

The current state and prospects of travel business development under the COVID-19 pandemic

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Summary

The relevance of this scientific research is determined by the negative impact of the COVID-19 pandemic on the current trends and dynamics of world tourism development. This article aims to identify patterns of development of the modern tourist market, analysis of problems and prospects of development in the context of the COVID-19 pandemic. Materials and methods. General scientific methods and methods of research are used in the work: analysis, synthesis, comparison, analysis of statistical data. The analysis of the viewpoints of foreign and domestic authors on the research of the international tourist market allowed us to substantiate the actual directions of tourism development due to the influence of negative factors connected with the spread of a new coronavirus infection COVID-19. Economic-statistical, abstract-logical, and economic-mathematical methods of research were used during the process of study and data processing. Results. The analysis of the current state of the tourist market by world regions was carried out. It was found that tourism is one of the most affected sectors from COVID-19, as, by the end of 2020, the total number of tourist arrivals in the world decreased by 74% compared to the same period in 2019. The consequence of this decline was a loss of total global tourism revenues by the end of 2020, which equaled \$1.3 trillion. 27% of all destinations are completely closed to international tourism. At the end of 2020, the economy of international tourism has shrunk by about 80%. In 2020 the world traveled 98 million fewer people (-83%) relative to the same period last year. Tourism was hit hardest by the pandemic in the Asia-Pacific region, where travel restrictions are as strict as possible. International arrivals in this region fell by 84% (300 million). The Middle East and Africa recorded declines of 75 and 70 percent. Despite a small and short-lived recovery in the summer of 2020, Europe lost 71% of the tourist flow, with the European continent recording the largest drop in absolute terms compared with 2019, 500 million. In North and South America, foreign arrivals declined. It is revealed that a significant decrease in tourist flows leads to a massive loss of jobs, a sharp decline in foreign exchange earnings and taxes, which limits the ability of states to support the tourism industry. Three possible scenarios of exit of the tourist industry from the crisis, reflecting the most probable changes of monthly tourist flows, are considered. The characteristics of respondents from Ukraine, Germany, and the USA and their attitude to travel depending on gender, age, education level, professional status, and monthly income are presented. About 57% of respondents from Ukraine, Poland, and

the United States were planning a tourist trip in 2021. Note that people with higher or secondary education were more willing to plan such a trip. The results of the empirical study confirm that interest in domestic tourism has increased significantly in 2021. The regression model of dependence of the number of domestic tourist trips on the example of Ukraine with time tendency (t) and seasonal variations ($Tur^{\wedge}t = 7288,498 - 20,58t - 410,88\sum 5$) it forecast for 2020, which allows stabilizing the process of tourist trips after the pandemic to use this model to forecast for any country. Discussion. We should emphasize the seriousness of the COVID-19 pandemic and the fact that many experts and scientists believe in the long-term recovery of the tourism industry. In our opinion, the governments of the countries need to refocus on domestic tourism and deal with infrastructure development, search for new niches, formats, formation of new package deals in new - domestic - segment (new products' development (tourist routes, exhibitions, sightseeing programs, special rehabilitation programs after COVID) -19 in sanatoriums, etc.); creation of individual offers for different target audiences). Conclusions. Thus, the identified trends are associated with a decrease in the number of tourist flows, the negative impact of the pandemic on employment and income from tourism activities. International tourism needs two to four years before it returns to the level of 2019.

Key words:

tourism, travel industry, coronavirus infection, GDP, international arrivals, domestic tourism, regression model.

1. Introduction

The tourism market occupies one of the leading and global places in most economies. According to the World Tourism and Travel Council's (WTTC) annual analysis of quantifying the global economic and labor impacts of travel, the tourism sector in 2019 contributed 10.4% of global gross domestic product (hereafter, GDP) or just over \$8.9 trillion. The tourism sector contributed 10.4% of global gross domestic product (hereafter referred to as GDP), 29% of global service exports, and 10.4% of total employment or 330 million new jobs (World Tourism Barometer, 2020). The rapid development of the industry entails problems that negatively affect the development of

the sector. International tourism has been negatively affected by the epidemiological situation in 2020. As a result, the tourism industry has become one of the most affected by the COVID-19 pandemic. Under these conditions, tour operators, travel agents, carriers, and other participants of the tourist services market incurred serious losses. As a result of the critical epidemiological situation, the development of the tourism business was under serious threat. According to the UN World Tourism Organization (UNWTO), in 2020, the number of international tourists in the world decreased by 20-30%. As a result, the tourism industry has lost \$30-50 billion (World Tourism Organization (UNWTO), 2017). In this regard, it is relevant to study the problems and prospects of the tourist market development at the current stage.

2. Literature review

Contemporary scientific literature considers tourism as a global phenomenon with a huge impact on society and various sectors of the national economy during the COVID-19 pandemic. The authors (Correa-Martinez, Kampmeier, Kumpers, Schwierzeck, Hennies, Hafezi, Kuhn, Pavenstadt, Ludwig, Mellmann, 2020; Gössling, Scott, Hall, 2020; Higgins-Desbiolles, 2020; Qiu, Park, Li, Song, 2020; Zheng, Goh, Wen, 2020; Brouder, 2020; Farzanagen, Gholipour, Feizi, Nunkoo, Andargoli, 2020; Yu, Li, Yu, He, Zhou, 2020; Niewiadomski, 2020; Carr, 2020; Chang, McAleer, Ramos, 2020; Prideaux, Thompson, Pabel, 2020; Wen, Kozak, Yang, Liu, 2020) focus on using databases to develop methods and tools to show the impact of the COVID-19 pandemic on tourism. The scholars use several variables to demonstrate the pandemic problem and its importance to global tourism. According to research by Gössling, Scott, and Hall (2020), a new coronavirus (COVID-19) poses a challenge to the world. Due to the lack of a vaccine and limited medical treatment options for the disease (March 2020), non-pharmacological interferences (NPIs) have been the main strategy to contain the pandemic. Unprecedented global travel restrictions and orders to stay home were the cause of a major post-World War II global outcry. With international travel bans affecting more than 90% of the world's population, as well as widespread restrictions on public gatherings and public mobility, tourism was effectively halted. Their articles compare COVID-19 to previous epidemics/pandemics and other types of global crises and analyze how a pandemic can change society, the economy, and the tourism market.

