A COMPETITIVE ANALYSIS OF SPA TOURISM IN CENTRAL EUROPEAN REGIONS

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Abstract
Purpose of Study – Health Tourism in Hungary is a unique product which also has a unique background in its spas based on a nearly unlimited supply of natural thermal and medicinal waters.These provide capacity for continuous, sustainable development and growth. Nevertheless, although Hungary is only a modestly sized country, there are huge regional disparities on the supply side of spa facilities in terms of history, development, competiveness, client base and even seasonality.
Research Methods – We hope to offer an accurate picture of the supply and demand factors in two (2) neighbouring regions of Hungary (West and South Transdanubia). The regions are at different levels of development regarding competitiveness and the utilisation of their spas. We examined four (4) spas in each of these regions, analysing and comparing data on guests from the domestic and incoming markets; we explored differences in terms of average stay and income levels and also the role of spa development and various new trends. The selection of four spas in each region was made on the basis of their size and the specialised or innovative services offered.
Findings – In Hungary, West Transdanubia performs more successfully than South Transdanubia (and all other Hungarian Regions) in domestic market terms, whilst, regarding inbound guests, the neighbouring cross-border regions of Austria and Slovenia are extremely serious competitors due to their thoughtful investment planning and execution, to effective market research and to a degree of positive collaboration ('co-opetition').
Contribution – The growth of wealth and disposable income is not unlimited and so considerations of competitiveness are crucial in both the public and private spheres. Inertia and complacency are potentially fatal diseases and the authors are not convinced that the Hungarian business sector is immune to them.
Keywords: spa tourism, local environmental care, innovative tourism products, spillover-effect, regional co-opetition[*]

INTRODUCTION

Health Tourism in Hungary is a unique product with a unique background in its spas based on an almost unlimited supply of natural thermal and medicinal waters, and these have the capacity for sustainable development and growth. However, although Hungary is only a modestly sized country, there are huge regional disparities within the sector in terms of history, development, competiveness, client base and even seasonality. The sector has a highly fragmented ownership structure and the consequent differences in commercial and investment philosophy, experience and expertise do not generate great confidence for the future, even though its importance to the country is so obvious. There exists highly sophisticated competition in the immediate vicinity, and

[*] Based on the results of OTKA project No. 106283 "Survey of the Competitiveness Factors of Spas and Health Resorts in Hungary and Central European Regions".

so constructive comment and criticism can only be of benefit. *The aim of our research* is to explore whether, as a result of *spillover effect,* the regions having weaker potential, hence poorer indicators reflecting less developed economy and tourism, could have both regional and local benefit from their settlements with spas in this particular geographical area.

We hope to offer an accurate picture of the supply and demand factors in two neighbouring regions of Hungary (West and South Transdanubia). The regions are at different levels of development in competitiveness and in the exploitation of these resources. The reasons for these differences are economic and geographic and so might originate in the quality of supply and in the, affluence of the clientele. We examined four spas in each region, comparing data on guests from the domestic and incoming markets; we explored differences in terms of average stay and income levels and also the role of spa development and various new trends. The spas selected for analysis were: Hévíz, Bük, Zalakaros and Lenti in West Transdanubia and Harkány, Nagyatád, Igal and Tamási in South Transdanubia. We duplicated this procedure in two neighbouring, cross-border regions of Austria (Burgenland) and Slovenia where the spas involved were Bad Sauerbrunn, Lutzmannsburg, Bad Tatzmannsdorf and Stegersbach in Burgenland and Radenci, Moravske Toplice, Terme Lendava and Terme Banovci in Slovenia.

The selection of four spas in each region was made on the basis of their size and the specialised or innovative services offered. In our study we present the Health Tourism characteristics of the four regions, their clientele and the current situation of the spas; the latest Health Tourism trends are also analysed, highlighting the role of environmental factors in choosing a destination.

1. THE ROLE OF THE ENVIRONMENT IN SPA TOURISM

Health Tourism is a continuously developing sector where, besides the obvious matters of treatment, services, and accommodation, environmental issues have become more important. These include the extent to which a certain spa fits the local environment and or the degree to which the feeling of closeness to nature may be preserved for visitors (e.g., the user-friendly nature of the built environment, the size of green areas, the comfort level for visitors and the use of renewable energy sources). These factors play increasingly important roles in the choices made by guests and may generate serious competitive advantage for a spa.

In our study, the most significant environmental factors are presented via the examples of the two neighbouring cross-border regions involved in our research, West Transdanubia and Burgenland. An important part of our publication is the experience of the “Assessment of medicinal and thermal spa competitiveness factors in Hungarian and Central European regions” study tour undertaken in April, 2014, when we visited the most significant spa towns of these regions, in a research project supported by the Hungarian Scientific Research Fund (Hungarian OTKA). With the help of interviews and field trips, we learned the characteristics of the customer base and accommodation supply, developmental specifics, and future plans of spas in both regions. In addition we also introduce the supply and demand factors of the two important competitor regions, South Transdanubia and the Pomurska region.

