УДК 656.7.022.1
DOI: 10.26467/2079-0619-2020-23-1-59-70

PASSENGER AIR TRANSPORTATION MARKET IN EUROPE

I.P. STECENKO[1], A.V. PARKHIMOVICH[2]
[1]*The Baltic International Academy, Riga, Latvia*
[2]*The company Lime, Vienna, Austria*

The civil aviation is a systemically important sector of the European economy. In 2015, a new development strategy defining the role of air transport in passenger communications was adopted. The implementation of the strategy provides for, among other things, tickets cost reduction, which will have its impact on the population mobility. In this context, the article considers the priorities of the development strategy, noting that the demand for passenger air travel depends on multiple factors. They can be aggregated into four groups: social stability, macroeconomic, intrasectoral, and inter-transport factors. Their influence on the demand value varies by its degree, while being both price-based and non-price-based in nature. The article defines the leaders of the passenger air transportation market, addresses the problems obstructing the air transportation network development. It also highlights the European passenger air transportation market specifics and the prospects for development of a unified transport system to ensure a positive socio-economic effect in the development of the economy. A high level of competition with a comparable level of service quality calls for new forms of relationship with consumers. With a convenient passenger transportation infrastructure built nowadays in Europe, there are companies operating on the market that offer fairly expensive as well as low-cost transportation service. In addition, the level of average per capita income in Europe is quite high. All combined, these factors predetermine increased demand for transportation by air. Given these conditions, adoption of innovations and digital technologies, together with the encouragement of investments, should present a stimulus for growth. The adoption of the said measures will lead to passenger service quality improvement, traffic turnover and airlines' revenues increase, and more job opportunities. Reliability, safety, environment are regarded as strategic priorities.

Key words: passenger air traffic, air traffic demand, demand management, passenger traffic infrastructure, development strategy.

INTRODUCTION

Transport plays a fairly large role in the global economy. With the help of transport, passengers and cargo are transported over long or short distances; it determines the development of both trade and tourism. Passenger transport is one of the components of the global market for transport services. The ability of persons and goods to move freely across the borders is essential for European integration. The EU wants to create a "Single European Transport Area" in which obstacles, both between the national transport systems and between the various modes of transport, are removed [1].

Intercity passenger transport determines the development of urban infrastructure, and transport that is capable of transporting passengers between cities and countries largely determines the development of different types of tourism (i.e. standard tourism associated with leisure and excursions, business tourism, studying abroad, working abroad and etc.).

Currently, long-distance and international transportation is carried out with the help of railways, roads (buses), sea and river transport routes (ships) and aviation (aircraft). The advantages of aircraft are the high speed of transportation, which allows you to quickly cover long distances, move passengers and cargo from one point of the world to another in a few hours, provided that there is an adequate infrastructure at both points (airports, equipped with modern equipment, flight control equipment, runways). Despite an extensive road and rail network, 43% of international travel within the EU was by air in 2013[1]. For example, in 2018, 1106 million people traveled by air in the EU, which is 6% more than in 2017.

[1] Tourism statistics - intra-EU tourism flows. Eurostat. Available at: https://ec.europa.eu/eurostat/statistics-explained/index.php/Tourism_statistics_-_intra-EU_tourism_flows (accessed 20.06.2019)

Nowadays, air travel is not a highly expensive mode of passenger transportation. The safety of air travel is also constantly increasing; passengers are less and less exposed to the risks associated with flying.

In general, the development of passenger air travel in the world and in Europe is affected by various price and non-price factors. Price factors are closely related to the ratio of the distance and cost of the flight in comparison with other alternatives (movement by other modes of transport). Non-price factors are determined by the development of tourism, the growing needs of the population in moving between cities and countries, as well as the increasing convenience of air travel, when they become more comfortable and accessible to the consumer from the moment of ticket purchase to the end of the flight.

The growth trend in passenger traffic has stabilized, at the same time it faces a number of unfavorable market conditions, including oil prices, which are still at a fairly high level and growing uncertainty in the global economy.

Therefore, the goal set in the article is to analyze the factors that influence the development of the European market of passenger air travel, the demand for services in this market.

To achieve this goal, we studied the concept of demand for passenger air travel, the factors that determine it, analyzed the development of air transportation in Europe, identified the problems and prospects for the demand for passenger air transportation in Europe.

The article used some analytical materials on the subject of the demand for passenger air transportation, given in the works of other authors.

DEMAND FOR PASSENGER AIR TRANSPORTATION AND FACTORS DETERMINING IT

The demand for passenger air travel is of great interest to the manufacturers of aircraft, airlines, airports and other institutions related to aviation. Airlines use passenger demand forecasts to better understand potential behavior along the way and the expected number of passengers. These forecasts are crucial for pricing strategies, ordering and fleet utilization and, therefore, for the airline's corporate success[2]. Airport infrastructures are consequently adjusted for future projected demand [2].

We can provide some definitions. The market is a competitive form of communication between economic entities. The market mechanism is a mechanism of interrelation and interaction of the main market elements – demand, supply, price, competition, and the basic economic laws of the market. The mechanism of the market allows you to meet the needs of a man and society, which are expressed through demand.

