“Development of internal tourism and hospitality in Ukraine”

AUTHORS
Valeriia Kostynets
Iuliia Kostynets
Maxim Korneyev
Nataliia Nebaba
Evgen Sopin

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Abstract

Considering the processes of the tourism services market development, the study aims to determine the patterns of development of internal tourism and hospitality industry in Ukraine based on the use of a cluster approach. This approach provides an opportunity to implement an effective public policy regarding the development of individual tourism clusters and tourism market in general. It is proved that in the process of cluster management of tourism market, it is important to determine means and methods of targeted state influence, including levers of influence of local authorities, to effectively develop the cluster system of tourism destinations in Ukraine. It is noted that cluster management of tourism market and its hospitality sector is a system of relations between authorities and businesses to increase the competitiveness of the national tourism product through the formation and development of tourism and hospitality clusters. Also, the development of internal tourism and hospitality in Ukraine was modeled. According to the results of the study, the principles of development of internal tourism and hospitality in Ukraine based on cluster management are established.

Keywords

travel, tourism and hospitality industry, factor model, cluster management, national tourism product, economic contribution of tourism and hospitality

INTRODUCTION

Tourism can be considered a significant socio-economic and political phenomenon that can affect the economic structure and economic development of individual regions and countries as a whole. The world experience and practice of ensuring socio-economic stability of developed countries shows that their geographical location, natural and climatic resources, national traditions and cuisine, as well as cultural attractions, are becoming a common good due to the development of tourism. In terms of investments efficiency, it can be equated with highly profitable industries (oil, gas, mining, metallurgy, etc.).

According to Aleksandrova (2002), in a broad sense, the tourism market is a system of world economic relations, in which there is a process of reverse transformation of tourism and excursion services into money and vice versa. Market segmentation and tourism product positioning are the most important components of marketing activities and a powerful tool for increasing the competitiveness of tourism companies and consumer loyalty.

The importance of segmentation is growing significantly in the context of a socio-economic or political crisis in a country, as the focus of tourism companies on the target market segment allows them to increase competitiveness and efficiency, as well as save financial resources. Sahaidak et al. (2019) note that the selected target segment should...
be large enough, have growth prospects, provide stronger advantages for a company among competitors and be available to consumers by price, sales channels, and communications.

In turn, taking into account these trends, there is an objective necessity to analyze and determine the development patterns of internal tourism and hospitality in Ukraine. At the same time, it should be noted that in modern conditions the competitiveness of tourism regions in Ukraine on a global scale is directly related to the mechanism of cluster management of tourism market, including internal market.

1. LITERATURE REVIEW

Various aspects of organizational and economic mechanisms for the creation and effective functioning of tourism entities are covered in many studies. In particular, according to Alieieva and Mochalova (2018), the effective functioning of tourism business in modern conditions is possible only based on a highly developed management information system. For their part, Gorelova and Tultaiev (2012) emphasize the need for segmentation to form an effective mechanism for the functioning of tourism businesses.

Of particular interest is the view of Patwayati (2019) on the formation of clusters. Thus, the study proposes to unite in a cluster some theories that were previously mutually exclusive. This unification is due to the identification of the ecological purpose of territories.

Garnov and Krasnobaeva (2012), Hospers (2002), and Bran and Manea (2012) analyze features of organizational and economic mechanisms for the creation and effective functioning of industrial tourism. Burkart and Medlik (1981) consider the economic development of tourism through the prism of the past processes, as well as the present and future forecasts.

Lukianenko et al. (2019) studied the impact of globalization, internationalization, and trans-nationalization on the development of the international tourism industry with substantiation of institutional changes due to large-scale, structural, and other transformations in the world economy. It was proved that in countries’ economic activity the tourism sector makes a significant contribution to the creation of a gross national product.

It is interesting to study factors of asymmetry in the tourism industry development elaborated by Polyakov et al. (2020). The study analyzed the main factors that characterize the asymmetry of the tourism industry in EU countries, which makes it possible to ensure the competitiveness of national travel companies by forming an appropriate marketing strategy.

