010 the Airport Regions Conference and their members put together and published 3 guidebooks. 'Mitigation and Compensation', 'Information and Communication' and 'Including Ground Noise in Noise-nuisance Reduction Policies' is a collection of experiences and best practices in reducing inconveniences. Examples included confirm how important the role of environmental and social issues in European airports policies are.

In 2007 under the auspices of the Airport Regions Conference a study "15 ways to reduce the Carbon footprint in airport regions" was published. Environmental principles and counteracting climate changes are issues currently present in almost all fields in the European Union. Transport is one of the most important. Aviation is responsible for about 3% of the total CO2 emission in the EU 27 [ARC 2007].

The most important sources of emission in aviation can be divided into 4 groups [ARC 2007]:

1. Emission related to airplane movements,
2. Emission connected with preparing airplanes for take-off,
3. Emission related to buildings and additional service operations, including energy supply and production,
4. Emission related to airport accessibility.

Airports all over the world take on modern trends leading to environment protection and counteracting climate change. The reasons for this vary from social concern, the prestige of being 'greener' and people-friendly, to simple economic interest and saving energy and money. Unfortunately, the costs of such environmental investments are huge and sometimes there is no possibility of reimbursement.

Organizations like the ACA also help airports to achieve their planned and target results. *Airport Carbon Accreditation* is the carbon management certification for airports. The programme assesses and recognises the efforts of airports to manage and reduce their carbon emission with four levels of award: 'Mapping', 'Reduction', 'Optimisation' and 'Neutrality'. It was launched by the European airports' trade body ACI (*Airport Council International*) in 2009. The programme provides airports with a common framework for active carbon management with measurable goals. An airport's individual carbon footprints are independently verified in accordance with quality norms on the basis of supporting evidence. Currently Warsaw Chopin Airport is the only Polish airport participating in ACA.

Furthermore, the European Union supports projects like *Decarbonated Airport Regions* which focuses on the reduction of CO2 emission in two specific ways – airport operator activities and surface accessibility to airport zones. Many European airports take part in the D-AIR project, including the most advanced in environmental protection such as Swedish Swedavia, Eindhoven, Bologna and "newcomers" to the project, such as Warsaw Modlin or Prague Airport.

Conclusions

We can observe that interesting changes in the airports market are taking place before our very eyes. The role of the main European hubs and traditional airlines is somewhat diminishing in favour of both Middle-Eastern hubs and carriers as well as low cost airlines and regional airports. Thanks to low cost carriers the role of smaller airports is growing but at the same time they are very dependent usually on a few, or even one low cost operator. Both hubs and regional airports try to find their best individual way to achieve growth and competitiveness. They often develop '*airport cities*' in search of new sources of income independent of the aviation service and use pro-environmental and pro-social solutions in order to attract more passengers. The role of out-of-airports stakeholders in airport politics is growing significantly, especially in situations of new investments or extending previous operations.

Sources and literature:

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Krótki przegląd zmian w polityce europejskich portów lotniczych

STRESZCZENIE

W ciągu ostatnich lat rynek lotniczy rozwinął się na nieprawdopodobną wręcz skalę. Od momentu zaistnienia usług lotniczego transportu pasażerów zarezerwowanych początkowo dla ludzi bogatych i wpływowych, do dziś, kiedy latanie dostępne jest dla każdego przeciętnego człowieka. Przez wszystkie te lata, przemiany i transformacje dotknęły praktycznie wszystkich aspektów awiacji poczynając od samolotów przez procedury i wymagania w różnych dziedzinach, a kończąc na priorytetach rozwoju. Celem niniejszego artykułu jest zebranie i podsumowanie kilku zidentyfikowanych w ostatnich latach trendów, występujących nie tylko na rynku usług lotniczych, ale również na lotniskach. Artykuł porusza tematykę deregulacji usług lotniczych, która oprócz upowszechnienia się systemu hubowego realizacji przewozów umożliwiła powstanie i rozwój przewoźników niskokosztowych, co było swego rodzaju rewolucją w lotniczym transporcie osób. W odniesieniu do portów lotniczych artykuł przybliża pozalotnicze formy ich działalności w formie airport cities.

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