The law of demand. If the prices for any product or service increase, and at the same time all other parameters remain unchanged, then the demand for less and less of this product (service) will be presented. Demand is the effective need for any product or service. It should be noted that in the airline industry, a passenger buys fast, safe and comfortable movement to another city (country), and not just a seat on the plane.

The law of supply. An offer is a collection of goods and services that are present on the market and that the sellers are willing to sell to the buyer at a given price. Thus, demand from the point of view of microeconomics is the dependence of the quantity and quality of goods (Q) purchased by buyers (what they can and wish to purchase) over a period of time from the price of this product (P), which determines, in particular, K. R. McConnell and S.L. Brue (2011).

Microeconomics assumes that price is the main determinant factor in demand for goods [3] and services, and that its reduction contributes to growth in demand, as well as an increase in its reduction,

[2] Understanding the Demand for Air Travel: How to Compete More Effectively (2006). Boston Consulting Group. Available at: https://www.bcg.com/documents/file14820.pdf

taking into account the flexibility of demand for the price of a product or service (and for different types of goods and services elasticity is different).

However, the theory of microeconomics states that price is not the only factor that determines the volume of demand. Other factors include: change in the number of customers; income of the population; consumer preferences, availability and quality of substitutes and alternative/related goods; traffic quality, service, safety; consumer preferences and expectations, the use of advertising. The demand for air transport services is characterized by great scholasticism and uncertainty [4].

Considering the price of air travel, it should be borne in mind that they cannot be substantially low: significant costs are necessarily associated with the acquisition of aircraft themselves and their maintenance, there are significant costs for the use of airport infrastructure, fuel, flight safety, and pilots labor (a pilots profession is highly paid, because it requires a large amount of knowledge and practical skills). However, the thoughtful organization of passenger traffic provides an opportunity to save on some costs of travel for passengers [5]. For example, these are charter flights (when tickets are sold in advance, along with travel vouchers, and the entire plane is full of passengers, and the airline receives a guaranteed amount of transportation and revenue), as well as low-cost airlines (low-cost carriers, also denoted as LCC).

LCC have recently performed not only domestic low-cost flights, but also developed hubs around the world, starting to fly along more long-distance routes. In general, low-cost airlines offer the possibility of flying at a low price “no frills” for a passenger (for example, lack of food or paid meals on board, paid baggage if there is one, etc.) [6]. For example, in 2018, the ultra-low-profile West Jet (Swoop) appeared, the flight on which from Ontario to British Columbia costs only $ 7.5 one way, which is very cheap, and in other directions the cost of tickets varies from $ 35 to 99 in one direction, which is also a low price that attracts potential customers[3].

It is possible to single out such factors of successful functioning and development of low-cost airlines as:

- Optimization of the structure of operating expenses;
- Other expenses of the airline are transferred to additional services that are provided on a paid basis and allow you to receive additional income (for example, meals on board and transportation of baggage);
- A built-in policy of generating additional incomes, for example, from paying for priority boarding on a plane, choice of seats by passengers during check-in, etc.;
- A unified fleet, which includes relatively new aircraft that have higher fuel efficiency, relatively small costs associated with maintenance;
- Hedge prices for aviation fuel[3];
- The implementation of integrated modern technologies of ticket sales with the sale of additional services;
- Flexible prices to meet the demand for affordable air travel, taking into account eventual requests of passengers to save on flights.

All this provides both cost reduction and sales growth, when, on average, up to 80 % or more of the seats are occupied during the flight. In general, the share of low-cost airlines in the world pas-

[4] The new WestJet low cost airline offers one-way tickets for $ 7.50 between British Colombia and Ontario (2018). Our Vancouver. Available at: https://nashvancouver.com/novyj-loukoster-westjet-predlagaet-bilety-v-odnu-storonu-za-7-50-mezhdu-britanskoj-kolumbiej-i-ontario/ (accessed 24.01.2019)

senger air traffic has now reached 33 % (which is about 1.2 billion transported passengers per year). For comparison, in 2003 the share of traffic by such companies was only 12.2 % (about 250 million passengers). In Western Europe, the share of low-cost airlines is 42 % for domestic and 18 % for international flights (for comparison, in 2003 only 18.1 and 3.3 %, respectively), in Eastern and Central Europe – 4.9 % for domestic flights and 30.2 % in international terms (for comparison, only 4.1 % and 4.0 % in 2003, respectively) [7].

Irish company Ryanair, with annual revenues of $ 7.4 billion, ranks first among low-cost airlines in Europe. In addition to Ryanair, low-cost airlines WizzAir (Hungary), Norwegian (Norway, flights in Northern Europe, USA), EasyJet (UK), Air Baltic (Lithuania), Aegeanair (Greece), Vueling Airlines (Spain), Eurowings (Germany, Lufthansa subsidiary low cost), Blue Air (Romania) and a number of others have been set up.

The advent of low-cost carriers over the years has led to a large increase in air travel within Europe. Air transportation is now often the cheapest way of travelling between cities. This increase in air travel has led to problems of airspace overcrowding and environmental concerns. The Single European Sky is one initiative aimed at solving these problems [8].

Within the European Union, the complete freedom of the air and the world's most extensive cabotage agreements allow budget airlines to operate freely across the EU [9].

