

THE SOCIO-ECONOMIC IMPACT OF COVID-19 PANDEMIC ON TOURISM FROM DOBROGEA REGION, ROMANIA

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Vasile-Gabriel Dascălu^{1,2}
Cristian Constantin Drăghici^{1,2}
Alexandra Grecu^{1,2}
Andreea Karina Gruia^{1,2}

¹ Research Center for Integrated Analysis and Territorial Management,
University of Bucharest, **Romania**

² Faculty of Geography, University of Bucharest, **Romania**.

ABSTRACT

Tourism is one of the most affected economic sectors by the Covid-19 pandemic. Its positive evolution until 2020 has been stopped, being affected at the same time the structure of the local or regional economic profile. Thus, it is necessary to quantify the impact of this epidemiological hazard on such an important area for the national economy in order to create a sustainable tourism industry. Such an analysis can reveal changes in the tourist flow. We will be able to draw trends on the evolution of tourism in the study area, in a context in which specialists predict several years of pandemic. Due to the spatial nature of tourism, in this study we will use GIS to obtain the proposed results. Although most territorial systems in Romania, where tourist activity is present, have been negatively influenced, the results obtained indicate an increase in the number of tourists in the rural area of Dobrogea. Such situations are rare in Romania and we will try to find the causes that have influenced this.

Keywords: Tourism, Dobrogea, Covid-19, GIS, Economics

INTRODUCTION

Numerous recent studies have focused on analyzing the impact of the COVID-19 pandemic on economic sectors. Some of these studies focused on tourism [1]–[6], proving that this is one of the most affected economic areas. In Romania, the share of tourism in the national GDP had a positive trend until 2020, when the imposed restrictions strongly affected this sector [7]. In 2011, 1.7% of the country's total GDP was provided by tourism activities, and in 2017, this percentage had reached 2.8%. The upward trend for tourism in Romania is clear even if we analyze the evolution of the number of tourist arrivals that have doubled since joining the European Union, from 2007 (6 million) to 2018 (12 million) [8].

The impact of the COVID-19 pandemic on the Romanian tourism sector has been the subject of several studies [9]–[11]. These studies highlighted the changes in the tourism flow in 2020 compared to previous years, changes that affected the entire national economy. However, few studies have addressed the analysis of the situation of tourism at the regional level in the period 2020–2021 [12]. The Romanian coast and the Danube Delta are two important places for tourist concentration, located in the Dobrogea region which is characterized by a diversity of tourism activities and requires a separate analysis to observe the different directions of various tourism branches during the pandemic. The

local economy is largely based on tourism activities, so the study about the impact of the Covid-19 pandemic is important to see its impact on the local economy.

The purpose of this study is to identify trends in the evolution of tourism-specific activities in the context of a global epidemiological hazard. Changes in the structure of tourism characteristics provide clues to the behavior of tourists in such difficult times. Thus, the competent authorities with a decision-making role in tourism management can reconfigure the directions in approaching the development of this field. In addition, the inventory of changes in the tourist flow for the analyzed period will allow other future studies to complete the information about the regional economic situation. Changes in the tourism sector have contributed to rising unemployment and changing the percentage of the active population in the tertiary sector.

CONCEPTUAL AND METHODOLOGICAL FRAMEWORK

From a methodological point of view, in this study, we intend to analyse the importance of permanent centers in Iasi county in terms of the accessibility of the rural population to the primary medical services provided by the family doctors. We will analyse the evolution of the medical staff in Iasi county and the accessibility of the rural population to permanent centers. We will use both objective/quantitative (analysis of the statistical data provided by the National Institute of Statistics) and subjective/qualitative research methods using the questionnaire method. Thus we will implement a questionnaire to be addressed to the on-call doctors at the 14 permanent centers in the rural areas of Iasi county with which we will find out information on the annual number of patients, the age of patients, the diseases prevailing in the local Community, the most frequently performed medical services, the way in which the SARS-Cov2 pandemic led to increased or decreased interventions, etc. We will also analyse information on the geographical distance traveled by patients to receive primary care services, the distribution of opportunities to access healthcare in the territory, identifying rural areas with special features in terms of clearly unequal access to healthcare facilities.

As regards the means and method of work, the study was conceived as a field survey (opinion), using the questionnaire as the main working tool, with several types of questions (open, closed, with only one choice of answer, etc.), sent between October 2020 and February 2021 both on place and through the telephone interview. Geographically, accessibility to health services is directly influenced by time-related accessibility (expressed in the real physical time patients can access the necessary health services, the optimal level being 30 minutes) and spatial accessibility, which represents "the proximity of healthcare providers to the population served, which can be quantified by the distance the patient has to travel to the healthcare facility in which the medical services he needs and he/she requires are provided [5]. A special feature is that the anisotropic characteristics of the area studied and the ability of the population to take advantage of the medical services in the proximity directly influence the quality and quantity of the services provided [6].

