

Tourism as a supporting factor for socio-economic development of a region

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Abstract — The present work attempts to establish groups of priority areas in the development of tourism. It has proved the importance of the tourism as a type of economic activity that positively affects the social and economic development of the region; determined the degree of the direct impact of tourism on the employment level in the region; revealed the degree of influence of the tourism development on the quality of life of the local republic population; identified the main groups of priority areas for the formation of a modern hospitality industry and the development of the economy of the Crimean region.

Keywords — *tourism, destination, resource conservation, perennial, demand*

I. INTRODUCTION

The study is devoted to the regional structure of the tourism sector as a maintenance factor for socio-economic development of the Republic of Crimea to identify the priorities and parameters of its sustainable development.

This study, based on statistical information, the apparatus of correlation-regression analysis, proved the significance of the tourist sector as one of the types of economic activity that positively affects the social and economic development of the region.

The degree of direct impact of the tourism sector on the employment level of the population has been determined, as well as its role in raising the quality of life of the local population has been revealed [1].

The main directions in the development of the tourism industry (providing comprehensive sustainable development of an accessible and comfortable tourist environment, reducing the influence of the seasonality factor on the activities of the tourist complex, the formation of a clear system of training and attracting personnel for the

development of tourism, etc.) were highlighted. Their effective implementation will stimulate the development of modern tourist infrastructure, capable of attracting new tourist flows [2].

Modern trends of tourism market show that the tourism industry stays in a sustainable position among other areas of service trade and separate sectors of the national economy as a whole. According to the World Tourism Organization (WTO) international tourism generates 10% of global gross domestic product (GDP), more than a third of global services exports and 7% of world exports as a whole [3].

According to the aforementioned organization, the contribution of tourism to the economy of the Russian Federation and its certain constituent entities is significant: the total contribution of the tourism industry to the GDP is 5.7%, the total number of employed in the tourism and hospitality industry is 5.2% of the total number of employed [4].

The selection of the tourism industry as the main factor in the social and economic development (13% of the main share of service sector) of the Republic of Crimea is relevant, since tourism is one of the sectors of social and economic growth that contribute to the revitalization of the economy of the Crimean region and has an impact on the solution of a number of economic and social issues as defined by the Strategy of Socio-Economic development of the Republic of Crimea until 2030, one of the it's main goals is the development of tourism and sanatorium-resort complex, characterized by a high level of competitiveness, demand, variety and high quality of service to ensure sustainable development of the Crimean region.

The problem, connected with the fact that the tourist potential of the Crimean region is not fully disclosed, is relevant, because, firstly, the development of the tourism

sector is a priority area that stimulates the activity of key sectors of the regional economy, including industry, agriculture, transport, construction, trade and other; secondly, since 2015, there has been a significant decline in earnings from tourism to the budget revenue of the Republic of Crimea, which limits the ability of regional executive authorities to finance and implement a number of relevant social and economic programs.

The study goal: based on statistical data and conducted correlation-regression analysis to establish groups of priority areas in the development of tourism that will activate not only the formation of a modern hospitality industry, but also the economic development of the Crimean region as a whole [5, 6].

According to the goal in the work, the following tasks are formulated:

- to prove the importance of the tourism as a type of economic activity that positively affects the social and economic development of the region;
- to determine the degree of direct impact of tourism on the employment level in the region;
- to reveal the degree of influence of the tourism development on the quality of life of the local republic population;
- to identify the main groups of priority areas for the formation of a modern hospitality industry and the development of the economy of the Crimean region.

Hypotheses:

- Tourism is one of the sectors of the economy that have a positive impact on the socio-economic development of the region.
- Tourism has a direct impact on the level of employment of the population of the region.
- The development of the tourism sector contributes to improving the quality of life of the population of the region.
- Due to its economic and social importance the issues of tourism development are widely represented in both foreign studies and Russian authors.

