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Potential and Opportunities for Development of Tourism in Ukraine

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Abstract:

The purpose of the research is to evaluate the potential and opportunities for the development of tourist activity in the regions of Ukraine in the present context using a method of analysis of the functioning environment. Twelve regions of Ukraine were found to have high tourism development potential, but the other thirteen did not have enough revenue from tourism services to cover labor and operating costs. In Ukraine, Dnipropetrovs'k (60.5%), Ternopil' (41.4%), Ivano-Frankivs'k (39.1%) and Chernihiv (33.3%) regions have the greatest potential for improving the provision of tourist services. The potential of other regions ranges from 23.0% to 28.2%. The level of realization of existing opportunities and the level of losses from tourist activity in the regions of Ukraine were calculated, and it is allowed to identify the high level of realization of development opportunities in the Dnipropetrovs'k region, but four regions (Kharkiv, Rivne, Poltava, Mykolaiv ones) suffered losses. The results of the study can be used in strategic and operational planning of tourism development in the regions of Ukraine and in improving the efficiency of the tourism business.

Keywords: tourism; potential; income (revenue); labor costs; operating costs; method of analyzing the functioning environment; Ukraine.

JEL Classification: Q56; J30; Z32.

Introduction

The development of tourist activity in Ukraine has a dual nature. On the one hand, this branch does not show high development despite the considerable resort and recreational potential of the territory of Ukraine and favorable climate, on the other hand, there has been a significant revival in recent years towards the creation of tourist sites that meet the world standards of service. Moreover, the integration of Ukraine into the European society significantly contributes to the development of the tourism industry in the middle of the country. This gives reason to believe that Ukraine has significant prospects for the development of tourism activities, which will allow this branch to become highly efficient and budget-friendly in the near future.

The work of many foreign scientists is devoted to researching the potential and possibilities of tourism development in different countries. In particular, M. Khodadadi (2016) in his writings explored the development of tourism in Iran, S. Shen, H. Wang, Q. Quan, J. Xu (2019) studied the development of rural tourism in China, C. Odum (2018) – the development of eco-tourism in Nigeria and N. Naumov (2019), K. Levkov (2015, 2017), P. Lakov explored tourism in Bulgaria (Levkov and Lakov 2018, Levkov and Meskhia 2018). The possibility of tourism development is devoted to the work of A. Vujko and T. Gajic (2014), and the management of the tourism organization in Hungary is devoted to the work of D. Varga (2019). Issues of environmental management and sustainable tourism development are reflected in I. Mensah's study (2007). The sustainable development of tourism in the context of a green economy has been studied by W. Phoochinda (2018). J. Saarinen, C.M. Rogerson, and C.M. Hall (2017) explored the geography of tourism development and planning. Among Ukrainian scientists, the trends of sustainable tourism development in Ukraine and the world were studied by N. A. Shcherbakova (2018), problems and prospects of tourism industry development are covered in the works of T. A. Ryabova (2018), L. V. Martsenyuk (2015), L. Niemets *et al.* (2018), the issues of rural tourism development were reflected in the studies of M. Plotnikova (2017), the attractiveness of Ukraine in the European market of tourist services was investigated by S. Polkovnychenko and A. Krasiy (2020).

At the same time, the problem of determining the relative potential (relative to the maximum possible under the available conditions and resources) and the opportunities for the development of tourist activity in Ukraine using the method of analysis of the functioning environment remains unresolved.

1. Materials and Methods

The purpose of the study is to evaluate the potential and opportunities for the development of tourist activity in the regions of Ukraine in the present context using a method of analysis of the functioning environment.

The paper is based on the materials of the State Statistics Service of Ukraine on the basis of tourist activity indicators in 2018 by regions of the country: income from the provision of tourist services (excluding VAT, excise duties and similar mandatory payments), labor costs and operating expenses.

The main method that allowed to make the study was the method of analysis of the functioning environment (M. Farrell method), on the basis of which an approach was developed to identify opportunities for enhancing tourism activity in each region of Ukraine based on the presence of marginal efficiency. An integral part of this method is the method of coefficients, which made it possible to calculate and use the coefficient of coverage of labor costs by income from the provision of tourist services and the coefficient of coverage of operating expenses by income from the provision of tourist services. The method of comparisons was applied separately, which allowed determining the potential and possibilities of development of tourist activity in the regions of Ukraine in the context of properties of each of them on the basis of calculated coefficients and indicators of the level of technical efficiency. The descriptive-analytical method provided the calculations of indicators and grounding of the magnitudes of the development of tourist activity in the regions of Ukraine. Using the grouping method, the regions of the country were distributed according to the level of tourism development potential.