In general, it can also be noted that the liberalization of the airline market, the growing number of airlines in the market (including low-cost airlines), tougher competition – all leads to lower fares and ultimately makes air travel more affordable, supporting passenger demand. The recent decline in oil prices has also positively impacted global air travel decreasing the cost of airline tickets thus making the issue of the need to raise tariffs no longer acute.

These factors led to the stabilization of prices for airline tickets at this stage of development of passenger aviation. As can be seen from a study done in relation to Sweden and the UK, business passengers are less sensitive to price fluctuations in the direction of increasing air ticket prices than passengers traveling for the purpose of leisure.

The change in the number of buyers is also an important factor affecting the demand for passenger air travel. At present, the development of air travel in Europe is closely linked to the growth of urbanization: most European citizens live in urban agglomerations, and even relatively small cities and villages are increasingly “merging” with large cities, and the urban transport and suburban infrastructure makes it accessible to all residents of the agglomeration.

Those social services that were previously available only to residents of large cities, including tourism in general and air travel in particular are becoming widespread. According to the World Bank, at the beginning of 2018, the urban population accounted for 70 % of the total population. In European countries, the level of urbanization, as in the whole world, varies country by country, but it is above 50 % and in most countries this share exceeds 65 %. The population density is usually the highest in areas surrounding European capitals and major cities (for example, Paris, London, Rome, Berlin) or in large metropolitan areas (for example, German Ruhrgebiet).

The monetary income of the population is another important factor in the demand for air travel. IATA analysis[4] shows that an increase in people’s revenue directly leads to an increase in air transportation demand. About 5 % of the total cash expenditures of the population accounted for the costs of all types of transport. In the total revenue from the provision of such services, the share of air transport is about 35 %.

[4] IATA. Air Travel Demand (2008). IATA Economics Briefing, No. 9, pp. 50-55.

The increase in demand for air travel is influenced by the overall favorable economic development, due to which airlines increase the frequency of flights and introduce non-stop flights between a large number of city pairs. Improving the quality of services is an incentive to increase demand over the long term. Consumer tastes and preferences are also an important factor in the development of passenger air traffic in Europe.

Eurostat cited the general characteristics of the European air transport market, outlined the factors that influence and stimulate the demand for travel among various categories of air passengers. In this case, for example, three different groups of senior travelers were considered: the age group from 55 to 64, from 65 to 79, and 80 and older. The number of trips per year was more for the first group, since these people are still at the active stage, while the volume of trips has decreased for the last two groups.

The survey data suggests that the duration of the trip increases with age, and the refusal to travel is caused by a lack of funds, as well as deterioration of health. Older passengers usually travel during off-peak seasons and prefer a longer stay at their destination.

Regarding the behavior of young participants in air travel, the World Tourism Organization[5], as well as the International Confederation of Student Travel, together with the Association for Education in Tourism and Recreation, explored travel planning, expectations and travel duration of this particular group. The WTO report looks at air passengers between the ages of 15 and 29, who account for about 23 percent of all travelers around the world. The main motivation for this group is the initiation to new cultures, meeting local residents for “living together”. In addition, with the increase in the number of students receiving higher education, studying abroad is becoming increasingly prestigious. Some young travelers combine their trips with work at the appropriate destination in order to make the most efficient use of their budget.

Thus, the main reasons for air travel for young people are acquaintance with new cultures, the opportunity to expand their knowledge of the world and, ultimately, to enjoy the journeys themselves. The Internet is the predominant method of planning and booking trips for this category of passengers. Accordingly, a significant proportion of this group travels on long-distance directions and mainly uses air transport. It should also be noted that the category of young air passengers is not homogeneous, but varies depending on the destination of the flight, age, income level or the very purpose of the flight [9].

External shocks, such as terrorist acts committed on September 11, 2001, had a negative impact on the behavior of passengers and led to a temporary drop in demand for air travel in both European countries and the United States [11].

The task of determining the demand for passenger air transport is advisable to solve in two stages. At the first stage, it is necessary to estimate the number of the share of potential users of services that are able to pay for the flight from their own funds - the “effective part” of the population. In the second stage, there is a need to identify the number of passengers that the "effective" part of the residents "supplies" to the market [12].

ANALYSIS OF THE EUROPEAN AIR TRANSPORT MARKET

The transport market has a complex structure. Market structuring is the basis for the analysis and serves as a foundation for forecasting. The table below gives a description of the structure and flow of the European transport market (Table 1).

[5] Understanding the Demand for Air Travel: How to Compete More Effectively (2006). Boston Consulting Group. Available at: https://www.bcg.com/documents/file14820.pdf

Table 1

Overview of EU-28 air passenger transport by Member States in 2018: passengers carried (Thousands)

