ECONOMIC ANALYSIS OF SELECTED EUROSPEAN AIRPORTS

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The aim of this thesis is elaboration of analysis and comparison of economic effectiveness of selected Eurospean airports. In the first part the theoretical background for understanding economic and financial analysis is described. In the second part the analysis of three smaller airports- Airport of M.R. Štefánik, airport Brno- Tuřany and Airport of Lennart Meri in Tallin- is elaborated. We analyzed three bigger airports- in Oslo, in Copenhagen and in Vienna – in the next part. The main contribution of this thesis is the evaluation and comparison of selected indicators of effectiveness among airports.

K e y w o r d s: analysis, efficiency, costs, revenues, assets, liabilities, airport, indicator.

1 INTRODUCTION

Economic analysis evaluates outcomes of the enterprise for the monitored time, identifies and quantifies situation and factors which determine them. It prognosticates perspective and outcomes and everything is given to the proposition of measures. The realization of those measures should ensure achievement of enterprises its goals.

Every enterprise which wishes to survive in market economy must have a very good knowledge of its financial situation. The best way of examination of financial situation is financial analysis. Financial analysis is one of the most important tools of financial administration. Its target is evaluation of financial management. It represents systematic analysis of data obtained mainly from accounting statements. The main idea of financial analysis is creation of review about economic reality in past, in the present and in the future.

The thesis is divided into three main parts. There is theoretical background described in the first part. The theory is focused on economic and financial indicators.

In the second part of the thesis, we compare indicators of effectiveness of three smaller airports as for instance liability, efficiency, extent of utilization of racetrack system and terminal.

We used the same approach in the third part of thesis and compared three bigger airports.

2 THEORETICAL BACKROUND

Under the term economic analysis we understand firstly financial situation of enterprise which is also called visible part of the iceberg, and secondly business economy and its sub-surface part. All of the indicators as- level of transformation process, commercial ability, quality of production, innovative activity- are part of the business economy as well.

We divide the main functions of financial-economic analysis into these groups:

- analytic and evaluative – enables by using proper tools and methods to analyze and evaluate financial-economic situation of the enterprise
- quantification- mathematically expresses situation and processes, its development and therefore enables to state the level, content and divergences of examined features
- cognitive - enables with considering outcomes, analysis and evaluations to become familiar with financial-economic situation. It facilities to get familiar with attributes of focused magnitudes, its development and mutual relations, with a level of processes which are in motion.
- informative - is source of information for management of the enterprise, for employers, investors, state organs and also for the public.
- controlling – provides useful information for execution of control
- stimulating or developing- considering its position and level of process of reproduction, it has positive impact on reengineering.

3 ANALYSES OF SMALL AIRPORTS

We analyzed firstly Airport of M.R. Štefánik in Bratislava, the biggest international airport in Slovak Republic. It is located 9 kilometers in north-eastern direction of capital city Bratislava in altitude 133 above sea level with area 511 hectares. Since year 1993 it is called after notable Slovak diplomat, politician, pilot and scientist Milan Rastislav Štefánik. General gainings of the airport in 2010 were 32 million euros. General expenses were at a level of 36, 85 million euros what represented general loss. Overall outcome of financial management represents loss of 4, 84 million euros. Despite negative economic outcome year 2010 can be evaluated positively because the loss of the airport was caused by construction of the new terminal. Capital stock of airport is of value 292 million euros. During the year 2010 the value of capital stock increased by almost 10 million euros. Airport Bratislava created sufficient amount of financial resources to cover operating costs, however the global economic crisis did not allow to generate sufficient resources for funding all of the investment projects with exception of construction of new terminal.

Airport Brno- Tuřany is the another airport which was examined. International airport Brno- Tuřany is public international airport. It is located 7, 5 km in south-eastern direction from centre of Brno. The airport recorded big deficit in 2010. Revenues decreased by 24 percent in comparison with year 2009. The decrease was caused mainly by absence of cargo flights (one of the major cargo clients left). Moreover a big number of travelers did not use regular and charter flights and preferred cheaper way of traveling. Overall incomes in 2010 were 7, 95 million euros. In year 2010 airport Brno made incomes on level of 7, 95 million euros. It represented profit of 350 000 euros. It decreased for more than 950 000 euros in compare with previous year.