The scholar (Higgins-Desbiolles, 2020) believes that the 2019-2020 COVID-19 pandemic could change the tourism industry and the environment in which it spreads. This global crisis, during which travel, tourism, and hotel operations have been frozen in many parts of the world,

sets the stage for finding new opportunities in this historic moment of transformation. The COVID-19 pandemic may be a rare and invaluable occasion to look at further ways to develop tourism. The researchers (Zheng, Goh, Wen, 2020) believe that coronavirus (COVID-19) has been recognized as a public health threat state internationally. Since then, the pandemic has been widely reported in the international media, and information about it has been disseminated to citizens around the world. However, some reports about COVID-19 have harmed the mental health of Chinese travelers who have described it as a "Chinese virus pandemic." Their article examines how misinformation and discriminatory media reports can affect the psychological well-being of travelers of different (Chinese) ethnicities during the COVID-19 pandemic.

On the other hand, according to Brouder (2020), international arrivals exceeded 1.5 billion for the first time in 2019. However, the period of unhindered international tourism has suddenly ended because the COVID-19 pandemic has forced the sector almost to a halt. As the world struggles with the reality of a global pandemic, our generation has one chance to reconsider what tourism will look like in the decades to come. In their view, COVID-19 will leave a mark on the demand and supply of tourism, will have long-term growing effects in the coming years, and will eventually bring us closer to transforming the tourism market. Carr (2020) believes that the effects of the COVID-19 pandemic will be long-term and impact both indigenous and non-indigenous populations. According to the author, the environmental and social needs of all societies should be considered as priorities in the COVID-19 solution. The response of tourists cannot be separated from the social needs. Scientists (Chang, McAleer, Ramos, 2020) believe that the SARS-CoV-2 virus, which causes COVID-19 disease, is extremely contagious. The long-term effects on individuals have not been fully recognized, although they are dramatic for international society. COVID-19 has forever changed the world in every aspect presented and has a huge impact on international travel, travel, and hospitality demand, which is one of the largest employers in the world. Their article presents the concept of the tourist, traveler, and hotel map after COVID-19 as a personal contribution to the sector.

Yu, Li, Yu, He, and Zhou (2020) believe that social media is an important element of communication-related to disasters and health crises. The authors analyzed 10,132 online comments on COVID-19 using automated and manual text analysis. They identified and discussed key issues including tourism outcomes, quality of services during a crisis, health quarantine issues, and media credibility. Their research is a contribution to suggestions and observations for the future study of the tourism crisis caused by the epidemic.

The last group of authors (Farzanagen, Gholipour, Feizi, Nunkoo, Andargoli, 2020) analyzes the links between international tourism and COVID-19 cases and deaths in more than 90 countries using a regression method. They used international regression analysis and found a positive correlation between international tourism and the accumulated rate of confirmed COVID-19 cases and deaths through April 30, 2020. Their analysis shows that countries exposed to high international tourism flows are more vulnerable to infection and deaths caused by a COVID-19 outbreak. This link is strong even when other social and economic factors are at play. They have estimated that a 1% increase in tourist arrivals and departures is associated with a 1.2% and 1.4% increase in confirmed COVID-19 cases and deaths, respectively when other factors are taken into account.

Although the foreign study of the impact of the COVID-19 pandemic on the tourist market has a large number of scientific findings, and it is worth more attention to its further exit from the crisis (development of domestic tourism). Therefore, in our opinion, the research of the aforementioned disease impact on the level of world tourism is urgent and up-to-date.

This study aims to identify the regularities of the modern tourism market development, analysis of problems and prospects of its development in the context of the COVID-19 pandemic.

According to the objectives, the following tasks are formulated:

- to analyze the dynamics of international tourism market development;
- to assess the impact of the COVID-19 pandemic on international tourism development;
- to summarize estimates of the damage to the tourism economy in 2020 and beyond;
- to conduct an empirical study of tourism development in Ukraine, Germany, and the USA as a result of the negative factors associated with the spread of the new coronavirus infection COVID-19;
- to develop a regression model of dependence of domestic tours' number.

3. Research Methods and Methodology

The research is based on official information published by international organizations: World Tourism Organization (UNWTO), World Travel and Tourism Council (WTTC), United Nations (UN), World Health Organization (WHO), International Labor Organization (ILO), Association of Tour Operators (ATOR). The paper used general scientific methods and techniques of research: analysis, synthesis, comparison, analysis of statistical data. The analysis of foreign and domestic authors' viewpoints on the research of the international tourist market allowed

us to substantiate the topical directions of tourism development due to the influence of negative factors associated with the spread of a new coronavirus infection COVID-19.