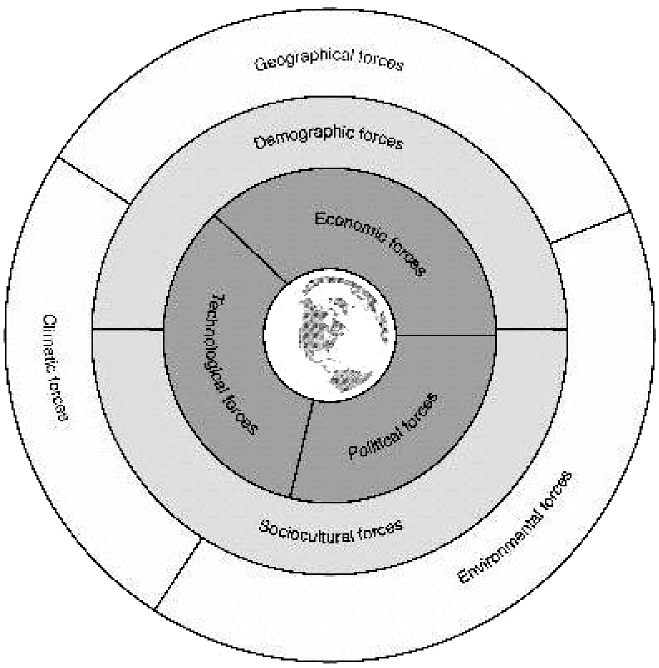
The role of environmental factors in tourism has been analysed in Hungary from the 1980s (Mezősi 1985, 1991), and many investigate specific areas (Gyuricza 1997, 14). Horváth G. and Kiss G. (2002) mention, as being among the most important factors, uniqueness, naturalness, and spectacle value (landscape, land aesthetics), and recreational value. Among the specific environmental effects of health and wellness tourism, the effects on the flora and fauna should be noted (attention must be paid to the conservation of habitats mostly in the case of healing climate, cave, lake, or mud), and the effects associated with the use of water and land areas (waters used in spas that are often rich in minerals must be expertly handled). (Smith and Puczkó 2008, 53)

In designing and operating Health Tourism facilities, the use of recyclable materials and renewable energy sources and the treatment of used thermal water are becoming more important, and spas paying attention to these and incorporating relevant material in their marketing activity could gain competitive advantage among the more conscious guests.

1.1. Global forces model

The Crouch and Ritchie global forces model (*Figure 1*) concept published in 2003 was based on the mechanism of action on competitiveness by correlating global forces.

Figure 1: **Global forces model**



Source: Ritchie et al., 2003

From this point of view "global" does not mean only worldwide prevailing effects and comprehensive economic impact; it also highlights the lack of control related to certain groups or organisations. Adapting to these forces demands such ability from a destination which is essential for its competitiveness and sustainability. The model represents in three superimposed layers the global force field affecting the touristic destination. The closer to the centre are these forces, the more varied they are in their effect on the performance and wellbeing of the destination. Forces could not be examined so clearly separated from one another since there is no clear, sharp dividing line between individual layers. The task of the control system is to identify changes as soon as possible and to assist appropriately in countering them. From this a destination gains new opportunities and so has the chance to turn negative into positive. In this process, TDM organisations play major roles.

Those forces which form the third, i.e. the outer layer, are so essential that their modifications are hardly noticeable from a management point of view. Under normal circumstances they are extremely reliable and predictable. The outer layer (shown above) includes the geographical, climatic and environmental factors.

The understanding of environmental issues and the increase of social awareness of environmental effects are the first steps to eliminate potential hazards affecting both the environment and tourism. Such factors are included as the preservation of wildlife habitats and the diversity of species, water quality, the protection of biodiversity, and the use of appropriate methods for using chemicals, waste management and deforestation. Consequently, the fundamental tasks of a destination are identifying the extent of potential environmental damage caused by tourism and assessing its influence on tourist perceptions of the destination. This is especially valid for destinations with medicinal and thermal baths. In this segment supply and demand are heavily influenced by the state of both the micro-environment (water quality of the particular spa, hygienic conditions, and infra-structure) and of the macro-environment (natural and built environment of the spa settlement) - which at the same time determine the sustainable successful operation of a destination.