The graphical method is of particular importance in the context of the method of analysis of the functioning environment, with the help of which an analytical justification of the opportunities for the development of tourism activities, determining the level of realization of existing opportunities and the level of losses from tourism activities were made.

2. Results and Discussion

The efficiency of economic activity in the provision of tourist services is one of the important for Ukraine, because tourism is the potential of the state, which has not been realized to a great extent since our country gained independence. To plan the development of tourism activities, it is necessary to use a methodology that not only determines the quantitative indicators as to the total volume of tourist services provided, but also helps to assess the potential of the regions of the state and determines its realization in terms of opportunities.

In order to carry out such an assessment we propose to use the method of analysis of the functioning environment (M. Farrell method). The essence of this method is to find the coefficients of technical efficiency for technically inefficient economic entities by constructing a boundary (line of technical efficiency) from the position of technically efficient enterprises.

The simplicity and accessibility of this method makes it possible to analyze not only the environment of enterprises, but also separate regions of the state and even the states themselves. For example, during the

analysis as to the use of credit and investment resources in the agro-industrial complex of the regions of Ukraine, the volume of credits and investments was taken as factor indicators (Sakhno *et al.* 2019b). Similarly, this method allows analysis for machine-building enterprises based on their financial results (Sakhno *et al.* 2019a). In some cases, the method of analysis of the functioning environment can help to build a line of technical efficiency based on several activities, such as agriculture and computer manufacturing, to characterize the impact of the digital economy on the agro-industrial complex (Sakhno *et al.* 2019c).

Table 1. Coefficients of coverage of labor costs by income from the provision of tourist services and operating expenses by the subjects of tourist activity, 2018

№	Region	Income from the provision of tourist services (excluding VAT, excise duties and similar mandatory payments, ths. UAH) (Y)	Labor costs, thsd. UAH (X ₁)	Operating expenses, thsd. UAH (X ₂)	X ₁ / Y	X ₂ / Y
1	Vinnitsia	17978.4	2542.2	10354.4	0.141	0.576
2	Volyn'	15339.5	2000.7	4433.1	0.130	0.289
3	Dnipropetrovs'k	30937.8	13339.1	25677.2	0.431	0.830
4	Donets'k	28498.3	3687.4	14556.5	0.130	0.511
5	Zhytomyr	4088.5	1286.4	3375.3	0.315	0.826
6	Zakarpattia	14580.1	2569.1	12029.9	0.176	0.825
7	Zaporizhzhia	21831.0	7744.1	17503.8	0.355	0.802
8	Ivano-Frankivs'k	437913.7	32710.1	347285.3	0.074	0.793
9	Kyiv	20679.4	5000.5	13629.4	0.242	0.659
10	Kirovohrad	7746.1	981.6	3384.1	0.127	0.437
11	Luhans'k	573.1	296.7	547.1	0.518	0.955
12	Lviv	442823.2	28761.7	153695.4	0.065	0.347
13	Mykolaiv	4160.0	1729.1	3928.1	0.416	0.944
14	Odessa	172028.9	18181.2	124149.1	0.106	0.722
15	Poltava	5893.9	1741.3	5487.7	0.295	0.931
16	Rivne	8458.6	1285.4	8008.4	0.152	0.947
17	Sumy	7620.8	2247.0	6860.0	0.295	0.900
18	Terнопil'	6344.6	1730.9	3482.6	0.273	0.549
19	Kharkiv	40553.1	9438.5	39102.9	0.233	0.964
20	Kherson	36123.6	1517.9	10928.8	0.042	0.303
21	Khmelnys'kyi	4322.3	1465.2	3913.8	0.339	0.905
22	Cherkasy	10018.0	1827.4	7375.9	0.182	0.736
23	Chernivtsi	21578.1	4926.8	28747.8	0.228	1.332
24	Chernihiv	2654.4	974.8	2071.7	0.367	0.780
25	Kyiv city	19706523.1	419127.5	17075349.2	0.021	0.866

Source: authors' calculations-based data on the State Statistics Service of Ukraine.