The research was conducted during May-June 2021, using the questionnaire survey method. 590 respondents participated in it, including 220 from Ukraine, 247 from Germany, and 123 from the USA. The countries were chosen consciously. In our opinion, their policies toward the COVID-19 pandemic differ, and they impose different restrictions. Also, their GDP per capita is different. The US, Ukrainian and German cities were chosen randomly. The questions in the questionnaire were shaped to recognize the current problems associated with the COVID-19 pandemic. Respondents' answers were analyzed for different variables. Economic-statistical, abstract-logical, and economic-mathematical research methods were used to examine and process the data.

4. Results

Modern tourism is called a phenomenon of the XXth century, and the current century has all chances to become the age of tourism. Out of 195 world countries, more than 150 countries are involved in tourism. In recent decades, global tourism has shown strong growth (Cherkashyna, Adamiuk, Pshenychnykh, 2020). Taking quite a huge share of world GDP, tourism has a fundamental importance in the development of the world economy. This is confirmed by the data on the total contribution of tourism to GDP over the past 20 years (see Fig. 1).

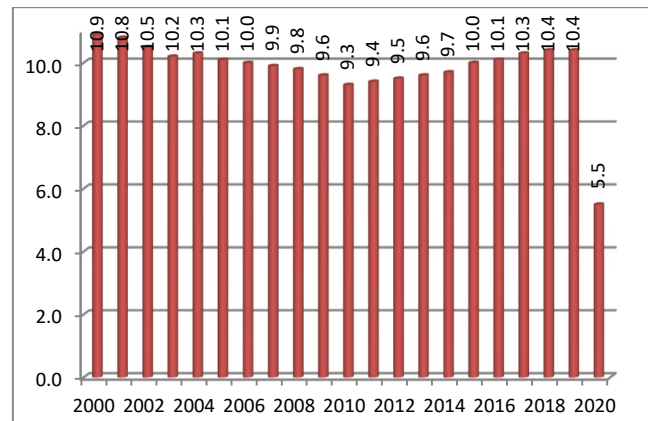


Figure 1. The total tourism contribution to the gross domestic product during 2000-2020

According to Fig.1, we can conclude that the total contribution of tourism to GDP is constantly growing. In 2019, the contribution to the gross domestic product was 10.4%, driven by tourism growth of 3.5%, while the growth of the world economy was only 2.5% (World Tourism Barometer and Statistical Annex, 2020). The data

analysis shows that the number of countries and special territories, the share of tourism in GDP of which exceeds the global average, is 74. These are mostly small island states and regions. Among them are Macau (Aomin), a special administrative region of China (91.3%), Aruba (73.6%), the Kingdom of the Netherlands, the British Virgin Islands (57%), the Maldives (56.6%), the Virgin Islands (55.5%), Bahamas (43.3%), St. Lucia (40.7%), Seychelles (40.5%), Cape Verde (37.2%), Dominica (36.9%) Antigua and Barbuda (42.7%), Belize (37.2%), Anguilla (37.1%), Vanuatu (34.7%), Barbados (30.9%), Fiji (34.0%), etc. (Global and Regional Tourism Performance).

However, the worsening epidemiological situation in 2020 was a significant factor that affected international tourism at this time. The total contribution of travel and tourism to global GDP in 2020 was about \$4671 billion (5.5%). This figure is down significantly from the previous year due to the coronavirus pandemic (COVID-19), which has disrupted travel around the world. The states for which tourism is a priority sector of the national economy are also negatively affected. Among them are Albania (21.2%), Armenia (11.8%), Greece (20.8%), Georgia (26.3%), Jordan (15.8%), Spain (14.3%), Italy (13.0%), Cambodia (26.4%), Croatia (25.0%), Montenegro (32.1%) and several others (COVID-19 and Tourism Sector; COVID-19 and Tourism, 2020).

Unprecedented global travel restrictions are causing major disruptions in the world economy since World War II (Hoque, Shikha, Hasanat, Arif, Bakar, Hamid, 2020). According to the WHO, as of January 1, 2020, the number of COVID-19 patients worldwide was about 86.4 million and the number of deaths was 1.8 million (Coronavirus Disease (COVID-19)). Within months, the structure of the global tourism system went from "over-tourism" to almost nonexistent, vividly demonstrated by media publications depicting popular tourist destinations to the pandemic and now (Seraphin, Sheeran, Pilato, 2018). International, regional, and local travel restrictions have had a major impact on national economies, including the tourism sector, i.e., international travel, domestic tourism, day trips, and various segments of the tourism industry such as air travel, cruises, public transportation, accommodations, cafes and restaurants, festivals, etc. Because of the problems in the tourism sector, the UN predicts a 2.8% (\$2.22 trillion) decrease in world GDP (COVID-19 and Tourism, 2020).

Speaking about individual countries, it is worth noting that the impact of the tourism industry crisis on the economy of each of them may be more devastating. For small countries, especially island countries, whose economies are directly dependent on tourism, the total contribution of the tourism sector to GDP reaches 50% or more. According to the World Travel & Tourism Council (WTTC), Macau's total contribution to GDP in 2019 is

91.3%, the Maldives is 56.6%, and the Bahamas is 43.3% (Travel & Tourism: Global Economic Impact & Trends). At the same time, between January and April 2020, the number of international tourists in the developing small island states decreased by 47%. The UN Department of Economic and Social Affairs estimates that small island developing states' economies could shrink by 4.7% in 2020, compared to 3% in the global economy (World Travel and Tourism Council, 2020).