MATERIALS AND METHODS

The study area includes the two counties in the Romanian historical region Dobrogea (Figure 1). These are Tulcea, in the north, and Constanța, in the south. Located in the southeastern part of Romania, the Dobrogea region has a wide exit to the Black Sea,

which strongly boosts tourist flow from here. The Danube Delta and the seaside resorts in Constanța County are important tourist hubs nationally.

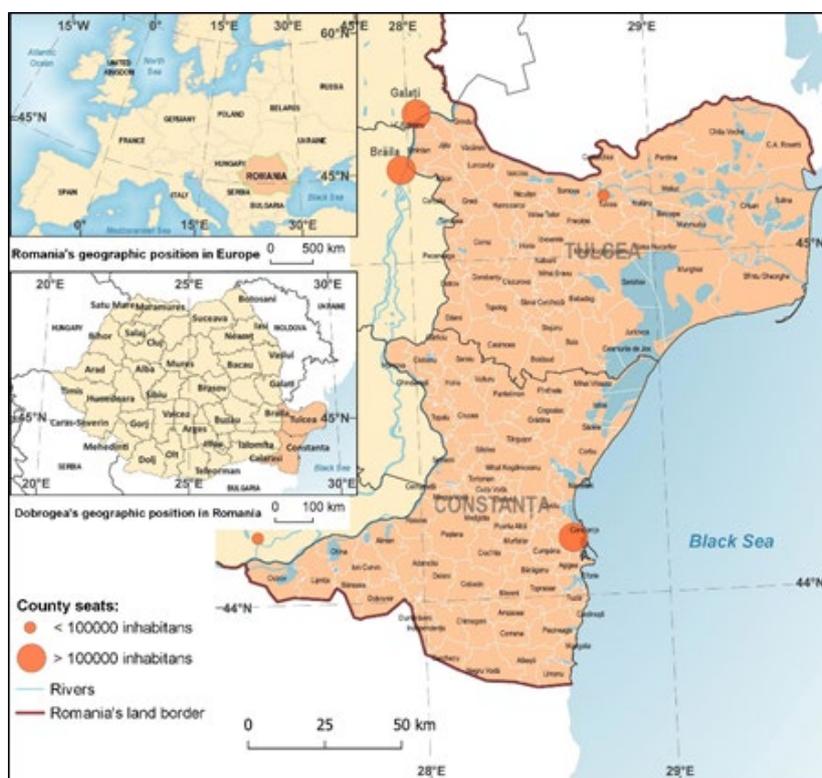


Figure 1. Dobrogea's geographic position in Romania and in Europe.

The present study involves the processing of statistical data on tourism in Romania and the Dobrogea region. In this sense, a database was created with the number of arrivals in tourist accommodation units and the number of companies active in the tourism field, indicators considered relevant for our analysis. Since this data is spatial, we used specific GIS (Geographical Informational Systems) tools integrated in dedicated software applications. Quantum GIS 3.16 is the GIS software used due to the diversity of ways in which we can manipulate and represent statistical data on cartographic products. The fact that this is an open-source licensed program was another important advantage of choosing QGIS in the workflow.

Statistical data taken from the National Institute of Statistics were an important part of the analysis. This was information about the number of arrivals in tourist accommodation units at county level and at administrative unit level. We were also interested in the information about the dynamics of tourists from the point of view of their nationality. The integration of this data in the GIS environment was done with the help of the Join tool, specific to several software programs. It joins the columns of an attribute table of a thematic layer with the columns of a nonspatial table, based on a common column.

RESULTS

The evolution of tourism in Dobrogea in terms of arrivals in tourist accommodation units indicates a different situation compared to other regions of Romania. After calculating the ratio between the average number of tourist arrivals from 2020-2021 and the average number of tourist's arrivals from 2016-2019, we noticed that Tulcea County is the only

Romanian county with favorable results (Figure 2). Also, Constanța registered high values, during the pandemic, the number of arrivals in tourist accommodation units during the pandemic years representing between 90 and 100% of the normal period before the pandemic.