The peculiarities of the functioning of tourism entities and the development patterns of the tourism and hospitality industry in modern conditions are associated with the spread of COVID-19 and its consequences. In particular, Centeno and Marquez (2020) developed seasonal autoregressive integrated moving average models for the tourism and hospitality industry in the Philippines, forecasting a total loss of revenues of about 170.5 billion Philippine pesos, the equivalent of 3.37 billion US dollars, from COVID-19 consequences. To alleviate the pandemic’s impact on the hospitality industry, it was proposed to divide the country into two regions according to the level of infection risks and allow travel to low-risk regions.

Kostynets et al. (2021) pay attention to the modeling of deferred demand based on the relationship between inbound traffic of online booking platforms in the hospitality sector and tourist arrivals in the context of COVID-19. The study determines the prospects for the hospitality sector as a component of the tourism market in terms of easing restrictions in the countries of tourist arrivals.

Bakar and Rosbi (2020) have also studied the current state of the hospitality industry, as well as the prospects for its restoration in the current economic conditions.

It should be noted that despite a sufficient number of publications devoted to the tourism and hospitality sector, the current situation on the tourism markets in the conditions of globalization requires constant identification and evaluation of
modern socioeconomic aspects of tourism, factor analysis, causes, and their consequences that contribute to the development of the tourism industry or inhibit it. The development and use of scientific approaches for studying the development factors of the modern tourism market, its segmentation, formation of levers of economic regulation, and improvement of forms and methods of tourism management in regions, in particular employing cluster approach, are gaining its significance.

2. AIM

The aim of the study is to determine the development patterns of the internal tourism and hospitality of Ukraine based on a cluster approach.

3. METHODS

To build a model of Ukrainian tourism market development based on cluster management, it is necessary to determine the factors and criteria of clustering.

Accordingly, it is necessary to identify the most significant factors in the development of tourism and hospitality sector in Ukraine and build a framework of the internal tourism and hospitality industry to model ways and means to achieve positive effects. To confirm the significance of these factors and identify their dependencies, a correlation-regression analysis should be performed by building a model of multiple linear regression.

It is expedient to estimate the multifactor regression equation for all groups of factors according to:

$$Y = a_0 + a_1X_1 + a_2X_2 + \ldots + a_nX_n + C,$$  \hspace{1cm} (1)

where $Y$ – dependent variable; $X_{1\ldots n}$ – independent variables; $n$ – number of independent variables; $a_0$ – free member of the equation; $a_{1\ldots n}$ – parameters of the multifactor model; $C$ – residuals.

According to econometric and statistical laws, the parameters of the multifactor model are calculated using actions with matrices:

$$a = (X'X)^{-1}X'y.$$  \hspace{1cm} (2)

For the modeling, it is necessary to build a multifactor linear regression of economic development of the internal tourism and hospitality and determine the strength of the relationship between factors for 2015–2020. The paper determines the dependence of tourism and hospitality in GDP as the main indicator of its strategic development ($Y$) on the consumer price index ($X_1$), the number of tourism companies ($X_2$), average disposable income of the population ($X_3$), employed population ($X_4$), the percentage of investments from the state budget for tourism development ($X_5$), the total number of tourists ($X_6$), the number of incoming (foreign) tourists ($X_7$), the profitability of tourism companies ($X_8$), and the number

### Table 1. Statistical data on the economic development of internal tourism and hospitality industry in Ukraine for 2015–2020

