METHODOLOGY FOR ASSESSING THE LEVEL OF DIGITAL DEVELOPMENT OF THE ECOSYSTEM OF THE REGION

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ABSTRACT

The development of a methodology for assessing the level of digital development of a region's ecosystem is extremely important and promising from the point of view of sustainable development of the region under conditions of constraints. A system of indicators reflecting the digital development of territories under conditions of extreme fluctuations in demand for recreational services is proposed, which will become a database for assessing the socio-economic security of the region.

A system of indicators has been developed that reflects the digital development of territories in conditions of extreme fluctuations in demand for recreational services. The applied significance of the result is determined by the formation of a scientific and applied approach to assessing the level of digital development of a region in the face of growing threats of a new coronavirus infection.

According to the proposed system of indicators, we will be able to determine: the dynamics of development as a whole, both the region and the industry - the main industry and the accompanying industry; what kind of surge occurs in seasonality; how seasonality affects the resort industry, recreational services and related industries.

The use of a system of indicators reflecting the digital development of territories in the face of extreme fluctuations in demand for recreational services will provide an opportunity to use the obtained data in real time to make the right decisions in short and long-term planning.

Keywords: Recreational Services, Government Regulation, Demand, Digital Development, Region, Entrepreneurial Networks in the Field of Recreation.

JEL Code: Q57, L16, R13

INTRODUCTION

In practice, the business is faced not only with the formation of a serious cash gap due to the fact that large amounts of taxes were paid before the start of restrictive measures and there are prepayments all over the world, but also with numerous demands from tourists to return deposits for tours.

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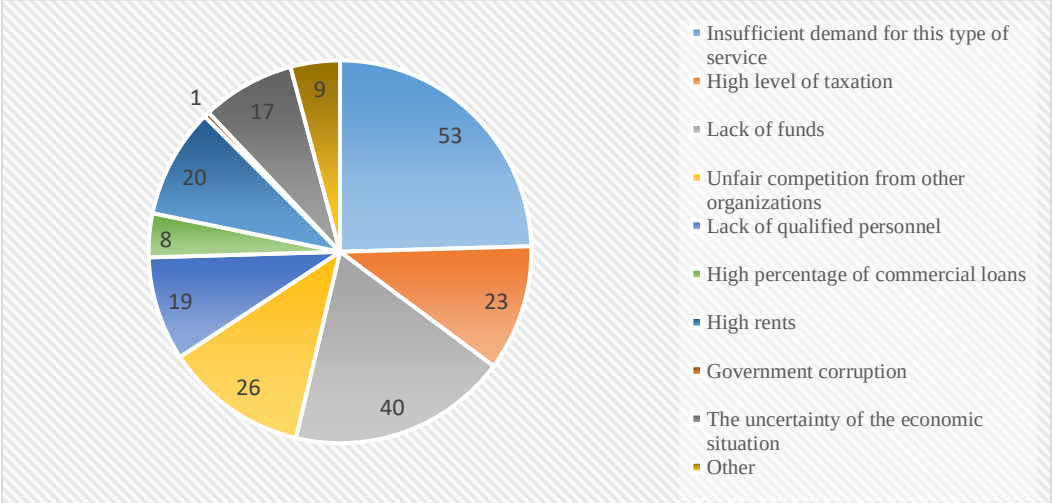
The development of a methodology for assessing the level of digital development of a region's ecosystem is extremely important and promising from the point of view of sustainable development of the region under conditions of constraints.

LITERATURE REVIEW

To assess the level of digital development of a region in the face of growing threats of a new coronavirus infection, it is necessary to use a system of indicators.

Of course, it is worth highlighting research in the search for a scorecard, including in the context of digitalization (Apatova et al., 2020; Babkin et al., 2020; Borsch et al., 2018; Borsch, Gerasimova, 2020; Burkaltseva et al., 2018; Iskakova et al., 2021; Korobeynikova et al., 2020; Kravchenko et al., 2020; Kunanbayeva et al., 2018; Mugauina et al., 2020; Rakhimova et al., 2020; Piskun et al., 2018; Adamova & Annenskaya, 2019; Burkaltseva et al., 2020; Al Simchenko et al., 2021; Fokina et al., 2020; Vorobyov et al., 2018a & 2019a). At the same time, in the face of new challenges, these approaches should be refined.

From an institutional point of view, this system of indicators can be used within the framework of the Analytical Scientific and Practical Center for monitoring the situation, assessing the effectiveness of measures to counter the spread of a new coronavirus infection (2019-nCov) under the Head of the Republic of Crimea (hereinafter referred to as the Center).



