



Management and Marketing in Tourism – Prospective Development of the Leoš Janáček Airport Ostrava

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Abstract

The paper deals with the prospective development of the Leoš Janáček Airport Ostrava. Three scenario variants have been taken into account concerning the expected growth rate increases for the passenger throughput figures predicted up to the year 2020. The scenario variant developments were subject of modelling based on growth rate averages calculated from the empirical data of the period 1998–2013.

Keywords: airport, region, growth rate, performance, scenario, development

Introduction

Industrial development of any region is closely related to its both passenger and cargo transportation infrastructure. The air traffic, as integral part of this transportation infrastructure, not only influences the national economy as a whole but also the country's regional economies by operations of individual regional airports. A measure of successful regional development and prosperity is represented by its transportation accessibility that is of vital importance as regards tourism but especially concerning the advent of investors from abroad.

In the past difficult economic conditions, consumers' spending decreases and transportation services, inclusive those of the air traffic providers, are the most afflicted industries. The air traffic companies were not the only victims but the economic difficulties imply strong repercussions for all those, who serve air companies, namely the airports. With regard to ever decreasing trend of both passenger and cargo throughputs, the airport owners and operators are obliged to look for sources of additional income as the principal equity income from the sale of air tickets and cargo charges are diminishing. The economic slump mainly afflicts regional airports, and the Leoš Janáček Airport Ostrava represents a typical example. [1]

As such, it is necessary for the Airport of Ostrava to formulate and implement new operation, managerial and environmental strategies for increasing passenger and cargo throughputs, which imperative is looming even larger if ever tenses competition of neighbouring airports is taken into account. [2]

This paper focuses on a scenario for prospective development of the Airport of Ostrava. In the effort, three scenario variants have been formulated for the expected rising figures of the passenger throughput at the Airport of Ostrava in the period up to 2020.

Scenarios

Three scenarios are envisaged for future personal traffic at the Leos Janacek Airport Ostrava. The models of possible future passenger throughputs are based on the calculations of the averages of simple index numbers taking advantage of the actual traffic statistics data of the airport, 1998–2013.

Apart from differences, simple index numbers and their averages provide for basic measures of the times series. If indicator values of the time series are designated as y_t , $t = 1, \dots, n$ the following formula can be used for the calculation of the simple index numbers, k_t :

$$k_t = \frac{y_t}{y_{t-1}}, t = 2, \dots, n. [3] \quad (1)$$

An average of simple index numbers, k , is calculated as their geometric mean, namely

$$\bar{k} = \sqrt[n]{k_2 k_3 \cdots k_n}. [3] \quad (2)$$

It is appropriate to highlight the fact that the airport catchment area is that of the regions, Moravia-Silesia, Olomouc and Zlin in the Czech Republic, southern part of Poland, and north-western Slovakia. 800 thousand inhabitants live within the driving distance of 30 minutes from the airport. It is 60 minutes for 2.9 million and 90 minutes for as many as 5.9 million people. The catchment area driving distance limit is considered to be 120 minutes, which concerns 8.6 million inhabitants of the territory. The latter comprises 3.6 million of people living in the Czech Republic, 4.4 million Poles, and 600 thousand Slovaks (see Fig. 1).

Realistic (basic) scenario

The realistic passenger increase scenario has been based on recent traffic statistics of the Leos Janacek Air-

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Fig. 1. Ostrava Airport catchment area. Source: Leoš Janáček Airport Ostrava
Rys. 1. Otoczenie lotniska Ostrava

port Ostrava. In the sixteen-year period, 1998–2013, the average passenger traffic growth was 7%. This trend does not seem especially positive, nonetheless, it is on a par with other regional airports of our sample. In the period, 2000–2013, the Airports of Brno and Kosice average passenger throughput percentage growth was about 10 and 5% per annum respectively. The only exception to the rule is represented by the Katowice Airport, whose growth rate of the past sixteen years amounted to annual 21%. It can be maintained that in the latest period of their operations, the Katowice Airport, by virtue of their pro-active business strategies and welcome policies vis-à-vis low cost airlines, has been the most successful airport of our sample as regards facing of difficulties of the current economic situation. An important role has been also played by the fact that on 30th November 2012, a Polish section of the motorway, D47, was put into operation, which cut the driving distance from Ostrava to Katowice from about 110 to 70 minutes. In summer 2013, the last major construction of this motorway section, namely the bridge, was finished. No doubt, it is a challenge for both the Moravia-Silesia regional government and Leos Janacek Airport management, as it is to be assumed that the competitive role of the Katowice Airport will be even more important.

The basic scenario has been based on the following assumptions:

1. Moderate economic revival and reasonable decrease of unemployment rates in the region by the end of 2014,
2. Existing investors stay in the Moravia-Silesia Region and they keep operating their current production capacities,
3. Czech Republic joins Eurozone (most probably in 2017),

4. Regular services of another airline are ensured during 2015 (presently negotiations with the airline, Ryanair, are in progress).