The two Health Tourism regions examined are in different states from that point of view, the reasons being traced back to historical roots. In Burgenland, already in the sixties and seventies, as a result of various green movements, the state and protection of the environment received serious attention, later taking the form of specific planning and regulation across Austria and so leading to today's outstanding environmental consciousness. These results mean significant competitive advantage in the area of Health Tourism as well as, for instance, for the spas in Burgenland that have achieved admirable results in recent years both in terms of energy use and environmental education. In contrast, in the isolated socialist system in Hungary, where industrial production stood above all else, similar environmental issues could not even begin to occur for some years. Nonetheless, something finally emerged in Hévíz, the most important spa town in both West Transdanubia and the country. Whether its unique, natural features and recognition of the potential of tourism, or the decline of highly polluting bauxite production were decisive is unclear, but at the end of the '80s, due to the bauxite mining in Nyirád, the water-flow through Lake Hévíz decreased measurably and the water of the Tapolca Lake Cave dried up (Alföldi and Kaponyi, 2007), At this point, mining in the region ceased, so protecting the unique natural healing properties of the waters. However, improvements concerning Health Tourism in general and dealing seriously with environmental issues emerged only recently in Hungary and so a degree of backwardness is evident, even if not insurmountable.

2. THE ROLE OF SPA TOURISM IN WEST TRANSDANUBIA AND SOUTH TRANSDANUBIA

Perhaps the most important area of medicinal tourism in Hungary is West Transdanubia, which has unique natural endowments and a continuously developing infrastructural background. The leading role is also due to the effective use of development funds, through which a competitive and diverse supply of medicinal tourism has emerged. By high-quality spa and hotel development a spatially well differentiated service network has grown, where, in addition to baths of international significance (Hévíz, Bük, Zalakaros), lesser spas (Lenti) are also significant.

The internationally known spa towns of the region feature permanently in the top 10 list of the most visited towns in Hungary (*Table 1*). Hévíz, Bük, Sárvár and Zalakaros could also thank their spas and the related tourism services, for having enjoyed for many years a large number of mainly foreign guests. In the top 10 list, not a single South Transdanubian spa is found – a fair reflection of the current difference between the regions.

Table 1: **Number of visitor-nights spent in commercial accommodations in thousands, Western Transdanubian spa towns in bold**

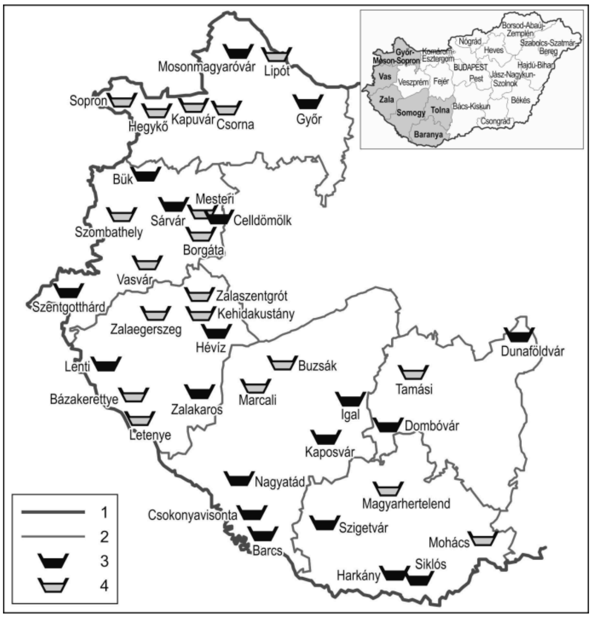
	The most visited Hungarian settlements, 2014 *	
	City	**Number of guest nights**
1.	Budapest	8,152,775
2.	**Hévíz**	987,367
3.	Hajdúszoboszló	803,671
4.	Siófok	706,856
5.	**Bük**	679,835
6.	Balatonfüred	543,500
7.	**Sárvár**	452,496
8.	**Zalakaros**	428,900
9.	**Sopron-Balf**	381,645
10.	Eger	371,324

Source: Constructed by the authors from data retrieved from HCSO, 2015

In Hungary from the early 2000s to the end of the 2007-2013 planning period several major accommodation and spa investments were realized from national and EU development funds. As a result of this hotel and spa construction or reconstruction, in the settlements concerned, tourism revenues increased, the labour market improved, and often so did the basic and tourism infrastructure (Mundruczó 2005, 11). At national

level the number of visitors and visitor-nights also increased, although in South Transdanubia developments did not bring the expected results.
Spa settlements involved in our research are shown in the following map (*Figure 2):*

Figure 2: **West and South Transdanubian spa settlements involved in this research**



Note: 1 - State border; 2 - County border; 3 - Medicinal spa; 4 - Thermal spa
Source: FONYÓDI V. 2016

In spite of its significant natural resources, South Transdanubia continuously loses ground to its domestic competitors, including West Transdanubia. In South Transdanubia the few investments were uncoordinated, general overall improvement was not felt and capacity expansion was not matched by increased demand. This may be due to the 'siphoning' power of West Transdanubia, and so the sector is very appropriate for asserting that, no matter how favourable touristic endowments are, only through *properly established hosting capacity* and integrated regional utilization of the reserves of thermal water can they become dominant players in tourism. An outstanding example is the neighbouring Austrian region of Burgenland.

