

## GEOGRAPHY OF RECREATION AND TOURISM

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**USE OF ECONOMETRIC MODELS IN ASSESSMENT OF THE TOURIST POTENTIAL OF THE REGIONS OF THE REPUBLIC OF UZBEKISTAN**

***Abstract.** The article describes a methodology for modeling a network of hotels and other accommodation facilities, sanatoriums, travel companies and organizations, as well as objects of material cultural heritage of the Republic of Uzbekistan and provides an assessment of the tourism potential of the regions of Uzbekistan. In the process of econometric modeling of the tourist potential of the regions, the average indicators and rating ranking were used. On the basis of econometric modeling of the tourist potential of regions and the country as a whole, it is possible to identify development problems and outline ways and measures to overcome the corresponding shortcomings. At the same time, according to the results of the study, the duration of the tourist season in various regions of the country was analyzed, taking into account the tourist potential of each of them. The modern possibilities of the capacity of the tourist infrastructure of the regions have been determined and recommendations and proposals have been developed for the management bodies to increase the corresponding potential of the territories.*

***Key words:** regions, tourist potential, comparison, assessment, hotel, travel agency, material cultural heritage, health resort institutions.*

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г.Чирчик, Узбекистан**ИСПОЛЬЗОВАНИЕ ЭКОНОМЕТРИЧЕСКИХ МОДЕЛЕЙ ДЛЯ ОЦЕНКИ ТУРИСТСКОГО ПОТЕНЦИАЛА РЕГИОНОВ РЕСПУБЛИКИ УЗБЕКИСТАН**

***Аннотация.** В статье излагается методика моделирования сети гостиниц и прочих средств размещения, санаториев, туристических фирм и организаций, а также объектов материального культурного наследия Республики Узбекистан и приводится оценка туристского потенциала регионов Узбекистана. В процессе эконометрического моделирования туристского потенциала регионов использованы средние показатели и рейтинговое ранжирование. На базе эконометрического моделирования туристского потенциала регионов и страны в целом возможно выявить проблемы развития отрасли и наметить пути и меры преодоления соответствующих недостатков. Вместе с тем, по результатам исследования проанализирована продолжительность туристского сезона в различных регионах страны с учётом туристского потенциала каждого из них. Определены современные возможности вместимости туристской инфраструктуры регионов и разработаны рекомендации и предложения для органов управления по увеличению соответствующего потенциала территорий.*

***Ключевые слова:** регионы, туристский потенциал, сравнение, оценка, гостиница, туристическое агентство, материальное культурное наследие, санаторно-курортные учреждения.*

**Introduction and problem statement.** As noted by our President Sh.M.Mirziyoev, "... Uzbekistan is a unique country, which has the most ancient civilization and culture, flourished in its territory, and has a huge potential for recreation and travel in the world country" [13]. It is known that our country ranks 9th among the top 10 countries in the world in terms of natural buildings and facilities.

Natural resources of the region includes protected nature monuments, recreational centers, culture and social and thematic folders, cultural objects, hotels and other accommodations, cafes and restaurants, museums, theatres craftsmanship, translators, tourists, guides, instructors, sport fields and skyscrapers, transport and agritourism facilities.

**Level of learning.** In the field of tourism, a number of studies have been conducted by foreign economists to model the tourism potential of the regions. Including:

The model proposed by M. Schechter pays special attention to the issues of optimal allocation of resources in the implementation of projects involving the development of the tourism system [14].

Describes the application of the Steiner-Weber method in mathematical modeling performed by I.V. Zorin and the cost of a recreational system in a short period of time from the center of a given set of performance requirements [15].

A.J. Penz conducted research on the use of linear programming model in the effective organization of the tourism system [12].

Kiselova I.A., Tramova A.M. research has shown that the demand in tourism is formed using the tourists visiting the area or the costs incurred by them. These researchers developed a forecast of tourist visits in the Kabardino-Balkan Republic [9].

Thai scholars Chukiat Chaiboonsri and Prasert Chaitip analyzed the travel time (duration, days) of foreign tourists visiting India as a regression model and identified socio-demographic, travel opportunities, social, economic, and natural development factors in the region as variables [3].

N.A. Kamenskikh own the term innovative potential in research needs tourists the subject of tourism and recreation from natural, anthropogenic and regional resources in order to meet can be used in innovative activities [8].