The basic scenario envisages moderate passenger traffic annual growth rate, namely 1.04% from 2014 to 2016; 5% from 2016 to 2018, and 8–10% in the future period from 2018 to 2020. The verification of the assumed passenger throughput growth in specific periods has been based on the new airline service structure assumed. It is possible to envisage establishment of new airlines to other EU country destinations, namely

- Munich,
- Düsseldorf,
- Frankfurt,
- Milan.

Currently, regular air links have been established (winter flight schedule, 2013/2014) to:

- Prague – twice per day,
- Paris – tree times per week,
- London – three times per week,
- Vienna – twice per day (weekdays).

As based on these assumptions, the passenger throughput might be about 280 thousands in 2015, 333 thousand in 2018, and 400 thousand in 2020 (see Tab. 1).

Optimistic Scenario

Also the optimistic scenario has been based on the actual Leos Janacek Airport Ostrava development trend with the growth rate index, 1.07. The optimistic scenario assumes launching of a specific publicity campaign oriented by efforts of increasing passenger throughputs, as

Tab. 1. Passenger throughput growth (realistic scenario)
 Tab. 1. Ilość pasażerów (scenariusz realistyczny)

Year	Total passenger throughput	Time series measure
1998	93 775	
1999	110 041	1.17
2000	114 940	1.04
2001	124 183	1.08
2002	144 331	1.16
2003	179 243	1.24
2004	216 261	1.21
2005	265 864	1.23
2006	300 662	1.13
2007	328 906	1.09
2008	349 844	1.06
2009	305 027	0.87
2010	278 070	0.91
2011	270 243	0.97
2012	288 393	1.07
2013	259 167	0.90
2014	269 534	1.04
2015	280 315	1.04
2016	294 331	1.05
2017	309 047	1.05
2018	333 771	1.08
2019	360 473	1.08
2020	396 520	1.10

well as changes in frequency and other aspects of service quality provisions by introduction of another low-cost airline operator in 2014 or 2015. For low-cost airline operators, the north Italian city of Milan or other big German cities (for example Berlin, Munich, Frankfurt) can be interesting destinations, to which currently coach services from Ostrava are provided on a daily schedule basis. If present low-cost airline ticket prices are taken into account, the low-cost airlines are serious competitors of coach service providers, at which point the comfort and journey duration of air and bus services can hardly be put on a par.

The establishment of low-cost flight services at the airport of Ostrava might essentially influence a positive growth of passenger traffic. Such situation has already materialized at the Katowice Airport, where, by virtue

of the low-cost airline, Wizz Air, the number of passengers grew considerably. In 1998, the Katowice airport put through only 150 thousand passengers. In 2005, it was more than 1 million and in 2008, the throughput was in excess of 2.4 million (the third biggest traffic in Poland after Warsaw and Krakow). The total passenger throughput of the Katowice Airport was in excess of 2.5 million in 2013. A similar development followed after the low-cost airline, Ryanair, had chosen the Airport of Bratislava as one of its major operation places. [4]

In analogy to the basic scenario, also this optimistic scenario has been built on the assumption that the future economic conditions of the Czech Republic and the Morava-Silesia Region improve, unemployment rates gradually decrease, and the Czech Republic joins the Eurozone in 2017. From the regional point of view, the

Tab. 2. Passenger throughput increase (optimistic scenario)
 Tab. 2. Ilość pasażerów (scenariusz optymistyczny)

Year	Total passenger throughput	Time series measure
1998	93 775	
1999	110 041	1.17
2000	114 940	1.04
2001	124 183	1.08
2002	144 331	1.16
2003	179 243	1.24
2004	216 261	1.21
2005	265 864	1.23
2006	300 662	1.13
2007	328 906	1.09
2008	349 844	1.06
2009	305 027	0.87
2010	278 070	0.91
2011	270 243	0.97
2012	288 393	1.07
2013	259 167	0.90
2014	274 717	1.06
2015	291 200	1.06
2016	314 496	1.08
2017	345 946	1.10
2018	380 540	1.10
2019	426 205	1.12
2020	490 136	1.15

completion of motorways from Ostrava to Slovakia and to Bohemia via Hradec Kralove is of key importance. The existence of these motorways would be especially invited by investors from abroad. Some major foreign investment projects have been completed already, for example the construction of the car factory, Hyundai, at Nosovice or expansion of the existing Swedish-Finish IT company subsidiary establishment, Tieto, in Ostrava. The scenario also envisages utilization of the airport logistic centre, whose construction is being currently finalized.

