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THE STATE OF AVIATION FIELD DURING COVID-19 PANDEMIC

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Abstract. The global pandemic COVID-19 had a serious impact on the dynamics of air traffic. The purpose of this article is to analyze the change in air travel over the past 10 years and to describe the potential situation, threats and suggest alternative ways out of the crisis. As a result, we identified the following problems: insufficient funding for the aviation industry, lack of resources necessary for its development, low level of exports of civil aviation, no credit mechanisms to finance the production of aircraft, lack of incentives for domestic and foreign institutions to invest, lack of control over aviation companies. The largest decline in air travel occurred in 2020. We also see a decrease in flights from 2013 to 2014 in connection with the beginning of military clashes in eastern Ukraine. In 2021, new air carriers entered the Ukrainian market, including Flynas (low-cost carrier of Saudi Arabia) and Eurowings (German low-cost carrier). It was found that domestic flights through the airspace of Ukraine have increased. An important impetus for their growth is the development of regional airports with the prospect of creating a National Airline. The positive dynamics was influenced by the opening of new passenger flights (Kyiv-Uzhhorod, Chernivtsi-Kryvyi Rih) and the adoption of the draft law №5301, which extended the term of granting Ukrainian airlines a transitional period for the transition to the use of domestic aircraft. In the summer of 2021, flights resumed, and Ukrainians are actively flying to Turkey, Egypt and the Dominican Republic - the most popular destinations. As for Ukrainian airports, their passenger traffic has decreased significantly since 2019, more than twice. Therefore, we propose to look for ways to reduce airport costs and fees, reduce aircraft fleet to save on their maintenance, reduce staff, refocus on charter flights, reduce the tax burden and encourage investors, which is especially important.

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Keywords: pandemic, flight, airline, airport, aviation industry, communications, airspace.

СТАН АВІАЦІЙНОЇ ГАЛУЗІ ПІД ЧАС ПАНДЕМІЇ COVID-19

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Анотація. Світова пандемії COVID-19 здійснила серйозний вплив на динаміку авіаперевезень. Метою даної статті є проаналізувати зміну авіаперельотів протягом останніх 10 років, охарактеризувати потенційну ситуацію, загрози, та запропонувати альтернативні шляхи виходу з кризи. У результаті ми виявили наступні проблеми: недостатнє фінансування авіаційної галузі, нестача ресурсів, які є необхідними для її розвитку, низький рівень експорту цивільної авіації, жодних кредитних механізмів фінансування виробництва літаків, відсутність заохочення внутрішніх та зовнішніх інституцій до інвестування, брак контролю за компаніями авіаційної галузі. Найбільший спад авіаперельотів припав на 2020 рік. Також спостерігаємо зниження авіаперельотів з 2013 по 2014 рік у зв'язку з початком військових сутичок на Сході України. У 2021 році на український ринок вийшли нові авіаперевізники, зокрема Flynas (лоукостер Саудівської Аравії) та Eurowings (німецький лоукостер). Виявлено, що збільшилися внутрішні польоти повітряним простором України. Важливим поштовхом для їх зростання є розвиток регіональних аеропортів з перспективою створення Національної авіакомпанії. На позитивну динаміку здійснили вплив відкриття нових пасажирських рейсів (Київ-Ужгород, Чернівці-Кривий Ріг) та прийняття законопроекту №5301, який продовжив термін надання українським авіакомпаніям перехідного періоду для переходу на використання вітчизняних літаків. Влітку 2021 року польоти відновилися, українці активно літати у Туреччину, Єгипет та Домінікану – найпопулярніші напрямки. Щодо українських аеропортів, то їх пасажиропотік значно знизився з 2019 року, більше ніж у два рази. Тому пропонуємо шукати шляхи зменшити витрати та збори аеропортів, скоротити парк літаків, щоб заощадити на їх обслуговуванні, скоротити штат персоналу, переорієнтуватися на чартерні рейси, зменшити податкове навантаження та заохочувати інвесторів, що є особливо важливим.

Ключові слова: пандемія, авіапереліт, авіакомпанія, аеропорт, авіаційна галузь, сполучення, повітряний простір.