Organization of recreational activities in the research of A. Mirzaev and assessment of management processes, tourist and recreational facilities of the regions analysis of influencing factors, integrated assessment of tourist and recreational facilities if the issues of improving the mechanism are studied [11].

**The purpose and objectives of the work.** The main purpose of this study is to assess the tourist potential of the regions of the country through econometric models, to study their position in the tourism potential of the country. It also analyzes the extent to which the regions are using their existing tourism potential. As a result, the tourist capacity of the regions will be studied, and their opportunities for future development of the industry will be revealed.

In assessing the tourist potential of the regions of the Republic of Uzbekistan, the average indicators and rating digitization methods, which are widely used in econometrics and statistical research, are used. To this end, this study aims to calculate the average performance in assessing the tourist potential of the regions; systematization of the tourist potential of the regions; mutual comparison of regional potentials; The tourist potential of the regions has taken on such tasks as the overall systematization of indicators that differ in the unit and weight of the rating digitization method.

**Research methodology.** Assessing the potential of our country is important in identifying problems and shortcomings in the field and in determining the direction of its development. Our research, which is focused on determining the physical potential of the territory of our country, includes the following:

- Hotel and similar accommodation in the territory of the Republic of Uzbekistan;

- Sanatoriums on the territory of the Republic of Uzbekistan;
- Number of tourism firms and organizations in the territory of the Republic of Uzbekistan;
- Real estate of material and cultural heritage of the territory of the Republic of Uzbekistan.

The main reason for using only five polynomials in determining the regional capability is that the data collected by the State Statistics Committee of the Republic of Uzbekistan on the remaining important polynomials are not sufficient enough.

Table 1

First modeling plan and a sequence-based constructing table

| Indicators   | First step   | Mathematical expression  |
|--|--|--|
| Hotels and similar accommodations in the territory of the Republic of Uzbekistan (number of objects) | It will be assumed that the polynomial with the highest value in terms of indicators (in terms of years by region) is equal to "1" in the peach pile, and the other is calculated accordingly. | $MAX(A_{11}; A_{12}; A_{13} \dots; A_{1n}) = 1$ $A'_{1i} = \frac{A_{1i}}{MAX(A_{11}; A_{12}; A_{13} \dots; A_{1n})}$ |
| Number of sanatoriums on the territory of the Republic of Uzbekistan                                 | It will be assumed that the polynomial with the highest value in terms of multiplicity (in terms of years) is equal to "1" in the shaft, and the other is calculated accordingly.              | $MAX(A_{21}; A_{22}; A_{23} \dots; A_{2n}) = 1$ $A'_{2i} = \frac{A_{2i}}{MAX(A_{21}; A_{22}; A_{23} \dots; A_{2n})}$ |
| Number of tourist firms and organizations on the territory of the Republic of Uzbekistan             | It will be assumed that the polynomial with the highest value in terms of indicators (in terms of years) is equal to "1" in the shaft, and the other is calculated accordingly.                | $MAX(A_{31}; A_{32}; A_{33} \dots; A_{3n}) = 1$ $A'_{3i} = \frac{A_{3i}}{MAX(A_{31}; A_{32}; A_{33} \dots; A_{3n})}$ |

According to the information provided by the State Statistics Committee on the above-mentioned multi-factor, the following calculations are carried out.

The "A" in the table above is a multi-regional reference over the years. A stitched "A" lap is a non-stitched "A" lap that has been converted into a peacock polynomial. The MAX represents the maximum number of regional polynomials over the years.

Table 2

Second modeling plan and a sequence-based constructing table

| Indicators   | Second step  | Mathematic expression   |
|--|--|---|
| Hotels and similar accommodations in the territory of the Republic of Uzbekistan (number of objects) | Geometric average will be calculated according to the given indicators | $w_1 = \sqrt[n]{A'_{11} \times A'_{12} \times A'_{13} \times \dots \times A'_{1n}}$ |
| Number of sanatoriums on the territory of the Republic of Uzbekistan                                 | Geometric average will be calculated according to the given indicators | $w_2 = \sqrt[n]{A'_{21} \times A'_{22} \times A'_{23} \times \dots \times A'_{2n}}$ |

|  |  |   |
|--|--|---|
| Number of tourist firms and organizations on the territory of the Republic of Uzbekistan | Geometric average will be calculated according to the given indicators | $w_3 = \sqrt[n]{A'_{31} \times A'_{32} \times A'_{33} \times \dots \times A'_{3n}}$ |
|--|--|---|

In the table 2 the "w" is represented by the geometry of the "A".