		Total transport		National transport		International intra-EU-28 transport		International extra-EU-28 transport	
		Number of passengers	Growth (%) 2017-2018	Number of passengers	Growth (%) 2017-2018	Number of passengers	Growth (%) 2017-2018	Number of passengers	Growth (%) 2017-2018
EU-28(1)		**1 105 937**	**6.0**	**181 850**	**3.6**	**513 531**	**4.6**	**410 555**	**9.1**
Belgium	BE	34 506	3.7	9	-10.9	24 717	0.8	9 781	11.9
Bulgaria	BG	12 138	9.4	315	12.5	9 414	10.6	2 408	4.5
Czechia	CZ	17 838	9.8	62	-8.5	12 200	7.2	5 577	16.2
Denmark	DK	34 701	4.3	1 947	-0.2	23 475	3.3	9 279	8.2
Germany	DE	222 422	4.7	23 626	-0.9	123 158	4.5	75 638	7.0
Estonia	EE	2 996	13.7	28	13.3	2 330	11.2	638	23.6
Ireland	IE	36 345	6.0	99	13.6	29 906	4.1	6 341	15.9
Greece	EL	54 259	8.1	8 554	2.6	36 699	10.1	9 006	5.9
Spain	ES	220 611	5.1	40 057	10.8	148 341	3.2	32 213	7.7
France	FR	161 991	5.1	31 035	3.4	72 894	4.8	58 062	6.5
Croatia	HR	9 731	10.0	528	0.4	7 498	9.1	1 705	18.3
Italy	IT	153 352	6.3	32 183	3.4	90 443	5.5	30 727	11.7
Cyprus	CY	10 927	6.7	0	-	7 424	9.0	3 503	2.2
Latvia	LV	7 037	15.8	11	67.6	4 984	12.9	2 043	23.2
Lithuania	LT	6 254	19.2	0	1547.8	4 681	17.0	1 573	26.5
Luxembourg	LU	3 989	12.2	1	-31.1	3 599	12.0	389	14.8
Hungary	HU	15 176	13.7	0	30.6	11 530	8.7	3 646	32.9
Malta	MT	6 806	13.3	0	5042.9	6 179	12.4	627	22.7
Netherlands	NL	79 644	4.5	3	21.4	50 088	3.6	29 553	6.0
Austria	AT	31 138	9.9	585	10.1	21 267	8.7	9 286	12.8
Poland	PL	43 746	16.1	1 905	-13.9	31 401	12.0	10 440	40.4
Portugal	PT	51 018	7.0	5 170	4.3	36 156	5.9	9 692	13.2
Romania	RO	19 317	7.7	1 420	3.7	15 191	5.9	2 706	21.7
Slovenia	SI	1 811	7.6	0*	-	1 111	10.1	700	3.9
Slovakia	SK	2 794	16.3	21	-14.5	2 003	11.7	771	31.5
Finland	FI	22 174	10.6	2 992	8.4	13 579	8.8	5 603	16.3
Sweden	SE	38 945	1.3	7 640	-2.8	23 710	1.0	7 595	6.7
United Kingdom	UK	272 190	2.9	23 661	1.0	167 477	1.4	81 053	6.6

(') Double counting is excluded in the intra-EU-28 and total EU-28 aggregates by taking into consideration only departure declarations.
0 less than 500 passengers carried
(-) not applicable
0* real zero no passengers carried

For travel in both directions for the EU and EFTA states, all types of travel include at least one overnight stay at the destination. Countries with a very high proportion of exit trips, such as Luxembourg, Belgium, Malta, Switzerland or Slovenia, are small states in terms of geographic size.

Figure 1 below shows the growth in the total volume of passenger traffic in 2017-2018.

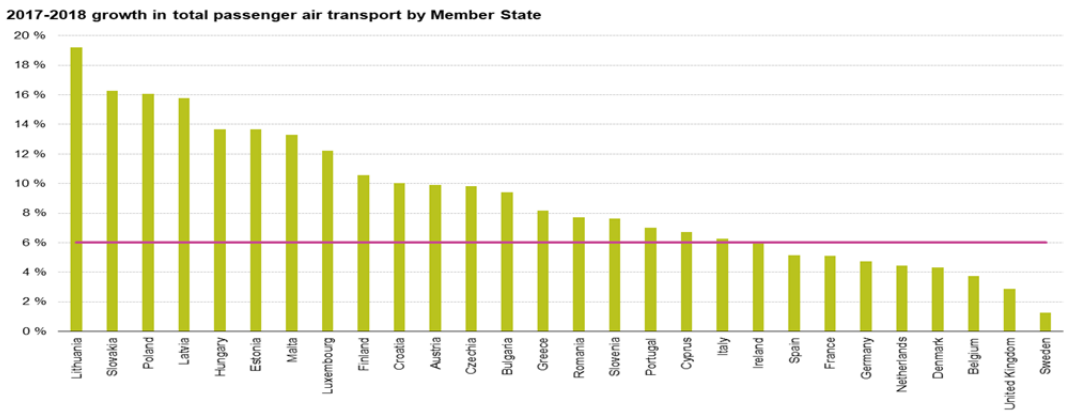

Fig. 1. Growth in total passenger traffic

Due to the growth in volumes, airports need reliable demand patterns, their infrastructures (parking, terminal buildings, ground handling, and airspace infrastructure) are adjusted for future demand[2].

In 2018, the aviation world continued to discover the opportunities offered by digital innovation. Research from the London School of Economics has shown that by 2035 an additional income of $ 130 billion from digital innovations could be obtained.

Figure 2 shows the distribution of seats provided by airlines for each country.