The last smaller airport we were examining was airport of Lennadr Meri in Tallin. It is the biggest airport in Estonia and domestic base for national airlines Estonian Air. Airport is located 4 km from centre of Tallin on eastern coast of the lake Ülemiste. It has one cement-concrete runway which is 45 meters wide and 3070 meters long. Airport is equipped with five scrollbar ways and with fifteen terminal exits. In 2010 airport in Tallin produced higher amount of gainings in comparison with previous year. It was caused by influx of emigrants from Western Eurospe. They emigrated mainly seeking cheaper accommodation and food. Overall profit increased of more than 2,3 million of euros. Bad atmospheric condition in the end of 2010 reasoned in 54 percent increase of expenses. Despite this fact and global economic crisis we can evaluate year 2010 positively. Airport Tallin was able to stop decreasing tendency from previous year.

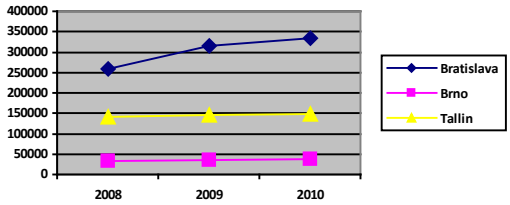
Comparison of small airports

In table 1 we can see comparison of expenses and revenues of small airports in year 2010. Airport Bratislava ended year with deficit as in year 2009. While in year 2009 it was 2, 68 million, in next year it was even more - 4, 8 million of euross. Revenues decreased only by 0,5 million euross but financing of investment projects connected to construction of new terminal caused the fact that expenses increased by more than 1,8 million euross. Airports in Brno and Tallin ended year with profit, in Brno 350 000 euross and in Tallin 2 million euross.

Tab. 1 Expenses and revenues in thousands of euross

	Bratislava	Brno	Tallin
Expenses	32 011	7 499	22 900
Revenues	36 848	7 952	25 900
Profit	-6 027	453	3 000
Profit after tax	-4 837	350	2 000

On the picture number one we can see actives of small airports in last three years in thousands of euross. Airports Brno and Tallin did not experienced any big change, actives were changing only minimally. In contrast airport Bratislava experienced increase of actives be more than 76 million euross. The increased is mostly visible between year 2008 and 2009. It was caused by intention of building new terminal.



Pic.1 Assets of small airports in thousands of euro

On table 2 we calculated attributes of particular indicators of effectiveness of airports. The value of expeditious liquidity should move in interval of 1-1, 5. In case of airports Bratislava, Brno, Tallin only airport in Tallin was in appropriate interval. Airport Bratislava has expeditious liquidity on level 0, 48 what means that it has big short-term liabilities. They are in amount of 13 million euro. Higher rate of this attribute is visible in the case of Brno (4, 66). It means that it is not seen optimistically by stockholders and management of the airport. Abnormal height of actives could lead to the nonproductive utilization of resources and it can influence profitability of the airport.

Normal liquidity suggests on ability of satisfying creansors of the enterprise. It generally means that there exists ability of transforming short-term assets on liquidity. We can observe the lowest rate on the example of airport Bratislava. The second is airport in Tallin and highest liquidity is in airport Brno (4, 66). The higher is the rate of attribute the more probable is maintaining of solvency of enterprise.

Profitability of actives shows profitability and effectiveness of utilization of actives. It also indicates the extent of coverage of risk actives of enterprise. In our example we can observe the best profitability of actives in Tallin (1, 4 percent), then Brno(0,95 percent) and Bratislava(-1,4 percent).

Another indicator of effectiveness is profitability of own capital, which reviews outcome of enterprise activities with size of own capital. Airport Bratislava is in deficit again (-1, 7 percent). Tallin ended with profit of 4, 9 percent and Brno with profit of 7, 2 percent.

Tab. 2 Indicators of effectiveness of small airports

	Bratislava	Brno	Tallin
Available liquidity	0,48	4,66	1,02
Normal liquidity	0,5	4,76	1,03
Profitability of actives (ROA)	-1,4%	0,95%	1,4%
Profitability of the own capital (ROE)	-1,7%	7,2%	4,9%
Profitability of investments (ROCE)	-2%	1,4%	2,3%
Profitability of revenues	-15,1%	4,4%	7,7%
Profitability of expenses	-13,1%	4,7%	8,7%
Index of expenses	1,15	0,94	0,88
Index of utilization of capital	0,114	1,65	0,64
Productivity of labor from revenues	52 050	58 471	53 074
Deficit	13,7%	86%	71%

Profitability of investments shows profitability of long-term investments of capital. Profitability of expenses and revenues compares net profit for accounting period and expenses or revenues.

Index of expenses compares a proportion of expenses and revenues. If airport ends year with profit, index is moving in interval 0-1. The index of examined airports: Brno 0, 94, Tallin 0, 88 and Bratislava 1, 15.

Productivity of labor from revenues shows how much euro hit on one employee. The biggest amount of money hit on employee in Brno 58 471, then Tallin 53 074 and Bratislava with 52 050 euro.