Table 3

Third modeling plan and a sequence-based constructing table

| Indicators  | Third step  | Mathematic expression                      |
|---|---|--|
| By summarizing the three polynomials in the zonal transition, we determine the total potential of the region. | We cover the geometry of the polyps in the zonal cross-section. | $RP = \sqrt[3]{w_1 \times w_2 \times w_3}$ |

The expression "RP" given in the last third table of the hiccup process represents the geometry of potential over the years in the area defined separately on the polynomial. The aggregation of the potentials of the region on the basis of the multiplicity of the values determines the potential of the multiplicity.

**Main part.** The abovementioned steps and calculations will be held in sequence. First of all, we will create a table with statistical information and continue step by step on this table. Andijan region will be selected as a sample for target analysis of the data obtained as a result of the study.

The statistical data presented in Table 4 show that Tashkent, Samarkand and Bukhara are the absolute leaders in the field of hotel and similar organizations.

Table 4

Hotels and similar accommodations (objects) in the Republic of Uzbekistan [5]

| №   | Regions                     | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 |
|-----|-----------------------------|------|------|------|------|------|------|------|------|------|
| 1.  | Republic of Karakalpakistan | 32   | 36   | 26   | 40   | 41   | 43   | 44   | 47   | 52   |
| 2.  | Andijan                     | 16   | 16   | 19   | 20   | 21   | 24   | 32   | 25   | 23   |
| 3.  | Bukhara                     | 59   | 74   | 68   | 79   | 85   | 97   | 104  | 125  | 140  |
| 4.  | Jizzakh                     | 15   | 16   | 16   | 18   | 20   | 17   | 34   | 34   | 45   |
| 5.  | Kashkadarya                 | 23   | 34   | 28   | 43   | 41   | 37   | 44   | 43   | 43   |
| 6.  | Navoi                       | 11   | 15   | 18   | 20   | 23   | 27   | 26   | 30   | 29   |
| 7.  | Namangan                    | 11   | 13   | 21   | 17   | 16   | 18   | 24   | 26   | 26   |
| 8.  | Samarkand                   | 68   | 83   | 80   | 86   | 97   | 104  | 112  | 110  | 116  |
| 9.  | Surkhandarya                | 26   | 28   | 28   | 28   | 29   | 31   | 35   | 38   | 38   |
| 10. | Syrdarya                    | 11   | 9    | 11   | 7    | 5    | 10   | 11   | 12   | 17   |
| 11. | Tashkent                    | 31   | 26   | 27   | 40   | 41   | 45   | 52   | 67   | 78   |
| 12. | Fergana                     | 21   | 25   | 24   | 20   | 46   | 38   | 41   | 49   | 55   |
| 13. | Khorezm                     | 24   | 30   | 30   | 33   | 34   | 40   | 46   | 53   | 64   |
| 14. | Tashkent city               | 86   | 95   | 87   | 90   | 114  | 130  | 145  | 157  | 190  |

Moreover , according to the data for 2018, the number of hotels stood at more than 100. The group with a vocal range of 50-100 includes the Republic of Karakalpakistan, Tashkent, Fergana and Khorezm regions. Andijan, Jizzakh, Syrdarya, Kashkadarya, Navoi, Surkhandarya, and Namangan regions. Naturally, due to the fact that Tashkent is the capital, the center of education, science, culture, business and finance, it has a significant share in the

structure of public tourism. Due to the high natural status of Samarkand and Bukhara provinces, the interest in this region and the number of visits to other regions increases the demand for hotels in other regions.

The relatively low number of hotels in the Andijan region, where we are conducting the research, makes it difficult for the region to lose interest in the hotel business. We know that the population of Andijan region is represented by the Uzbek people, who have the ability and ability to invent. The lack of hotel accommodation means that this business is not above the satisfactory "bar" for businessmen, due to a certain binding and non-legislative obligation.

There are 23 hotels in the region that specialize mainly in tourism business, skilled work tourism and sport tourism. In addition to its exact functional purposes, hotels such as "Hamkor", "Monferan klassik" are designed only for business type of people - general type, diplomatic meetings and consulting.

