Tourism and Sustainable Development

The Competitiveness of Settlements with SPAS in Some Central European Regions

Márta Bakucz[1], Zsuzsanna Pótó[2], Ádám Köbli[3]

Abstract: The paper covers two topics which are, broadly, inseparable. The first has as its main target the competitiveness of Spa Tourism in two Regions of Hungary - in settlements with different characteristics; the second, recognising the need for a new way to measure competitiveness in the sector, deals with the creation of a new *competitiveness index*. The benefits of virtually all forms of Tourism - economic or social – are well enough known to need no repetition. This is especially true of such fields as Spa or Health Tourism, in which there is a natural trend towards longer stays and higher expenditure by visitors. For a relatively poor country such as Hungary – weak in natural resources apart from agricultural land – the basic presence of a generous supply of easily accessible thermal or medicinal water below a huge proportion of its surface area (70%) is a remarkable gift. Nevertheless, many factors are to be studied if a rational, sustainable development policy is to be elaborated by public and private interests. There are many spas – settlements with thermal or medicinal waters (or both) - spread across Hungary, and their variety is extraordinary. There are huge differences in terms of size, visitor numbers, accommodation facilities, overnights, leisure or treatment facilities and location – that is, their closeness to favourable population areas (domestic or foreign). The critical decisions on investment and development need comprehensive data on all factors of all locations. The essential issue is competitiveness: in Central Europe, where spas have a great tradition and history (e.g., Germany, Austria and today's Czech Republic), does or can Hungary offer a product which will sell? There are numerous factors and as many bases on which to judge. In 2013 a team from the Faculty of Business and Economics at Pécs University - supported by Hungary's National Scientific Research Foundation (OTKA) – embarked on a study of the competitiveness of spas in the Southwest of the country – an area close to the border with Austria – both an important source of clients and, with its own modern, highly developed spa tourism sector, a serious competitor. The project is scheduled to end in Summer 2016. A total of 38 spas were examined in Hungary and bordering Burgenland. This was based on a variety of approaches: data obtained from, for example, Hungary's Central Statistical and Tax Offices, individual websites of spas, personal visits and interviews by members of the research team and a

[1] Associate Professor, PhD, University of Pécs, Faculty of Economic Sciences, Hungary, Address: 80 Str. Rákóczi, 7622 Pécs, Hungary, Tel: +3672501599/23386, E-mail: bakucz@ktk.pte.hu, Corresponding author: bakucz@ktk.pte.hu.

[2] Assistant Lecturer, PhD Candidate, University of Pécs, Faculty of Arts, Department of Sociology, Hungary, Address: 16 Str. Zsolnay Vilmos, 7622 Pécs, Hungary, Tel: +3672503600/28215, E-mail: poto.zsuzsanna@pte.hu.

[3] PhD Student, University of Pécs, University of Pécs, Institute of Geography, The Doctoral School of Earth Sciences of the University of Pécs, Hungary, Address: 6th Str. Ifjúság, 7624 Pécs, Hungary, Tel.: +3672503600/24118, E-mail: kobli@gamma.ttk.pte.hu.

telephone survey of customers by a professional market research organisation. Many factors were used to create a comprehensive set of indicators for what we hope will be accepted as a useful general purpose tool. These ranged from basic concerns such as the type of water in a location and accessibility to size, accommodation quality, facilities and services – together, of course, with cost).

Keywords: spas; competitiveness index; accessibility; thermal water; medicinal water

JEL Classification: L83

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1. 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 so constructive comment and criticism can only be of benefit.

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.

For the sake of easier comparability the highlighted settlements with spas in each region have been chosen on the basis of residents numbers and the scale of innovative services. (*Figure 1*).

