Unsustainable imbalances in tourism development? Case study of the Mikulov region (Czech Republic)

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The paper deals with the issue of unbalanced tourism development in one of the Czech popular tourism destinations – Mikulov region. This destination is an excellent example of a cultural landscape with the unique environment of UNESCO Biosphere Reserve. However, some parts of the destination seem to remain highly underdeveloped compared to the destination's most visited hotspots. The paper aims to evaluate the territorial polarization and sustainable tourism performance using tourism intensity indicators, measuring the volume of tourism in the destination individual parts. The empirical case study uses multiple methods to understand complex relationships among tourism attractivity, the character of visitors' consumption, and tourism impacts. It is based on secondary data from the statistical office, media content analysis, and an in-depth interview with a representative from the regional destination management organization (DMO). The results reveal significant tourism performance differences, especially in the proportion of tourist overnight stays and the distribution of tourism infrastructure. The paper points to the seasonally concentrated visits and negative tourism effects on overcrowded parts of the destination. Finally, it critically interprets the results through visitor management practices and discusses the changes in the distribution of tourism flows in space and time to mitigate negative visitor impacts.

Keywords: biosphere reserve, intensity ratio, tourism development, South Moravia.

¿DESEQUILIBRIOS INSOSTENIBLES EN EL DESARROLLO TURÍSTICO? ESTUDIO DE CASO DE LA REGIÓN DE MIKULOV (REPÚBLICA CHECA). Este trabajo aborda el desarrollo del turismo desequilibrado en uno de los destinos turísticos checos más populares: la región de Mikulov. Este destino es un excelente ejemplo de un paisaje cultural con el entorno único de la Reserva de la Biosfera de la UNESCO. Sin embargo, algunas partes del destino parecen estar muy poco desarrolladas en comparación con los puntos de acceso más visitados. El trabajo tiene como objetivo evaluar la polarización territorial y el desempeño del turismo sostenible utilizando indicadores de intensidad turística, midiendo el volumen del turismo en cada una de las zonas del destino. El estudio de caso empírico utiliza múltiples métodos para comprender las relaciones complejas entre la atracción turística, el carácter del consumo de los visitantes y los impactos del turismo. Se basa en datos secundarios de la oficina de estadística, análisis de contenido de medios y una entrevista en profundidad con un representante de la organización regional de gestión de destinos (DMO). Los resultados revelan diferencias significativas en el desempeño del turismo, especialmente en la proporción de pernoctaciones turísticas y la distribución de la infraestructura turística. El trabajo señala las visitas estacionales concentradas y los efectos negativos del turismo en las zonas superpobladas del destino. Finalmente, interpreta críticamente los resultados a través de prácticas de gestión de visitantes y discute los cambios en la distribución de los flujos de turismo en el espacio y el tiempo para mitigar los impactos negativos de los

Palabras clave: reserva de biosfera, índice de intensidad, desarrollo turístico, Moravia del Sur.

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Introduction and literature review

In the past few years, tourism has been frequently mentioned especially in connection with a new phenomenon – overtourism, not only in the global media but also within the scientific community (Koens et al., 2018). This term has spread thanks to its marketability and to the fact that it gives residents as well as tourists an opportunity to express their feelings and concerns about an excessive impact of tourism (Goodwin, 2017). Overtourism is closely linked with the tourism development, as well as it is used for a description of growing negative impacts connected with the focus on some of the places of interest and problems with management (Capocchi et al., 2019). According to Dodds and Butler (2019), overtourism has resulted from a combination of many factors which together created a perfect storm. For instance, Weber et al. (2017) identified a wide range of causes leading to the creation of overtourism, including the global growth of tourism, marketing, changes in tourists' behaviour, changes of approach as well as existing and new attractions. As they present, the way of the system management both on political and destination levels is of great consequence. Social disparity, economic stability and sensibility of the area have an impact on the endurance of the destination. Lack of facilities, seasonality and various means of transport, they all can contribute to overtourism; however, the critical way of the tourism management has a direct impact on bearability and resilience to overtourism.

Tourism within the destination is spread unequally not only in terms of area but also in terms of time. In the season period, the concentration of tourists in the destination is high, followed by a quieter off-season period. According to Milano *et al.* (2018), overtourism means an excessive number of visitors, which leads to overcrowding in the areas where the locals suffer from temporary and peak seasons, which makes them change their lifestyle, limit their access to civic facilities or otherwise negatively influence their standard of living. According to Rangus *et al.* (2018), this phenomenon appears not only in developing destinations where suitable management has not been adopted yet but also in traditional, fully developed destinations. Thus, from the perspective of the life cycle model of the destination (Butler, 1980), overtourism does not fit into any of the development stages of the destination.

