

Key issues of strategic management of aviation infrastructure of Ukraine

The key directions of strategic management of aviation infrastructure of Ukraine are defined. The expediency of identifying the key characteristics of airports that determine their competitiveness to ensure the effective development of aviation infrastructure, its integration into the world aviation infrastructure is substantiated.

An important component of modern policy of aviation infrastructure development is a reasonable choice of the appropriate model of ownership and operation of the airport, in particular through the involvement of the private sector. With the significant dominance of the state form of ownership, private ownership is now widespread, as well as mixed forms of ownership based on their corporatization, creation of non-profit public and private companies, etc. Among the models of operation and management of airports are widely used agreements on management, maintenance, concessions and other forms of public-private partnership (PPP). However, the use of forms and models of airport ownership and management varies from country to country. As the analysis of sources [1-5] showed, depending on the macro, micro-environment of the country, as well as the status, rating of the airport, certain models of ownership and operation are more or less developed.

An important input parameter of strategic management of aviation infrastructure is the operational parameters of airports, their key performance indicators.

When developing key issues of strategic aviation infrastructure management, it is necessary to take into account economic regulation and competition, assessing whether the change of state ownership will improve the efficiency of airports.

Known performance and financial performance can serve as such criteria. Moreover, efficient airports with increasing passenger traffic are being privatized. Therefore, attracting a private investor, even with partial participation, provides investment and accelerates the development of infrastructure to ensure passenger traffic, as well as ensures the development of the area adjacent to the airport, which is a source of development of the region and the country as a whole. growth of trade and services, growth of taxes to budgets, etc. Given the current economic conditions under the pressure of anti-pandemic measures, the need for investment capital, as well as additional income of the Ukrainian government are quite important arguments for changing the state model of airport ownership in favor of PPP models.

Today, both companies - investors, and the Ministry of Infrastructure of Ukraine are interested in changing the models of ownership and operation of airports in Ukraine. In 2020, concession agreements were organized with foreign companies - investors in the seaports of Ukraine: Kherson Sea Commercial Port and specialized seaport "Olbia" (Mykolaiv region). If the seaports of Ukraine are of key importance for international cargo transportation, the airports of Ukraine are used mainly to provide international passenger traffic, as well as international long-distance transportation of valuable and bulky cargo. In particular, the interest in investing in the aviation

infrastructure of Ukraine is due to the growing volumes of air traffic of both domestic and foreign airlines, whose activities on routes to Ukraine intensified in 2017-2019, precisely due to the gradual liberalization of the aviation space of Ukraine [6-9].

In 2019 - 2020, commercial flights of domestic and foreign airlines were served by 19 domestic airports, and from 2016 to 2019 there was a positive trend in the number of services in their takeoffs and landings. In total, regular passenger traffic to Ukraine in 2019 was performed by 40 foreign airlines, which is 1.42 times more than in 2016. Moreover, the share of foreign airlines in the total volume of regular passenger traffic between Ukraine and the world increased by 30% over the period and amounted to 57% in 2019, the share of Ukrainian airlines, respectively, decreased. The dynamics of the number of flights in the airspace of Ukraine is presented in Fig.1.

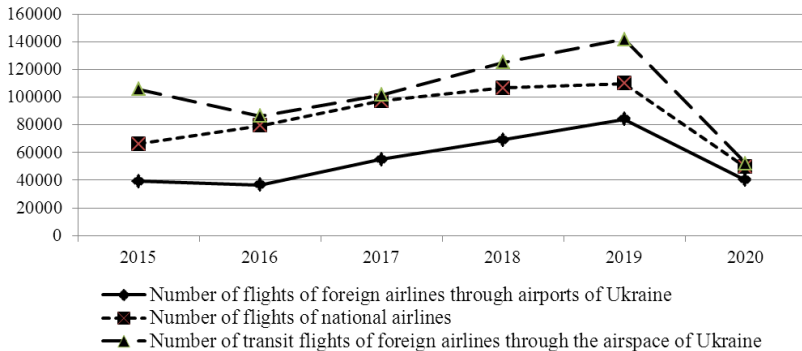


Fig. 1. Dynamics of the number of flights in the airspace of Ukraine

In 2020, 40249 direct flights of foreign airlines, 52075 transit flights of foreign airlines and only 49633 flights of national airlines were operated in the airspace of Ukraine. In total, the State Air Traffic Services Enterprise of Ukraine (UkSATSE) provided 142047 flights with air navigation services, which is 57.6% less than in 2019.

The number of flights and the dynamics of their change, of course, are important indicators of the operational performance of the airport. At the same time, not all airports accept passenger flights, not all flights are commercial. Therefore, according to the reports of the State Aviation Service of Ukraine [11] it was found that for the period 2017-2019 passenger traffic at domestic airports increased by 47.5%. The largest increase in passenger traffic took place at the following airports: Uzhhorod - 15 times, Rivne - 3.25 times and Lviv - 2 times, Chernivtsi - 56%, Kharkiv - by 56%, Boryspil - by 44%, Kyiv - by 41%, Odessa - by 37%. However, in 2020, due to anti-pandemic restrictions, the performance of Ukrainian aviation companies deteriorated significantly. Thus, passenger traffic through Ukrainian airports decreased by 64.4%.