Introduction. Today, almost no one can live without air travel. Many people have business trips, as well as regular trips

to relatives, friends, work, abroad, or travel to other countries (very popular routes to warmer countries such as

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Turkey, Egypt, Dominican Republic). Unfortunately, with the situation with the pandemic, air transport stopped working in pre-quarantine mode. But not only this is a significant problem of Ukrainian air transport. Therefore, we have the following problems:

1. Insufficient funding for the rehabilitation of the existing aircraft fleet.

2. Lack of own financial resources necessary for its development in the aviation industry.

3. Low level of civil aviation exports.

4. There are no credit mechanisms to finance production, as well as financial leasing of domestic aircraft.

5. Lack of encouragement of domestic and foreign financial institutions to invest in aircraft construction on conditions close to the conditions of obtaining financial resources by foreign aircraft manufacturers.

6. Insufficient funding for the work provided by the state target program for the development of civil aviation technology of Ukraine.

7. Lack of control over enterprises and organizations of the aviation industry.

Analysis of recent research and publications. Such scientists as Tovmasian V., Brusakova O., Nuenno I., Hrinchenko Y. were engaged in the study of the aviation industry of Ukraine. But the issue of changing the structure of flights during the pandemic has not yet been studied, which is our novelty (Tovmasian, 2020, pp. 40-44; Brusakova, 2020, pp. 117-122; Nuenno I., Hrinchenko Y., 2020, p. 53 -60; Brusakova, 2020, pp. 59-73).

Research methods. In the article we use the following research methods: deduction, induction, analysis, synthesis, explanation.

Formulation of research

objectives. The purpose of this article is to analyze changes in air transport over the past 10 years, describe the potential situation, threats, and suggest alternative ways out of the crisis.

Presentation of the main results and their justification. Because of lost profits and the inability to do business, companies around the world have laid off workers. More than 75 million workers have lost their jobs as a result of the COVID-19 pandemic.

According to the document "Priorities of the Aviation Service of Ukraine for 2021-2023" the main priorities for 2021-2023 in Ukraine are:

1. Safe integration of unmanned aerial vehicles into the existing system of airspace use, development of the unmanned aerial vehicles market.

2. Approximation of the regulatory framework of Ukraine in the field of civil aviation to the legislation of the European Union and harmonization of national standards with the standards, recommended practices and procedures of the International Civil Aviation Organization (O. Kubrakov, 2021).

According to an analysis by the International Air Transport Association (IATA), the total loss of global industry revenue in 2020 was about \$ 400 billion.

Not only airlines were affected, but also aircraft manufacturers, technical companies, airports and air navigation operators.

Here are some examples of losses, analyzing the results of SKY UP. In 2020, the carrier made about 9 thousand flights, while in the previous year - a little more than 12 thousand. The fall was about 30%. In addition, in 2020 SKY UP had 11 aircraft, and in 2019 only 5 [7].

In 2021, passenger traffic increased to 3 billion passengers, but this did not

immediately return the aircraft to a profitable mode. The flights in the summer of 2021 were particularly active, with Turkey, Egypt, the United Arab Emirates, the Dominican Republic and the Maldives being the most popular destinations.

Before the 2020 quarantine, more than 60% of the tours were with children, and after - only 12%. In 2021, a third of tourists traveled with children, ie such trips have intensified again.

According to IATA, in 2021 the biggest financial losses fall on Europe - about \$ 23 billion, while in 2020 they

amounted to almost \$ 35 billion. As for Africa, in 2021 - \$ 1.7 billion, in 2020 - \$ 2 billion.

The revenue of the world's air carriers in 2021 is expected to be about \$ 500 billion compared to \$ 840 billion received in 2019. [6]

We decided to analyze the 2 most powerful airports in Ukraine and 1 less frequently visited: Boryspil International Airport, Danylo Halytskyi International Airport (Lviv) and Dnipro International Airport to present the reduction of passenger traffic through COVID-19.

