Virtual Tourism during the Pandemic. Comparative Study between Suceava and Maramureş Counties

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Abstract: The measures taken by the states of the world to limit the disease with the Sars Cov 2 virus imposed, in the first phase of the pandemic, numerous restrictions on mobility and physical distance, a situation that significantly changed the way tourism is carried out worldwide. In this context, some typologies of tourist activities were highlighted, which before the pandemic represented only a small segment of tourist flows and economic benefits. The natural areas with dispersed tourist objectives, with low population densities, the local villages, have entered the sphere of interest of some social categories of population that access the international tourism or the urban cultural areas. Virtual tourism has gained more and more ground, the circulation of tourist information in the online environment has intensified through photos showing the behavior of tourists in the circumstances of the pandemic.

The study aims to measure, through a comparative and diachronic analysis (before and during the pandemic), the perception and representation of tourism through geocoded photography and assess how the attractiveness of tourist resources in two geographical areas (Suceava County and Maramures County) has changed. Among the existing web photo distribution platforms, we analyzed the geocoded photos on the Picasaweb platform, this platform being in direct contact with the web service and Google street viewing services, popular in Romania. The research aims at analyzing the photographic appearances of the localities from the two counties, Suceava and Maramures in the period February - August 2020. Research methods used: analysis of tourist areas, statistical recording of tourist flows during the pandemic, comparison of the two regions with the intensity of tourist traffic reflected in the attached photos online, cartographic method by presenting tourist information on territorial options.

In conclusion, it is observed that the hostile period of the pandemic had a positive impact on the sustainability of tourism, especially of those territories that are of great interest and became overcrowded in the same period of previous years.

Keywords: virtual tourism; sustainable tourism; pandemic; tourist traffic; geocoded photos.

1. Introduction

The measures taken by the states of the world to limit the spread with the Sars Cov 2 virus, imposed, in the first phase of the pandemic, numerous restrictions on mobility and physical distance, a situation that essentially changed the way tourism takes place worldwide. In this context, several typologies of tourist activities were highlighted, which before the pandemic represented only a small segment of tourist flows.

The research involves two emblematic counties for Romanian tourism, which have numerous tourist resources, having an important feature - the mobility of travelers.

The study area is located in northern Romania, with a common administrative border and neighboring Ukraine. [3] The two counties are identified spatially between the parallels 47˚4'55" - 48° 00´15´´, northern latitude and 22º52´30´´ - 26°40' eastern longitude. [3; 8]. Between these geographical coordinates, the area of study, covers an area of 14857 km².

Maramureș County includes the historical Maramureș ("Maramureș Country"), neighboring to the south by the "Countries" of Lăpuș, Chioar and Codrului. [9]. The Maramureș Depression and the city of residence Baia Mare concentrate the most important elements of architecture, traditions and cultural-historical tourist objectives. [4] Within Suceava County, historic Bucovina is the area of natural tourist attraction that combines with anthropic objectives supported by well-preserved traditions. [4; 11; 13; 14]

The concept of similarity that applies to the tourist dimension and geographical proximity creates the premises for a comparative approach between the two counties [5].

Changing the behavior of the population to access tourist areas due to mobility restrictions [15] and avoiding crowded areas with potential for infection has created a new approach to leisure. The logic of drawing the tourist flows according to the potential and resources in the two counties, was diverted to individual tourism or small groups that access other territories with a more accentuated natural dimension [6].
2. Problem Statement

Geocoded photography is a spatially located photograph in the GPS coordinate system (latitude, longitude), which indicates exactly where it was taken and can be used as an indicator to determine the attractiveness of a tourist attraction, being considered a strong expression of the existence of attractions, of special landscapes [2]. Through geocoded appearances, users express their free will to capture places, landscapes, tourist elements or spatial practices [2; 12] and to return them to virtual communities. This voluntary action of users may be motivated by sharing the experience in the virtual environment, promoting an active or less publicized place, to indicate the space and time of practices or traditions. Photographs taken online are associated with volunteer tourists [7; 10] being an emerging trend in the global tourism industry [7]. Among the existing web photo sharing platforms (Flickr.com, Panoramio.com and Picasaweb.com) we will use in this analysis the existing geocoded photos on the Picasaweb.com platform, which are in direct contact with Google’s webmap and street view services and also popular in Romania.
3. Research Questions/Aims of the research

The study aims to measure, through a comparative and diachronic analysis (before and during the pandemic), the perception and representation of tourism through geocoded photography and to assess how the attractiveness of tourist landscapes in two competing geographical areas (Suceava County and Maramures County) has changed.

The objectives of the research are: analysis of tourist flows based on geocoded photographic appearances, tourist behavior of users of the Picasaweb.com platform during the hostile period of legislative restrictions imposed to prevent and combat the spread of Sars Cov 2 virus in localities in the two counties Suceava and Maramures, in February-August 2020. Highlighting the differences in the geocoded photographic appearances between the city of Suceava and the neighboring localities quarantined during March-April 2020, motivated by the amplitude of infections with Sars Cov 2, and the city of Baia Mare being only in a state of legislative alert.

- **Hypothesis 1**
  The Cov Sars 2 virus pandemic severely affected the tourism sector in the country, and the quarantined localities in Suceava County have left the sphere of tourist interest of potential visitors.

- **Hypothesis 2**
  The need to escape from a limited space determined the migration of potential tourists in the online space, turning them into virtual tourists.

- **Hypothesis 3**
  The period of legislative relaxation determined tourist flows in the natural areas with dispersed tourist objectives with low population densities, well preserved, which overlap with the local rural space.