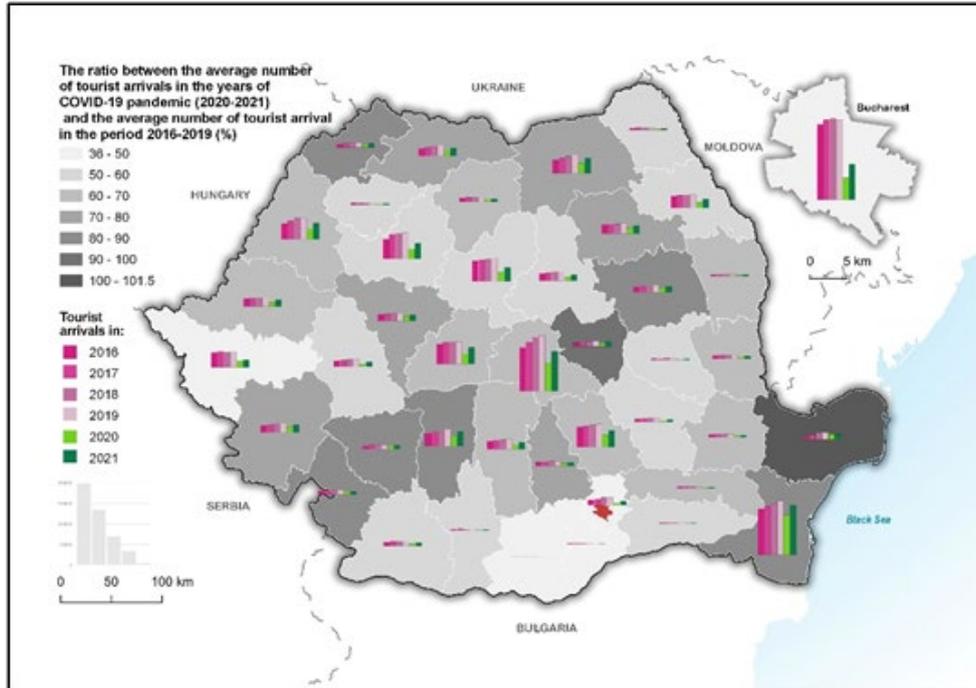


Figure 2. Statistical comparison of the situation of tourist arrivals in the years of the pandemic and the years before the pandemic (Source: The National Institute of Statistics, Romania [13])

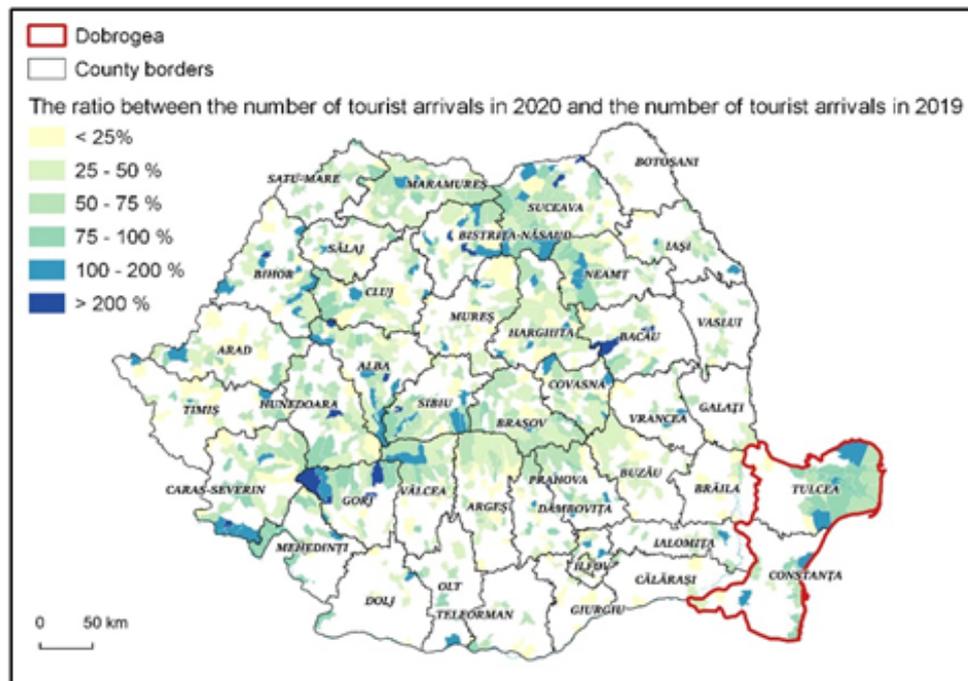


Figure 3. Changes in the tourist flow from the first year of the Covid-19 pandemic (2020) (Source: The National Institute of Statistics, Romania [13])