Table 2. Regions with a high level of tourism development potential, 2018

№	Region	$Z = X_1 / Y + X_2 / Y$	$1 - Z$	Characteristic
1	Vinnitsia	0.717	0.283	The highest potential for tourism development is observed in Kherson region (0.655). Also quite high potential is in Lviv and Volyn regions, potential is 0.588 and 0.581 respectively. In these three regions, the potential is not exhausted even by half. Instead, the least potential for tourism development is observed in the Cherkasy region (0.082), indicating that there is a risk of exhaustion in the future.
2	Volyn'	0.419	0.581	
3	Donets'k	0.641	0.359	
4	Ivano-Frankivs'k	0.867	0.133	
5	Kyiv	0.901	0.099	
6	Kirovohrad	0.564	0.436	
7	Lviv	0.412	0.588	
8	Odessa	0.828	0.172	
9	Terнопil'	0.822	0.178	
10	Kherson	0.345	0.655	
11	Cherkasy	0.918	0.082	
12	Kyiv city	0.887	0.113	
Total		-	3.679	

Source: authors' calculations-based data on the State Statistics Service of Ukraine.

In our case, revenue from the provision of tourist services (excluding VAT, excise duties and similar mandatory payments) will be taken as the result; factors are labor costs and operating expenses. Based on these indicators it is possible to calculate the coefficient of coverage of labor costs by income from the provision of tourist services and the coefficient of coverage of operating expenses by income from the provision of tourist services by tourism entities (Table 1).

On the basis of these indicators it is possible to calculate the tourism development potential (Z) according to the formula (1):

$$Z = X_1 / Y + X_2 / Y \quad (1)$$

The results of the calculation showed that regions by the potential of tourism development can be divided into two groups:

- $Z < 0$ – is the high potential of regions for the development of tourist activity, manifested by the availability of sufficient income from the provision of tourist services to cover both labor costs and operating costs (1 - Z) (Table 2);

- $Z > 0$ – is the low potential of regions for tourism development activities, manifested by insufficient revenue from tourism services to cover both labor and operating costs ($Z - 1$).

Table 3. Assessment of the exhaustiveness of tourism development potential by regions, 2018

No	Region	$Z = X_1 / Y + X_2 / Y$	$Z - 1$	Characteristic
1	Dnipropetrovs'k	1.261	0.261	The Chernivtsi region is the only one where the income from tourism activities could not cover operating expenses. Therefore, this region has the highest indicator of capacity exhaustion (0.560). Such regions as Luhans'k (0.473), Mykolaiv (0.360), Dnipropetrovs'k (0.261), and Khmelnyts'ky (0.244) also have high indicators of capacity exhaustion. Instead, Zakarpattia region (0.001) and Rivne region (0.099) have all the potential for restoration of potential.
2	Zhytomyr	1.141	0.141	
3	Zakarpattia	1.001	0.001	
4	Zaporizhia	1.157	0.157	
5	Luhans'k	1.473	0.473	
6	Mykolaiv	1.360	0.360	
7	Poltava	1.226	0.226	
8	Rivne	1.099	0.099	
9	Sumy	1.195	0.195	
10	Kharkiv	1.197	0.197	
11	Khmelnyts'ky	1.244	0.244	
12	Chernivtsi	1.560	0.560	
13	Chernihiv	1.147	0.147	
Total		-	3.061	

Source: authors' calculations-based data on the State Statistics Service of Ukraine.

Based on the values of the coverage coefficients, we will build a functioning environment for the implementation of tourism activities in the regions of Ukraine for 2018.

The line of technical efficiency was formed by positions (by the number in Table 1) of the respective regions: 25 (Kyiv city) – 20 (Kherson region) – 2 (Volyn' region) – 11 (Luhans'k region). Thus, the coefficients of technical efficiency in these regions are equal to one.