The last indicator in the table is deficit of the enterprise in percents. The highest deficit has airport Brno- 86 percent, then Tallin with 71 percent and finally Bratislava with only 13, 7 percents.

Evaluation of small airports

The year 2010 has been to Bratislava one of the most difficult. In the June has been completed the construction first phase of the airport terminal. This was a qualitative step forward in passenger service equipment with a favorable impact on the operation and expansion of services for passengers. In year 2010 the company recorded in 2009 compared to positive growth in transport cargo. The runway system is used by only 11,1 percent. This small number should by increased by attracting new transporter, or foundation of the Slovak national transporter, which would by a great asset for Slovakia.

The Bratislava airport in year 2010 meant a reduction in the handled passengers by 2,7 percent, reduction in operating revenues by 15 percent and operating expenses excluding depreciation by 6 percent, reducing its average number of employees by 57 percent and personnel costs by 6 percent, increase the number of aircraft scheduled cargo traffic by 18,6 percent.

The airport Lennart Meri in Tallin year 2010 has been more successful than 2009. We managed to stop the declining earnings, which was around 400 000 euros and increased the amount of 2 million euros. It was a cause of better weather condition than in year 2009.

Airport Brno-Tuřany experienced in marketing year 2010 profit of 350 000 euros, which is the annual loss of more than 950 000 euros. The unfavorable development in Brno so far failed to stop. It was a cause of absence one major client cargo airport transport.

3 ANALYSES OF MAJOR AIRPORTS

Vienna International Airport (IATA: VIE) is an international airport 18 km southeast of Vienna, near the town of Schwechat and is the largest airport in Austria. It has three terminals and today is one of the busiest airports in Europe. Between Vienna and Bratislava airport runs approximately hourly bus. The airport handles all types of aircraft without limitation. The airport has two runways a long 3600 meters and the second 3,500 meters. Both are 45 meters wide. Airport runway capacity is 68 aircraft per hour under ideal conditions. Vienna Airport was privatized in the 1992.

Copenhagen Airport (IATA: CPH) is the main international airport serving Copenhagen, Denmark and the Oresund region. Located on the island of Amager, 8 km from the center of Copenhagen and 24 km south from the center of Malmö. The airport was originally called Kastrup Airport, because it lies in the small town of Kastrup, which is now part Tarnby. It is the largest airport of all the Nordic countries and is one of the oldest international airports in Europe. It flies to over 130 destinations worldwide. Its shareholders include Copenhagen airport with 53, 7 percent shares in the capital by Copenhagen Airports A / S and 39, 2 percent state share of Denmark. The remainder of the shares is held by private investors in Denmark and abroad.

Gardermoen Oslo Airport (IATA: OSL) is the main airport serving Oslo. It is a major hub for domestic and international airport of Norway. In the Nordic countries is the second largest airport. It is connected to 107 airports, of which 24 are domestic. Two main airlines are using the airport in Oslo, Scandinavian Airlines System (SAS) and Norwegian Air Shuttle. In 2010 the airport transported more than 19 million passengers. The airport is located in Gardermoen 35 km northeast of Oslo. Oslo Gardermoen Airport is owned by Oslo Lufthavn and the Avinor state enterprise responsible for the operation of another 46 Norwegian airports. Oslo Gardermoen company has subsidiary Oslo Lufthavn Eiendom AS, which is responsible for the development of commercial properties around the airport.

Comparison of major airports

Table 2 displays selected indicators of performance and cost. Total revenues while militates in favor of Vienna, which reported in 2010 operating income of 550, 2 million euros. However, operating expenses amounted to value 421, 5 million euros. Vienna incurred much higher costs for staff salaries, personnel costs and energy. Vienna recorded a profit 75, 7 million euros. Airports Copenhagen and Oslo ended the year 2010 with revenues of 435, 6 and 485, 24 million euros. The highest net profit achieved in the Copenhagen airport and to 122, 2 million euros.