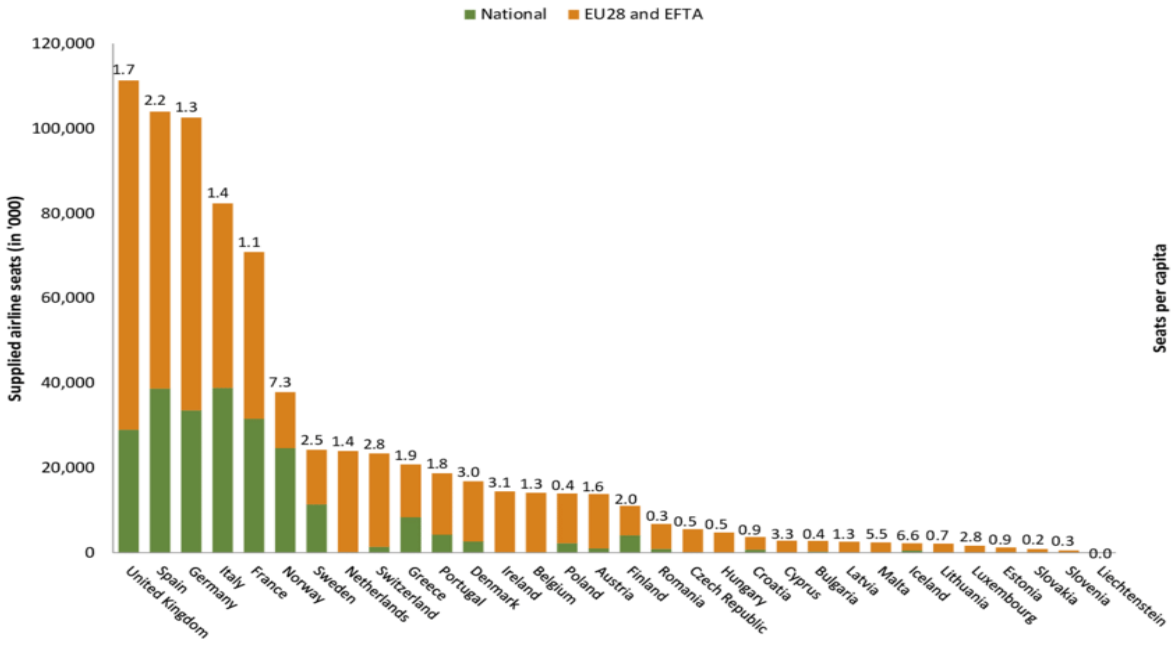

Fig. 2. Supplied national an intra-EU airline seats by each country[6]

The number of seats is correlated with the population of the country, for example, the more people in the country, the higher the absolute number of seats offered to and from this country. Norway is the country with the highest share of the proposed national places in relation to the total number of seats (65 percent). This is due to the geography and configuration of this country, which is characterized by long distances and low population density. The same is applicable to Sweden and Finland, where the national places are respectively 47 and 37 percent [13]. Italy, France and Spain also have a high share of national air traffic, with 47%, 45% and 37%, respectively. These three countries also have a high proportion of domestic traffic, taking into account all types of transport. For Spain and France, the large size of the country and the presence of few, but large urban centers contribute to the high level of domestic traffic[7].

When considering the European air transport market and the associated passenger demand, the destination regions for each of the EU countries and EATT give an idea of the main traffic flows in Europe. Figure 3 shows the three main air currents for all these countries in terms of departing seats.

[6] Official Airline Guide Schedules Data (2016). Available at: https://www.iata.org/publications/store/Pages/standard-schedules-information (accessed 17.10.2019).

[7] World Tourism Organization (2016). Affiliate Members Global Reports, vol. 13 - The Power of Youth Travel, UNWTO, Madrid. DOI: https://doi.org/10.18111/9789284417162