There are regional and national processes which could explain the decline experienced in South Transdanubia. Statistical data back to 1990 confirm that the touristic position of the Region has steadily deteriorated since the Transition. It is continuously drifting and lagging behind its competitors, and even those with a less favourable starting position such as the Great Plain regions have become stronger. If Health Tourism is taken as the basis, it may be that failure is due to more developed West Transdanubian and cross-border medicinal tourism regions 'siphoning' off domestic and foreign (Western) demand. Among other reasons could also be that there were no developments in the Region to attract an external investor. Quality (four- and five-star) hotels are lacking due to insufficient investment. The backwardness of the region was also reinforced by old, attractive destinations and baths (particularly Harkány) losing their significance whilst the new products, those restored by EU grants, – Igal, Nagyatád, Tamási – do not attract serious traffic. There is, therefore, no serious medicinal and thermal tourism product to trigger mass interest.

Table 2: **Number of visitors and visitor-nights in the West and South Transdanubian spa settlements examined**

Number of visitors								
West Transdanubia					South Transdanubia			
	Hévíz	*Bük*	*Zalakaros*	*Lenti*	*Harkány*	*Igal*	*Tamási*	*Nagyatád*
2011	207,000	154,430	131,294	8,341	46,486	1,916	2,329	3,053
2012	207,226	152,036	121,298	6,477	50,285	n/a	2,305	3,319
2013	204,853	157,692	117,486	6,513	48,636	1,322	2,711	2,616
2014	187,530	166,223	128,250	11,992	50,054	n/a	3,005	3,305
Visitor nights								
West Transdanubia					**South Transdanubia**			
	Hévíz	*Bük*	*Zalakaros*	*Lenti*	*Harkány*	*Igal*	*Tamási*	*Nagyatád*
2011	990,980	655,801	436,454	27,719	156,102	6,794	8,170	10,209
2012	1,004,622	635,181	403,133	23,226	163,625	n/a	8,130	10,433
2013	1,048,682	655,957	411,794	17,974	155,179	5,449	9,479	8,942
2014	987,367	679,835	428,900	41,355	155,333	n/a	10,056	10,888

Source: Constructed by the authors from data retrieved from HCSO, 2015

Table 2 shows the number of visitors and visitor-nights in the relevant Hungarian spa settlements from 2011 to 2014. It is clear that the oldest and most popular spa in South Transdanubia, Harkány, is also unable to compete in volume with the most popular West Transdanubian spa settlements. Already in terms of visitor numbers, Harkány shows a 3 or 4-fold lag, although this increases for visitor-nights compared to Hévíz and Bük. The larger difference in the number of visitor-nights shows that the western spas, due to their services and programmes, are better able to hold their visitors longer. Although the waters of the spas of South Transdanubia are unique, they cannot, due to slow and non-innovative development, hold the visitors longer, and finding new clients is especially hard. Also regarding baths of regional importance, West Transdanubia is more successful. Lenti more than doubled its visitor- nights in 2014 due to continuous development. By contrast, smaller. regional spas in South Transdanubia tended to stagnate (Nagyatád) or increased their clientele very slowly (Tamási) in the absence of suitable nvestment.

The internationally significant West Transdanubian spas of Hévíz, Bük and Zalakaros have produced similar visitor numbers in recent years. In the minor decline by Hévíz in 2014, politic-economic problems affected its most important foreign source of visitors, Russia (the Ukraine conflict, rouble and oil crises), a phenomenon seen in all destinations with Russian clientele, including Hungary.

2.1. The role of foreign clientele

Due to individual treatments and high-quality accommodation, foreign clients play a significant role in the most important spas of Hungary. Foreign visitors are important since they spend a relatively long time in a particular area, they use many services and spend substantially more than Hungarian guests.

Table 3: **Distribution of foreign visitor-nights in the Hungarian spa settlements examined**

	West Transdanubia				**South Transdanubia**			
Highlighted countries	***Hévíz***	***Bük***	***Lenti***	***Zala-karos***	***Harkány***	***Igal***	***Nagy-atád***	***Tamási***
Austria	83,442	105,001	14,242	20,372	1,004	157	418	222
Germany	207,048	111,577	5,838	37,245	19,028	1,796	1,113	1,762
Czech Republic	24,423	134,958	1,734	13,835	21,485	33	10	378
Russia	242,882	6,502	364	1,863	2,304	n/a	n/a	n/a
Netherlands	1,283	2,098	421	546	357	45	110	863
Poland	5,652	10,515	319	2,375	1,147	n/a	39	115
Switzerland	16,251	7,285	619	770	412	n/a	55	13
Slovakia	9,945	17,092	137	4,689	948	10	88	38
Croatia	509	434	21	286	783	n/a	18	15
Slovenia	1,929	1,558	365	2,226	171	n/a	97	64
Serbia	431	149	2	351	2,013	n/a	1	n/a
Other	52,070	4,013	871	5,708	1,398	338	532	58
Total	660,508	405,649	25,154	92,347	52,110	2,427	2,571	3,580

Source: Constructed by the authors from data retrieved from HCSO, 2014

In Table 3 foreign visitor-nights are shown, and in these terms West Transdanubia has absolute superiority due to its quality services and accommodation. In Bük the majority of visitor-nights are spent by foreign guests and in Hévíz the most important guests are Russian. These appeared only in the last few years but they overtook the number of German visitor-nights in 2014. Russian guests stay longer and are characterised by high spending.