For example, in determining the degree of influence of tourism industry on the economy of the host region, A. Mathieson and G. Wall use the definition of “economic effect” in a broad sense to refer to primary and secondary impacts, costs and benefits from tourists according to regions of destination. The authors define “impact” as “the form of altered human behavior that stems from interactions between agents of change and the subsystems which they invade” [7].

Contrary, D. Stynes investigates the economic impact of the tourism industry by tracking and grouping of financial flows [8].

In his studies Kotlyarov E. emphasizes that “the greatest effect in the development of recreational facilities can be

achieved only with help of a systematic, organic linking it to other related industries. Therefore, the territorial and recreational complex is a combination of recreational facilities and related infrastructure companies, united by close industrial and economic relations as well as the joint use of geographical position, natural and economic resources of the territory occupied by the complex” [9].

Pirozhenko N. argues that tourism takes leading positions in the development of many countries because it forms GDP, promotes job creation, and increases the level of activation of the foreign trade balance [10].

Some specialists, including Gulyaev V. are convinced that the tourism and hospitality industry has a huge impact on the economy not only of the country as a whole, but also of a separate region, being the locomotive of the development of many other branches of management and ensuring not raw budget revenues [11].

Karchevskaya E. analyzing regional features of formation of tourist-recreational potential evaluates the effect of the factors on the basis of the regional significant criteria use. For the endurance factor there is a measure of saturation of the administrative areas of natural, recreational, cultural and historic resources and their attractiveness. Environmental factors are indicators of radioactive contamination, anthropogenic transformation and ecological balance. Consumer factor is estimated in terms of the intensity of tourist flows and infrastructure – by the level of development of hotel and transport network, catering, leisure and entertainment areas, Spa facilities, travel agencies [12].

Despite the large number of works devoted to the study of the tourism sector, the alternatives of its functioning in the conditions of the current modernization and restructuring of infrastructure is considered to be insufficient, so the above said determines the relevance of this study.

II. MATERIALS AND METHODS (MODEL)

To test the first hypothesis, related to the investigation of tourism as a major sector of the economy, positively affecting the socio-economic development of the region, on the basis of statistical information provided by the territorial body of the Federal Service for State Statistics Republic of Crimea for 2015-2017, authors used correlation and regressive analysis methods (with a help of MS Excel) to assess the relationship between indicators of tourism development (number of tourists visiting the region, incomes from tourist services; tax revenue from the regional tourism industry, investments in fixed assets in the tourism area) and the gross regional product (GRP) – integral indicator of regional economic activity.

To confirm the second hypothesis related to the research on the impact of the tourism industry on the employment level of the population in the region on the basis of statistical information for the study period (2015-2017), the authors used the regression analysis tool with the help of the MS Excel program to identify the most significant indicators of tourism (the number of tourists who visited the region, the average monthly salary of employees, the average number of employees in the tourism sector, the number of seasonal

employees), affecting the employment status of the population of the region as a whole, and to obtain a regression equation that allows predicting the indicator under analysis in subsequent periods.

To test the third hypothesis related to the identification of the role of the tourism in raising the quality of life of the local population on the basis of statistical information submitted by the Territorial Body of the Federal State Statistics Service for the Republic of Crimea for 2015-2017 authors used correlation analysis (with a help of MS Excel) and obtained a correlation coefficient, which helped to identify the type of correlation relationship between the considered indicators.

III. RESULTS AND DISCUSSION

A. The importance of tourism as the main factor of socio-economic development of the region

The special importance of tourism as a main factor of sustainable regional development is to identify its three basic aspects:

- economic (the support of long-term viability and active development of tourist organizations (enterprises, institutions, agencies) and destinations; improving employment, etc.);
- social (increase in quality of the population life of the region; security in the process of need satisfaction in leisure, recreation, travel without discrimination by gender, religious beliefs and other characteristics);
- environmental (minimization of pollution, use of scarce resources for the organization of the main types of tourist activities, cultural wealth support, etc.).