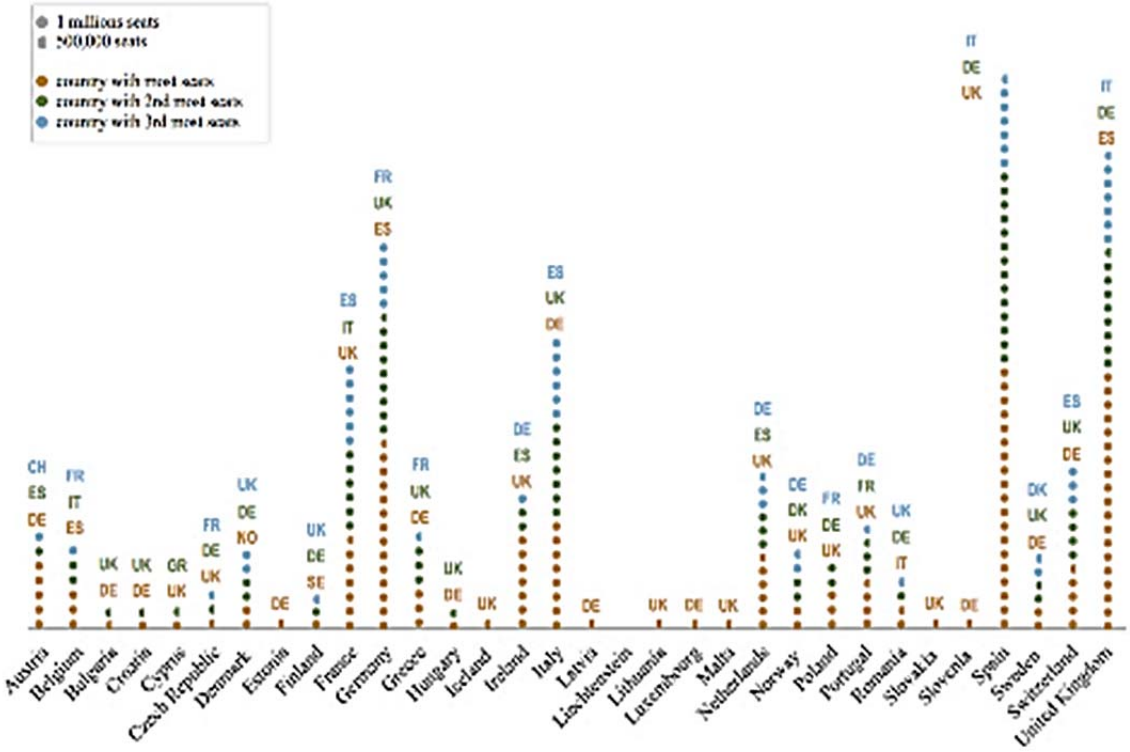

Fig. 3. Top three air traffic flows for EU28 and EFTA countries[8]

Spain, Germany, Great Britain, France and Italy own most of the European traffic. This correlates with the corresponding population figures, runways and the number of flights per capita.

Romania, Bulgaria and the Czech Republic have the lowest share of air travel in the total volume of transport travel compared to other European countries. Portugal, Poland, Slovakia, Slovenia, Hungary and Croatia have a share of less than 10 percent.

Passenger traffic reporting reflects only actual demand. Market analysis has become an important part of the work of planning and organizing air travel. For this purpose, airlines use various systems for forecasting the demand for air travel. Automated demand forecasting systems consist of a subsystem for collecting and processing information, analyzing and issuing recommendations, which allows airlines to correctly use the obtained forecasts and optimally manage available resources, be prepared for seasonal fluctuations in advance, and influence consumer demand [14].

As stated above, various factors affect the level of demand for air travel within a country or region. Leaving aside aspects of supply, such as affordable airport infrastructure or regulatory restrictions, the analysis has so far focused on such aspects of demand as affordable income, age structure, or level of education. The question that needs to be addressed through empirical analysis is whether these factors have a statistically significant effect on passenger demand in the European Union and EFTA [15].

Studies show that per capita income, often expressed using per capita GDP, is one of the main factors determining the number of flights per person. This factor, like the others discussed in the previous sections, is included into the regression analysis to determine their respective effect on the number of flights per capita in Europe.

Table 2 gives an overview of these factors.

[8] The same source.

Table 2

Overview of variables used in regression analysis

Variable	Definition	Reference
Airtripscap	The number of air trips per capita per country in 2014; dependent variable	Eurostat (2014a)
GDP	The gross domestic product (GDP) per capita in 2014, purchasing power parity in USD, logged variable	The World Bank Group (2014)
Geo	A dummy variable indicating whether a country is an island (1 if country is an island)	N/A
Educ	The share of population having a tertiary education degree	Eurostat (2014d)
Urbanpop	The share of people living in urban agglomerations	The World Bank Group (2016)

In the regression analysis using the least squares model (OLS), the number of flights per capita is a dependent variable. This indicator is an indicator of the level of demand for air transport within a country. WFP has a positive effect on the number of flights per capita, as well as the level of higher education of air passengers. In addition, it is considered in the analysis taking into account geographic location, for example, whether a country is an island state, since in many cases air transport may be the only possible transport alternative. The proportion of people living in urban agglomerations also affects the level of demand.

Air travel per capita shows a high divergence in these countries, with Romania having the lowest number of flights per capita (0.02) and Cyprus the highest (1.35). Gross domestic product per capita ranges from a minimum of $ 17,207 (~ 16,000 euros) in Bulgaria to $ 98,459 (~ 90,000 euros) in Luxembourg. The share of people with higher education is the highest in the UK (~ 37 percent) and Luxembourg (~ 40 percent) and the lowest in Romania (14 percent). The degree of urbanization also varies greatly: about 98 percent in Belgium and 14 percent in Liechtenstein.

CONCLUSION

Passenger carrying capacities of airlines (expressed in available seat-km, or ASK) increased by an average of 6.5%, while the load factor increased by 1 pp. - up to 82.8%. During the first half of 2018, the average passenger traffic of airlines increased by 7% (in the same period of 2017 - 7.9%). A number of factors influenced the slowdown in demand. The main one is the growth of airline expenses, which reduces incentives for low fares. A change in price leads to a change in the value of demand. Certain negativity is introduced by the looming threat of a global trade war. A decrease in supply under the influence of rising costs and a decrease in demand under the influence of price changes for interchangeable goods and changes in consumer preferences led to a decrease in sales of major air carriers and a decrease in their revenue. Reduced revenue, while increasing costs, led to lower profits.

Despite a slight slowdown, 2018 was a year that demonstrated an increase in demand above the trend. This was facilitated by the measures that were taken by the airlines - the abolition of unprofitable routes, the reduction in the number of personnel - are aimed at reducing costs and, consequently, at reducing losses and, thus, increasing profits. According to forecasts for the next 20 years, global air travel will continue to grow at an average rate of 4.6% per year. The leaders of growth in the world will remain the United States, China, the UAE, in Europe - the United Kingdom and Germany.