It is important to note that global tourism has been affected by several crises in the past. From 2000 to 2015, serious devastating events include the September 11 terrorist attacks (2001), the Severe Acute Respiratory Syndrome (SARS) outbreak (2003), the global economic crisis that unfolded in 2008-2009. None of them led to a long-term decline in global tourism development, and some were not even noticeable, and only SARS (-0.4%) and the global economic crisis (-4.0%) led to a decline in international arrivals (Table 1). It suggests that tourism as a system is resilient to external shocks (WHO). Global tourist arrivals were showing continuous growth by 2020, although already in 2019-2018 compared to 2017-2018, the increase was down to 3.8% due to trade tensions between the U.S. and DPRK, reduced economic growth around the world (Wyman).

	2000	2010	2015	2019	2020	2020/2019
Europe	385,6	474,7	609,1	742	215,18	-71
Asia-Pacific	110,1	204,4	277	364	54,6	-85
North and South America	128,2	149,7	190,7	220	68,2	-69
Africa	26,5	49,7	53,1	71	21,3	-70
Middle East	24,1	60,4	54,1	64	16	-75

Table 1 - International tourist arrivals, million people

The number of international tourist arrivals in 2019 reached about 1.5 billion, which is 4% or 54 million more than in 2018. However, there is much evidence that the impact of the COVID-19 pandemic and recovery from it will be unprecedented. According to the World Tourism Organization (UNWTO), tourism is one of the most affected sectors by COVID-19, as, by the end of 2020, total global tourist arrivals decreased by 74% compared to the same period in 2019. The consequence of this reduction, according to estimates of UNWTO experts, is the loss of the total amount of world tourism revenues by the end of 2020, which was equal to \$ 1.3 trillion. 27% of all destinations are completely closed for international tourism. At the end of 2020, the economy of international tourism will shrink by about 80% (Global and Regional Tourism Performance). In 2020 there will be 98 million people less (-83%) than in the same period last year.

According to the UNWTO, the worst affected by the pandemic was tourism in the Asia-Pacific region, where there are the strictest travel restrictions. In this region, the number of international arrivals decreased by 84% (300 million). The Middle East and Africa recorded a decline of 75 and 70%.

Despite a small and short-lived recovery in the summer of 2020, Europe lost 71% of tourist traffic, with the European continent recording the largest drop in absolute terms compared to 2019, 500 million in North and South America (see Fig.2).

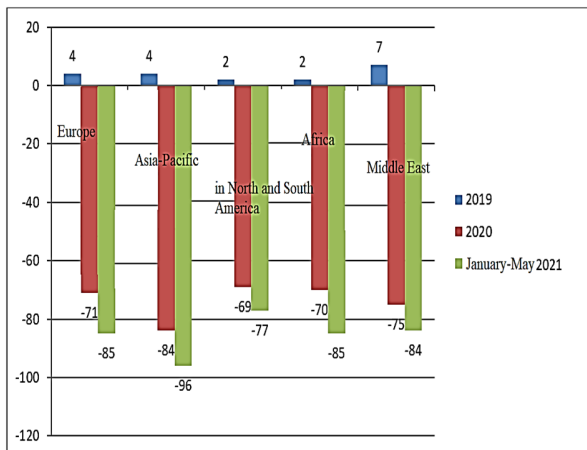


Figure 2. The dynamics of international arrivals in 2019-2021 by world regions, %

The decrease in international arrivals in 2020 resulted in a loss of \$900 million in international revenue compared to the same period in 2019 and \$935 billion in export revenue from international tourism. It is more than 10 times compared to the 2009 loss due to the global economic crisis (World Tourism Barometer, 2020).

This significant decrease in tourism flows leads to a massive job loss, a dramatic reduction in foreign exchange earnings and taxes, which limits the ability of states to support the tourism industry. Many governments are just beginning to realize that, unlike other business sectors, and revenues from tourism are lost irretrievably because unsold capacity, such as in accommodation, cannot be sold in future years, with corresponding consequences for employment in this sector. By 2020, there was an upward trend in tourism employment and related industries in both percentage and quantity terms. In 2019, the tourism sector accounts (directly or indirectly) for about 330 million jobs worldwide, equivalent to 10.3% of total global employment and accounting for one in 10 jobs globally. In the past five years, the sector has created one in four new jobs. In 2019, the tourism sector generated more than 9 million new jobs, the most in years.

At the same time, one of the consequences of the decline in tourist traffic in 2020 was a significant increase

in unemployment. According to the WTTC, about 100-120 million professionals may lose their jobs, depending on when the borders are opened (Travel & Tourism: Global Economic Impact & Trades 2020). Countries, where tourism is a major source of income, are at the greatest risk, with the UN predicting a 20% rise in unemployment. Small and medium-sized businesses, which mostly employ women and young people (most often informally), are mostly at risk (World Economic Situation And Prospects, 2020). The pandemic is having a huge impact on tourism businesses and the livelihoods of their workers. The International Labor Organization estimates that the pandemic could result in the loss of 305 million jobs, many of which are in the tourism sector (COVID-19 and the Tourism Sector).

While the resumption of international tourism remains slow, with only 115 countries (53% of all destinations worldwide) having lifted travel restrictions as of September 1, 2020, demand for domestic tourism is growing in many major markets, such as China, where air travel volume in July rose to about 90% of 2019 levels (World Tourism Barometer and Statistical Annex, 2020).