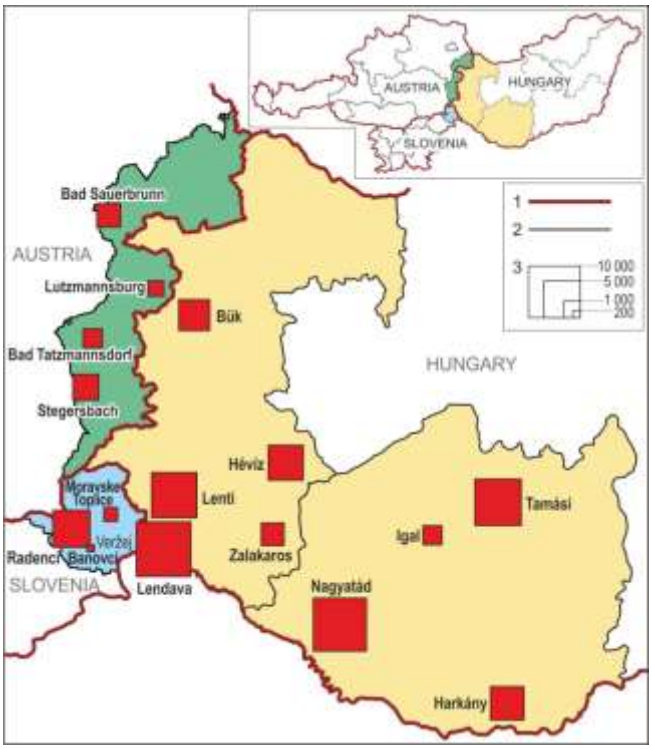

Figure 1. **Highlighted settlements with spas in four neighbouring Central European regions**

Notes: 1 - State border; 2 - County border; 3 - Settlement size by number of inhabitants.

Source: Constructed By (Fonyódi, 2016)

In this paper we aim for the approval of our hypothesis *(H1)* stating that regional and settlement conditions essentially decide the potential touristic performance of *the settlements with spas* in the given region, and (vice versa) the spas – medicinal or thermal – have a great additional value for the wealth of th**e settlements, with their impact on the quality of life (QoL) of the local residents (*H2*).**

In the table below (*Table 1*) regarding the surveyed 262 European Union Regions, the ranks of the regions chosen for our theoretical research (OTKA[1)] prove the strong

[1] OTKA: National Scientific Theoretical Research Programmes.

difference in competitiveness of the Austrian, Slovenian and even between the two Hungarian regions. (RCI 2013).

Table 1. Regional ranking based on RCI and certain sub-indices
***Regional Competitiveness Index**

Region /Ranks	Basic Competencies	Efficiency	Innovation	RCI*
Burgenland	**103**	**82**	**162**	**110**
Vzhodna Slovenija (inc. Pomurska)	**152**	**144**	**169**	**155**
West Transdanubia	**216**	**180**	**213**	**189**
South Transdanubia	**233**	**213**	**191**	**219**

Source: Constructed by the authors from data retrieved from RCI 2013

On the basis of the aggregated ranking numbers of each region in the 28 EU member states Austria is 9th, Slovenia 12th and, Hungary 20th, showing a clear picture of the different national development levels.

Table 2. Regional ranking by basic competences and specific sub-pillars of the efficiency index

Region /Ranks	Macro-economy*	Infra-structure	Health	Labour market	Size of markets
Burgenland	**9**	**110**	**116**	**42**	**83**
Vzhodna Slovenija (inc. Pomurska)	**12**	**162**	**198**	**135**	**188**
West-Transdanubia	**19**	**130**	**244**	**148**	**206**
South-Transdanubia	**19**	**225**	**258**	**206.**	**238**

* Measured only at national level, ranking represents whole countries.
Source: Constructed by the authors retrieved from RCI 2013

From the aspect of spa tourism, the most important, selected by the author from the point of view of competitiveness, sub-pillars representing specific basic competences and efficiency also indicate a major difference in terms of development between the two Hungarian and the two cross-border regions compared.

The aim of our research (*H1-H2*) 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.

Besides the above mentioned hypotheses, this paper aims at demonstrating some current health tourism trends and results characterising these regions, also highlighting the role of environmental components in visitors' spa preferences.

2. 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 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.

3. 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 3. 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**	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):*