The lack of visits for recreation or leisure in the region is related to the problem of offering touristic products. In this case, the location of the hotel business does not justify the cost of development, such as colic, credit payments, monthly salaries, utility payments. While a hotel operates at a profit of less than 30-40 percent of its total capacity, it does not cover the expenditures that is made for the hotel business.

It is possible to further improve the opportunities of the Andijan region by identifying and focusing on the direction of the future, and gradually reducing the involvement of the hotel business in the papal parallel. In the field of socio-economic development and entrepreneurship, "... the state should improve the system of inspections, improve the system of inspection of the activities of research institutes, prevent the unlawful interference in the activities of teachers ..." [10]. The activities of the hotel business representative of the Central Asian state agency for the purpose of thorough inspection of the region are increasing. Under the pressure of the authorities and other authorities, the free accommodation of members of the working group in hotels is a material and moral obstacle to the activities of educational institutions. As a result, rising incomes lead to untimely health payments, an unhealthy competitive environment and corruption.

The values in the multiplication table in Table 4 are obtained when we perform the given operations above provided steps.

Table 5

Evaluation of hotels and similar accommodations in the Republic of Uzbekistan

| №   | Regions                     | 2010  | 2011  | 2012  | 2013  | 2014  | 2015  | 2016  | 2017  | 2018  |
|-----|-----------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 1.  | Republic of Karakalpakistan | 0,372 | 0,379 | 0,299 | 0,444 | 0,360 | 0,331 | 0,303 | 0,299 | 0,274 |
| 2.  | Andijan                     | 0,186 | 0,168 | 0,218 | 0,222 | 0,184 | 0,185 | 0,221 | 0,159 | 0,121 |
| 3.  | Bukhara                     | 0,686 | 0,779 | 0,782 | 0,878 | 0,746 | 0,746 | 0,717 | 0,796 | 0,737 |
| 4.  | Djizakh                     | 0,174 | 0,168 | 0,184 | 0,200 | 0,175 | 0,131 | 0,234 | 0,216 | 0,237 |
| 5.  | Kashkadarya                 | 0,267 | 0,358 | 0,322 | 0,467 | 0,285 | 0,285 | 0,303 | 0,274 | 0,226 |
| 6.  | Navoi                       | 0,128 | 0,158 | 0,207 | 0,222 | 0,202 | 0,208 | 0,179 | 0,191 | 0,153 |
| 7.  | Namangan                    | 0,128 | 0,137 | 0,241 | 0,189 | 0,140 | 0,138 | 0,165 | 0,166 | 0,137 |
| 8.  | Samarkand                   | 0,791 | 0,874 | 0,919 | 0,955 | 0,851 | 0,800 | 0,772 | 0,701 | 0,610 |
| 9.  | Surkhandarya                | 0,302 | 0,295 | 0,322 | 0,311 | 0,254 | 0,238 | 0,241 | 0,242 | 0,200 |
| 10. | Syrdarya                    | 0,128 | 0,095 | 0,126 | 0,078 | 0,04  | 0,077 | 0,076 | 0,077 | 0,089 |
| 11. | Tashkent                    | 0,360 | 0,273 | 0,310 | 0,444 | 0,360 | 0,346 | 0,359 | 0,427 | 0,410 |
| 12. | Fergana                     | 0,244 | 0,263 | 0,276 | 0,222 | 0,403 | 0,292 | 0,283 | 0,312 | 0,289 |
| 13. | Khorezm                     | 0,279 | 0,315 | 0,345 | 0,367 | 0,298 | 0,308 | 0,317 | 0,338 | 0,005 |
| 14. | Tashkent city               | 1     | 1     | 1     | 1     | 1     | 1     | 1     | 1     | 1     |

In Table 5, it can be assumed that the number of hotels in Tashkent, which has the highest number of hotels, is equal to "1". The geographical coefficient of the hotel and similar accommodations in Tashkent city and Syrdarya region is more than 11. In the Andijan region, the population is higher than in the neighboring Namangan region (2,810.9 thousand people), and in the Fergana region (3,752.5 thousand people) it is relatively low, while the canopy is low.

We know that Andijan region, like Tashkent and Fergana regions, has mountainous areas, medicinal plants and water (waterfalls, rivers, lakes, etc.). Equality, similarity of opportunities and diversity of results (sanatoriums) mean that Andijan region has a serious problem in the process of turning its opportunities into results.