The situation with COVID-19 is still relevant, and there is no unambiguous answer to the question of how tourism will develop in the future. However, the World Tourism Organization has predicted three possible scenarios for the tourism industry out of the crisis in 2020, reflecting the most likely changes in monthly tourist flows. According to the first scenario, if the borders open in July 2020, the demand for international tourists will decrease by 58%, if the demand is delayed until September, it will lead to a 70% drop, if the borders open in December 2020, the international income will decrease by 78% (World Tourism Barometer: special focus on the impact of COVID-19, 2020). Experts from the German tourist center believe that in the worst-case scenario, the level of tourism, which was in 2019, will not be reached until 2023 at the earliest. The optimistic scenario forecasts the stabilization of the tourism industry by the fall of 2021. As for the more realistic way of tourism development, only by summer 2022, the tourism industry will return to its course, and tourists will be able to move freely as before. According to these scenarios, the loss of the tourism sector on a global scale will be from \$910 billion to \$1.2 trillion. The global tourism industry could lose 100 to 120 million direct workplaces.

Based on three World Tourism Organization scenarios published in May 2020 indicating a decline in international tourist arrivals in 2020 from 58% to 78%, current trends point to a decrease in international arrivals between the results of the second and third scenarios.

Most countries expected to see signs of renewed demand for overseas travel in the last quarter of 2020, but as cases of coronavirus began to rise again and travel restrictions began to intensify in many countries, the main

hope is for the second half of 2021. The analysts' forecasts have already proved wrong at this point, and the resumption of tourism will not be the same as after previous crises. However, it will take 2.5 to 4 years to return to the levels of 2019 in terms of arrivals' number from abroad.

According to the study, a significant number of people have given up traveling in 2020-2021. Figures. 3-7 presents the characteristics of respondents from Ukraine, Germany, and the United States and their attitudes toward travel depending on gender, age, education level, professional status, and monthly income.

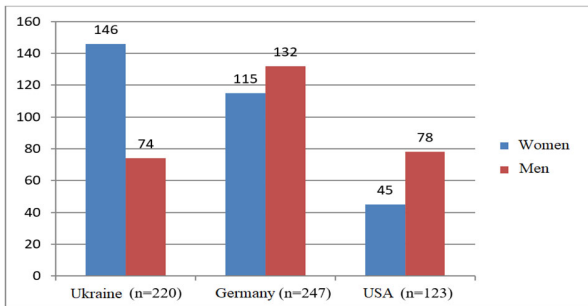


Figure 3. Distribution of respondents by gender, persons

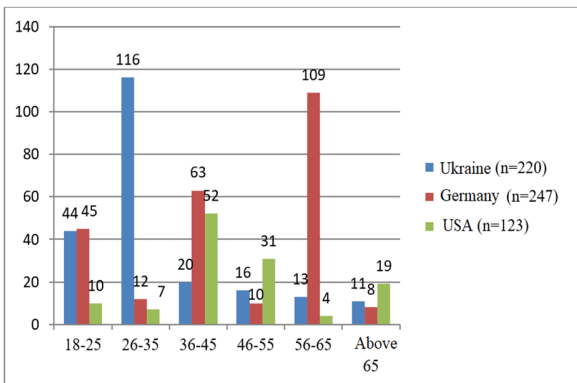


Figure 4. Distribution of respondents by age, persons

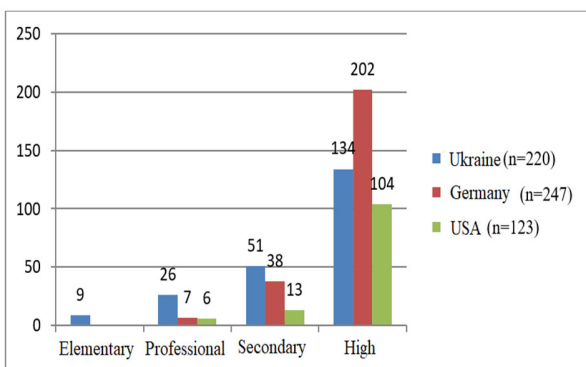


Figure 5. Distribution of respondents by education, persons

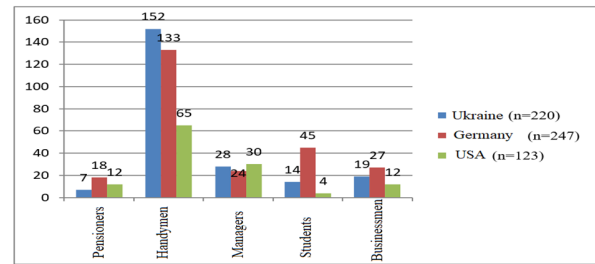


Figure 6. Distribution of respondents by professional status, persons

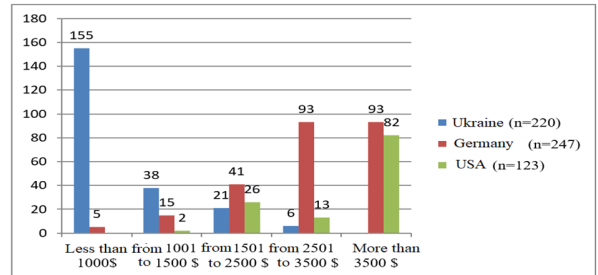


Figure 7. Distribution of respondents by monthly income, persons

Respondents' opinions on planning a domestic or foreign tourist trip during the COVID-19 pandemic, depending on the level of their education, and are shown in Figure 8.

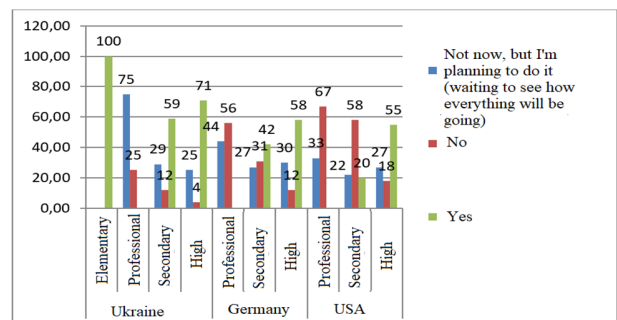


Figure 8. Respondents' opinions on planning a domestic or foreign tourist trip during the COVID-19 pandemic according to level of education, %

About 57% of respondents from Ukraine, Poland, and the United States were planning a tourist trip in 2021. We note that people with higher or secondary education were more willing to plan such a trip.