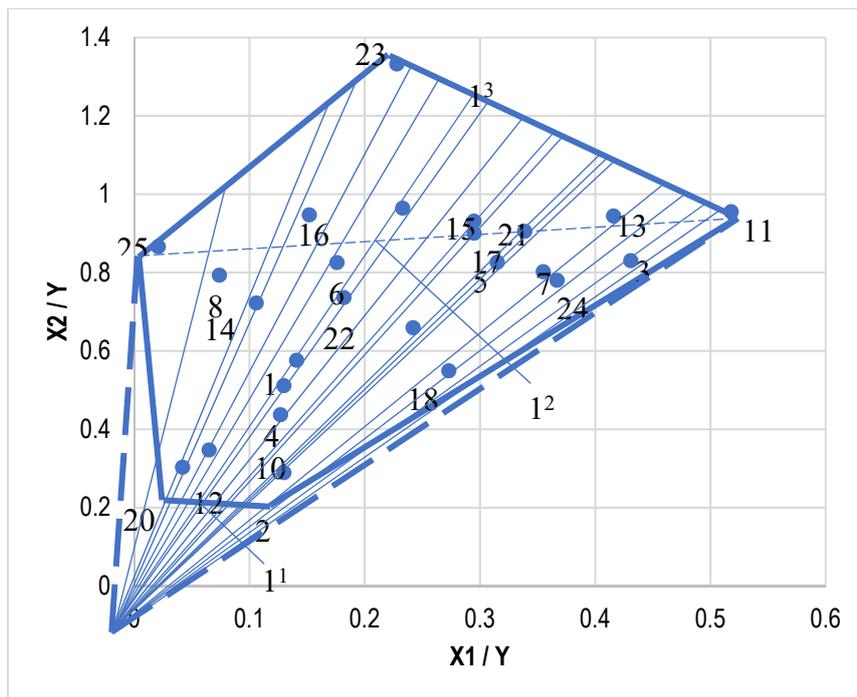
The positions of regions where tourist activity is inefficient are located within the line of technical efficiency, which allows identifying regions that are least effective in the functioning environment. Such region is Chernivtsi region (position 23). The presence of this position allows us to build lines characterizing the losses from inefficient activity of regions – lines 23-25 and line 23–11. Positions 11 (Luhans'k region) and 25 (Kyiv city) are also lines of technical efficiency, which makes it possible to conclude on the special role of these regions in terms of sufficient resources and opportunities to increase the income from tourist services. The line formed between these positions (25–11) is simultaneously a projection of lines 25-20-2-11 and 25-23-11.

For positions of regions (by the numbers in Table 1: 1; 3; 4; 5; 6; 7; 8; 9; 10; 12; 14; 17; 18; 21; 22; 24) this line is the limit of unfulfilled opportunities. The closer the position is to line 25-11, the less the opportunities for tourism development were realized in the region. On the contrary, if the position of the region is close to the line of technical efficiency (the coefficient of technical efficiency is high), then the realization of these opportunities is also high. Thus, area 25-20-2-11 is an area of existing opportunities for realizing the potential of providing tourist services by business entities.

The area of the polygon 23-25-20-2-11 characterizes the state of development of tourist activity in Ukraine for 2018. Strengthening of these positions is the gradual movement of them to the abscissa and ordinate axes

(X_1/Y and X_2/Y) by reducing coverage coefficients (increasing revenue from tourist services and reducing all costs).

Figure 1. Environment of functioning of tourist activity in the regions of Ukraine for 2018



Source: own composition on the basis data of the State Statistics Service of Ukraine.

Movement lines are the segments from the origin to a specific position (for example, 0-1; 0-3; 0-24, etc.) characterize the direction of optimization of tourist activity in the respective region. The lines connecting the extreme positions (0-25 and 0-11) allow us to form an area of improvement of indicators of tourist operators by increasing the income from the provision of tourist services and from optimizing the labor cost and operating expenses (0-11-2- 20-25).

Table 4. Assessment of tourism development opportunities by regions of Ukraine, 2018

No	Region	Possibility of improvement,%	Realization of existing opportunities,%	Possibility of losses,%
1	Vinnytsia	24,0	48,6	27,4
3	Dnipropetrovs'k	60,5	36,9	2,6
4	Donets'k	24,6	51,3	24,1
5	Zhytomyr	27,0	64,9	8,1
6	Zakarpattia	23,8	46,9	29,3
7	Zaporizhia	28,2	63,1	8,7
8	Ivano-Frankivs'k	39,1	46,4	14,5
9	Kyiv	26,5	57,1	16,4
10	Kirovohrad	24,6	51,4	24,0
12	Lviv	23,0	45,3	31,7
13	Mykolaiv	28,0	62,0	10,0
14	Odessa	24,4	48,1	27,5
15	Poltava	25,8	53,1	21,1
16	Rivne	23,2	45,8	31,0
17	Sumy	26,0	54,1	19,9
18	Terнопil'	41,4	53,9	4,7
19	Kharkiv	24,0	48,6	27,4
21	Khmelnyts'kyi	26,5	57,8	15,7
22	Cherkasy	24,0	48,6	27,4
24	Chernihiv	33,3	62,0	4,7

Source: authors' calculations-based data on the State Statistics Service of Ukraine.

The positions of the regions (by the numbers of Table 1: 13; 15; 16; 19) are those that have losses from the tourist activity. The Chernivtsi region has the greatest losses (position 23), and the area of losses from the provision of tourist services by business entities is limited by the following lines by the positions of the regions: 25-11-23.