Figure 2 shows the structure of passenger traffic at Ukrainian airports in the dynamics for 2017-2020, compiled based on the reports of the State Aviation Service of Ukraine [10].

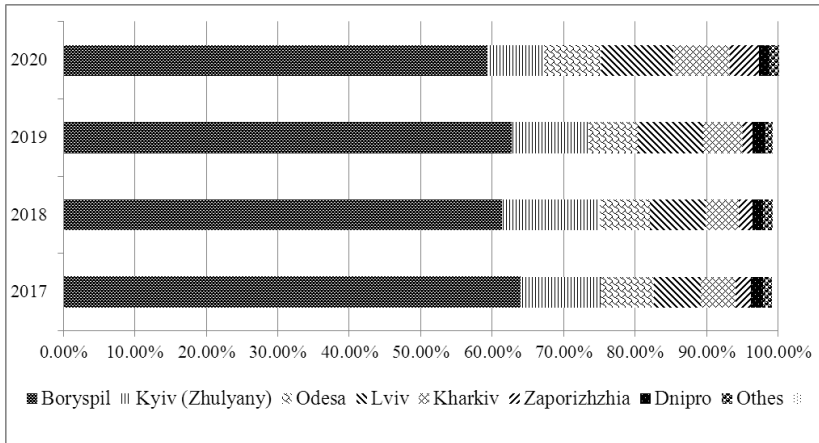


Fig. 2. Structure of passenger traffic at Ukrainian airports

As shown in Figure 2, during the 2017-2020 study period, more than 98% of all passenger flows were concentrated at 7 major airports - Kyiv (Boryspil), Lviv, Kyiv (Zhulyany), Odesa, Kharkiv, Zaporizhzhia and Dnipro.

It is noteworthy that the identified pattern was preserved even with a decrease of 64.4% in passenger traffic in 2020. It should also be noted that the share of passenger traffic at Boryspil Airport has decreased. The identified trends in essence illustrate the existing pattern of growth of passenger traffic in regional airports of Ukraine, which is a consequence of growing demand.

The growth of traffic through the airports of Ukraine for the period 2017-2019 was due to the growth of charter flights by national airlines and the rapid growth of the number of flights of foreign low-cost airlines to Ukraine, which occurred after 2017.

An important growth factor was the liberalization of Ukraine's airspace, in particular due to the expansion of the terms of bilateral intergovernmental agreements between Ukraine and other countries, which led to an increase in the number of low-cost airline flights. Thus, in 2019, the number of flights of Wizz Air Hungary LLC increased by 25%, SkyUp Airlines LLC - by 400%, and Ryanair - by 300% [9].

To ensure the acceptance of the growing number of flights and service of the growing passenger flow in Ukraine, an aerodromes development program has been adopted and is being gradually implemented. During 2020, the Government of Ukraine made changes to this program, expanding the amount of funding and the composition of aviation infrastructure - mainly the runways of various regional airports. Such actions will help to increase the technical capacity of airdroms. A total of UAH 2.4 billion is planned for 2021 from the state budget to spend on the development of regional airports, of which 1.4 billion UAH will be directed to the construction of a new airfield in the Dnipro, UAH 1 billion - to airports in Rivne, Kherson and Vinnytsia. In addition, another UAH 30 million allocated for the design of a new resort in Transcarpathia [11].

However, the government's financial capacity is limited. The current need for expanded financing for the airport infrastructure is provided by attracting funds from foreign and private investors, in particular in construction of airport passenger terminals ("Boryspil", "Odesa"). Some projects for the reconstruction and construction of aviation terminals are implemented using PPP models ("Kyiv", "Lviv", "Dnipro" airports).

Given the geographical position of Ukraine on the path of trade and tourist flows, the development of airports will contribute to the disclosure of export potential of Ukraine's economy. This necessitates investment in aviation infrastructure - in the modernization and construction of runways, air navigation system and other technical facilities, which in Ukraine are carried out at the expense of state sources.

Thus, most regional airports have approved reconstruction projects or working development concepts, the construction of a new airfield in Odessa is nearing completion, and the reconstruction of Dnipro Airport is beginning. Production infrastructure was improved at Kyiv and Zaporizhia airports. At the same time, financing the modernization and construction of passenger and cargo terminals, as well as facilities for the provision of airport non-aviation services, investment in improving the commercial activities of airports for the provision of flight services (passengers, aircraft and cargo) should be based on the use of forms and models of ownership and operation, airport management with the involvement of private capital, in particular on the basis of PPP, concessions, concluding service agreements with private companies, etc. This approach will help increase the efficiency of airport services and increase their quality, as well as the development of areas adjacent to the airport, which will increase employment and tax revenues to local budgets, so it will have a long-term economic effect on Ukraine's economy.

From the point of view of a specific airport, it competes with others and also cooperates in coordinating airline slots. And from the point of view of airport infrastructure management, the country's network of airports should be organized in such a way as to ensure the efficient functioning and development of aviation infrastructure throughout the country, its integration into global aviation infrastructure based on key characteristics of airports that determine their competitiveness.

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