Table 6

Number of sanatoriums in the Republic of Uzbekistan [5]

| №   | Regions                     | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 |
|-----|-----------------------------|------|------|------|------|------|------|------|------|------|
| 1.  | Republic of Karakalpakistan | 10   | 12   | 11   | 11   | 10   | 10   | 10   | 10   | 10   |
| 2.  | Andijan                     | 8    | 10   | 10   | 10   | 9    | 8    | 10   | 9    | 11   |
| 3.  | Bukhara                     | 6    | 5    | 3    | 3    | 3    | 3    | 3    | 3    | 3    |
| 4.  | Djizzakh                    | 3    | 4    | 5    | 8    | 4    | 5    | 11   | 10   | 13   |
| 5.  | Kashkashdarya               | 8    | 9    | 11   | 13   | 13   | 13   | 11   | 12   | 13   |
| 6.  | Navoi                       | 5    | 5    | 5    | 5    | 6    | 6    | 6    | 7    | 7    |
| 7.  | Namangan                    | 14   | 13   | 14   | 13   | 14   | 13   | 16   | 17   | 17   |
| 8.  | Samarkand                   | 8    | 11   | 11   | 13   | 13   | 18   | 21   | 21   | 22   |
| 9.  | Surkhandarya                | 6    | 7    | 10   | 12   | 9    | 10   | 9    | 12   | 12   |
| 10. | Syrdarya                    | 2    | 2    | 2    | 2    | 2    | 1    | 1    | 1    | 0    |
| 11. | Tashkent                    | 23   | 24   | 26   | 23   | 23   | 24   | 25   | 25   | 31   |
| 12. | Fergana                     | 27   | 25   | 19   | 26   | 43   | 40   | 39   | 31   | 36   |
| 13. | Khorezm                     | 5    | 5    | 5    | 5    | 4    | 4    | 4    | 4    | 7    |
| 14. | Tashkent city               | 19   | 17   | 10   | 10   | 14   | 15   | 17   | 13   | 17   |

In addition to the mentioned information in Table 6 above, there are currently 11 sanatoriums in the province, of which 5 are co-operating with the provincial tourism development management and the association committee. The total number of available beds is 430, which is equivalent to 50,403 beds per capita in the province. In Jalal-Abad, Bulakbashi, Pakhtaabad, Andijan, Asaka and Markhamat districts of the region, there are sanatoriums in different districts. However, they are currently in no condition to accept visitors and tourists.

According to the information given in the table, in the first step we present the results of the given operation in the table multiplication. We can make the multiplier of the Fergana region, which has the highest caliber, equal to "1". In Table 7, only in 2012, the largest number of cannabis was in the Tashkent region, and in the rest of the year, the Fergana region had the highest number of sanatoriums. Syrdarya Province is recognized as the region with the highest pacification potential at 0,001.

Table 8 provides statistical data on the type of organization and organization of the country's territory. For this polynomial, we can say that the polynomial of the region with the highest slope is equal to "1" in the shaft. We cover the rest of the area with pollen accordingly.

Evaluation of sanatoriums in the Republic of Uzbekistan

| №   | Regions                     | 2010  | 2011  | 2012  | 2013  | 2014  | 2015  | 2016  | 2017  | 2018  |
|-----|-----------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 1.  | Republic of Karakalpakistan | 0,370 | 0,480 | 0,423 | 0,423 | 0,232 | 0,250 | 0,256 | 0,322 | 0,278 |
| 2.  | Andijan                     | 0,296 | 0,400 | 0,384 | 0,385 | 0,209 | 0,200 | 0,256 | 0,290 | 0,305 |
| 3.  | Bukhara                     | 0,222 | 0,200 | 0,115 | 0,155 | 0,070 | 0,075 | 0,077 | 0,097 | 0,083 |
| 4.  | Djizzakh                    | 0,111 | 0,160 | 0,192 | 0,308 | 0,093 | 0,125 | 0,282 | 0,323 | 0,361 |
| 5.  | Kashkadarya                 | 0,296 | 0,360 | 0,423 | 0,500 | 0,302 | 0,325 | 0,282 | 0,387 | 0,361 |
| 6.  | Navoi                       | 0,185 | 0,200 | 0,192 | 0,192 | 0,139 | 0,150 | 0,154 | 0,226 | 0,194 |
| 7.  | Namangan                    | 0,518 | 0,520 | 0,538 | 0,500 | 0,326 | 0,325 | 0,410 | 0,548 | 0,472 |
| 8.  | Samarkand                   | 0,296 | 0,440 | 0,423 | 0,500 | 0,302 | 0,450 | 0,538 | 0,677 | 0,611 |
| 9.  | Surkhandarya                | 0,222 | 0,280 | 0,385 | 0,461 | 0,209 | 0,250 | 0,231 | 0,387 | 0,333 |
| 10. | Syrdarya                    | 0,074 | 0,080 | 0,077 | 0,077 | 0,046 | 0,025 | 0,026 | 0,030 | 0,001 |
| 11. | Tashkent                    | 0,852 | 0,960 | 1     | 0,885 | 0,535 | 0,600 | 0,641 | 0,806 | 0,861 |
| 12. | Fergana                     | 1     | 1     | 0,731 | 1     | 1     | 1     | 1     | 1     | 1     |
| 13. | Khorezm                     | 0,185 | 0,200 | 0,192 | 0,192 | 0,093 | 0,100 | 0,103 | 0,129 | 0,194 |