German clients are still very important in the field of medicinal tourism both across Hungary and in the region. Germany is a dominant sending country with a long tradition in all the domestic spas examined. In addition to the traditional German client base, the volume of Czech tourists has increased due to the favourable location of the region, and their number constantly grows, especially in the case of Bük, where most overnights are spent by Czechs. The Czechs have a strong interest in high quality medicinal tourism, since there is a very high level of spa culture in the Czech Republic, home to numerous old and prestigious spas. However, a negative trend is that in general a decline in the traditional Austrian guest circle has appeared. At national level the number of Austrian visitor- nights decreased by 4% in 2012/2013 and by 2,2% in 2013/2014 (Hungarian National Tourist Office 2015). Among the reasons can be the development of the spas in Burgenland providing modern, improved services. The spa of Zalakaros is popular rather in the domestic market; in addition to the traditional German clientele, the proportion of Slovenian guests is the highest here due to its geographical location.

South Transdanubian spa settlements attract far fewer foreign visitors; even the internationally significant Harkány has only slightly more than 50 thousand foreign guest-nights. Here the two major foreign markets are the Czech Republic and Germany. The other spa towns of the region examined have more regional significance, and only German guests could be regarded as significant in the case of smaller spas.

2.2. Average length of stay

Table 4: **Distribution of foreign visitor-nights in the Hungarian spa settlements examined**

West Transdanubia					South Transdanubia			
Highlighted countries	*Hévíz*	*Bük*	*Lenti*	*Zala-karos*	*Har-kány*	*Igal*	*Nagy-atád*	*Tamási*
Austria	4.2	3.3	3.9	3.8	4.8	4.2	6.1	6.0
Germany	10.1	8.3	6.8	8.8	7.8	9.7	5.2	10.6
Czech Republic	4.3	3.8	2.7	4.0	5.6	2.5	1.3	3.5
Russia	10.4	6.0	6.5	6.2	8.8	n/a	n/a	n/a
Netherlands	3.3	4.9	3.3	3.5	3.3	4.1	3.4	4.1
Poland	4.7	4.7	1.9	3.5	2.9	n/a	3.0	4.6
Switzerland	7.0	8.6	7.5	6.1	3.5	n/a	4.2	2.2
Slovakia	3.1	2.7	2.1	3.1	3.0	2.5	3.8	3.8
Croatia	2.9	2.6	2.3	2.9	2.3	n/a	1.3	5.0
Slovenia	1.8	2.3	2.5	3.0	2.0	n/a	4.2	4.0
Serbia	3.5	2.8	1.0	2.6	3.4	n/a	1.0	n/a
Average	**6.8**	**4.3**	**4.0**	**4.6**	**5.4**	**7.6**	**4.6**	**5.8**

Source: Constructed by the authors from data retrieved from HCSO 2014

In Table 4 the average length of stay of foreign visitors can be seen in the Hungarian spa settlements. *Medicinal tourism* is usually characterised by longer durations of stay due to the complex treatments offered compared to other branches of tourism, and it can be seen that the longest times were spent by German and Russian guests who undergo long treatments and try many services in a particular spa. The longest stays are in Hévíz, where the town is able to attract foreign guests for long periods with its treatments and varied tourist programmes. Austrian and Czech guests pay shorter visits to destinations in general (3-6 days) but try more wellness services during their holiday. Regarding length of stay, there is a smaller difference between the two Hungarian regions, although with some sender countries (e.g., Switzerland) there is a significant disparity in favour of the more popular West Transdanubia. However, Igal, the small spa in South Transdanubia, clearly provides high value for its German clientele (9.7 days).