<table>
<thead>
<tr>
<th>Year</th>
<th>Percentage of tourism in GDP, %</th>
<th>Inflation index (consumer price index)</th>
<th>The number of tourism companies</th>
<th>Average disposable income of the population, UAH/person</th>
<th>Employed population, thousand people</th>
<th>Percentage of investments from the state budget for tourism development, %</th>
<th>Total number of tourists, thousand people</th>
<th>Incoming (foreign) tourists, thousand people</th>
<th>Profitability of tourism companies, %</th>
<th>Number of hotels, units</th>
</tr>
</thead>
<tbody>
<tr>
<td>2015</td>
<td>5.4</td>
<td>143.3</td>
<td>3,886.0</td>
<td>31,803.1</td>
<td>16,443.2</td>
<td>54.1</td>
<td>2,019.6</td>
<td>15.2</td>
<td>8.7</td>
<td>2,478</td>
</tr>
<tr>
<td>2016</td>
<td>5.4</td>
<td>112.4</td>
<td>3,183.0</td>
<td>37,079.9</td>
<td>16,276.9</td>
<td>20.1</td>
<td>2,549.6</td>
<td>35.1</td>
<td>10.6</td>
<td>2,534</td>
</tr>
<tr>
<td>2017</td>
<td>5.6</td>
<td>113.7</td>
<td>3,507.0</td>
<td>47,269.7</td>
<td>16,156.4</td>
<td>16.0</td>
<td>2,806.4</td>
<td>39.6</td>
<td>30.0</td>
<td>2,474</td>
</tr>
<tr>
<td>2018</td>
<td>5.4</td>
<td>109.8</td>
<td>3,470.0</td>
<td>58,441.8</td>
<td>16,360.9</td>
<td>13.9</td>
<td>4,557.4</td>
<td>75.9</td>
<td>27.4</td>
<td>2,777</td>
</tr>
<tr>
<td>2019</td>
<td>5.2</td>
<td>104.1</td>
<td>4,294.0</td>
<td>69,140.0</td>
<td>16,578.3</td>
<td>11.7</td>
<td>6,132.1</td>
<td>86.8</td>
<td>20.3</td>
<td>3,165</td>
</tr>
<tr>
<td>2020</td>
<td>2.3</td>
<td>105.0</td>
<td>3,867.0</td>
<td>73,355.0</td>
<td>15,915.3</td>
<td>6.3</td>
<td>2,360.3</td>
<td>12.0</td>
<td>25.5</td>
<td>3,507</td>
</tr>
</tbody>
</table>
of hotels in Ukraine ($X_9$). Table 1 presents statistical data for building the regression equation of economic development of domestic tourism and hospitality industry in Ukraine.

4. RESULTS AND DISCUSSION

There may be a linear relationship (multi-collinearity) between the factors. Respectively, one of them should be excluded from the model, because the inclusion of linearly dependent factors leads to a completely or partially unpredictable regression model. The factors are selected using a correlation matrix. To determine the factors on which the share of tourism and hospitality in GDP depends, it is advisable to build a correlation matrix (Table 2).

At the intersection of columns and rows is the correlation coefficient, which becomes important within $[-1; 1]$. If the correlation coefficient is within $[-0.2; 0)$ $U [0; 0.2]$ – very weak correlation; $(-0.5; -0.2) U [0.2; 0.5]$ – weak correlation; $[-0.7; -0.5) U [(0.5; 0.7]$ – average correlation; $(0.9; -0.7) U [0.7; 0.9]$ – strong correlation; $(-1; -0.9) U [0.9; 1]$ – very strong correlation.

The analysis revealed that the percentage of tourism and hospitality in GDP ($Y$) is weakly correlated with the consumer price index ($X_1$), the number of tourism companies ($X_2$), the percentage of investments from the state budget for tourism development ($X_5$), the total number of tourists ($X_6$), the number of incoming (foreign) tourists ($X_7$), the profitability of tourism companies ($X_8$), and a strong correlation with the number of hotels ($X_9$) and employed population in Ukraine ($X_4$).

It is necessary to exclude factors that have a weak correlation and build the regression equation $Y$ from $X_4$ and $X_9$, choosing the least-squares method, because it allows obtaining such estimates of parameters for which the sum of squares of deviations of actual values of the effective feature from the calculated ones is minimal.

The result is the following regression equation:

$$Y = -34.67 + 0.00277X_4 - 0.0020X_9.$$ (3)

It is necessary to evaluate the model for adequacy and compliance with real data by the coefficient of determination $R^2$ (R-squared), Student’s t-statistics, Fisher’s criterion (F-statistic), estimation of equation residues, and estimation of predicted and actual values of $Y$.