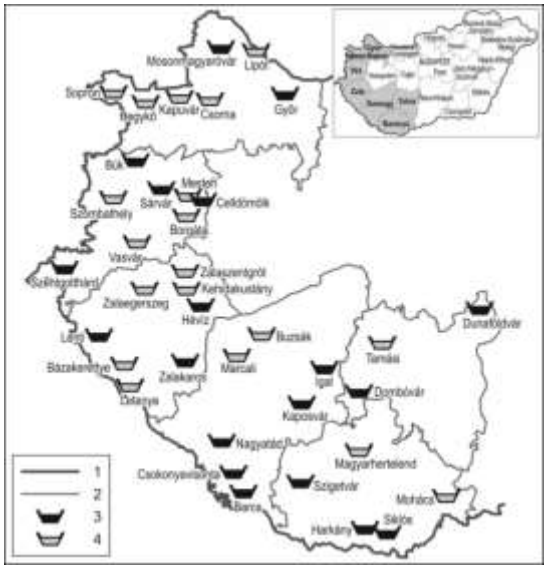

Figure 2. West and South Transdanubian spa settlements involved in this research

Note: 1 - State border; 2 - County border; 3 - Medicinal spa; 4 - Thermal spa
Source: Constructed by (Fonyódi, 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 4. 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 4 above 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 investment. 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 5. 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 5* 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 6. 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 6* 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 Moravske Pomurje (Pomurska) in Slovenia

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. 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 7*).

Table 7. 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	Sonnentherme Lutzmannsburg
2.	Allergiatherme Stegersbach	Eurotherme Bad Schallerbach	Avita Therme	Eurotherme Bad Schallerbach
3.	Therme Loipersdorf	Sonnentherme Lutzmannsburg	Therme Rogner Bad Blumau	Allergiatherme Stegersbach and Therme Loipersdorf

Source: 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 8. 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 8 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 medicinal 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 9*) 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 9. 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. Competitiveness Index of Settlements with Spas (Medicinal or Thermal Baths)

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* (first sub-index):

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.). The value of total explained variance is 86,05%

2. *Medicinal tourism indicators* of a given settlement (second sub-index):

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. We extracted a single factor from these indicators The value of total explained variance is 88.49% and the preconditions for factor analysis are also met.

3. *Indicators of settlement infrastructure* (third sub-index):

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. 73.41% of the information content in this group is explained by five factors.

4. *Economic situation* of a given settlement (fourth sub-index):

This group comprises a total of ten indicators, which relate to the economic situation of a given settlement. Based on the competitiveness factors and models discussed in the previous two chapters, 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. We extracted three factors from these indices. (The explained variance is 74.09%).

5. *Social components* (fifth sub-index):

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). This group can be described using three factors with a total explained variance of 85.30%. The conditions of factor analysis are also met.

6. *The characteristics of local baths* (sixth sub-index):

This section summarises the results of questionnaire data collection, expert interviews and website analyses. Here we included seven indicators. These are based on primary research involving *questionnaire data collection from 1,000 respondents*. Our objective was to identify the criteria based on which Hungarians choose a destination, and to assess how famous and popular individual baths are. The indicators we built into the competitiveness index reflect how renowned and frequented individual baths are, the numbers who would potentially choose a given bath as a holiday destination and hence, the number of potential visitors. This enabled us to analyse demand-side trends. We used two factors to incorporate bath-management-interview results, average scores from bath-website evaluations, and the indicators describing the baths into our model. Here the total explained variance is 63.61%.

In calculating the **Competitiveness Index of Settlements with Spas** (CISS), we built on the widely used Tourism Penetration Index (TPI), which is, in essence, a complex tourism impact index (McElroy and Albuquerque 1998). It "condenses" the economic, social and environmental impacts of tourism into a single number. Based on previous work and building on the logic behind the TPI, but using six sub-indices we constructed the CISS.

We calculated the values of indicators based on the square technique using the expression:

$$T = \frac{X}{X_{max}}$$

where

$T =$ the values of indicators in the specific columns

$X =$ the value of a given indicator with respect to a given settlement

X_{max} the maximum value of the given indicator with respect to the group of settlements included in our analysis

The Competitiveness Index of Settlements with Spas highlights the significance of covariance between individual components. Therefore, those settlements were given high overall scores, that is, those were considered more competitive which did well in most or all categories, as opposed to those which did exceptionally well in a given category. We needed to normalise individual indicators in order to make them

directly comparable. As a result, sub-index values fell between zero and one. Differences in scale proved to be a problem. For example, in the case of unemployment, the smaller the value, the more favourable the situation. In contrast, in the case of assessable income, the opposite is true. In these cases we reversed the scale items. We assigned weights to the individual indicators which contributed to a given sub-index. The weights were determined by factor analysis. First, we used a single factor, which had the largest explanatory power, in the case of each sub-index. On the one hand, this proved to be a good decision as this helped reduce the number of variables. On the other hand, however, this resulted in the loss of certain key – primarily tourism-related – components from the index, such as average length of stay in a tourist accommodation establishment (rented accommodation). Therefore, we had to modify our strategy and use the weights that were largest in absolute terms in our analysis. We then calculated the CISS as an average of the six sub-indices.