Although it is quite easy to find, the literature focusing on overtourism in urban areas, e.g., Kuščer and Mihalič (2019) – Ljubljana, Martín Martín et al. (2018) — Barcelona, Milano et al. (2019) – Barcelona, Namberger et al. (2019) – Munich, Pinke-Sziva et al. (2019) – Budapest, Seraphin et al. (2018) – Venice, etc., according to Żemła (2020) only two approaches to overtourism can be found. A narrow approach studies overtourism only in municipalities, and this environment includes not only a problem with a growing number of visitors but also, for example, tourismphobia. A wide approach analyses overtourism within the context of various destinations. According to Peeters et al. (2018), overtourism can be found in urban, seaside, island, and rural heritage destinations. Besides, the analysis

provided by these authors indicate that municipalities are not the most vulnerable destinations, the most vulnerable destinations are the later mentioned. According to Namberger et al. (2019), variations are important, in particular, due to their different carrying capacity. These types of destinations have been studied by, for example, Sarantaka and Terkenli (2019) - Dubrovnik, Carballo et al. (2019) - Lanzarote, Oklevik et al. (2019) - Norway, fjords.

Impacts of tourism, together with its growing intensity, have become more apparent (Butler, 1980). According to Koens et al. (2018) or Jover and Díaz-Parra (2020), overtourism is concentrated in the so-called hotspots, which provide most of the tourist infrastructure and offers in municipal destinations; but at the same time, this is also the space primarily designated for locals, which results in conflicts of municipal functions. Rural towns can be overwhelmed with tourists, unless they have adopted suitable management satisfying the needs of the local residents as well as protecting the natural resources and ensuring appropriate supplying (Jarman-Walsh, 2019). This problem frequently occurs in public transport means which have a limited capacity and frequency. They are taken over by tourists who are then in competition with locals for the services (Butler, 2019).

According to Peeters et al. (2019), negative social impacts dominate in urban areas; on the contrary, in rural areas, mostly negative impacts on the environment were identified, with the least negative economic impacts. On top of that, Koens et al. (2018) does not consider the overtourism to be a problem of tourism or municipality, he views it as a social problem within the municipality area, with overtourism indicating a certain uniformity of impacts. The most important social areas presented in literature are: marginalistion of residents, hostility, criminality, modification of recreational area, loss of cultural identity, degradation of infrastructure, gentrification, touristification, traffic congestions, lines, queueing, tourismphobia, museification, etc.; in economic area: inflation, economic dependence on tourism, damage to the destination image, growth in real estate prices and costs of living, changes in the labour market, finance outflow; in an environmental area: pollution, noise, higher water consumption, excessive production of waste, destruction of biotopes in rural areas, soil degradation, excessive exploitation of natural resources, water and air pollution, etc. (Goodwin, 2017; Koens et al., 2018; MacNeill and Wozniak, 2018; Kuščer and Mihalič, 2019; Martín Martín et al., 2019; Peeters et al., 2019;). According to Jordan et al. (2018), in many cases, it is not possible to separate the causes and impacts of overtourism.

According to Drápela (2020), even in rural areas, most visitors concentrate in a few popular destinations, which results in the creation of rural overtourism. According to Rasoolimanesh et al. (2017), a growing number of visitors and, in response, increasing capacity of infrastructure, public facilities and the efforts of local businesses to maximise economic benefits may jeopardise the heritage itself. Panayiotopoulos and Pisano (2019) call this situation overtourism dystopia related to the paradox of tourism risking to destroy the very thing that tourist come to see.