3. SPA TOURISM IN BURGENLAND AND THE POMURSKA REGION (POMURSKA/POMURJE)

In the neighbouring Austrian region of Burgenland, in recent years ongoing, well-planned developments were implemented, resulting in growing competition for Hungarian spas close to the border. In terms of their offers, they differ from Hungarian practice. The spas in Burgenland are characterised by their thematic nature based on their clientele and services; they complement each other's services and address different target groups by creating unique packages for their guests. In respect of the thematic nature among the spas in Burgenland, we can distinguish a family-friendly spa (Lutzmannsburg), a spa with specific medicinal and medical treatment (Bad Sauerbrunn) or one combining golf and wellness (Stegersbach). In addition, the spas of Burgenland are characterised by strong territorial cooperation. (Bakucz M. and Flink A. 2012), Environmental elements also play increasingly emphasized roles in the offerings introduced in detail in the specific analysis of the Burgenland spas. Thanks to this conscious development, a growing number of Burgenland spas are found among the most popular spa settlements in Austria (*Table 5*).

Table 5: **Best Austrian spas (Burgenland spas underlined)**

Best Spas in Austria, 2014				
	Wellness category	**Entertainment category**	**Medicinal category**	**Family category**
1.	Avita Therme	Therme Loipersdorf	Parktherme Bad Radkersburg	<u>Sonnentherme Lutzmannsburg</u>
2.	<u>Allergiatherme Stegersbach</u>	Eurotherme Bad Schallerbach	Avita Therme	Eurotherme Bad Schallerbach
3.	Therme Loipersdorf	<u>Sonnentherme Lutzmannsburg</u>	Therme Rogner Bad Blumau	<u>Allergiatherme Stegersbach</u> and Therme Loipersdorf

Source: Constructed by the authors from data retrieved from Webhotels 2014

Pomurska (Pomurje) is Slovenia's historic northeast region and also the centre of Hungarian citizens in Slovenia. A key element of the touristic offer in this area is Health Tourism, a sector characterised by continuously developing infra- and supra-structure. In many cases in the area valuable thermal water was found during intensive crude oil and gas exploration, and these became popular spas. Of the four spa towns included in the analysis, Moravske Toplice is the most popular (thanks to its huge water theme park), whilst Lendava, Radenci and Verzej attract nearly the same number of guests.

Table 6: **Number of visitors and visitor-nights in the examined spas of Burgenland and Pomurska**

Number of visitors				
Burgenland spa settlements (Austria)				
	Bad Tatzmannsdorf	***Lutzmannsburg***	***Stegersbach***	***Bad Sauerbrunn***
2011	93,944	98,204	84,658	11,349
2012	104,893	79,294	90,481	11,661
2013	102,836	89,013	87,596	11,970
2014	108,993	92,187	91,837	13,301
Pomurska Spa Settlements (Slovenia)				
	Lendava	***Moravske Toplice***	***Radenci***	***Veržej***
2011	29,273	143,748	32,172	29,562
2012	30,669	135,860	33,091	27,817
2013	31,124	135,802	32,587	28,192
2014	32,275	137,581	36,493	29,575
Visitor nights				
Burgenland spa settlements (Austria)				
	Bad Tatzmannsdorf	***Lutzmannsburg***	***Stegersbach***	***Bad Sauerbrunn***
2011	545,492	247,801	218,243	96,499
2012	565,759	201,853	229,838	100,415
2013	531,095	224,603	223,591	106,855
2014	535,509	230,166	232,818	120,534
Pomurska Spa Settlements (Slovenia)				
	Lendava	***Moravske Toplice***	***Radenci***	***Veržej***
2011	111,758	522,767	126,359	112,217
2012	111,133	508,865	137,371	103,961
2013	110,463	496,878	128,630	102,111
2014	114,777	490,564	132,534	103,851

Source: Constructed by the authors from data retrieved from Statistik Burgenland Tourismus 2014, SI-STAT Statistical Office RS Slovenia 2014

Table 6 shows the number of visitors and visitor-nights of Burgenland and Moravske Pomurje. Both regions' spas are popular and permanently stable, and in some cases (Stegersbach, Radenci) have increasing guest numbers. The most popular spas of the two regions reach a total of ca. 500 thousand visitor-nights with different profiles. Whilst in the most popular spa of Burgenland, Bad Tatzmannsdorf, the traditional complex medical tourism offer dominated, the most popular spa of Moravske Pomorje, Moravske Toplice, attracts visitors based on wellness and thematic features. The smaller spas can also maintain a steady demand, always above 100 thousand visitor-nights.

Analysing the four regions, although the opportunities appear similar, the popularity of West Transdanubia is still outstanding. In the case of Burgenland, for example, the cause of the backlog in the number of visitors compared to West Transdanubia could be explained clearly by the lack of foreign markets. Analysing the data of the number of visitors and visitor-nights in the summer of 2014 (*Table 7*) it can be clearly seen that, in the case of Bad Tatzmannsdorf, providing the most popular and complex services, foreign visitor-nights form only 10% of the total; the best value in respect of Stegersbach (specializing in golf and wellness) is also only 16%. As for Bad Sauerbrunn (concentrating on special medical treatment) there are hardly any foreign visitor-nights (1%). In contrast, for Hévíz 67% of visitor-nights, and for Bük 60%, come from foreign visitors (Statistik Burgenland 2014; HCSO 2014). The number of domestic visitors and visitor-nights, however, are very good for the Burgenland spas; with their thematic offers they can more effectively address domestic tourists, who in many cases have given up their holidays and treatments in Hungary in recent years for journeys to Burgenland.