We selected the indicators, bearing in mind that tourism is not a fundamental determinant of a settlement's competitiveness. It rather utilises the economic, social and infrastructural potential of the settlement. In this context, medicinal and spa tourism, which is a special segment of the tourist industry, has particular significance for settlements with medicinal and thermal spas. The *figure below* describes the relationship between the individual model components.

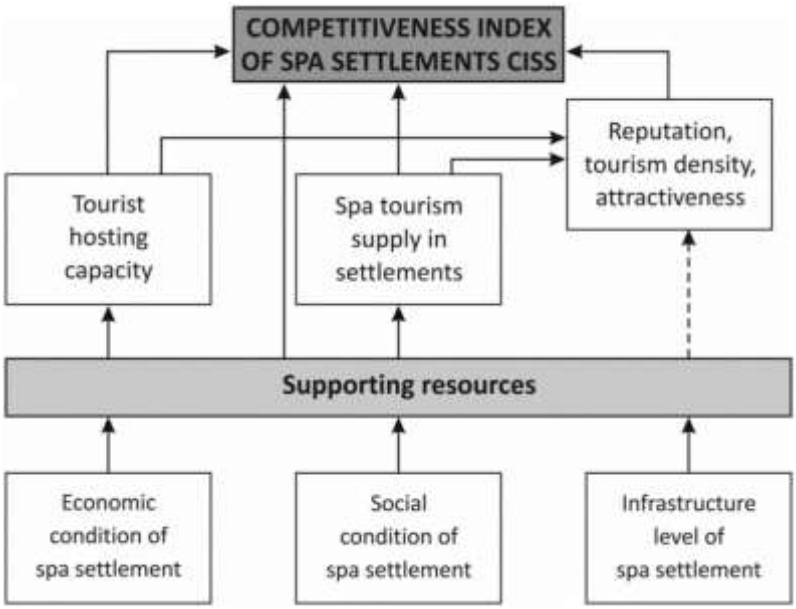

Figure 4. The construction of the CISS

Source: The authors' construction

As shown in the above figure, the indicators/components that were used to construct the CISS fall into two main categories. On the one hand, the economic, infrastructural and social attributes of a settlement determine its competitiveness. While tourism itself is not a determining factor, it can improve a settlement's competitiveness. The three pillars that represent the foundations of a settlement's competitiveness should be regarded as auxiliary resources, when constructing a competitiveness index with a focus on tourism. While the development of these resources is not specifically targeted at tourism-related goals, it helps create a favourable environment for tourism. The tourism-related attributes of a settlement (primarily the number and occupancy rate of tourist accommodation establishments), and the indicators that reflect a settlement's unique appeal (such as medicinal-tourism-related services, medicial and thermal spas) are those elements of the CISS, which set it apart from other methods that examine the competitiveness of settlements. Most of the data used in this study are from 2014. Where no datasets were available from the Hungarian Central Statistical Office (HCSO: KSH) from that year, we used data from 2012.

4.2 Data Sources and Reference Periods

Questionnaire data were collected by an opinion research company within the framework of the OTKA study. A thousand respondents were selected from spas countrywide.

All T-STAR (2014) data, where available, were downloaded from the website of HCSO (KSH).

Interview scores from one to five were assigned based on expert opinion. In most settlements we conducted interviews with a representative of either the Tourism Destination Management Organisation (TDMO) or the local authority, and with the management of the spa. We averaged the scores given by the six experts separately for the TDMO or municipality and for the spa. These two averages were then treated as two separate components of the competitiveness index. In some cases we could not conduct interviews either with the TDMO/municipality or with the spa. In these cases we set the interview scores to zero.

Website analyses were prepared in the summer of 2015. The websites were assessed along 47 evaluation criteria. The maximum score that could be given in the different categories were 0.25, 0.5 or 1.0, while the minimum score was zero. Thus the maximum overall score that could be given to a website was 25.

Per capita purchasing power data (2014) were obtained/bought from the GfK Hungária Market Research Company. The dataset was a mixture of settlement and sub-settlement data. Where we had only sub-settlement data, we weighted the per capita purchasing power values with the populations of the respective sub-settlement

units, to get the per capita purchasing power value for the entire settlement. In thtis way we acquired purchasing power data for all of the 38 settlements included in the present study.