Table 1

Passenger traffic MA Boryspil from 2009 to 2021

Year	Passenger traffic at the airport	Total passenger traffic in the country
2009	5 795 100	8 894 900
2010	6 694 212	10 242 500
2011	8 047 115	12 464 800
2012	8 478 000	14 107 000
2013	7 932 000	15 134 600
2014	6 890 443	10 896 500
2015	7 277 135	10 695 200
2016	8 650 000	12 929 900
2017	10 554 757	16 499 500
2018	12 603 271	20 550 000
2019	15 260 000	24 336 600
2020	5 157 848	8 700 000
2021*	4 582 000	-

2021 * - data for 9 months of 2021

Source: all data are grouped by author according to IA "Boryspil" [8].



2021 * - data for 9 months of 2021

Fig. 1. Graphic image of the table. 1.

From fig. 1 we see that the passenger traffic at Boryspil airport increased from 2009 to 2013, fell from 2013 to 2014, increased from 2015 to 2019, decreased from 2019 to 2021.

The country's largest airport, Boryspil, served 3.4 million passengers in the three summer months of 2021, which is more than three times more than in August 2020 (O. Kubrakov, 2021).

Boryspil International Airport took 5th place in the ranking of the 10 best airports in Eastern Europe. Since 1999, the rating has been formed annually by the British consulting company Skytrax. Winners are determined by a global survey of airport customers. Travelers

from more than 100 countries took part in the 2020-2021 survey.

The first place among the airports of Eastern Europe was taken by the airport of Budapest. Second and third places - Bucharest and Tallinn, respectively. Respondents of Boryspil news agency rated it higher than the airports of Tbilisi, Belgrade, Bratislava, Zagreb and Sofia.

A pilot project of the Ministry of Infrastructure is being implemented at Boryspil International Airport within the framework of the National Barrier-Free Strategy. Over the past 2 months, the airport has begun to implement the planned and now there are the first positive results.

Table 2

Passenger traffic at the Danylo Halytsky Airport (Lviv) from 2009 to 2020

Year	Passenger traffic at the airport	Total passenger traffic in the country
2009	452 300	8 894 900
2010	481 900	10 242 500
2011	296 900	12 464 800
2012	576 000	14 107 000
2013	700 800	15 134 600
2014	585 200	10 896 500
2015	570 570	10 695 200
2016	738 000	12 929 900
2017	1 080 000	16 499 500
2018	1 597 700	20 550 000
2019	2 217 400	24 336 600
2020	877 700	8 664 500
2021*	702 600	-

2021 * - data for 9 months of 2021

Source: all data are grouped by the author of the Danylo Halytsky Lviv National University [9].



2021 * - data for 9 months of 2021

Fig. 2. Graphic image of table. 2.

From fig. 2 we see that passenger traffic at the airport named after Danylo Halytsky (Lviv) from 2009 to 2013

increased, from 2013 to 2015 decreased, from 2015 to 2019 increased, from 2019 to 2021 decreased.

Table 3

Passenger traffic MA Dnieper from 2010 to 2021

Year	Passenger traffic at the airport	Total passenger traffic in the country
2010	341 430	10 242 500
2011	426 532	12 464 800
2012	444 150	14 107 000
2013	454 981	15 134 600
2014	446 798	10 896 500
2015	346 014	10 695 200
2016	284 914	12 929 900
2017	276 900	16 499 500
2018	299 250	20 550 000
2019	338 888	24 336 600
2020	136 691	8 664 500
2021*	32 910	

2021 * - data for 8 months of 2021

Source: all data are grouped by author according to MA "Dnipro" [10].



2021 * - data for 8 months of 2021

Fig. 3. Graphic image of the table. 3.

From fig. 3 we see that passenger traffic at Dnipro Airport increased from 2010 to 2013, fell from 2013 to 2015, increased from 2015 to 2019, decreased from 2019 to 2021.

The decline in 2013-2014 is due to the military conflict in eastern Ukraine, in

2020-2021 - due to the global pandemic COVID-19. The crisis has left Ukrainian aviation in a less developed state than in neighboring countries.

We also decided to analyze the statistics of the number of flights from January to July 2021.

Table 4

Number of flights from January to July 2021

The month of 2021	Number of flights
January	9 842
February	8 758
March	12 160
April	13 661
May	16 986
June	21 113
July	26 952

Source: all data are grouped by author according to the Ministry of Infrastructure of Ukraine [5].