* Data are given in% of the total number of surveyed organizations

FIGURE 1
THE MAIN FACTORS LIMITING THE ACTIVITIES OF ENTREPRENEURIAL NETWORKS IN THE FIELD OF RECREATION IN THE FIRST QUARTER OF 2020

Based on the Regulation on the Center, clause 3.1. *"For the implementation of the tasks assigned to it, the Center has the right to: - request and receive, in accordance with the established procedure, from the Council of Ministers of the Republic of Crimea, executive bodies of state power of the Republic of Crimea, other organizations, information and documents necessary to fulfill the tasks of the Center"* to fulfill the main tasks of the Center in accordance with clause 2.1.14., Namely, analyzing the economic situation in the Republic of Crimea and

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preparing proposals for the optimal functioning of the economy of the Republic of Crimea in the context of the fight against a new coronavirus infection (2019-nCoV).

The recreational sphere is one of the most important spheres of economic activity in the conditions faced by the recreational sphere; it is a new problem both for the Russian Federation and for the whole world. In conditions of an unfavorable epidemiological situation, the development of the recreational business was under serious threat. Only in the first months of the pandemic, the demand in all outbound directions decreased by 20-25%, and after the closure of the borders by many states, it fell to almost zero.

In practice, the business is faced not only with the formation of a serious cash gap due to the fact that before the start of restrictive measures, large amounts of taxes were paid and there are prepayments all over the world, but also with numerous demands from tourists to return deposits for tours. Figure 1 analyzes the factors that have the greatest impact and limiting activities in this area.

METHODOLOGY

A system of indicators reflecting the digital development of territories in conditions of extreme fluctuations in demand for recreational services is proposed, which will become a database for assessing the socio-economic security of the region.

Objective of the Study

The purpose of the study is to develop a system of indicators reflecting the digital development of territories in conditions of extreme fluctuations in demand for recreational services.

Hypotheses of the Study

The applied significance of the result is determined by the formation of a scientific and applied approach to assessing the level of digital development of a region in the face of growing threats of a new coronavirus infection.

RESULTS AND DISCUSSION

Taking into account the research of experts (Evmenchik et al., 2021; Klimchuk et al., 2019; Madysheva et al., 2021; Maisigova et al., 2021; Niyazbekova, Ivanova and etc., 2021; Niyazbekova, Kurmankulova and etc., 2021; Niyazbekova, Moldashbayeva and etc., 2021; Niyazbekova, Jazykbayeva and etc., 2021; Rubtsov and Annenskaya, 2018; Troyanskaya et al., 2021; Yessymkhanova, Niyazbekova and etc., 2021; Vorobyov et al., 2018b & 2019b), as well as authors, a system of indicators is proposed that reflects the digital development of territories in conditions of extreme fluctuations in demand for recreational services, which will become a database for assessing the socio-economic security of the region. It is necessary to agree in advance on the possibility of providing information for filling the database in order to proceed not from the template of the names of indicators, but according to the data that will be available. Accordingly, performance standards can be set when there is digital content. In the proposed database, first of all, the absolute values are given, which are needed for subsequent calculations.

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In connection with the above, it is recommended to consider the possibility of introducing the full amount of information, the necessary statistical data, including in the public domain (Table 1).

Explanatory for the Database

According to the proposed system of indicators, we can determine:

- The dynamics of development as a whole, both in the region and in the industry - the main industry and the accompanying industry.
- What a surge occurs in seasonality.
- How seasonality affects the resort sector, recreational services and related industries.

In medicine

We will be able to determine if there are differences in the usual situation, which was from year to year, and compare it with the current situation. That is, to identify whether any factors have changed. And how these factors affected the socio-economic opportunities of the region. It will also be possible to understand whether there is an epidemic, or all changes are taking place without it.

We will provide at the output a correlation, factorial version of data analysis for the period 2016-2020.

We will be able to analyze the industries, how they have changed over certain periods of time and what is happening in 2020 compared to the same months of the previous period, which is a very important element. Compare not only the current dynamics of indicators, but also take data for April 2020, and compare them with data from previous years, when this pandemic was not. This will reveal deviations during the period of self-isolation in 2020 compared to periods of ordinary life before the pandemic. Monthly data is needed, since seasonality plays a very important role in the resort sector.

How we will group the indicators

1. Block *"Financial and economic"*.
2. Block *"Social"*.
3. Block *"Medical"*, we single out medicine as a separate element, since the emphasis is on the study of indicators of social medicine.

We will consider the standards to lead to a development option.

When calculating, we will determine the standard or average value depending on the indicator and calculate the integral indicator. Experts will be involved to determine the normative values.