The coefficient of determination acts as one of the most effective assessments of the adequacy of a regression model, a measure of the quality of the regression equation, the characteristics of the predictive power of the analyzed regression model. $R^2$ determines the dependence of the performance indicator ($Y$) – in this case, the share of tourism and hospitality in GDP – on all factors in the range from $(0; 1)$, if $R^2 \rightarrow 1$, then there is a close relationship between variables, that is, the model is adequate and corresponds to real data, if $R^2 \rightarrow 0$ – vice versa. In this study, $R^2 = 0.9217 \rightarrow 1$, which means that the share of tourism and hospitality in GDP ($Y$) is strongly dependent on the number of hotels ($X_9$) and the number of employed people in the economy of Ukraine ($X_4$).

Table 2. Correlation matrix of dependence of the of tourism and hospitality in GDP on the factors influencing it

<table>
<thead>
<tr>
<th>Variables</th>
<th>$Y$</th>
<th>$X_1$</th>
<th>$X_2$</th>
<th>$X_3$</th>
<th>$X_4$</th>
<th>$X_5$</th>
<th>$X_6$</th>
<th>$X_7$</th>
<th>$X_8$</th>
<th>$X_9$</th>
</tr>
</thead>
<tbody>
<tr>
<td>$Y$</td>
<td>1</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>$X_1$</td>
<td>0.3469</td>
<td>1</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>$X_2$</td>
<td>-0.2686</td>
<td>-0.0031</td>
<td>1</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>$X_3$</td>
<td>-0.6296</td>
<td>-0.7782</td>
<td>0.5135</td>
<td>1</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>$X_4$</td>
<td>0.7257</td>
<td>0.2830</td>
<td>0.3359</td>
<td>-0.2466</td>
<td>1</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>$X_5$</td>
<td>0.4078</td>
<td>0.9868</td>
<td>0.0367</td>
<td>-0.7880</td>
<td>0.4060</td>
<td>1</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>$X_6$</td>
<td>0.2520</td>
<td>-0.5277</td>
<td>0.4695</td>
<td>0.5542</td>
<td>0.6107</td>
<td>-0.4370</td>
<td>1</td>
<td>–</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>$X_7$</td>
<td>0.4570</td>
<td>-0.4881</td>
<td>0.2107</td>
<td>0.3768</td>
<td>0.6354</td>
<td>-0.4040</td>
<td>0.9538</td>
<td>1</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>$X_8$</td>
<td>-0.2433</td>
<td>-0.6227</td>
<td>0.0133</td>
<td>0.6448</td>
<td>-0.4228</td>
<td>-0.7178</td>
<td>0.2968</td>
<td>0.3155</td>
<td>1</td>
<td>–</td>
</tr>
<tr>
<td>$X_9$</td>
<td>-0.8325</td>
<td>-0.6092</td>
<td>0.5727</td>
<td>-0.9139</td>
<td>-0.3294</td>
<td>-0.6096</td>
<td>0.3210</td>
<td>0.0805</td>
<td>0.3486</td>
<td>1</td>
</tr>
</tbody>
</table>

Source: Calculated by the authors.

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The criterion of the Student’s t-statistics gives the observed value of t-statistics. Its value is used to verify the significance of the corresponding regression parameter estimate. There are two hypotheses: hypothesis $H_0$ that the corresponding coefficient is zero (factor $X$ does not affect $Y$); hypothesis $H_1$ that the corresponding coefficient is not zero (factor $X$ affects $Y$). According to the results, hypothesis $H_1$ (t-statistics $X_9 = 2.9605$; t-statistics $X_4 = –3.8910$), i.e. the number of hotels ($X_9$) and the number of employed people in the economy of Ukraine ($X_4$), affect the share of tourism and hospitality in GDP ($Y$).

Fisher’s F-statistic test is used to test the model for adequacy using the probability value. There are two hypotheses:

$H_0$  All regression coefficients are zero (the model is not adequate).

$H_1$  Inequality is zero (the model is adequate).

If the probability value is less than the accepted value $\alpha$ (5%), zero hypothesis is rejected. All coefficients of the built regression are not zero and F-statistic (0.022) is less than the assumed value $\alpha$ so that hypothesis $H_1$ is fulfilled – the built model is adequate and can be used to forecast the share of tourism and hospitality in GDP and to identify tourism clusters by regions of Ukraine.