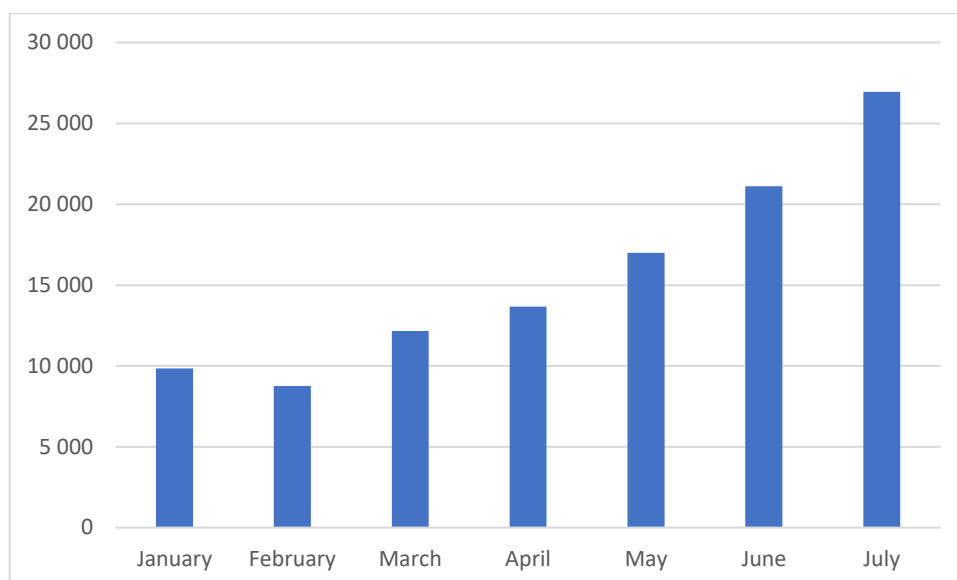


Fig. 4. Graphic image of table 4.

As can be seen from Table 4, the number of flights increased significantly from January 2021 to July 2021. In July 2021, it amounted to 136.5% from January 2021.

This year, new air carriers entered the Ukrainian market, including the low-cost carrier Flynas from Saudi Arabia. The establishment of daily flights has also increased the number of tourists from Saudi Arabia by almost 10 times in 1 summer season compared to 2019. German low-cost carrier Eurowings has been operating in Ukraine since September 2. It has already become the 4th company of Lufthansa Group, in addition to Lufthansa, Swiss International Air Lines and Austrian Airlines, will operate in the Ukrainian market.

In August 2021, 29,048 flights were performed in Ukrainian airspace. Of these, Ukrainian airlines performed 10,505 flights (10.2% less than in August pre-crisis 2019), foreign airlines - 18,543 flights (30.1%). The share of flights made at Boryspil airport is 34%.

Structure of flights by types: domestic flights - 3,516 flights (+17.7%) compared to the corresponding period of

2019, international flights - 14,595 flights (-12.3%), transit flights - 10,937 flights (-41.2 %).

Dynamics of the number of flights in the airspace of Ukraine in 2021: July - 26,952 flights, June - 21,113 flights, May - 16,986 flights, April - 13,661 flights, March - 12,160 flights, February - 8,758 flights [January 84 - 2 flights.

Domestic traffic in the summer of 2021 increased by 3% compared to the summer of 2019. In August 2021, the number of flights over Ukraine reached 76% since August 2019. A similar European figure is 71%, so Ukraine has a more positive trend (Kubrakov O., 2021).

Particular attention is paid to increasing domestic flights. We are already seeing a trend of increasing domestic flights. An important impetus for the development of domestic traffic is the development of a network of regional airports, and in the long run - the creation of the National Airline.

The positive dynamics of the domestic air transport market was influenced, in particular:

1) opening of new passenger flights from Kyiv to Uzhhorod, Chernivtsi and

Kryvvyi Rih in June this year;

2) adoption of the draft law №5301, which extended the term of granting Ukrainian airlines a transitional period for the transition to the use of domestic aircraft.