Table 1
DATABASE FOR ASSESSING THE SOCIO-ECONOMIC SECURITY OF THE REGION

January	February	March	April	May	June	July	August	September	October	November	December
Block "Financial and economic"											
Gross regional product of the Republic of Crimea											
Production volume in the Republic of Crimea											
Gross regional industrial product in the Republic of Crimea											

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Gross regional product of the resort sector of the Republic of Crimea
Gross regional product of the food industry of the Republic of Crimea
Gross regional product of transport of the Republic of the Kyrgyz Republicым
Gross regional product of trade of the Republic of Crimea
Budget revenues of the Republic of Crimea and municipalities
Tax revenues to the budget of the Republic of Crimea and municipalities
Budget expenditures of the Republic of Crimea and municipalities
Cash volume in the Republic of Crimea
Inflation rate in the Republic of Crimea
Lending to the real sector of the Republic of Crimea
The cost of technological innovation in the Republic of Crimea
Energy costs in the Republic of Crimea
Foreign trade turnover of the Republic of Crimea
Export to the Republic of Crimea
Import to the Republic of Crimea
The share of the shadow sector of the economy in the Republic of Crimea
The share of the informal sector in tourism in the Republic of Crimea
Block "Social"
Population in the Republic of Crimea
including persons over 60 years old
The number of visitors to the Republic of Crimea
Working-age population in the Republic of Crimea
The number of able-bodied population with sick leave in the Republic of Crimea
Average salary in the Republic of Crimea
Population income in the Republic of Crimea
The volume of pension payments in the Republic of Crimea
The subsistence level in the Republic of Crimea
The level of the minimum pension in the Republic of Crimea
Number of people employed in the Republic of Crimea
The level of food expenditures in the volume of consumer expenditures of households in the Republic of Crimea
Education costs in the budget of the Republic of Crimea
Daily caloric intake of a person in the Republic of Crimea
Demographic indicators
Average life expectancy in the Republic of Crimea
Morbidity of the population in the Republic of Crimea
The number of deaths in the Republic of Crimea (total)
Total fertility rate in the Republic of Crimea
Block "Medical"
Healthcare costs in the Republic of Crimea
Diagnostic costs in the Republic of Crimea
of them are Covid patients in the Republic of Crimea
The costs of improving diagnostics and creating new (re-profiling) laboratories in the Republic of Crimea
Costs for the purchase of protective equipment (masks, gloves, shoe covers, etc.) in the Republic of Crimea
Production of protective equipment (masks, gloves, shoe covers, etc.) in the Republic of Crimea
The cost of treating pneumonia, acute respiratory infections in the Republic of Crimea
Covid treatment costs in the Republic of Crimea
Costs for the prevention of pneumonia, acute respiratory infections in the Republic of Crimea
The number of patients in the Republic of Crimea
of them died in the Republic of Crimea
The number of patients with acute respiratory diseases, pneumonia, Covid in the Republic of Crimea
of them died in the Republic of Crimea
The number of sick doctors, medical staff, volunteers with acute respiratory diseases, pneumonia, Covid in the Republic of Crimea
Number of observers in the Republic of Crimea
The number of bed resources of observators in the Republic of Crimea
The cost of maintaining the staff of observators in the Republic of Crimea
Additional payments to staff of observators in the Republic of Crimea
Costs for conversion to observators in the Republic of Crimea

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Number of planned operations in the Republic of Crimea
including persons over 60 years old in the Republic of Crimea
The number of planned operations performed in the Republic of Crimea
including persons over 60 years old in the Republic of Crimea
The number of postponed scheduled operations in the Republic of Crimea
including persons over 60 years old in the Republic of Crimea
The number of planned operations in violation of the terms in the Republic of Crimea
including persons over 60 years old in the Republic of Crimea
Average salary of medical personnel in the Republic of Crimea
The cost of social benefits related to Covid in the Republic of Crimea

Source: Compiled by the authors.

CONCLUSIONS

The use of a system of indicators reflecting the digital development of territories in the face of extreme fluctuations in demand for recreational services will provide an opportunity to use the obtained data in real time to make the right decisions in short and long-term planning. At the first stage, using the already created tool of the Analytical Scientific and Practical Center for monitoring the situation, assessing the effectiveness of measures to counter the spread of a new coronavirus infection (2019-nCov) under the Head of the Republic of Crimea. It is important that the data enter the system automatically, that is, they are tied to the data of the Ministries and departments responsible for monitoring certain indicators, that is, the initially created database was integrated, while being able to quickly obtain economic statistics, including budget, since in the limited time available, collecting data manually will entail a delay in the analysis itself.

Therefore, the cooperation of opportunities is needed maximum from all interested parties. Further research should be directed to conducting a correlation, factorial version of data analysis for the period 2016-2020. based on the proposed system of indicators and writing a computer program.

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