This table provides statistical data on the number of organizations and organizations operating in the territory of the republic over the years. The city of Tashkent is the absolute leader in this respect, followed by Samarkand and Bukhara regions. In 2018, the number of closed firms and organizations across the country increased by 49.4% compared to 2010. The target for the implementation of the Concept of the development of tourism in the Republic of Uzbekistan in 2019-2025 is more than the target, and it is planned to increase the number of tour operators are 983 in 2019 and 1450 by 2025 [1].

Table 8

Number organizations and tour operating organizations in the Republic of Uzbekistan

| №   | Regions                     | 2010  | 2011  | 2012  | 2013  | 2014  | 2015  | 2016  | 2017  | 2018  |
|-----|-----------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 1.  | Republic of Karakalpakistan | 0,022 | 0,013 | 0,028 | 0,026 | 0,012 | 0,017 | 0,013 | 0,009 | 0,018 |
| 2.  | Andijan                     | 0,022 | 0,021 | 0,028 | 0,026 | 0,016 | 0,010 | 0,019 | 0,028 | 0,023 |
| 3.  | Bukhara                     | 0,059 | 0,081 | 0,056 | 0,060 | 0,047 | 0,062 | 0,054 | 0,056 | 0,103 |
| 4.  | Djizzakh                    | 0,004 | 0,013 | 0,004 | 0,008 | 0,008 | 0,007 | 0,019 | 0,019 | 0,026 |
| 5.  | Kashkadarya                 | 0,032 | 0,026 | 0,020 | 0,026 | 0,012 | 0,014 | 0,016 | 0,019 | 0,020 |
| 6.  | Navoi                       | 0,013 | 0,017 | 0,024 | 0,021 | 0,008 | 0,010 | 0,013 | 0,012 | 0,018 |
| 7.  | Namangan                    | 0,004 | 0,004 | 0,004 | 0,004 | 0,003 | 0,003 | 0,006 | 0,003 | 0,006 |
| 8.  | Samarkand                   | 0,190 | 0,189 | 0,185 | 0,205 | 0,180 | 0,178 | 0,178 | 0,178 | 0,177 |
| 9.  | Surkhandarya                | 0,004 | 0,004 | 0,008 | 0,008 | 0,008 | 0,014 | 0,019 | 0,019 | 0,015 |
| 10. | Syrdaryo                    | 0,001 | 0,004 | 0,016 | 0,008 | 0,008 | 0,003 | 0,003 | 0,003 | 0,003 |
| 11. | Tashkent                    | 0,036 | 0,013 | 0,024 | 0,021 | 0,016 | 0,012 | 0,013 | 0,016 | 0,018 |
| 12. | Fergana                     | 0,018 | 0,026 | 0,036 | 0,008 | 0,008 | 0,014 | 0,009 | 0,012 | 0,027 |
| 13. | Khorezm                     | 0,009 | 0,013 | 0,008 | 0,013 | 0,016 | 0,014 | 0,016 | 0,025 | 0,023 |
| 14. | Tashkent city               | 1     | 1     | 1     | 1     | 1     | 1     | 1     | 1     | 1     |

Andijan region is opting for the multi-stage in 2009-2018 with a very large gap. This may be due to the fact that the population of Andijan region does not have a step-by-step approach to the transfer of revenue to the state. Compared to Tashkent, our opinion finds its

proof. In 2018, the per capita income of the population of Tashkent amounted to 13,447.4 thousand soums, while the per capita income of the population of the region was 8,174.5 thousand soums [6].