Tab. 2 Costs and revenues in millions of euros

Selected indicators	Vienna	Copenhagen	Oslo
Total revenues	**550,2**	**435,6**	**485,2**
Operating profit before amortization	168,1	264,14	255,2
Depreciation and amortization	65,8	66,2	68,6
Rental of premises	9,4	34,7	5,1
Operating profit	102,3	198	186,6
Profit before tax	98,7	165	147,7
Income taxes	24,7	44,3	41,2
Total expenses	**431,5**	**237,6**	**298,6**
Personnel expenses	238,1	89,3	96,4
Expenditure on pensions	7,1	10,5	1,64
Employee expenses	171,8	127,7	55
Energy	16,8	10,2	15,4
Net profit	**75,7**	**122,2**	**111,3**

In table 3 we calculated effectivity of using of runway and terminals for in year 2010 according annual reports. Capacity runway system shows the number of airplanes on runway per hour in ideal conditions. Most aircraft can to land on the Copenhagen airport and to 83 per hour. At least the 68 aircraft can to land in Vienna. Average utilization of the runway system was calculated from aircraft movements per year. Exploitation of runway system shows in percentage of selected airports to efficiently use its runway system. Vienna Airport is the best because of the capacity of the runway system uses up to 41%, which is a very good number. It is planned the construction of a third runway. The airport in Oslo is 31 percent. This figure could be improved by the construction of another terminal, which should help to develop a more efficient railway system. The terminal capacity of all three selected airports is inadequate. The airport in Oslo in year 2010 exceeded the capacity of terminal by 26, 5 percent. The new terminal under construction should eliminate these problems. Vienna airport builds new terminal named Skylink, which cost less than a billion euros. After its completion, should increase the terminal area of the half capacity. The Copenhagen airport is the only below 100 percent, but this number has to be overcome next year. The average utilization of the terminal shows how many airport passengers transportedin 2010. Most of the Oslo transported 59,900 passengers.

Tab. 3 Effectiveness of runway and airport terminal

	Vienna	Copenhagen	Oslo
The number of aircraft movements per year	246 146	253 762	219 573
The capacity of the runway system per hour	68	83	80
The average use of runway per hour	28	29	25
The average use of runway per hour in %	41%	35%	31%
Number of passengers in millions	19,7	19,1	21,5
Terminal capacity	19	20	17
The average use of the terminal per day	53 973	52 329	59 900
Use the terminal in %	104%	95,5%	126,5%

Evaluation of small airports

Based on the information we found in 2010 found the following. The highest yields among the analyzed airports recorded at the airport in Vienna, totaling 550.2 million euros. To spite this fact been recorded in Vienna, the highest net profit. In this aspect they have fared better in northern Europe, where profit at both airports exceeded 100 million euros, but had a larger net profit Copenhagen airport to the amount of 122.2 million euros. Oslo Airport recorded a net profit of 111.3 million euros. This shows the current good condition of the local economy. But to be taken into account the fact that more than half of the proceeds airport in Oslo reported from non-aviation activities, it is mainly from the sale and rental at the airport. Oslo is the largest building of its ramp Duty free shop in Europe, there is a bank and post office. Most assets has Vienna airport. The value is around two billion. But after the officially completed the new Skylink terminal assets should be about three billion euros.

The smallest capital has airport in Oslo and is most indebted to 88, 3 percent. The revenue productivity per employee has the highest number of Oslo, which means that outsourcing to a very high standard. The Copenhagen has largest capacity runway system with 83 aircrafts per hour. As regards efficiency, the most used runway system is 41 percent of Vienna. Terminal capacity exceeds the Vienna airport with 104 percent and the airport in Oslo with 126.5%. Therefore, both airports have begun to build a new terminal. In Vienna, after finished in 2015, is projected to increase annual capacity of terminals to more than 24 million passengers. Airport Vienna wants to increase the number of runway from two on three. Oslo ramp exceeds the current capacity of the building since 2008 because the new terminal is a necessity for the further development of airport infrastructure.

5 CONCLUSION

The work was presented at the economic and financial analysis of selected airport. The first chapter introduces the reader to the theoretical basic of economics. The content of this paper is to describe the basic economic indicators and resources. This section provides the reader with a clear overview of the basic concepts and definitions that make the practical part of the work becomes cleared.

In the practical part are appropriately considered three smaller and three larger airports. Based on annual reports, we calculated and elevated the effectiveness of airport indicators. We found that airports prosper, stagnation of the impact they had a global economic crisis. The structure of costs and benefits showed a profit to all airports expect Bratislava. However, this was cause to expenditure on new terminal. From small airports the biggest progress was in the Tallin airport. Profit gain has been increased by 500 percent. From large airport best progress has been in Copenhagen about 40 million euros per year. All largest airport need to the operating in next year new terminals. The construction of the new terminal has already been decided in Vienna, where it will be a new Skylink terminal opened in year 2015 and also in Oslo airport, where the terminal capacity has been exceeded already in year 2007.

The contribution of the work consists in analyzing each airport and to show the strengths and weaknesses sides. Five of the six airports had in its annual reports number indicators in currency country. All data was adjusted for the single currency euro. This work was the source of new information in the sphere of aviation than I could possibly use in the future life.

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