Many authors have already introduced strategies presenting how to cope with overtourism, whereas most of them agree that the reasons of origins as well as their solutions differ in every individual destination, and therefore the one-size-fit-all concept cannot be applied. The strategies include the limits to the number of visitors (Benner, 2019), demarketing (Khalid, 2017), market regulation, legislative measures, the introduction of fees and taxes (Nepal and Nepal, 2019), residents' involvement into development and decision-making (Seraphin, 2019), focus on better destination management (UNWTO, 2018), smart solutions (Zubiaga et al., 2019). A highly discussed option of how to solve overtourism, or overcrowding, as one of its manifestations or implications, is support and promotion of alternative places within the destination (Pasquinelli and Trunfio, 2020), as it has been performed, for example, in Prague or Amsterdam. Many authors criticise this way in a municipal environment, in particular, in connection with tourist zones expanding into other parts of the municipality and a negative impact on a higher number of residents (Stanchev, 2018). However, some less frequented destinations use this situation as their strategy, saying: Come here, because we are not as crowded as the neighbours (Nationalgeographic.com, 2020). According to Lansky (2019), the word "overtourism" indicates that a huge number of visitors can be found all over the place; however, this is not the case, they are just distributed unequally. Peltier (2019) indicates that undertourism represents an opposite problem; in other words, a particular destination feels the lack of sufficient or appropriate number of tourists. The concept of undertourism defines a particular unused capacity of the destination, for example, natural or cultural richness, developed infrastructure, and so on, which the destination desires to activate.

Case study design

Methodology

The main aim of the paper is to evaluate the territorial polarization and sustainable tourism performance in a heritage destination with the unique natural environment using tourism intensity indicators (e.g., Dumbrovská and Fialová, 2014; Novotná and Kunc, 2019). The paper applies a method of empiric case study which examines current phenomena in their depth and within their real context, thus enabling knowledge of processes in practice. Given the selected theoretical framework as well as the efforts to assess the local imbalances, there is not only an evaluation of the examined case as a whole, but also an interpretation of the results for individual parts of the destination. Thus, the attention is paid especially to relationships among tourism attractiveness, the character of visitors' consumption, and tourism impacts.

The case study is based on the secondary data from metainformation systems and databases (e.g., Czech Statistical Office, Nature Conservation Agency of the Czech Republic, National Heritage Institute), media content analysis, and an in-depth interview with a representative from the destination management organization (DMO). The interviewed person is the leader of DMO with a longstanding experience as director of a local tourist information centre. The phone interview conducted in March 2020 helped to better understand the regional tourism problems and the associated impacts and future challenges. Moreover, the interviewee provided internal data regarding tourist seasonality. The collected data were processed, calculated, and analysed. This process included statistical data analysis, visualisation in the forms of maps, tables, and charts, and interpretation of results in cooperation with the interviewee. As tourism intensity indicators regards, we used relative quantification of number of overnight stays and number of beds in collective accommodation establishments in proportion to the number of population (100 inhabitants) or area (km²). The indicators give an account of the burden caused by tourists and tourism infrastructure on the destination. They are as follows: Defert function (DF), the impact of tourism activities on the locality (TL), tourist intensity (TI), and tourist density (TD). On the basis of the calculated values, localities with high and low tourism intensity have been selected. Relation to developing capacity of tourism is evaluated, and the impact of tourism on sustainable development is identified. While presenting the results, high emphasis is placed on inequality in terms of space and time.

Study site

The Mikulov region destination is situated in the southern part of the South Moravian Region, close to the Czech-Austria border. The area of the destination includes 27 municipalities falling under the administrative districts of two municipalities with extended power (i.e. AD MEP Mikulov – 64% of the destination; and AD MEP Pohořelice – 36% of the destination). The Palava Protected Landscape Area, recognised in 1976, covers 48% of the destination, which is most of AD MEP Mikulov area. In 1986, Biosphere Reserve was recognised in this locality under the UNESCO's Man and the Biosphere Programme. Important landscape elements include vineyards, natural water formations and more than two dozen of European importance localities which belong to one type of protected areas within the system of the NATURA 2000.

Moreover, this locality is rich in terms of cultural and historical background. The municipalities within AD MEP Mikulov include several national cultural monuments, such as archaeological sites (the village of Dolní Věstonice), including a complex of the most significant discoveries from the mammoth hunter's period, a Palaeolithic settlement (the village of Pavlov), as well as protective zone of the urban (the town of Mikulov) and village (the village of Pavlov) heritage reservations. Historical areas of supraregional importance are also concentrated mainly in the southern part of the destination.

Results

The results highlight the problem of unbalanced tourism development. They deal with three main issues: (1) tourism attractiveness, (2) the seasonal character of visitors' consumption, and (3) tourism impacts.