In practice, it is assumed to establish an appropriate balance between these parameters that guarantee the long-term sustainability not only of the analyzed industry, region, but also various types of economic activity and different spheres of life in the Republic of Crimea, impacting the increase of GRP.

Figure 1 presents the impact of tourism on the development of various economic activities and different spheres of life in the Republic of Crimea.

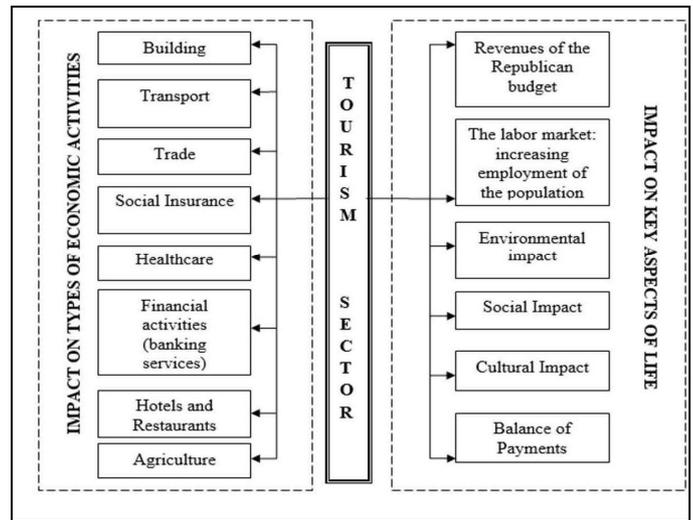


Fig. 1. The impact of tourism on the development of various economic activities and different spheres of life.

Using the methods of correlation-regression analysis, the authors assessed the tightness of the relationships of the indicators with the help of the correlation coefficient.

Authors analyzed the dependence of GRP on a number of indicators characterizing the development of tourism in the period from 2015 to 2017 (table I) [13].

TABLE I. INDICATORS OF TOURISM DEVELOPMENT IN REPUBLIC OF CRIMEA

| Year | Number of tourists, who visited region, millions | Incomes from tourist services, million rubles | Tax revenue from the regional tourism industry, million rubles | Investments in fixed assets in the tourism area, million rubles | GRP, million rubles |
|------|--|---|--|---|---------------------|
| | 1 | 2 | 3 | 4 | 5 |
| 2015 | 4.8 | 6012.2 | 1697.0 | 37000 | 189439.2 |
| 2016 | 4.6 | 13393.6 | 2055.1 | 128900 | 248280.1 |
| 2017 | 5.6 | 15670.5 | 2362.9 | 80000 | 285522.1 |

Considering the relationship between the factors, the authors of the study used a correlation analysis and obtained a correlation coefficient, which helped to identify the type of correlation relationship. In this case, the paired correlation matrix took the following form (table II) [13].

TABLE II. PAIRED CORRELATION MATRIX

| | 1 | 2 | 3 | 4 | GRP, million rubles |
|---------------------|----------|----------|----------|----------|---------------------|
| 1 | 1 | | | | |
| 2 | 0.531958 | 1 | | | |
| 3 | 0.726688 | 0.968272 | 1 | | |
| 4 | -0.22523 | 0.705204 | 0.505648 | 1 | |
| GRP, million rubles | 0.665384 | 0.986072 | 0.996349 | 0.577459 | 1 |

An analysis of the paired correlation matrix led to the conclusion that there is a strong and direct relationship (because the value of r is close to 1) between GRP and revenues from the provided tourist services ($r = 0.986072$), and tax revenues from the tourism industry of the region ($r = 0.996349$). Consequently, an increase of these indicators will significantly affect the growth of GRP as a whole.

Besides correlation analysis authors used regression analysis based on the economic-statistical dependencies of the investigated indicators for the same period.

The following regression equation was obtained:

$$Y = 132157.6 + 11.05856X_2 - 0.24715X_3 \quad (1)$$

where Y – GRP (in million rubles); X_2 – incomes from tourist services (in million rubles); X_3 – tax revenue from the regional tourism industry (in million rubles).