4.3 Index-construction methodology

We conducted our statistical analyses using SPSS 22, relying on factor analysis in constructing our index. We chose this method because we were working with different data types, the analysis of which would have been problematic following standard procedures. Using factor analysis we could reduce the number of variables, by replacing the original variables with a smaller number of new variables, called principle component vectors, while minimising information loss in the process.

First, we extracted factors from the indicators that contributed to the respective sub-index, using Principle Component Analysis (PCA) and Varimax rotation. *Table 10* below summarises the results of factor analysis.

Table 10. Results of factor analysis

Sub-index	**Number of factors**	**Total explained variance**	**Kaiser-Meyer-Olkin (KMO) Test**	**Bartlett's Test y-value**	**Bartlett's Test p-value**
Tourism	4	86,05%	0,670	686,3	0,000
Medicinal bath	1	88,49%	-	-	-
Infra-structure	5	73,41%	0,637	270,0	0,000
Economy	3	74,09%	0,625	218,3	0,000
Social	3	85,30%	0,610	91,3	0,000
Bath	2	63,61%	0,576	91,0	0,000

Source: PÓTÓ ZS., 2016

In the case of each sub-index we applied factor analysis to the respective set of indicators/components.

Secondly, we calculated the following sub-indices for each settlement:

$$T = \sum f_i x_i$$

where

$T =$ the value of the sub-index

$x_i =$ the value of the i^{th} variable contributing to the sub-index

$f_i =$ the value of the rotated weight of the i^{th} variable

The calculated values of the six sub-indices are summarised in *Table 11* below:

Table 11. Sub-index values

	Sub-indices					
Settlement	**I**	**II**	**III**	**IV**	**V**	**VI**
Barcs	774	0	5072	222136	16	163
Bázakerettye	689	0	2439	29528	54	141
Borgáta	8860	0	2517	23803	81	165
Buzsák	4915	0	662	44038	14	122
Bük	95106	63 712	3751	563132	78	248
Celldömölk	184	0	8432	435429	35	181
Csokonyavisonta	95379	0	4584	20790	11	159
Csorna	1278	0	2931	255449	40	157
Dombóvár	36868	0	4377	433192	35	184
Dunaföldvár	12768	0	1424	243161	33	144
Győr	44722	0	9768	14223228	151	167
Harkány	63244	15 548	16048	363433	100	231
Hegykő	48029	0	895	70069	114	164
Hévíz	92231	271 918	3611	782055	60	263
Igal	15203	0	2265	73507	68	203
Kaposvár	26278	0	10508	2365893	45	169
Kapuvár	3121	0	3689	274892	36	163
Kehidakustány	64196	0	585	51838	51	241
Lenti	52072	0	2474	248269	25	175
Letenye	52	0	1579	86805	52	149
Lipót	64417	0	847	30163	87	192
Magyarhertelend	8130	0	732	17828	-11	174
Marcali	313	0	2378	378199	43	176
Mesteri	137	0	667	11435	89	154
Mohács	31901	0	3250	537753	27	145
Mosonmagyaróvár	42367	0	5808	1862246	73	162
Nagyatád	55018	0	6660	285752	11	166

Sárvár	84085	7 238	5296	1004009	44	236
Siklós	410	0	6004	201970	40	173
Sopron	25808	0	10071	2844738	90	152
Szentgotthárd	35150	0	2066	575603	72	177
Szigetvár	17116	0	17533	336235	12	175
Szombathely	29634	0	11187	4656854	65	133
Tamási	19092	0	1871	212717	11	169
Vasvár	546	0	1130	139111	51	133
Zalaegerszeg	32149	0	19696	3037578	60	176
Zalakaros	66314	77 198	5951	303969	122	252
Zalaszentgrót	39	0	955	196587	18	187

Source: (Pótó, 2016)

The original variables differ in units, scale, and hence dispersion. Thus, the sub-indices in *Table 11* also differ in scale. In order to put all sub-indices onto the same scale, we applied the following equation to our data:

$$M = 100 \times \frac{X - X_{min}}{X_{max} - X_{min}}$$

As a result all sub-index values fell between 0 and 100. However, we made an exception in the case of sub-index II (which relates to medicinal tourism). Here we used a coefficient of 10 instead of 100 in order to reduce the dispersion of the corresponding values. The reason being that out of the ***38 settlements*** that were included in our study, only five had spa hotels, which resulted in a large number of zeroes in the corresponding column in *Table 12*. Had we decided on a coefficient of 100 in this case too, the spread of values would have been much larger in the case of *sub-index II* than in the case of the other five sub-indices.