Conclusions. Ukrainian airlines are taking the following steps to survive the corona crisis:

1. Find ways to reduce airport charges and other costs.

2. Reduce the fleet to save on maintenance of non-operating aircraft.

3. Reduce staff, especially flight attendants and staff.

4. Reorient from regular flights to charter and evacuation flights.

5. Use passenger planes for urgent cargo transportation.

To support Ukrainian air transportation, we offer the following:

1. Abolish VAT (value added tax) on local flights.

2. Diversify the supply of aviation fuel.

3. Direct investment in the industry.

4. Credit vacations during the crisis.

5. Reduce the tax burden.

6. Reduce excise duty on aviation fuel.

With the advent of the new brand COVID-19 it will be more difficult to get out of the crisis, reconstruction can begin no earlier than after the pandemic. And now the main task is not to suffer heavy

losses and take care of the safety of passengers during current flights. Factors influencing the increase in the number of flights in the Ukrainian sky were the spread of vaccination in Ukraine and the world, the opening of borders in other countries, restoring passenger confidence in travel and the traditional growth in demand for air travel during the tourist season.

Having considered current issues, we offer:

1. To finance the restoration of the fleet of existing aircraft.

2. Ensure that the aviation industry has its own financial resources necessary for its development.

3. Increase the level of civil aviation exports.

4. Develop credit mechanisms to finance production, as well as the implementation of financial leasing of domestic aircraft.

5. Encourage domestic and foreign financial institutions to invest in the aircraft industry on terms close to the conditions for obtaining financial resources by foreign aircraft manufacturers.

6. To provide full financing of the works provided by the state target program of development of equipment of civil aviation of Ukraine.

7. Establish control over enterprises and organizations of the aviation industry.

References

Tovmasyan V. R. (2020). Perspektyvni napriamy rozvytku aviatziinoho pidpnyemstva v suchasnyh umovah funktzionuvannia aviatziinoi haluzi [Perspective directions of development of the aviation enterprise in modern conditions of functioning of aviation branch]. Magazine "Economy and State". (12), 40-44.

Brusakova O. (2020). Poniattia ta sutnist mehanizmu derzhavnogo rehuliuвання u sferi povitrianoho transportu [The concept and essence of the mechanism of state

- regulation in the field of air transport]. Administrative law and process. (6), 117-122.
- Nuenno I. M., Grinchenko Y. L. (2020). Upravlinnia finansovo-ekonomichnoiu bezpekoui aviatziinoi haluzi Ukrainy [Management of financial and economic security of the aviation industry of Ukraine]. Economic Journal of Odessa Polytechnic University. (2(12)), 53-60.
- Brusakova O. V. (2020). Subiekty derzhavnogo rehuliuвання u sferi povitrianoho transportu ta ih administratyvno-pravovyi status [Subjects of state regulation in the field of air transport and their administrative and legal status]. Bulletin of the Penitentiary Association of Ukraine. (2(12)), 59-73.
- Kubrakov O. (2021) Ukraina pokazala pozytyvnu tendenciu zrostaniia vnutrishnih aviapovezen [Ukraine has shown a positive growth trend in domestic air traffic]. Ministry of infrastructure of Ukraine : web-site. Retrieved from <https://mtu.gov.ua/news/33082.html>
- Ministry of infrastructure of Ukraine : web-site. Retrieved from <https://mtu.gov.ua/news/33082.html>
- The International Air Transport Association (IATA) : web-site. Retrieved from <https://www.iata.org>
- How the airlines survived the year of the pandemic and what are the plans for Ukraine? Economic truth : web-site. Retrieved from <https://www.epravda.com.ua/publications/2021/02/12/670961/>
- International airport "Boryspil" : web-site. Retrieved from <https://kbp.aero/golovna/>
- International airport "Lviv" named after Danylo Halytsky : web-site. Retrieved from <https://kbp.aero/golovna/>
- International airport "Dnipro" : web-site. Retrieved from <http://www.dnk.aero/uk/>
- Lviv airport was ahead of Kyiv's Zhulyany in terms of passenger traffic. Zaxid.net : web-site. Retrieved from https://zaxid.net/lvivskiy_aeroport_vpershe_viperediv_za_pasazhiropotokom_zhulyani_n1509031