The dependence between the analyzed factors was 99% ($R = 0.99$), i.e. GRP directly depends on revenues from the provided tourist services and tax revenues from the tourist industry in the region. Testing the hypothesis on the adequacy of the model has shown that the model is adequate, i.e. – statistically significant, allowing to assert that the growth of GRP is actively and positively influenced by tourism. Obtained equation allows predicting the GRP index for subsequent periods taking into account the changes in the considered tourism indicators.

B. The impact of tourism on the level of employment in the region

Employment is one of the most significant characteristics of the social and economic development of the Crimean region, because it is directly linked to the prospects for stability, which have demographic, social and economic content.

The tourism belongs to the group of economic activities of the Republic of Crimea, which have a noticeable direct (direct service to tourists) and indirect (manifestation in trade, agriculture, building, transport, banking services, etc.) effect that is associated with employment of people. In this study, the authors, using the regression analysis, attempted to reveal the most significant indicators of the tourism, affecting the increase of employment level in the region as a whole in the period from 2015 to 2017.

Table III shows information on the main indicators of the tourism sector affecting the employment in Republic of Crimea [13].

TABLE III. INDICATORS OF TOURISM AFFECTING REGIONAL EMPLOYMENT

| Year | Number of tourists, who visited region | Average monthly salary of employees, rubles | Average number of employees in the tourism sector | Number of seasonal employees | Number of employed people |
|------|--|---|---|------------------------------|---------------------------|
| 2015 | 4800000 | 15500 | 21099 | 4024 | 820600 |
| 2016 | 4600000 | 17770 | 30099 | 3832 | 894800 |
| 2017 | 5600000 | 19530 | 42515 | 5327 | 907250 |

Analysis allowed to obtain the following regression equation:

$$Y = 1017948 + 0.08X_1 + 6.68X_3 \quad (2)$$

where Y – number of employed people; X_1 – number of tourists, who visited region; X_3 – average number of employees in the tourism sector.

The dependence between the analyzed factors was 98% ($R = 0.98$), i.e. the number of employed people in the region directly depends on the number of tourists, who visited region and the average number of employees in the tourism sector. It is possible to forecast the number of employed population, taking into account changes in the considered indicators for subsequent periods.

C. The influence of the tourism industry on raising the people's quality of life in the region

Tourism area of the Republic of Crimea can be considered as one of the types of economic activity that directly affects the increase of quality of life of the local population, material and spiritual activity, a system of certain values and interests.

In this part of study, the authors, using the regression analysis, attempted to reveal the most significant indicators of the tourism, which affect average per capita monetary income of the population of Republic of Crimea in 2015-2017.

Table IV provides information about main tourism indicators, affecting people's quality of life in Republic of Crimea [13].

TABLE IV. TOURISM INDICATORS, AFFECTING PEOPLE'S QUALITY OF LIFE IN THE REGION

| Year | Income from tourism entrepreneurship, million rubles | Average monthly salary of employees, rubles | Average per capita expenditure, rubles | Share of savings in the income structure of the population, % | Per capita monetary income of the population, rubles |
|------|--|---|--|---|--|
| | <i>1</i> | <i>2</i> | <i>3</i> | <i>4</i> | <i>5</i> |
| 2015 | 1998 | 15500 | 10635 | 2,4 | 10769 |
| 2016 | 5293 | 17770 | 16727 | 2,8 | 15762 |
| 2017 | 6283 | 19530 | 17816 | 3,4 | 17950 |

Considering the relationship between the factors, the authors of the study used a correlation analysis and obtained a correlation coefficient, which helped to identify the type of correlation relationship. In this case, the paired correlation matrix took the following form (table V).