At the same time, the demographic and psychological factors of the beep increase the demand for tour operators. As a result of the planned run, the number of tour operators in the country in 2019 reached 1482 [7]. At the same time, the number of them in Andijan region was 36 [4]. Sometimes the lack of tour operators is also explained by the fact that it is an ancient natural memorial object and the tap is located in the tap.

Table 9

Information on the subject of real property of the material cultural heritage

| №   | Regions                     | Number of cultural heritage objects | Moclasted state for potential |
|-----|-----------------------------|-------------------------------------|-------------------------------|
| 1.  | Republic of Karakalpakistan | 288                                 | 0,179                         |
| 2.  | Andijan                     | 422                                 | 0,263                         |
| 3.  | Bukhara                     | 829                                 | 0,516                         |
| 4.  | Djizzakh                    | 427                                 | 0,266                         |
| 5.  | Kashkadarya                 | 1468                                | 0,913                         |
| 6.  | Navoi                       | 437                                 | 0,272                         |
| 7.  | Namangan                    | 274                                 | 0,170                         |
| 8.  | Samarkand                   | 1607                                | 1                             |
| 9.  | Surkhandarya                | 561                                 | 0,349                         |
| 10. | Syrdarya                    | 78                                  | 0,048                         |
| 11. | Tashkent                    | 828                                 | 0,515                         |
| 12. | Fergana                     | 376                                 | 0,234                         |
| 13. | Khorezm                     | 259                                 | 0,161                         |
| 14. | Tashkent city               | 354                                 | 0,220                         |

The Tashkent city multiplier, which has the highest number of tour operators, is equal to "1". According to the regional evaluation index of the total number of enterprises and organizations operating in the country in 2018, it is 0,177 in Samarkand and 0,103 in Bukhara, which is the closest to Tashkent. When comparing Tashkent city, Samarkand and Bukhara oblasts with other regions, it can be seen that there are some differences later. In order to determine the potential of the region, the table 9 provides a more transparent result by adding the information on the real estate.

A total of 8,208 monuments were erected on the territory of the republic, including objects of archeology (4,785), objects of architecture (2,265), objects of monumental art (628) and 5 (remarkable). The richest area for these objects is Samarkand province. According to the index of regional assessment of material and cultural heritage objects, Samarkand region's multifaceted level is equal to "1". The closest to this region is Kashkadarya 0,913, the potential of the region is estimated. Bukhara and Tashkent regions have the highest multiplication of 0,516 and 0,515, respectively. The least developed multi-sector is owned by the newly developed Sirdaryo region. In terms of the number of material and cultural objects, Andijan region has 422 multi-factors, which is higher than the assessment index, and the average pact is 0,263. The potential of Andijan region, which is being analyzed in this chapter, can be equated with that of Jizzakh and Navoi regions.

As can be seen from the table above, the addition of the multiplier of the real estate object of the material cultural heritage has more clearly multiplied the touristic potential of the region. Increases the existing but untapped potential of the Andijan region. Surprisingly, the material and cultural heritage of the real estate object is in many respects even higher than in Tashkent, but in general it is 4.3 on the map. In comparison with Samarkand region



(0,404217), which is the topical map of the republic, it can be observed that the total topical potential of Andijan region (0,134415) is less than 3 maps. However, Bukhara (0,141972), Kashkadarya (0,199195), Tashkent (0,184155), Navoi (0,113975) and the Republic of Karakalpakistan (0,131902) were closely evaluated.