The results of the empirical analysis confirm important determinants at the European level. In a market economy, the form of relations between airlines and clientele has changed on the basis of consumer preferences for a bottom-up choice. As research has shown, the cost of air tickets is not the main

factor in the demand for business passengers, but affects the demand of passengers traveling for personal purposes.

The purpose of this article was to assess the factors influencing the demand for air transportation at the European level, to study the interdependence between them and to give an idea of the expectations of potential passengers regarding the European transport system. Since the passenger himself chooses the type of transport, a number of factors, both quantitatively and qualitatively, influencing his choice has been studied. The general characteristics of the European air transport market are presented, indicating the main air traffic flows in the European Union and EFTA countries.

REFERENCES

1. Abramowitz, A.D. and Brown, S.M. (1993). *Market share and price determination in the contemporary airline industry*. Review of Industrial Organization, vol. 8, issue 4, pp. 419-433. DOI: https://doi.org/10.1007/BF01024279

2. Bießlich, P., Schroeder, M.R., Gollnick, V., and Lütjens, K. (2014). A System Dynamics Approach to Airport Modeling. 14th AIAA Aviation Technology, Integration, and Operations Conference, 1–13 June. Available at: http://doi.org/doi:10.2514/6.2014-2159 (accessed 24.01.2019)

3. McConnell C.R., Brue, S.L. and Flynn, S.M. (2011). *Economics: Principles, Problems, and Policies:* textbook. 19th ed. McGraw-Hill Education, 896 p.

4. Call, G.D. and Keeler, T.E. (1986). *Airline deregulation, fares, and market behavior: Some empirical evidence*, in A.F. Daughety (Ed.). Analytical Studies in Transport Economics, Cambridge, Cambridge University Press, pp. 221–248. DOI: https://doi.org/10.1017/CBO9780511895913.010

5. Dresner, M. and Tretheway, M. (1992). *Modelling and testing the effect of market structure on price. The case of international air transport.* Journal of Transport Economics and Policy, vol. 26, no. 2, pp. 171-184.

6. Maltsev, A.A., Matveeva, A.V. and Tarasov, A.G. (2016*). Low-cost companies as a driving force of growth of the global flight passenger turnover.* Problems of Modern Economics, no. 1 (57), pp. 63-67. (in Russian)

7. Matveeva, A.V. and Maltsev, A.A. (2017). *Low-cost airlines as a vector of global air transport dynamic development.* Russian Foreign Economic Journal, no. 8, pp. 80-91. (in Russian)

8. Morrell, P. (1998). *Air transport liberalization in Europe: The progress so far.* Journal of Air Transportation World Wide, vol. 3, no. 1, pp. 42-60.

9. Dargay, J. and Hanly, M. (2001). *The determinants of the demand for international air travel to and from the UK.* ESRC Transport Studies Unit. Center for Transport Studies, University College: London, no. 59, pp. 1-14.

10. Havel, B.F. and Sanchez, G.S. (2014). *The Principles and Practice of International Aviation Law*. Cambridge University Press, 462 p.

11. We Have Some Planes: Inside the Four Flights (2004). The 9/11 Commission Report. National Commission on Terrorist Attacks Upon the United States. Available at: https://govinfo.library.unt.edu/911/report/911Report_Ch1.pdf (accessed 06.08.2019).

12. Graham, D.R, Kaplan, D.P. and Sibley, D.S. (1983). *Efficiency and competition in the airline industry*. The Bell Journal of Economics, Spring, vol. 14, no. 1, pp. 118-138.

13. Gillen, D. (2006). *Airline Business Models and Networks: Regulation, Competition and Evolution in Aviation Markets.* Review of Network Economics, vol. 5, no. 4, pp. 366–385.

14. Gillen, D., Harris, R. and Oum, T.H. (1998). *A model for measuring economic effects of bilateral air transport liberalization*. Department of Economics, Work paper series 99-08, Paper presented at the International Colloquium on Air Transportation, Toulouse, November 17-19.

15. Doganis, R. (2010). *Flying off Course: Airlines economics and marketing.* 4th ed., Routledge: Oxford. 336 p.

INFORMATION ABOUT THE AUTORS

Inna P. Stecenko, Professor, Doctor of Economic Sciences, Vice Rector for Research, the Baltic International Academy,i.stecenko@gmail.com

Anton V. Parkhimovich, Magister**,** Mechanics Manager in the Company Lime, Vienna, Austria. antonparkhimovich@gmail.com

РЫНОК ПАССАЖИРСКИХ АВИАЦИОННЫХ ПЕРЕВОЗОК В ЕВРОПЕ

И.П. Стеценко[1], А.В. Пархимович[2]
[1]Балтийская Международная Академия, г. Рига, Латвия
[2]Компания Lime, г. Вена, Австрия