TABLE V. PAIRED CORRELATION MATRIX

| | 1 | 2 | 3 | 4 | Per capita monetary income of the population, rubles |
|--|----------|----------|----------|----------|--|
| 1 | 1 | | | | |
| 2 | 0.974077 | 1 | | | |
| 3 | 0.996696 | 0.952486 | 1 | | |
| 4 | 0.914678 | 0.9824 | 0.878828 | 1 | |
| Per capita monetary income of the population, rubles | 0.996856 | 0.988938 | 0.987127 | 0.943826 | 1 |

An analysis of the paired correlation allowed concluding that there is an enough strong and direct connection (because the value of r is close to 1) between the dependent variable and all independent variables considered by the authors, whose correlation coefficient varies from 0.943826 to 0.996856.

Consequently, the increase in these indicators will significantly affect the growth of per capita income of the population, and therefore directly affect the improvement of quality of life of the local population.

Taking into account the new possibilities of tourism development of the Republic of Crimea at the expense of integration in the economy of the Russian Federation, authors recommend to distinguish a number of key parameters and trends (Fig. 2) including the statements of approved Strategy [14].

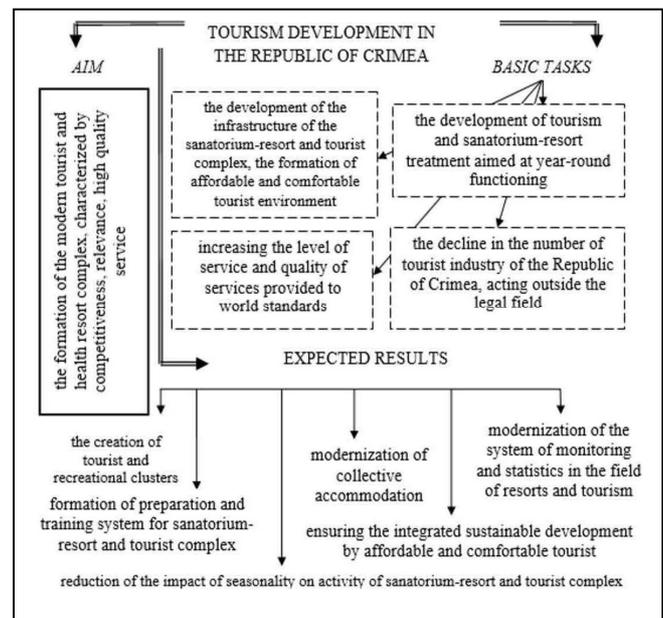


Fig. 2. The main parameters and directions of development of tourism as supporting factor of social-economic development of region.

It should be noted that the effective implementation of the displayed parameters and given trends will create an impetus for the development of modern tourist infrastructure to attract new tourist flows, that may allow the Republic of Crimea to achieve the national average quickly.

IV. CONCLUSION

Investigating the tourism as the main sector of the economy that positively influences the socio-economic development of the region, taking into account the use of the apparatus of correlation-regression analysis, it is established that between the leading indicators of the development of the analyzed area, such as the number of tourists visiting the region; incomes from provided tourist services; tax revenues from the tourism industry of the region, etc. and a general correlation of the region's economic activity – GRP, there is a close correlation ($r = 0.98$) and a regression ($R = 0.99$) relationship, so the proposed hypothesis-1 can be considered proven.

Determining the degree of direct impact of tourism on the level of employment of the population of the region, using the regression analysis and the obtained regression coefficient ($R = 0.98$), the group of the most significant indicators of the tourist sphere (the number of tourists who visited the region, the average number of workers in the tourism area, the number employees, attracted to work during the seasonal period) was revealed, on which the increase in the employment level of the population of the region directly depends, therefore, the proposed hypothesis-2 is not doubtful.

Value of the correlation coefficient (very close to 1) between average per capita monetary incomes of the population and a number of indicators, such as incomes from entrepreneurial activity in tourism, the average monthly wages

of workers in the sphere of tourism, the average per capita monetary expenditure of the population, etc., shows that they have a direct impact on the quality of life of people of the region.