4. Research Methods

The research focused on the comparative analysis of geocoded photographic appearances posted by users on the Picasaweb.com platform during February-August 2020 in the localities of Suceava and Maramures counties.

The frequency of photographic appearances between February-August 2019 and, respectively, February-August 2020 in the localities of the two counties was analyzed and for greater accuracy, out of the total geocoded appearances on the Picasaweb.com platform, we paid attention only to photos with tourist value. During the documentation stage, numerous specialized articles were consulted in order to choose a relevant approach in order to achieve the purpose of the research. The study was structured in two parts: a part that analyzes the total number of appearances of photos registered on the
Picasaweb.com platform in order to delimit the users of this platform who manifest a tourist behavior, from the users who have demonstrated other interests. And the second part, comparing the photographic appearances with tourist value from February-August 2019 and the period February-August 2020, when the pandemic with the Sars Cov 2 virus broke out. In order to highlight the differences between the geocoded appearances on the Picasaweb.com platform, were recorded and processed with the help of Microsoft Excel program, maps materialized by spatial representations in the GIS program were used, methods that were the basis of the interpretive approach and formulating the conclusions of the present study.

The method of analysis of the two geographical areas is the starting point of the scientific investigation, studying the degree of compatibility regarding tourist resources.

The cartographic method is validated by the map of the study area in the territory as well as by thematic maps that show with the help of conventional signs, the number of photographic appearances from the localities of the two counties. The comparative method is highlighted by the inserted graphs and maps with a high degree of expressiveness by choosing simple exposure methods to capture the essence of the researched phenomenon.

5. Findings

![Fig.2 Photographic appearances from Suceava county](source: Author representation using date from www.google.ro/maps)
Figures 2 and 3 show the number of photographic appearances in 2019 and the numerical decrease in the same period of 2020. In both counties, the number of geocoded photographic appearances in 2019 are obvious, being an important indicator in determining the tourist attractiveness.

The year 2020 in the same period is at the opposite pole, also showing the analysis of the number of photos rendered to the public, that the legislative restrictions were also felt in the virtual environment.

With very few exceptions, photographic appearances during the study period increased in 2020. In both counties, the cities that accumulated a higher number of geocoded photographic appearances during February-August 2020, are not touristy. This fact proves that the period of legislative restrictions determined the locals to change their tourist behavior, hiking, arousing their interest in the surroundings of the house, capturing the beauty of some past landscapes unnoticed before the pandemic.
The diagrams show the percentage dynamics of photographic appearances in a year with normal social and tourist activity and the year 2020. In 2019, there are 1098 tourist photographs in Suceava County and 770 in Maramureș County. In the year of the pandemic, both counties registered a drastic decrease with 471 photos, Suceava county and 388
Maramureș county. The decrease of the tourist circulation is also visualized within the percentages, Suceava county, being the most severely affected by the pandemic at national level.

Source: Author geocoded photography using Picasaweb.com platform

**Fig. 6** Territorial distribution of tourist photographic appearances in 2019

Source: Author geocoded photography using Picasaweb.com platform

**Fig. 7** Territorial distribution of tourist photographic appearances in 2020
The changes produced at the level of the society also had consequences in the tourism sector. Restrictions on population movement and physical distance have led to large cities losing tourists and the new beneficiaries are natural areas with low population densities.

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Source: Author representation

Fig. 8 Localities where the number of tourist geocoded photos has increased.

There is an increase in the number of geocoded photos with tourist values in rural areas, scattered, which have gained the attention of users of web platforms photo sharing. At the same time, there is a change in the profile of tourists during this period, who showed an increased interest in the rural tourist area such as Ciocânesti or the Humor Monastery in Suceava County and Botiza, Ieud in Maramureș County.

6. Discussions

Studying the intensity of tourist traffic through web photo sharing platforms is an important milestone in the current period with the widespread accessibility of mobile tools to capture reality.
There is a sharp increase in virtual highlighting but the aspect of volunteering does not provide a very clear picture of tourist flows. Using photo-sharing platforms may be unknown to some social profiles and age groups.

The limitation of the Picasa web platform is the lack of registration of the number of views by virtual tourists, in order to emphasize the interest of this customer segment towards the tourist objectives in the studied area.

The validity of data collection and processing is certain because it captures a measurable phenomenon even if it does not approach other means of research of the tourist phenomenon.

7. Conclusions

Geocoded photos uploaded to web platforms are a sharp increase in numbers in recent years, with a turning point in 2020.

Comparing Suceava and Maramureș counties between February and August 2020, there is a decrease in tourist traffic in Suceava county due to restrictions imposed by the authorities and pandemic figures that place this county in first place nationally, validating the first hypothesis.

Both counties have low numerical data with a return to the summer months, motivated by legislative relaxation throughout the country. There is a significant decrease in both counties of web platform users in February-August 2020 compared to the same period in 2019, and cities are at the center of the numerical decrease in geocoded photographic appearances.

The number of geocoded photos with tourist value recorded during February-August 2020 in rural areas in the two counties shows increased interest in the dispersed natural environment, which leads us to conclude that rural tourism meets the requirements imposed under current conditions, validating second and third hypothesis.

Limiting the interaction between people has created a type of tourism: individual or groups from the same family.

There are a large number of photos that capture natural or anthropic landscapes taken from the car or in the vicinity of the house, concluding that the period of restrictions encouraged hiking.

The desire to interact with the environment and visit in harsh pandemic conditions is expressed through adaptation and not suppression.

The new approach in quantifying tourist traffic in the online environment is a new method that has entered the field of research of some authors and the current context requires an x-ray that captures the numerical changes and tourist mobility options.

Tourism is not only an economic sector of arid analysis but belongs to the social side with educational and psychological implications.
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References