Table 12. Re-scaled sub-index values

	Sub-indices					
Settlement	**I**	**II**	**III**	**IV**	**V**	**VI**
Barcs	774	0	5072	222136	16	163
Bázakerettye	689	0	2439	29528	54	141
Borgáta	8860	0	2517	23803	81	165
Buzsák	4915	0	662	44038	14	122
Bük	95106	63 712	3751	563132	78	248
Celldömölk	184	0	8432	435429	35	181

Csokonyavisonta	95379	0	4584	20790	11	159
Csorna	1278	0	2931	255449	40	157
Dombóvár	36868	0	4377	433192	35	184
Dunaföldvár	12768	0	1424	243161	33	144
Győr	44722	0	9768	14223228	151	167
Harkány	63244	15 548	16048	363433	100	231
Hegykő	48029	0	895	70069	114	164
Hévíz	92231	271 918	3611	782055	60	263
Igal	15203	0	2265	73507	68	203
Kaposvár	26278	0	10508	2365893	45	169
Kapuvár	3121	0	3689	274892	36	163
Kehidakustány	64196	0	585	51838	51	241
Lenti	52072	0	2474	248269	25	175
Letenye	52	0	1579	86805	52	149
Lipót	64417	0	847	30163	87	192
Magyarhertelend	8130	0	732	17828	-11	174
Marcali	313	0	2378	378199	43	176
Mesteri	137	0	667	11435	89	154
Mohács	31901	0	3250	537753	27	145
Mosonmagyaróvár	42367	0	5808	1862246	73	162
Nagyatád	55018	0	6660	285752	11	166
Sárvár	84085	7 238	5296	1004009	44	236
Siklós	410	0	6004	201970	40	173
Sopron	25808	0	10071	2844738	90	152
Szentgotthárd	35150	0	2066	575603	72	177
Szigetvár	17116	0	17533	336235	12	175
Szombathely	29634	0	11187	4656854	65	133
Tamási	19092	0	1871	212717	11	169
Vasvár	546	0	1130	139111	51	133
Zalaegerszeg	32149	0	19696	3037578	60	176
Zalakaros	66314	77 198	5951	303969	122	252
Zalaszentgrót	39	0	955	196587	18	187

Source: Pótó, 2016

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 13. 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
Kehidakustány	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
Szombathely	18	6	4	2	13	36	29,0	11
Mosonmagyaróvár	13	6	12	6	10	27	27,5	12
Kaposvár	*19*	*6*	*5*	*5*	*20*	*19*	*27,3*	*13*
Szigetvár	*22*	*6*	*2*	*16*	*34*	*16*	*26,8*	*14*
Csokonyavisonta	*1*	*6*	*15*	*36*	*35*	*28*	*26,8*	*15*
Hegykő	11	6	33	30	3	24	26,6	16
Szentgotthárd	15	6	27	9	11	12	23,1	17
Nagyatád	*9*	*6*	*9*	*18*	*36*	*22*	*22,6*	*18*
Dombóvár	*14*	*6*	*16*	*13*	*27*	*10*	*22,3*	*19*
Igal	*23*	*6*	*26*	*29*	*12*	*7*	*21,9*	*20*
Lenti	10	6	23	21	30	15	21,0	21
Celldömölk	35	6	8	12	26	11	19,1	22
Borgáta	25	6	22	35	8	23	17,7	23
Siklós	*33*	*6*	*10*	*25*	*24*	*18*	*16,3*	*24*

Mohács	*17*	*6*	*20*	*11*	*29*	*33*	*15,2*	*25*
Mesteri	36	6	36	38	6	30	14,2	26
Marcali	*34*	*6*	*25*	*14*	*22*	*13*	*14,0*	*27*
Kapuvár	28	6	18	19	25	25	13,2	28
Tamási	*21*	*6*	*28*	*24*	*37*	*20*	*12,4*	*29*
Csorna	29	6	21	20	23	29	11,9	30
Barcs	***30***	***6***	***14***	***23***	***32***	***26***	***11,9***	***31***
Zalaszentgrót	38	6	32	26	31	9	11,2	32
Bázakerettye	31	6	24	34	16	35	10,7	33
Letenye	37	6	29	28	17	32	10,6	34
Dunaföldvár	***24***	***6***	***30***	***22***	***28***	***34***	***10,3***	***35***
Vasvár	32	6	31	27	18	37	8,4	36
Magyarhertelend	*26*	*6*	*35*	*37*	*38*	*17*	*7,7*	*37*
Buzsák	*27*	*6*	*37*	*32*	*33*	*38*	*3,5*	*38*