Table 7: **Domestic and foreign visitor number and number of visitor-nights in the examined settlements, 2014 summer period**

	Number of visitors, 2014			**Visitor nights, 2014**		
	Domestic	Foreign	Total	Domestic	Foreign	Total
Burgenland	**501,656**	**135,449**	**637,105**	**1,464,603**	**504,106**	**1,968,709**
Bad Sauerbrunn	6,826	225	7,051	63,114	631	63,745
Lutzmannsburg	42,662	4,397	47,059	110,492	14,335	124,827
Bad Tatzmannsdorf	48,065	5,346	53,411	252,493	27,495	279,988
Stegersbach	37,801	4,742	42,543	96,893	18,159	115,052

Source: Constructed by the authors from data retrieved from Statistik Burgenland Tourismus 2014

It is interesting to examine the differences between wellness and medicinal tourism and their effect on the spas of the area. In Stegersbach in 2014 91,837 visitors arrived, who spent there 232,818 visitor nights, the same numbers in the case of Bad Taztmannsdorf: 108,993 visitors and 535,509 visitor-nights (so hardly 17 thousand visitors are the difference between the two spas, but they still differ by 300,000 visitor-nights). This also indicates the difference between wellness and medicinal tourism, so between Stegersbach and Bad Tatzmannsdorf, since in Stegerbach guests arrive for much shorter periods, for 2-3, maximum 4, days, whilst in Bad Taztmannsdorf they take long treatments (even for several weeks). In Stegersbach however the rate of returning guests is high - those who come more than once per year for a few days, a wellness weekend or wellness treatment linked to a little golf, or family swimming.

4. COMPARATIVE ANALYSIS OF THE MOST SIGNIFICANT SPA SETTLEMENTS IN WEST TRANSDANUBIA AND SOUTH TRANSDANUBIA

The objective of the above-mentioned OTKA study was the formulation of a so-called Competitiveness Index of Settlements with Spas (CISS) and, using CISS, the evaluation and comparison of settlements with medicinal and thermal spas based on their overall and tourism destination competitiveness. The index is based on tourism destination competitiveness models and factors that determine tourism destination competitiveness.

4.1. The CISS comprises six sub-indices:

1. Tourism indicators of a given settlement: This group comprises a total of fifteen tourism indicators. These partly relate to guest arrivals (total number of guests, total number of nights spent, average length of stay, etc.) and are either calculated for all guest arrivals or for foreign tourist arrivals only. The rest of the indices relate to tourist accommodation (occupancy rate, income per bed place, etc.).

2. Medicinal tourism indicators of a given settlement: This group comprises a total of eight tourism indicators. They focus on a specific segment of the tourist industry, namely medicinal tourism. Here we use only some of the indices in the first group, that is, we use only demand-side indicators and occupancy rate, and calculate them only for medicinal/spa hotels.

3. Indicators of settlement infrastructure: This group comprises a total of fifteen indicators and rests on a complex basis. Factors influencing the quality of life of local residents are also important, and so we paid particular attention to the number of houses/apartments with utility services, the size of green spaces in residential areas, the length of paved roads, family doctor and pharmacy services, the number of cars, telecommunication networks, residential homes with Internet connection. We normalised these indices to 1,000 residents. In this way we could compare settlements of different sizes.

4. Economic situation of a given settlement: This group comprises a total of ten indicators, which relate to the economic situation of a given settlement. Here we included indices describing economic operations and income levels. In order to be able to describe the economic performance/situation of a settlement, we need to quantify local income generation. To this end, we investigated local tax revenues, the employment situation and age structure of the population.

5. Social components: We have also taken into consideration the quality of social services when constructing our model. Here we included a total of ten indicators. These make up the fifth group. The model includes basic demographic variables, variables related to the number of inhabitants (population size), education-related data and the number of those receiving other social services. We also investigated public safety as a significant positive component based on the Tourism Penetration Index (TPI).

6. The characteristics of local baths: This section summarises the results of questionnaire data collection, expert interviews and website analyses.