Figure 9 shows that COVID-19 had a significant impact on respondents' travel arrangements. Many people decided to spend their vacation in their own country. A very important factor in travel arrangements is the reason for the trip. It is related to a desire to go to a certain country/city to learn about its culture, wildlife, or social life. Table 2 presents data on this question.

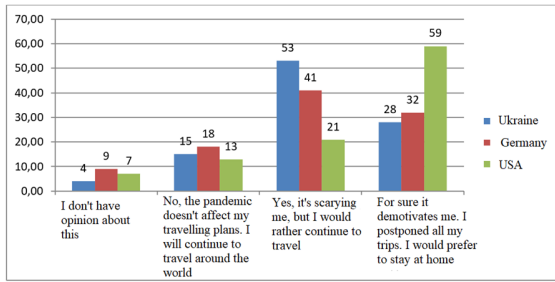


Figure 9. COVID-19 impact on respondents' travel arrangements, %

Table 2 - The reasons why respondents traveled during the COVID-19 pandemic, %

Reasons	Ukraine	Germany	USA
Leisure	47,6	62,1	57,3
Sightseeing	13,1	17,7	6,5
Doing sports	7,3	9,6	4,1
Visiting relatives and friends	24,0	4,1	21,4
Attending events	2,5	3,0	3,9
Religion	2,2	2,4	2,8
Business	1,4	1,1	3,5
Health	1,3	-	-
Other	0,6	1,0	0,5

Our results indicate that the main reason for travel during the COVID-19 pandemic, as in previous years, was leisure time. Figure 10 shows the benefits of domestic and foreign travel in 2021 according to person's age.

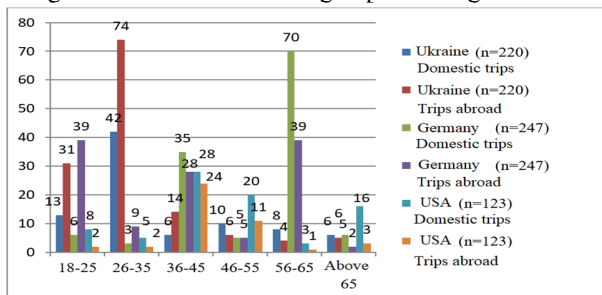


Figure 10. Benefits for domestic and foreign travel in 2021 by age, persons

During the studied period the youth (from 18 to 35 years old) preferred to travel abroad, but the respondents aged 56 years and older preferred to travel in their own country. Table 3 shows the overnight place chosen by respondents from Ukraine, Germany and the United States.

Table 3 – The overnight place chosen by respondents from Ukraine, Germany and the USA, %

Overnight place	Ukraine	Germany	USA
Hotels	36,9	42,8	56,1
Staying at family members, friends	28,7	11,7	38,1
Guest houses	13,3	27,6	0
Agro-tourist farms	0	6,5	0
Camping/tents	5,2	3,6	4,2
Motels	3,9	4,4	1,6
Hostels	4,7	0	0
Rent an apartment	3,8	0	0
Other	3,5	3,4	0

Many factors influence the choice of travel destination during COVID-19, according to respondents. The respondents from Germany chose the location, price, and direction; the respondents from Ukraine chose price, direction, and location. For respondents from the United States, city reputation, residence, price, and other people's opinions matter a lot (scores from 1 to 6) (Figure 11).

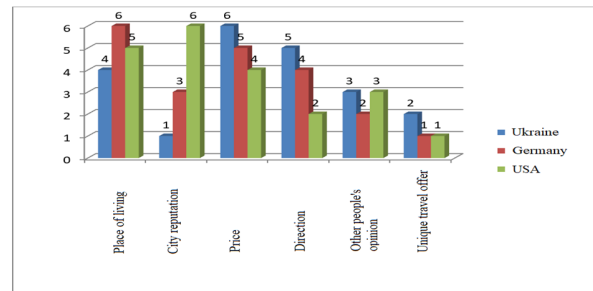


Figure 11. The factors influencing the choice of travel destination during COVID-19, points

Economic conditions are also a crucial factor in tourism. Particular attention must be paid to the price and economic losses incurred by the countries where the COVID-19 pandemic was most evident.

Figure 12 presents respondents' opinions on the price reduction in the tourism sector during the COVID-19 pandemic.

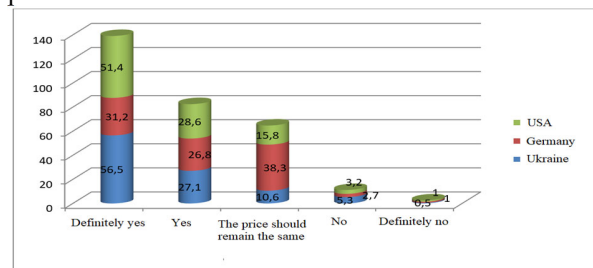


Figure 12: Respondents' opinions on reducing the travel price during the COVID-19 pandemic (e.g., airfares, hotel stays, tickets to historic destinations, etc.)

The analysis of scientific sources and the results of the conducted empirical study allow us to conclude that the COVID-19 pandemic has a clear impact on the tourism industry, which can be seen in the decrease of its share in GDP, the number of international arrivals, the increase in unemployment.