The national situation at the administrative unit level indicates a number of settlements, especially rural ones, which have seen an increase in tourist flow in the first year of the pandemic (Figure 3). The data used show that 2020 was the most difficult year for Romanian tourism in recent times. In an overall picture, the Dobrogea region does not seem to have been so strongly affected by the COVID-19 pandemic, as there are several localities, all rural, which have seen an increase in the number of arrivals in tourist accommodation units (Figure 3). The top of tourist attraction were the Danube Delta and the Romanian coast, and among the possible causes for these results are travel restrictions in other countries, especially in the summer season for coastal tourism. Thus, many Romanians chose the Black Sea coast or the Danube Delta in the summer of 2020. This is demonstrated by the lower percentage of foreign tourists in Dobrogea compared to the years before the pandemic [13]. The evolution of tourism in rural areas can also be attributed to the fact that tourists sought accommodation in less crowded places, avoiding large cities. The villages around and inside the Danube Delta are notable for the increase in the number of tourists during the pandemic.

The dependence on tourism of a local economy is reflected in the percentage of turnover in hospitality industry and in the percentage of companies active in this sector [14]-[16]. In the case of localities in Dobrogea, we identified a surprising increase in the number of such companies in several cities or rural settlements (Figure 4). This direction seems to continue an upward trend over the last five years. Murighiol, Mahmudia, Jurilovca or Sarichioi are rural settlements in the vicinity of the Danube Delta, which have higher percentages of those companies engaged in tourism. Although the number of these companies has increased recently, their percentage seems to have decreased. This indication may suggest a decrease in the importance of tourism in the local economy. The year 2020 is characterized by the lowest percentages of tourism companies in most of the localities analyzed.

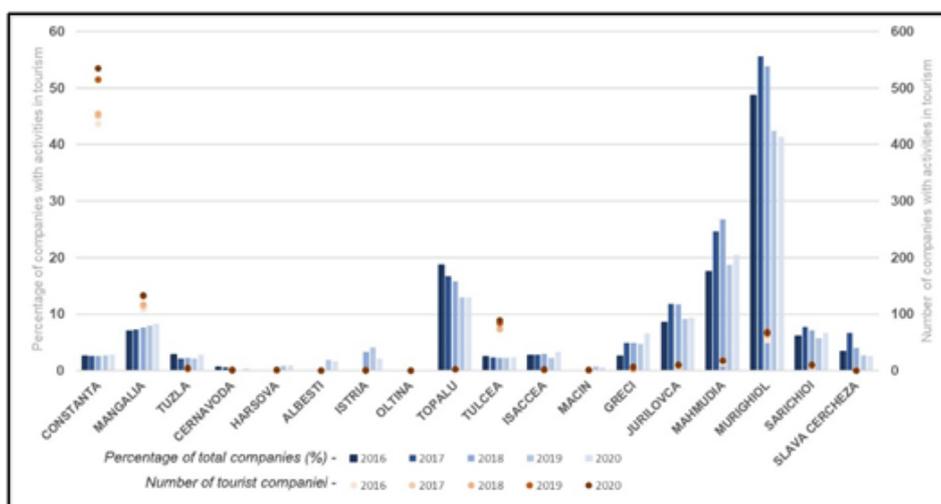


Figure 4. The importance of tourism in the local economy of the localities in Dobrogea through the number of companies destined for tourism

CONCLUSIONS AND DISCUSSION

Like other previous studies [17] - [19] which obtained favorable results regarding the development of rural tourism in various countries during the pandemic, Romania had a favorable behavior regarding the evolution of rural tourism. A good example of this is the rural areas in the Carpathian Mountains [20]. Through this study we showed that the

Dobrogea region is the main Romanian region that has made progress in the field of tourism during the Covid-19 pandemic. The positive evolution of the number of tourist arrivals for Tulcea County during the two years of pandemic compared to the previous period is noteworthy. We can expect the creation of a new important tourist hub for the country, which until now had a very little economy based on tourism.

The dynamics of the tourism sector was very active in the period 2019-2021 and new studies are needed to verify how tourism activities can help local and regional economic development.

The Dobrogea region benefits of important tourist resources, some of these being not properly valued or not at all. The archaeological resources from here, specific to several historical periods, represent such an example. These are mainly located in rural areas, and the new characteristics of the tourist flow in the region, presented in this study, show that rural settlements increased in the number of tourists during the Covid-19 pandemic.

The impact of the pandemic on tourism requires attention from researchers in the coming years. These studies will help to better understand the rationale of tourists in times of crisis. In this way, the competent authorities will be able to react more effectively to possible similar periods in the future.

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