Spatial imbalances

At least one accommodation establishment has been identified in 19 out of 27 municipalities belonging to the destination. In total, 126 collective accommodation establishments are at disposal in the whole destination. Only 12 municipalities have an additional infrastructure in the form of more than 2 collective accommodation establishments; altogether, they have at disposal 116 collective accommodation establishments with 4,607 beds in total. More than 63% of this bed capacity is located in the locality that belongs, in terms of cadastral, to a protected landscape area or UNESCO biosphere reservation. As for the localities with a significant cultural and historical background, they include 50% of the total bed capacity. In terms of services in the form of the number of overnight stays, more than 45% of overnight stays are carried out within the

municipalities belonging to the Protected Landscape Area, and almost 39% of overnight stays in localities of protective zone heritage reservations.

The remaining services are more or less concentrated in the village of Pasohlávky, which accounts for almost 48% of the total number of approximately 663,000 overnight stays in Mikulov region destination. This performance is significantly influenced by the number of overnight stays in camps and tourist campsites, which typically occur in this locality. Pasohlávky is the largest and most attractive place for relaxation by the water. In the analysis of the number of visitors to the tourist destinations of the Czech Republic in 2019, the Aqualand Moravia in Pasohlávky even ranked among the TOP 50 most visited destinations and ranked 6th with more than 806,000 visitors (Czech Tourism, 2020). Thus, it reached the top of the list, following the most important monuments of the capital city of Prague. From the destination, the Holy Hill in Mikulov ranked 49th in the TOP 50 with

In addition to the mentioned village of Pasohlávky, another main centre of the destination can be considered Mikulov, which is an attractive urban tourism destination, as well as Pavlov with a significant reservation of folk architecture with excellent conditions for wine tourism. In 2018, the local Archeopark was visited by just over 75,000 visitors. The attendance of destination hotspots more or less corresponds to the distribution of overnight stays in collective accommodation establishments.

In the destination, the value of all studied indicators is higher than in the broad territory (which is the Czech Republic or South Moravian Region, see Table 1). Differences between individual AD MEPs can be also compared. DF and TL function unequivocally show which region is the power house of the tourist infrastructure. DF demonstrates the number of beds per 100 inhabitants. TL shows the density of tourist accommodation facilities in the destination by measuring the number of beds per 1 km². While the infrastructure in the AD MEP Mikulov is spread among more municipalities, the AD MEP Pohořelice has just one main concentration of beds located in Pasohlávky. Comparison of intensity (TI) and density (TD) of overnight stays indicates that in terms of capacity, Pasohlávky are very busy. TI is expressed as a ratio of tourist overnight stays per 100 residents of the destination. TD can be interpreted as a ratio of tourist overnight stays per 1 km² of the destination area.

	Total population [thousands]	Area [km2]	Population density [per km2]	Number of beds [thousands]	Overnight stays [thousands]	Defert function (DF)	Tourism activities on the locality (TL)	Tourist intensity (TI)	Tourist density (TD)
Czech Republic	10 650	78 865	135.04	538	55 514	5	6.82	521	704
South Moravian Region	1 188	7 188	165.23	45	4 086	4	6.28	344	569
Mikulov region	31	385	79.34	5	663	16	12.74	2 170	1 723
AD MEP Pohořelice	11	140	74.69	1	329	12	9.13	3 146	2 342
AD MEP Mikulov	20	245	82.33	4	334	18	14.82	1 662	1 368

Table 1. Selected indicators for the destination in 2018 based on data published by the CZSO (2020). Tabla 1. Indicadores seleccionados para el destino en 2018 basados en datos publicados por el CZSO (2020).

Table 2 shows the values found for those municipalities that have more than 2 collective accommodation establishments. For the remaining municipalities, data are not detectable and calculable due to the low burden of tourism infrastructure. Thus, Figure 1 includes the municipalities which are regarded to have low tourism importance. Thereafter, the other municipalities are divided into significance categories according to the values of individual indicators. However, the interpretation requires to take into consideration also other facts – with infrastructural (DF, TL) indicators it is the extent of the use of bed capacity; with those using information about overnight stays are the types of tourism or seasonality. In the case of urban localities (Mikulov), it is necessary to draw attention to the DF of a certain underestimation of the tourist function due to a large number of permanent residents in the municipality.