The presence of the above areas allows to calculate three indicators (Table 4):

- the possibility of improving the provision of tourist services;
- realization of existing opportunities in the sphere of providing tourist services;
- the possibility of losses from the provision of tourist services.

The calculation of these indicators should be made on the basis of the length of each segment for a technically inefficient position, reflecting the implementation of tourism activities in the region. For example, for position 1 (Vinnytsia region) the possibility of improvement: $\text{segment } 0-1^1/\text{segment } 0-1^3 \cdot 100\%$ (is 24 %). Existing opportunities were realized by 48.6 % ($\text{segment } 1^1-1^2/\text{segment } 0-1^3 \cdot 100\%$). The loss potential was 27.4 % ($\text{segment } 1^2-1^3/\text{segment } 0-1^3 \cdot 100\%$).

Based on the results obtained, we can conclude that in Ukraine the greatest potential for improving the provision of tourist services have Dnipropetrovs'k region (60.5 %), Ternopil' region (41.4 %), Ivano-Frankivs'k region (39.1 %) and Chernihiv region (33.3 %). The potential of all other regions ranges from 23 % to 28.2 %.

Dnipropetrovs'k region is the region where the least of all regions of Ukraine can now be realized opportunities to provide tourist services (36.9 %). In other regions this indicator is higher, in particular, Zhytomyr (64.9 %), Zaporizhia (63.1 %), Mykolaiv (62 %) and Chernihiv (62 %) regions.

The least possible loss from the provision of tourist services is observed in the Dnipropetrovs'k region (2.6 %), and the highest is in the Lviv region (31.7 %).

Tourism development opportunities reflect the potential prospects of Ukraine's regions based on the current situation. Therefore, it is important to determine for now the level of implementation of existing opportunities or losses incurred for each region (Table 5).

Table 5. Level of realization of existing opportunities and level of losses from tourist activity in the regions of Ukraine, 2018

№	Region	The level of realization of existing opportunities by, %	Level of losses incurred, %
1	Vinnytsia	53,5	-
3	Dnipropetrovs'k	41,8	-
4	Donets'k	77,3	-
5	Zhytomyr	33,3	-
6	Zakarpattia	11,6	-
7	Zaporizhia	21,5	-
8	Ivano-Frankivs'k	20,0	-
9	Kyiv	42,8	-
10	Kirovohrad	77,6	-
12	Lviv	92,5	-
13	Mykolaiv	-	0,7
14	Odessa	28,1	-
15	Poltava	-	6,7
16	Rivne	-	14,3
17	Sumy	3,7	-
18	Ternopil'	89,5	-
19	Kharkiv	-	17,5
21	Khmelnys'ky	3,5	-
22	Cherkasy	27,8	-
24	Chernihiv	40,0	-

Source: authors' calculations-based data on the State Statistics Service of Ukraine.

For example, position 1 (Vinnytsia region) is located in an area that characterizes the realization of existing opportunities in the field of tourist services: $\text{segment } 1-1^2/\text{segment } 1^1-1^2 \cdot 100\% = 53.5\%$. Position 19 (Kharkiv region) is located in an area that characterizes the losses incurred in the provision of tourist services: $\text{segment } 19-1^2/\text{segment } 1^2-1^3 \cdot 100\% = 17.5\%$.

Based on the results of 2018, it can be concluded that in the Lviv region, 45.3 % of the opportunities created by the functioning environment of Ukraine in providing tourist services were realized by 92.5 %. Ternopil'

region (89.5 %), Kirovohrad region (77.6 %), Donetsk region (77.3 %), Vinnytsia region (53.5 %) are also characterized by the high level of tourist activity realization. The lowest level is in Sumy region (3.7 %) and Khmelnyts'ky region (3.5 %).

The losses incurred from the implementation of tourism activities characterize the activities of four regions - Kharkiv, Rivne, Poltava and Mykolaiv ones. If for the Mykolaiv region such losses made 0,7 %, then for Kharkiv region it was 17,5 %.