According to the results of the study, the most significant factors in the economic development of tourism and hospitality sector in Ukraine are the number of employed population of Ukraine and the availability of tourism infrastructure, in particular, hotels. The obtained regression model can be used to predict target indicators of economic development of tourism and hospitality sector in Ukraine. To form effective tourism clusters, it is proposed to take into account the affinity of tourism regions based on common borders and the availability of tourism resources, the level of tourism infrastructure, etc., and use this model to identify tourism clusters in internal tourism market. Figure 1 shows the distribution of regional sectors of tourism and hospitality in Ukraine depending on significant factors of the correlation-regression model.

The obtained data indicate that cluster policy measures should also be aimed at identifying, forming, supporting, and consolidating clusters of small and medium-sized tourism businesses, and meeting the actual needs of tour operators and travel agents interested in increasing their competitiveness through the implementation of joint projects within the cluster.

To implement an effective state policy on the development of regional tourism clusters and internal tourism market in Ukraine, it is necessary to conduct a qualitative study to determine the actual number of existing associations of tourism companies within the cluster. This task should be implemented mainly by local and regional authorities, as they have more differentiated information on the development of local companies. At the same time, it is important not only to ensure the general control of the authorities over the activities of tourism companies in order to pay taxes and monitor migration but, above all, to ensure the development and implementation of effective mechanisms for cooperation between state institutions and all stakeholders in tourism companies. Equally important is the development of a program to support small and medium-sized businesses in the field of tourism in Ukraine.

To increase the attractiveness of internal tourism as a separate cluster of global tourism, the state and domestic tourism businesses should work more closely with foreign tourism companies encour-

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**Table 3.** Correlation-regression analysis of factors of economic development in the field of tourism and hospitality in the national economy of Ukraine

<table>
<thead>
<tr>
<th>Target indicator</th>
<th>Impact factor</th>
<th>Coefficient of determination $R^2$</th>
<th>F-criterion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percentage of tourism and hospitality in Ukraine’s GDP, %</td>
<td>• number of hotels ($X_9$) • employed population in Ukraine ($X_4$)</td>
<td>0.9217</td>
<td>17.6637</td>
</tr>
</tbody>
</table>

*Note: $Y = –34.67 + 0.00277X_4 – 0.0020X_9.$*
aging participation and exchange with foreign clusters and using their resources to strengthen competitiveness. To strengthen the uniqueness of the tourism cluster and expand its opportunities not only for survival but also for development in global interregional competition, it is necessary to create a basis for open partnership agreements, for example, between foreign companies and higher education institutions of Ukraine training specialists in educational and professional programs “Tourism and hospitality business”. The use of external resources (attracting foreign partners to the cluster) will bring new elements and ideas to the cluster, which makes it possible to further deepen its uniqueness and increase the level of services.

Strategic inter-cluster exchanges should be supported not only by the state but also entities belonging to the cluster (state-authorized bodies, organizations, tourism companies, business associations, educational, financial institutions, etc.).

The obvious advantage of the cluster is its ability to ensure inter-sectoral transfer of labor resources on the principles of self-regulation and self-adaptation to external changes. High adaptability to changes in the marketing environment and the ability to quickly innovate is a crucial advantage of the cluster over other forms of integration.

The subjects of the tourism cluster are usually united by economic ties and relationships, personal contacts, organizational culture, which includes ideas, values, attitudes, ideals of action, and sometimes a common brand and marketing strategies. These relationships are more prone to institutionalization, which makes it possible to carry out long-term projects and deepen mutually beneficial partnerships. In this case, according to Ziyadin and Moldazhanov (2013), the cluster model of interaction between actors limits the possibility of destructive actions and opportunistic strategies due to the competence component of employees and transparency of the marketing environment, which ultimately promotes mutual adaptation.