Гражданская авиация является системно значимым сектором европейской экономики. В 2015 году была утверждена новая стратегия развития, определяющая роль воздушного транспорта в пассажирских коммуникациях. Реализация стратегии предусматривает, среди прочего, снижение стоимости билетов, что отразится на мобильности населения. В этом контексте в статье рассматриваются приоритеты стратегии развития, отмечается, что спрос на пассажирские авиаперевозки зависит от большого количества факторов. Их можно объединить в четыре группы: социальная стабильность, макроэкономические, внутриотраслевые и межтранспортные факторы. Их влияние на величину спроса варьируется, и носит как ценовой, так и неценовой характер. В статье определены лидеры рынка пассажирских авиаперевозок, рассмотрены проблемы, препятствующие развитию сети воздушных перевозок. Также освещаются особенности европейского рынка пассажирских авиаперевозок и перспективы развития единой транспортной системы для обеспечения позитивного социально-экономического эффекта в развитии экономики. Высокий уровень конкуренции с сопоставимым уровнем качества обслуживания требует новых форм отношений с потребителями. В настоящее время в Европе построена удобная для пассажиров инфраструктура авиаперевозок, на рынке работают компании, которые предлагают довольно дорогие, а также недорогие транспортные услуги. Кроме того, уровень доходов населения в странах Европы достаточно высок. В совокупности эти факторы предопределяют возросший спрос на авиаперевозки. В этих условиях внедрение инноваций и цифровых технологий вместе с привлечением инвестиций должно стать стимулом для роста. Принятие указанных мер приведет к улучшению качества обслуживания пассажиров, увеличению пассажиропотока и увеличению доходов авиакомпаний, а также расширению возможностей трудоустройства. Надёжность, безопасность, экология рассматриваются как стратегические приоритеты.

Ключевые слова: пассажирские авиаперевозки, спрос на авиаперевозки, управление спросом, инфраструктура пассажирских перевозок, стратегия развития.

СПИСОК ЛИТЕРАТУРЫ

1. **Abramowitz A.D., Brown S.M**. Market share and price determination in the contemporary airline industry // Review of Industrial Organization. 1993. Vol. 8, iss. 4. Pp. 419-433. DOI: https://doi.org/10.1007/BF01024279
2. **Bießlich, P.** A System Dynamics Approach to Airport Modeling [Электронный ресурс] / P. Biesslich, M.R. Schroeder, V. Gollnick, K. Lütjens // 14th AIAA Aviation Technology, Integration, and Operations Conference, 1–13 June 2014. URL: http://doi.org/doi:10.2514/6.2014-2159 (accessed 24.01.2019)
3. **Макконнелл С.Р., Брю С.Л., Флинн Ш.М.** Экономикс: принципы, проблемы и политика: учебник. 19-е изд., пер. с англ. М.: НИЦ ИНФРА-М, 2017. 1028 с.
4. **Call G.D., Keeler T.E.** Airline Deregulation, Fares, and Market Behavior: Some Empirical Evidence, in A.F. Daughety (Ed.). Analytical Studies in Transport Economics. Cambridge: Cambridge University Press, 1986. Pp. 221-248. DOI: https://doi.org/10.1017/CBO9780511895913.010

5. Dresner M., Tretheway M. Modelling and testing the effect of market structure on price. The case of international air transport // Journal of Transport Economics and Policy. 1992. Vol. 26, no. 2. Pp. 171-184.

6. Мальцев А.А., Матвеева А.В. Тарасов А.Г. (2016). Лоукост-компании как драйвер роста мирового авиапассажиропотока // Проблемы современной экономики. 2016. № 1 (57). С. 63–67.

7. Матвеева А.В., Мальцев А.А. Лоукостеры как вектор динамичного развития мирового рынка авиаперевозок // Российский внешнеэкономический вестник. 2017. № 8. С. 80-91.

8. Morrell P. Air transport liberalization in Europe: The progress so far // Journal of Air Transportation World Wide. 1998. Vol. 3, no. 1. Pp. 42-60.

9. Dargay J., Hanly M. The determinants of the demand for international air travel to and from the UK // ESRC Transport Studies Unit. Center for Transport Studies. University College: London. 2001. No. 59. Pp. 1-14.

10. Havel B.F., Sanchez G.S. The Principles and Practice of International Aviation Law. Cambridge University Press, 2014. 462 p.

11. We Have Some Planes: Inside the Four Flights [Электронный ресурс] // The 9/11 Commission Report. National Commission on Terrorist Attacks Upon the United States. URL: https://govinfo.library.unt.edu/911/report/911Report_Ch1.pdf (accessed 06.08.2019).

12. Graham D.R., Kaplan D.P., Sibley D.S. Efficiency and competition in the airline industry // The Bell Journal of Economics. Spring. 1983. Vol. 14, no. 1. Pp. 118-138.

13. Gillen, D. Airline Business Models and Networks: Regulation, Competition and Evolution in Aviation Markets // Review of Network Economics. 2006. Vol. 5, no. 4. Pp. 366–385.

14. Gillen D., Harris R., Oum T.H. A model for measuring economic effects of bilateral air transport liberalization. Department of Economics. Work paper series 99-08. Paper presented at the International Colloquium on Air Transportation. Toulouse, 17-19 November 1998.

15. Doganis R. Flying off Course: Airlines economics and marketing. 4th ed. Routledge: Oxford, 2010. 336 p.

СВЕДЕНИЯ ОБ АВТОРАХ

Стеценко Инна Петровна, проректор по науке Балтийской Международной Академии, доктор экономических наук, профессор, i.stecenko@yahoo.com

Пархимович Антон Викторович, магистр, Mechanics Manager in the company Lime, Вена, Австрия, antonparkhimovich@gmail.com

Поступила в редакцию	02.08.2019	Received	02.08.2019
Принята в печать	23.01.2020	Accepted for publication	23.01.2020