While sub-indices can be used to rank settlements, they are not directly comparable.
In the third and final step we thus constructed a **composite index** by taking the average of the six sub-indices:

$$CISS = \frac{T_{tourism} + T_{medicinal} + T_{infrastructure} + T_{economic} + T_{social} + T_{bath}}{6}$$

Table 8: **Settlement-competitiveness sub-dimension, composite-index values and the ranking of settlements**

Settlements with Spas	Sub-dimensions						Composite index	Ranking
	I	II	III	IV	V	VI		
Győr	**12**	**6**	**7**	**1**	**1**	**21**	**54,4**	**1**
Harkány	*8*	*4*	*3*	*15*	*4*	*6*	*49,3*	*2*
Zalakaros	**5**	**2**	**11**	**17**	**2**	**2**	**46,1**	**3**
Hévíz	**3**	**1**	**19**	**8**	**15**	**1**	**45,3**	**4**
Bük	**2**	**3**	**17**	**10**	**9**	**3**	**44,5**	**5**
Zalaegerszeg	**16**	**6**	**1**	**3**	**14**	**14**	**39,6**	**6**
Sárvár	**4**	**5**	**13**	**7**	**21**	**5**	**39,1**	**7**
Kehida-kustány	**7**	**6**	**38**	**31**	**19**	**4**	**31,7**	**8**
Sopron	**20**	**6**	**6**	**4**	**5**	**31**	**30,1**	**9**
Lipót	**6**	**6**	**34**	**33**	**7**	**8**	**29,8**	**10**

Source: Constructed by PÓTÓ ZS., 2016

4.2. The analysis of individual CISS components

Following our index-construction methodology, described above, we calculated a score for each settlement, which then translated into a clear ranking of settlements. In order to understand the final ranking of settlements, first we have to analyse and compare the different sub-dimension-based rankings of these settlements (*Table 8*).

It is obvious from *the highlighted* top ten Hungarian settlements out of the total 38 examined ones, included in the table above that there are significant regional differences. The dominance of western Transdanubian settlements with spas/baths is evident: with the exception of *Harkány*, all the others can be found in this region. The three most important settlements with respect to medical and thermal spa tourism, namely Hévíz, Bük and Zalakaros, score particularly high along sub-dimensions I and II (tourism-related indicators). Whereas the overall ranking of settlements is in line with our expectations, the high ranking of two western Transdanubian cities with spas is somewhat unexpected among the other settlements with baths. The high ranking of the two small settlements of Kehidakustány and Lipót is striking next to the two cities with economic (competitiveness) potential. However, this supports our hypothesis, that medical and thermal baths/spas play an important role in improving/increasing a settlement's competitiveness. Nonetheless, in order to understand the underlying mechanisms, we need to conduct a number of studies, which can shed light on the role that individual sub-indices, and hence certain indicators/components, play in determining competitiveness.

Table 8 suggests that, overall, settlements with medical spas score higher in our CISS-ranking. The average score of the 19 settlements with medical spas is higher than of those with thermal baths. We can get a more accurate picture, if we have a closer look at those sub-indices (i.e. I, II, and VI) that measure tourism-related competitiveness. There are significant differences between the rankings based on the tourism-related sub-indices too: the mean score of settlements with medicinal baths is higher than of those with thermal baths. Sub-index VI measures how renowned individual baths are. Here the ranking of settlements with medicinal spas is again more favourable than of those with thermal baths. Therefore, we can conclude that *settlements with medicinal spas are more competitive*. However, in the present study we can only document this relationship, but we cannot investigate the causality between the type of bath a certain settlement has and the ranking of the settlement. This requires further statistical analysis.

Amongst the spas with unique/rare spring-water composition Harkány, Hévíz, Bük, Zalakaros, and Sárvár all got top rankings. All five settlements score higher along the tourism-related sub-dimensions than along sub-dimensions measuring the settlement's general competitiveness.

5. CONCLUSION

Of the three countries discussed, Hungary has the largest Spa Tourism sector and some tradition – including strong state support in the Socialist era. However, disposable incomes are low and if the domestic sector is to survive, foreign visitors are needed. So far these have mainly come from Germany; other sources are much weaker and less reliable. Austria is the wealthiest and most advanced socially and culturally, but the Austrian tradition is to holiday at home. Slovenia displays features of both.

These observations may explain some of the points above, but they offer little encouragement to the Hungarian Spa sector without a pro-active approach – regional 'co-opetition' being an obvious example of what is needed. Spa tourism is the most significant touristic product of these regions, but our study showed that only innovative development sensitive to demand can help many spas to survive in an increasingly competitive market.

Serious environmental factors now play a greater role irrespective of location. Visitors are more aware and sensitive and their demands increase, influencing their choice of destination. In terms of the environment, the spas in Burgenland currently lead those of West Transdanubia, but the developments in Hungarian spa settlements are also moving in the right direction - mainly in the fields of material usage and environment-friendly transport. Every service provider should consider these factors as environmentally conscious improvements do mean competitive advantage for a spa.

Taking into consideration the current situation and the trends examined and explored in this paper, we can conclude that in the analysed geographical region, due to the *spill-over effect*, the more developed regions having spas, will, at least in the medium term, see a positive impact on the tourism of the less developed Hungarian regions - so fostering competitiveness and (consequently) wealth creation and a higher quality of life for residents of settlements with spas in their particular regions.

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