The need to use the cluster approach for the development of internal and domestic tourism in Ukraine is explained, on the one hand, by the unique characteristics of the tourism product, and on the other – the advantages arising from the implementation of cluster projects. The advantages of implementing cluster projects on the internal tourism market include:

1) forming a quality tourism product within tourism clusters, which are the concentration of natural resources and architectural monuments, infrastructure facilities, service providers, and companies in other related sectors, as well as administrative structures, which, according to Sahaidak et al. (2019), by working together, create the image tourists would like to get by visiting a destination;
2) forming and implementing purposeful and active actions to eliminate potential conflicts and create a basis for effective interaction of the tourism cluster;

3) structuring the processes of coordination of interaction between a large number of participants in the tourism cluster. This makes it possible to create and offer tourists a specially designed tour package, which is a complex unique product. All this highlights the need for constant interaction of all actors in the tourism market within the chain of consumer value creation.

In addition to the above indisputable advantages of tourism clusters, their shortcomings should also be taken into account. As previously stated, the cluster is a form of increasing competitiveness both within one country and international markets. Increased competition with foreign tourism market participants increases the elasticity of labor demand in clusters, which can lead to wage stagnation or higher unemployment, according to Grängsjö and Gummesso (2006).

The main problems of tourism clusters development at the regional level include the following:

- lack of managers’ desire to implement innovations;
- lack of appropriate regional infrastructure and transport accessibility of regions;
- the need for a significant time to achieve the goals of the tourism cluster.

Table 4 shows the peculiarities, which are inherent in tourism clusters and which are proved by the theory of organizational development.

The implementation of these principles will increase the effectiveness of state support for clusters, competently assess their capabilities, and identify problems of functioning, acceptable and appropriate methods of managerial influence. This will help main-
tain the active role of the state in regulating the pace and quality of economic growth of clusters, as well as ensuring the formation of centers of competence of the country’s economic and innovative development, the competitiveness of Ukrainian tourism in the conditions of globalization.

CONCLUSION

The goal of the study was to determine the development patterns of internal tourism and hospitality in Ukraine based on the use of a cluster approach. Accordingly, the development peculiarities of internal tourism and hospitality of Ukraine in modern conditions are analyzed. As a result, the development model of internal tourism and hospitality in Ukraine based on a scientific and practical approach to clustering is offered. It is proved that this approach provides an opportunity to implement an effective state policy regarding the development of individual tourism clusters and internal tourism market in general.

The development of tourism clusters in Ukraine is one of the conditions for increasing the competitiveness of internal tourism market, domestic economy, and the intensification of private-public partnership mechanisms. The formation of a tourism cluster in modern conditions can be carried out in the presence of four main components: capital, technology, personnel, and recreational resources. This means that it is not enough to have capital, it is also necessary to have qualified personnel, modern technology, which, in turn, requires the selection of the territory with the best recreational resources and determines the high profitability of tourism. Legal support for the development of tourism clusters and the creation of infrastructural conditions for small and medium-sized businesses are also important.

AUTHOR CONTRIBUTIONS

Conceptualization: Valeriia Kostynets, Iuliia Kostynets, Nataliia Nebaba.
Data curation: Iuliia Kostynets, Maxim Korneyev, Evgen Sopin.
Formal analysis: Valeriia Kostynets, Iuliia Kostynets, Maxim Korneyev, Evgen Sopin.
Funding acquisition: Nataliia Nebaba.
Investigation: Valeriia Kostynets, Iuliia Kostynets, Maxim Korneyev, Evgen Sopin.
Methodology: Valeriia Kostynets, Iuliia Kostynets, Nataliia Nebaba.
Project administration: Valeriia Kostynets, Nataliia Nebaba.
Resources: Iuliia Kostynets, Maxim Korneyev, Evgen Sopin.
Software: Valeriia Kostynets, Iuliia Kostynets, Evgen Sopin.
Supervision: Valeriia Kostynets, Nataliia Nebaba.
Validation: Maxim Korneyev, Evgen Sopin.
Visualization: Iuliia Kostynets, Nataliia Nebaba.
Writing – original draft: Valeriia Kostynets, Iuliia Kostynets, Maxim Korneyev, Evgen Sopin.
Writing – review & editing: Iuliia Kostynets, Maxim Korneyev, Nataliia Nebaba.

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