	Total population	Area [km2]	Population density [per km2]	Number of beds	Overnight stays	Defert function (DF)	Tourism activities on the locality (TL)	Tourist intensity (TI)	Tourist density (TD)
Pasohlávky	719	27	26.63	1 061	316 150	148	39.81	43 971	11 861.08
Mikulov	7 318	45	162.62	1 807	194 114	25	39.86	2 638	4 282.24
Dolní Dunajovice	1 704	18	94.67	373	24 512	22	20.87	1 438	1 371.37
Sedlec	869	21	41.38	189	13 133	22	9.09	1 511	631.94
Pavlov	585	13	45.00	297	45 573	51	22.80	7 790	3 497.86
Klentnice	530	8	66.25	100	6 696	19	13.00	1 263	870.45
Horní Věstonice	480	8	60.00	177	12 876	37	22.67	2 683	1 649.42
Bavory	400	5	80.00	79	4 760	20	15.79	1 190	951.31
Dolní Věstonice	316	9	35.11	195	10 357	62	22.12	3 278	1 174.84
Brod nad Dyjí	531	11	48.27	99	3 252	18	8.81	612	290
Perná	788	9	87.56	79	4 228	10	8.47	537	453
Pohořelice	5 051	43	117.47	151	7 526	30	3.51	149	175

Table 2. Regional differences in tourism development in 2018 based on data published by the CZSO

Tabla 2. Diferencias regionales en el desarrollo turístico en 2018 con base en datos publicados por la CZSO (2020).

Seasonal imbalances

In 2018, the number of overnight stays of tourists reached 662,760, and a total of 318,580 tourists arrived. Most of them were domestic visitors. It is necessary to underline the growing trend in the number of overnight stays. A 5% increase can be observed in the short term (2017 - 2018). With a longer period (2014 - 2018), the increase is up to 42%from the original 466,000 to the already mentioned almost 663,000 overnight stays. The low average number of overnight stays (2.08 nights) and the dependence on domestic tourism can be perceived negatively.

As the indicator of seasonal character, the number of tourist information centres' (TIC) and individual attractions' visitors has been used. Attendance of these centres is the only accessible data on a month basis. Indicator of bed-occupancy is available for this type of territory only with an annual period. Attendance reaches an unbearable peak, especially in

the summer months (Fig. 2). This trend can be demonstrated in the data obtained on the number of visitors to tourist information centres, which reaches 275,000 people per year. The clear concentration of visitors into the holiday months of July and August is extended until September, which is associated with wine festivals and very popular "burčák" (alcoholic beverage). The fact remains that the typical strong tourist seasonality depends on the climatic factor, which is not suitable for winter activities here.

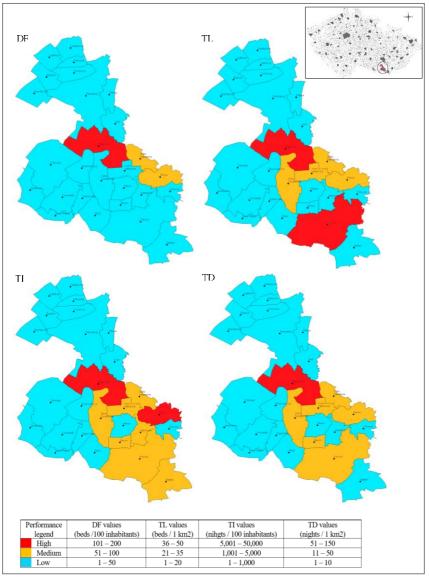


Fig. 1. Tourism performance based on data published by the CZSO (2020).

Fig. 1. Desempeño turístico en base a datos publicados por la CZSO (2020).

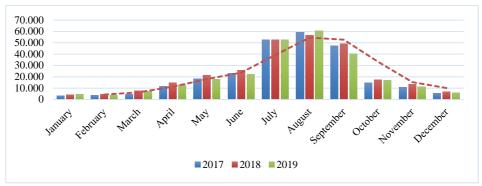


Fig. 2. Seasonality by the number of TIC visitors based on internal DMO's data (2020).

Fig. 2. Estacionalidad por número de visitantes TIC en base a datos internos de DMO (2020).