The optimistic scenario also envisages launching of a major publicity campaign, pro-active attitudes of the airport management in cooperation with air traffic providers, negotiating presence of other airlines, and a major initiative of the Moravia-Silesia regional government

supporting and encouraging introduction of new airlines and new routes by waving airport charges temporally or making discounts and subsidies available to compensate initiation losses of new air traffic providers. Apropos, it is important to note that rising passenger throughput figures imply necessity of related investment planning.

The optimistic scenario assumes gradual annual increase in terms of total passenger throughput, namely 6.8 and 10% between 2014 and 2018; and further 12 and 15% approximate increase in 2019 and 2020 respectively. The scenario envisages the total passenger throughput to reach the figure of about 290 thousand by 2015, 380 thousand by 2018, and more than 490 thousand by 2020 (see Tab. 2).

Tab. 3. Passenger throughput increase (pessimistic scenario)
 Tab. 3. Ilość pasażerów (scenariusz pesymistyczny)

Year	Total passenger throughput	Time series measure
1998	93 775	
1999	110 041	1.17
2000	114 940	1.04
2001	124 183	1.08
2002	144 331	1.16
2003	179 243	1.24
2004	216 261	1.21
2005	265 864	1.23
2006	300 662	1.13
2007	328 906	1.09
2008	349 844	1.06
2009	305 027	0.87
2010	278 070	0.91
2011	270 243	0.97
2012	288 393	1.07
2013	259 167	0.90
2014	261 759	1.01
2015	264 376	1.01
2016	267 020	1.01
2017	269 690	1.01
2018	277 781	1.03
2019	286 114	1.03

Pesimistic scenario

The pessimistic scenario has also been based on the current development trend of the Leos Janacek Airport Ostrava, as well as the potential decrease or stagnation of economic performance in the Czech Republic. This scenario assumes small or zero publicity investments, difficult availability of credits, low owner's (regional government of the Moravia-Silesia) investments in the airport development, curtailed EU funding (see EC budget proceedings in February 2013) with implications for future passenger throughput (delayed construction of a new terminal, parking place and hotel) and aircraft operations (suspension of the planned apron, taxiways, aircraft stand, and technical equipment extensions). Such situation would compel 'rejection' of new customers, namely both passengers and air traffic providers, based

on unavailability of technical capacities. No doubt, such situation would lead to dominant market position of the catchment overlapping airports of Brno, Katowice and Krakow.

The pessimistic scenario envisages low or even zero regional economic growth with serious implications for employment. It further assumes presence of only a single airline operator, curtailing or even some cancellation of the standing regular flights, withdrawal of major investors from the region, and further deferment of the Czech Republic to join the Eurozone. In terms of these facts, the pessimistic scenario assumes passenger throughput increase rate to be as small as a single % per annum until 2018. In the period, 2018–2019, the passenger throughput should be 3%, which would mean about 290 thousand passenger check-outs by 2019, and if an increase rate of

5% were reached, the total passenger throughput might be 300 thousand by 2020 (see Tab. 3).

Conclusion

Three variants of future development scenarios until 2020 were formulated for the financial performance of the Leos Janacek Airport Ostrava. The realistic, optimistic and pessimistic variants of the scenarios were based on time series calculations taking advantage of statistical data released for the period, 1998–2013.

The realistic scenario assumed moderate annual growth of passenger throughputs, namely 1.04% in the period, 2014–2016, 5% until 2018, and then until 2020, the annual throughput growth to be 8–10%. This assumption implied total passenger throughput of about 280 thousand by 2015, 330, and 400 thousand by 2018 and 2020 respectively.

The optimistic scenario has assumed gradual growth of passenger throughputs per annum to be 6, 8, and 10% in the period, 2014–2018. Then, by 2019, the growth rate should be 12 and 15% by 2019 and 2020 respectively. Such development would imply total passenger throughputs to reach the value of about 290 thousand by 2015; about 380 thousand by 2018, and more than 490 thousand by 2020.

The pessimistic scenario has assumed the annual passenger throughput to be only 1% until 2018, and 3% in the period, 2018–2019, which means that the total passenger volume would be about 290 thousand by 2019, and about 300 thousand by 2020, the latter with the annual growth rate of 5%.

The modelling was oriented by an objective to predict number of airport passengers until 2020. [5] The modelling results concluded that the airport could operate profitably in future. [6]

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Zarządzanie i marketing w turystyce

– Perspektywiczny rozwój lotniska im. Leoša Janačka Ostrava

W artykule przedstawiono perspektywy rozwoju lotniska im. Leoša Janačka w Ostrawie. Uwzględniono trzy scenariusze rozwoju o różnych oczekiwanych stopach wzrostu ilości pasażerów. Warianty scenariuszy były przedmiotem modelowania opartego na średnich stopach wzrostu obliczonych na bazie danych z lat 1998–2013.

Słowa kluczowe: lotnisko, region, stopień wzrostu, wydajność, scenariusz, rozwój