At the same time, despite the number of problems that the pandemic has created for the tourism industry, it can lead to positive changes in tourist behavior. The results of the empirical study confirm that domestic tourism has become a trend in 2021. Figure 13 shows a downward trend in the number of domestic trips in Ukraine, formed by a significant decrease in this indicator in the last year.

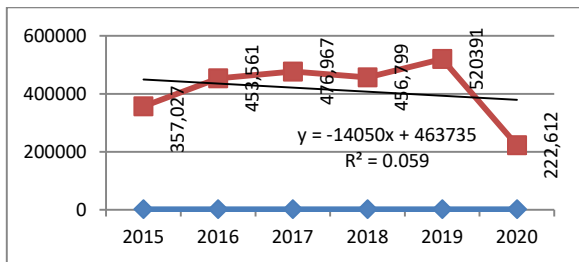


Fig. 13. Dynamics of domestic tourist trips in Ukraine during 2015-2020 , thousands.

The reason for this can be considered the presence of seasonal variations, which is well explained by the climatic features of our country. In turn, the pandemic coronavirus contributed to the development of domestic tourism in 2021. Thus, in June of this year, Ukrainians bought 4 times more train tickets than in 2020. Therefore, let us try to build and estimate the regression model of dependence of the number of domestic tourist trips in Ukraine, taking into account the time trend (t) and seasonal fluctuations, according to Table 4 (dq₁=1 for the first quarter each year, dq₂=1 for the second quarter each year, dq₃=1 for the third quarter each year, as the base period accepted IV-th quarter of the year) (Nevezhyn, 2020).

Table 4 - Input data for model building

Tur	t	dq ₁	dq ₂	dq ₃
357 027	1	1	1	0
453561	2	0	1	0
476967	3	0	0	1
456799	4	0	0	0
520391	5	1	0	0
222612	6	1	0	0

We will build the model on the first 5 observations; the 6th observation will be used to check the quality of the model. To estimate the parameters of the model, we will use the tool Regression Excel Add-in Data Analysis. As a result of applying this tool, we obtained the following equation (1):

$$Tur^{\wedge} = 7288,498 - 20,58t - 410,88dq_1 + 42,59dq_2 + 862,48dq_3 \quad (1)$$

Let us consider the value of the equation coefficients: -20,58 with coefficient t shows that with each quarter, the number of domestic tourist trips in Ukraine will, on average, decrease by 20,58 thousand; coefficients with variables denoting quarter number show the difference in the number of domestic tourist trips between the base IV quarter and other quarters. For example, the coefficient at dq₃ is 862.48 shows that, on average, the number of

domestic tourist trips in the summer months is greater by this amount than in the first quarter of each year.

Despite the heterogeneity of the data, the presence of a sharp kink in the trend, let's estimate the forecast of the number of domestic tourist trips in 2020 according to the received model and compare it with the actual data. If the difference between these values in absolute value is acceptable, then we can conclude that the model is an adequate description of the object's behavior.

The model is considered adequate if the value of the dependent variable in the sample in Tur(6)=222612 covers the confidence interval with a given confidence probability (90% was taken).

The results of model prediction calculation and the lower and upper bounds of the confidence interval are shown in Table 5 and Fig. 14.

Table 5 - Forecasting the number of domestic tourist trips in Ukraine

No	Year	Number of domestic tourist trips	Explanation
6	2020	222612	Fact
6	2020	391217	Forecast according to model
6	2020	71179	Lower limit 90%
6	2020	711255	Upper limit 90%

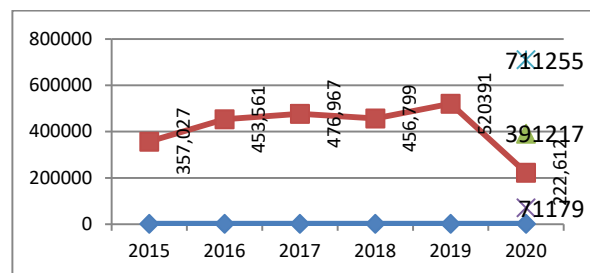


Fig. 14. The regression model of the dependence of domestic tourist trips' number in Ukraine, taking into account the time trend and seasonal fluctuations

The actual value of 222612 overlaps with the 90% confidence interval of 71179-711255. It can be concluded that the model can be used for forecasting for any country in the world to stabilize the process of tourist travel after the end of the pandemic.

Considering the obtained data, group tours will replace individual itineraries with less busy tourist destinations. When choosing the means of accommodation, more advantage will be given to economical options - for example, apartments or apart-hotels, small hotels, glamping, and caravanning will gain popularity. Travel is expected to be less intense, rare, but at the same time longer. There will be more trips in the off-season and unusual tourist routes. As the main means of transport will be used more often by car, the number of flights will

decrease, and the cost of such transportation in the long term will increase. It will also affect the price of tours. This fact assumed their growth, which is associated with losses incurred by enterprises of the tourism industry, as well as the rise in exchange rates to the hryvnia. The additional costs incurred by enterprises in connection with the provision of sanitary-epidemiological requirements.

Research conducted by McKinsey and Company on consumers in China, Italy, Spain, the UK, and the US suggests that consumer optimism will be higher at the beginning and end of the pandemic and will vary from country to country (Cautiously optimistic: Chinese consumer behavior post-COVID-19, 2020). While the uncertainty associated with COVID-19 persists around the world, its impact is felt differently in different countries. As a result, there are significant differences in how consumers respond to the crisis and adapt to the next norm. For example, in the case of China, which was the first to go through all the stages of the pandemic, it was found that consumers pay great attention to environmentally friendly products. Thus, in the future, the tourism industry will focus more on alternative forms such as ecotourism, agrotourism, rural tourism, etc.