Conclusions

Using the method of analysis of the functioning environment, a study was conducted to identify the potential for the development of tourist activity in the regions of Ukraine and was evaluated the possibilities of its enhancement. Twelve regions were found to have high tourism development potential, but the other thirteen had insufficient tourism revenue to cover labor and operating costs. The activity of providing tourist services was evaluated by using the basic principles of the method of analysis of the functioning environment in the regions of Ukraine, where the main purpose was not to identify the coefficients of efficiency for each region, but to develop approaches for identifying opportunities for development, enhancing development and incurring losses from the implementation of this type of activity. The level of realization of existing opportunities and the level of losses from tourist activity in the regions of Ukraine were calculated, which made it possible to conclude that there is a high level of realization of development opportunities in the Dnipropetrovs'k region, but four regions (Kharkiv region, Rivne region, Poltava region, Mykolaiv region) suffered losses. The results of the study can be used in strategic and operational planning of tourism development in the regions of Ukraine and in improving the efficiency of the tourism business.

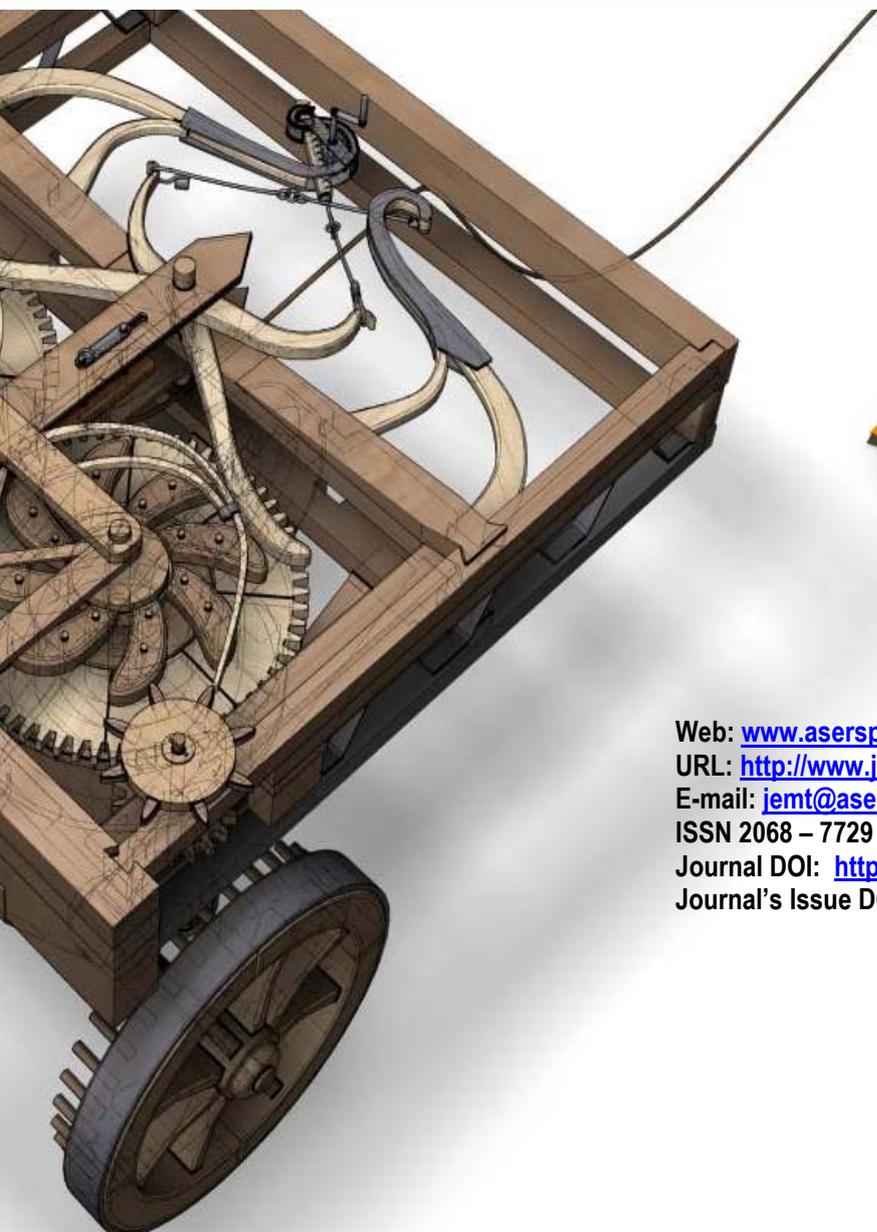
Further research should aim at introducing approaches to calculating specific revenue and cost indicators, which will, on the one hand, expand the functioning environment and fully realize existing potential, and, on the other hand, ensure in each region a high level of realization of those opportunities that were previously created because of developed tourist infrastructure (Lviv region, Odessa region, Kyiv city, etc.).

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