Table 10

Table of comparative assessment of the physical potential of the Republic of Uzbekistan

| №   | Regions                     | Hotels and tourism centers | Sanatoriums | Number of tourism firms | Number of cultural heritage objects | Tourism potential according to the locations | Types according to fields |
|-----|-----------------------------|----------------------------|-------------|-------------------------|-------------------------------------|--|---------------------------|
| 1.  | Republic of Karakalpakistan | 0,287216                   | 0,321115    | 0,018335                | 0,179                               | 0,131902                                     | 8                         |
| 2.  | Andijan                     | 0,187911                   | 0,299025    | 0,022089                | 0,263                               | 0,134415                                     | 7                         |
| 3.  | Bukhara                     | 0,366335                   | 0,11605     | 0,067311                | 0,516                               | 0,141972                                     | 6                         |
| 4.  | Djizzakh                    | 0,362456                   | 0,188084    | 0,007838                | 0,266                               | 0,109188                                     | 10                        |
| 5.  | Kashkadarya                 | 0,220916                   | 0,341148    | 0,022881                | 0,913                               | 0,199195                                     | 3                         |
| 6.  | Navoi                       | 0,225545                   | 0,178602    | 0,015401                | 0,272                               | 0,113975                                     | 9                         |
| 7.  | Namangan                    | 0,164074                   | 0,459641    | 0,004625                | 0,170                               | 0,087752                                     | 13                        |
| 8.  | Samarkand                   | 0,341583                   | 0,39206     | 0,199347                | 1                                   | 0,404217                                     | 2                         |
| 9.  | Surkhandarya                | 0,438175                   | 0,296885    | 0,010407                | 0,048                               | 0,089784                                     | 12                        |
| 10. | Sirdarya                    | 0,139395                   | 0,035571    | 0,003565                | 0,349                               | 0,049838                                     | 14                        |
| 11. | Tashkent                    | 0,161147                   | 0,782057    | 0,01772                 | 0,515                               | 0,184155                                     | 4                         |
| 12. | Fergana                     | 0,298736                   | 0,969152    | 0,016853                | 0,234                               | 0,18382                                      | 5                         |
| 13. | Khorezm                     | 0,309913                   | 0,146366    | 0,017054                | 0,161                               | 0,105641                                     | 11                        |
| 14. | Tashkent city               | 1                          | 0,471249    | 1                       | 0,220                               | 0,567438                                     | 1                         |

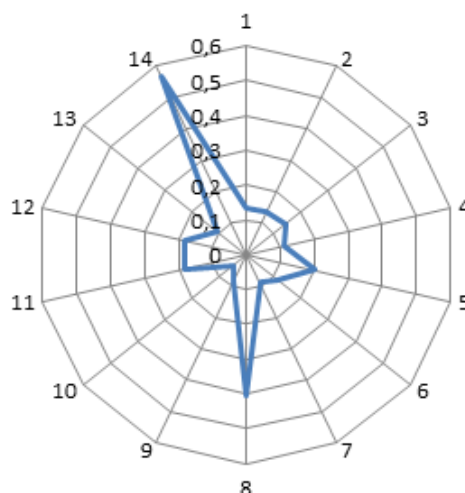


Fig. 1. Comparative touristic potential of the territory of the republic

1-Karakalpakistan, 2-Andijan, 3-Bukhara, 4-Jizzakh, 5-Kashkadarya, 6-Navoi, 7-Namangan, 8-Samarkand, 9-Surkhandarya, 10-Syrdarya, 11-Tashkent region, 12-Fergana, 13-Khorezm, 14-Tashkent city.

In the 1st figure above, the comparative touristic potential of the provinces is more clearly multiplied. In the assessment of the region, the analysis of the real estate object of the material cultural heritage has led to a change in the physical potential of the region. In Tashkent, the lack of cultural heritage facilities is leading the way. The difference between Tashkent city and Samarkand region was approximately 1.4. It was noted that when the

material cultural heritage was added to the real estate object, the difference in the regional kiss decreased. It can be seen that the Kashkadarya, Tashkent and Fergana regions are almost equally developed.

**Conclusion.** In addition to the research conducted in this article, there is an opportunity to accurately assess the involvement of tourism during the current period in the regions where the determination of the republic's touristic potential is possible.

As a result of studying the strengths and weaknesses of the region, it is possible to make appropriate proposals and recommendations to the authorities for the implementation of the development plan for the development of areas with limited potential.

In Tashkent city, Samarkand, Bukhara, Khorezm, Tashkent and Kashkadarya regions, where there is a lack of tourism skills, it has become possible to increase the number of hotels and similar accommodations.

According to the results of the study, the number of people in the Andijan region is in the 7th place. When the regional capacity was assessed as high and compared with the natural, social, economic and demographic factors, it became clear that the capacity was not used in stages.

In addition to leisure services in hotels in Andijan region, the hotel business will be further developed in the region through the organization of business and sport events, negotiations, meetings, trips and sport meetings, press conferences for the media.

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