Consequently, their increase will significantly affect the growth of the analyzed indicator, and therefore, the proposed hypothesis-3 can be considered proven.

Taking into account the conducted research authors offer the following recommendations:

- to ensure comprehensive sustainable development of the tourism sector, which directly affect the results of the socio-economic development of the region, in particular GRP;
- to create opportunities for the development of those types of tourism that are aimed at year-round activities, which will expand the time limits of the active resort season, as well as increase sales of the tourist product of the Crimean region;
- to form a clear system of training and attracting personnel for the tourism sector, which will increase the employment of the local population, taking into account the current trends in the development of the Republic of Crimea.

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References

- [1] Sgroi F., Donia E., Mineo A. “Agritourism and local development: A methodology for assessing the role of public contributions in the creation of competitive advantage”, *Land Use Policy*, vol. 77, pp. 676-682, September 2018.
- [2] GMW. Brito, “Evaluation of social interventions based on tourism using the methodological approach of Realistic Assessment”, *Pasos-Revista de turismo y patrimonio cultural*, vol. 16, pp. 501-522, April 2018.
- [3] UNWTO Tourism Highlights 2016 Edition. Madrid: UNWTO, 2016, 15 p.
- [4] The authority on world travel & tourism. Economic impact 2016 Russian Federation. London: World travel & tourism council, 2016, 18 p.
- [5] Pavlenko I., Polishchuk E., Pilyavskiy V. and Ushakov D., “The Strategy of Thai Medical Services Promotion at Russian Markets”, *Advanced Science Letters*, vol. 24, pp. 6343-6346, September 2018.
- [6] Lytneva, N., Parushina, N., Polyaniin, A. and Kyshtymova, E. “Methods of complex analysis in management of commercial organizations owned capital?” *Proceedings of the 29th International Business Information Management Association Conference - Education Excellence and Innovation Management through Vision 2020: from Regional Development Sustainability to Global Economic Growth*, Vienna, pp. 2126-2135, May, 2017.
- [7] Mathieson A., Wall G. *Tourism: economic, physical and social impacts*. Harlow: Longman Group Limited, 1982, 208 p.
- [8] Stynes D. *Economic impacts of tourism: a handbook for tourism professionals*. IL: Tourism Research Laboratory, 1997, 19 p.
- [9] Kotlyarov E. *Geografiya otdyha i turizma: formirovanie i razvitie territorial'nyh rekreacionnyh kompleksov [Geography of Recreation and Tourism: formation and development of territorial recreation complexes]*. Moscow: Thought, 1978, 237 p.
- [10] Pirozhenko N. Gosudarstvennoe regulirovanie razvitiya turizma na federal'nom i regional'nom urovnyah [State Regulation of Tourism Development at the Federal and Regional Levels]. Available at: http://www.rusnauka.com/29_NIOXXI_2012/Economics/15_116815.doc.htm. Reference date: 17.06.2018.
- [11] Gulyaev V. Mul'tiplikativnyj ehffekt v turizme [Multiplicative effect in tourism]. *Vestnik MRAT [Vestnik RIAT]*, 2015, vol. 3, pp. 58-69.
- [12] Karchevskaya E. Metodicheskoe obespechenie regional'nogo razvitiya i prostranstvennoj differenciacii turizma (na primere Gomel'skoj oblasti) [Methodical support of regional development and spatial differentiation of tourism (on the example of Gomel region)]. Kaliningrad: Immanuel Kant Baltic Federal University, 2008, 22 p.
- [13] Turizm Respubliki Krym. 2017: kratkii sb. [Tourism of the Republic of Crimea. 2017: short digest.]. Simferopol: Crymstat, 2017, 50 p.
- [14] Strategiya social'no-ehkonomicheskogo razvitiya Respubliki Krym do 2030 goda [Strategy for socio-economic development of the Republic of Crimea until 2030]. Available at: <http://minek.rk.gov.ru/file/File/minek/2017/strategy/strategy-shortvers.pdf>. Reference date: 10.02.2018.