In general, tourism will become more environmentally friendly. For example, as a result of a significant decrease in consumption, airlines began to withdraw from the old and inefficient aircraft. Due to the reduction of air traffic, CO₂ emissions will be reduced. Certainly, one of the trends in the development of tourism will be the integration of new technologies in the service industry: virtual and complementary reality, the economy of hostility, electronic commerce, contactless technology, and other innovations.

According to this, we can come to the unequivocal conclusion that the COVID-19 pandemic causes a significant loss to the tourism industry worldwide, as well as to Ukraine. However, given its scale, there is a strong need not to return to the usual business after the end of the crisis but to carry out a global transformation of the tourist system. The COVID-19 pandemic should be seen as a possibility to critically reconsider the trajectory of the tourist market development.

5. Discussion

In general, it is necessary to emphasize the seriousness of the COVID-19 pandemic and the fact that many experts and scientists (Hoque, Shikha, Hasanat, Arif, Bakar, Hamid, 2020; Nepal, 2020; Pshenichnyh, 2021; Qiu, Park, Song, 2020; Roman, Niedziółka, Krasnodebski, 2020) have an opinion on the long-term recovery of the tourism industry. In the future, there are different examples of how the industry will recover:

- global standards for travel will be tougher unequivocally, leading to a decrease in inbound tourism;
- tour operators will be downsized, move to remote work, but also their place will be taken by jobs at the sites of travel.

– In our opinion, governments need to refocus on domestic tourism and engage in infrastructure development, search for new niches, formats, formation of new package offers in the new - domestic - segment (development of new products (tourist routes, exhibitions, sightseeing programs, special rehabilitation programs after COVID-19 in sanatoriums, etc.), creation of individual offers for different target audiences).

Therefore, the following changes in the service profile of the industry participants are expected:

1. Changes of orientation to domestic tourism. The reorientation to domestic tourism can be accompanied by the development of new offers (itineraries, including complex, author's tours);
2. Provision of individual services instead of group services or work with small groups in connection with the pandemic;
3. Replacing traditional services with online format (online sightseeing tours, exhibitions, and workshops), as well as quality remote services (selection of tourist destinations, customer support, etc.);
4. Package offers of a standard set of services (flight, accommodation, insurance, transfer) are becoming old-fashioned, so it is necessary to expand the range with new services, taking into account the diverse demands of tourists.

The general trends in the development of the tourism industry may be:

1. Increase in the volume of online sales of tour operators and package tour aggregators. During the pandemic, online sales channels will strengthen their positions;
2. Changes in promotion channels. Social networks can become a successful advertising platform for accommodation facilities because reviews and pictures posted on them are important for guests. Influencers and representatives of the blogosphere have a significant influence on sales in the tourism industry, which opens new opportunities for partnerships for market players;
3. The emergence of new niches for tour operators. Thematic and author's tours are currently gaining popularity, the greatest demand for which is from a young audience and single tourists. The interest of tourists in popular tourist destinations is decreasing, non-standard tourist routes and directions are in the foreground. It is connected with the fact that tourists prefer non-mass types of tourism (for example, ecotourism) and secluded resting places. Ecotourism and slow travel (immersion into

another culture), which are not mass types of tourism, will become popular against the backdrop of these trends. With an optimal ratio of price and quality, tour operators have good prospects for development in these segments;

4. In the conditions of services and impressions economy formation the influence of "hard" factors (natural resources, access to financial resources, level of state support, transport infrastructure, etc.) on the attraction of additional resources of development becomes less actual; and vice versa the role and efficiency of soft factors (population and territory creativity, tolerant attitude, brand and image of territory, services development, availability of research centers, etc.) to attract both talented specialists and tourists is growing.

6. Conclusions

Thus, the scientific novelty of the research is as follows: the regression model of dependence of the number of domestic tourist trips on the example of Ukraine taking into account the time trend (t) and seasonal variations is built and evaluated, and their forecasting for 2020 is carried out, which will allow using this model to forecast this indicator of any country in the world after the pandemic.

Our research has shown that the theoretical significance of this work is that it highlights the most important aspects of the COVID-19 impact on the development of international tourism and proposes a trajectory for further development of the tourist market (domestic tourism) of the countries of the world, including. The practical use of the study consists in the fact that the theoretical provisions, results, and conclusions contained in it create real prerequisites for forecasting the indicator "domestic tourist trips" by both domestic and international tourist organizations.

The analysis of the international tourist market dynamics showed its link to current trends, as the tourist industry is an integral part of the world economy. Particular attention was paid to the assessment of the COVID-19 pandemic influence on the development of international tourism. The coronavirus infection affected the whole world, the economies of all countries, including the tourism industry, were affected. The trends associated with a decrease in the number of tourist flows, the negative impact of the pandemic on the level of employment and income from tourism activities were identified. Travel restrictions are still in place in many countries; consumer confidence is at an all-time low, even though more and more territories have taken various measures, including introducing safety and hygiene protocols, targeted marketing and promotional campaigns, tourism recovery plans, methods to stimulate domestic tourism, etc.

Although it is impossible to predict exactly what tourism will be like after the pandemic, as we can see, several forecasts are reflecting possible scenarios for the development and recovery of the tourism industry, but all forecasts agree on one thing, international tourism needs two to four years to return to the level of 2019.

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