Tourism impacts

Effects of tourism depend on unequal division of tourist flows within the region. Most of them are concentrated around the aquapark Aqualand Moravia in Pasohlávky and around other main TOP attractions (Mikulov, Pavlov). As a result of negative socio-cultural impacts, the quality of life of wine regions residents is decreased. Residents living in near proximity to wine cellars frequently complain about the noise and mess lasting until early morning hours. Therefore, we may conclude that the negative impacts which are being mentioned especially in connection with municipality destinations, can be identified in rural areas, too. The problem lies in the uncoordinated development of further accommodation facilities and boarding houses. Destinations such as Venice or Barcelona have adopted some level of regulation of building construction, according to Almeida et al. (2020), 11% of studied megapolises use bans or restrictions related to new building constructions. The accommodation infrastructure is not the only part which is often insufficient in the season. This also applies to car parking spaces. Significant effects of tourism can be observed in the case of the environment. Physical damage to the landscape and acceleration of erosion processes are mainly caused by cyclists in the protected landscape area. In particular, with the development of e-bikes, more and more cyclists and adrenaline riders enter forbidden places. Negative implications caused by an excessive number of visitors can also be observed on water formations. Lower quality of water results in the death of rare animals. Many species of animals in the Protected Landscape Area are also harmed by the excessive amount of accumulated garbage, which also spoils the landscape.

Discussion and conclusions

The presented destination is a relatively small area with a population of approximately 31,000 residents. In 2018, more than 318,000 visitors, concentrated mainly in the summer months, were too much of a burden for some municipalities. We observed the direct relationship among tourism attractiveness and related infrastructure and proportion of tourist overnight stays. Unequal distribution of tourism attractiveness (1) leads to the territorial polarization and unbalanced tourism development. The types of tourism in the destination predetermined the distribution of tourist flows and tourism demand, leading to the seasonal concentration (2). Hence, tourism in the destination is spread unequally not only in terms of area but also in terms of time. The overburdened destinations struggle with negative impacts caused by the unbalanced development of tourism (3).

We can thus conclude that the AD MEP Mikulov has better preconditions for the development of tourism, due to the location of the protected landscape area, biosphere reserve as well as the location of most cultural and historical monuments. As the interviewee also mentioned: "The problem, increasing the difference between individual municipalities, is the non-existence of a unified offer in the form of a complex product of tourism. Unequal division of tourist flows depends, to a certain extent, also on only poorly developed cooperation with other regions in the Czech Republic." High intensity of activities in connection with tourism can result in a number of negative impacts. When evaluating, impact on the quality of their lives (Hall and Page, 2014) as well as the impact on the quality of tourists' experience (Dioko and So, 2017) can be taken into account. Despite positive effects that development of tourism can bring, Singh et al. (2016) point to the dangerous effects of cultural massification and loss of identity, which can lead to the changes in the system of priorities, lifestyle or relationships within families.

It is clear from the result that it is necessary to monitor the development of tourism in individual localities. In congested localities achieving a high tourism load index, it is ideally necessary to prevent a turning point or seek to mitigate negative impacts. Conversely, in the places with a high potential for tourism development, where the indexes are low, it is possible to focus on supporting the development of tourism. However, it is also necessary to consider the social readiness of the destination for the development of a tourist product. A number of authors recognize the need for *policies* to better adapt rural populations to cultural and social shock, as well as their focus on cultural, social, economic and environmental sustainability. But in fact, the environmental factor is key for rural destinations, especially in connection with outdoor activities and the use of natural resources as a tool for their development (Almeida *et al.*, 2020)

In some areas, the tolerable capacity was exceeded. It is, therefore, necessary to direct a large number of visitors with certain marketing tools. It is a way of disseminating information and addressing visitors in such a way that the destination is not overburdened, but attracts quality visitors who return repeatedly. Therefore, the DMO has focused on thorough monitoring of the movement of visitors and their behaviour throughout the destination and setting clear rules. The elimination of illegal accommodation providers and a focus on offering quality services and authentic experiences should also help to achieve the goal. From the interviewee point of view: "Experience must be offered to visitors effectively and sustainably, without damaging the values of the area and causing negative impacts on its natural and cultural heritage." It could be done through an introduction of new forms of promotion and marketing as well as new attractive topics that will help to disperse attendance throughout the year. These products are, therefore, purposefully placed in the weaker months. There is a coordination of cultural events that fill the accommodation capacity. Wider offer and coordination of activities can also be a way to increase the average number of overnight stays and customer loyalty.

In connection with the monitoring of the spatial behaviour of visitors, we recommend focusing on strategic flows and variable geometry of space. Variable geometry detaches from the strict territorial approach to destination perception (Bieger *et al.*, 2011), but considers it a necessary condition for cooperation with surrounding destinations, which can be considered relevant strategic business areas (Beritelli *et al.*, 2014).

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