Source: (Pótó, 2016)

4.4 The analysis of Individual CISS Components

Following our index-construction methodology, described in the previous sub-chapter, 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 13*).

It is obvious from *the highlighted* top ten Hungarian settlements out of the 38 included in this study 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 medicinal 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 13 suggests that, overall, settlements with medical spas score higher in our CISS-ranking. The average score of the 22 settlements with medicinal spas (listed in black in Table 13) 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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Symmetries and Asymmetries in the Sustainable Development of European Union versus Romania

Viorica Pușcaciu[1], Florin Dan Pușcaciu[2], Rose-Marie Pușcaciu[3]

Abstract: Sustainable development is an extremely important topic, both theoretically and practically, so as: for theory it supplies the principal concepts of maximum importance for developing the present society, under sustainability conditions, and also pragmatic, as it bases the coordinates which the present behaviour of mankind has to center upon, in order to leave viable legacy – a green planet – for the future generations. It is exactly for these considerations our objective is to analyze this problem from an social-economical point of view, together with the help of statistical instruments, both as for the European Union level, and also for groups of countries, with a run down on Romania, and this is our research hypothesis. We consider appropriate this kind of approach, using as research method – qualitative method, survey and observation, that are our workable instruments for this study, in order to determine the Romania's place in this problem, but also to establish a series of priorities in order to reduce the disparities that differentiate our country of others, inside European Union. We consider suitable this way of approaching of the subject, as per Joseph Schumpeter said: „the economical aspects could be studied by the economical theory, statistical-mathematics, and history". (Schumpeter, p. 4) So, such a modelling brings rigor and social understanding of mankind's problems. Besides these aspects, this theme also imposes a morality connotation, showing a thematic generosity, and even a pragmatic one, being a pure dot that our generation leaves for the future ones. The gathering of the data for this study was made having as basis the data from Eurostat, and the main results are ment to point out the disparities between Romania and European Union in this problem of sustainable development, as well as the necessity of eradicate them.

Keywords: Sustainable Development, Globalization, Environment Policy.

JEL Classification: Q01; Q28; F64; Q51; Q56

[1] Professor, PhD, Lumina University of South-East Europe, Romania, Address: Șoseaua Colentina 64, Bucharest 021187, Romania, E-mail: vpuscaciu@yahoo.com.

[2] Professor, PhD, Danubius University of Galati, Faculty of Economic Sciences, Romania, Address: 3 Galati Blvd, Galati, Romania, Tel.: +40372 361 102, Fax: +40372 361 290, E-mail: fdpuscaciu@yahoo.com.

[3] Senior Lecturer, PhD, Danubius University of Galati, Faculty of Economic Sciences, Romania, Address: 3 Galati Blvd, Galati, Romania, Tel.: +40372 361 102, Fax: +40372 361 290, Corresponding author: rosemarie.puscaciu@univ-danubius.ro.

1. Introduction

Freedom, peace, development, environment are universally goals for mankind. But what we really do for this? Are we aware of the fact that development is strongly linked to the other desideratum? Many forums, conferences, organizations, governments and people are discussing and trying to do everything they know and can, in order to make all of us aware about these necessity - sustainable development.

The earliest mentioning of the sustainability term was used by Hans Carl von Carlowitz in Silvicultura Oeconomica (1713, pp. 105-106) year when the concept meant the ensuring the forestry sustainability achieved by early cutting regrown timber in order to maintain the soil fertility. His approach "Nachhaltigkeit" (German term for "sustainability" influenced the Austrian Forestry Law. As for the environmental term - it was first mentioned in 1962, but as being in an initial stage, the term was not enough described in the literature, at that time (Carlson, 1962). The concern for the economic growth versus its finite resources supplies, commissioned by the Club of Rome, was mentioned even around the 1970's as the report named ''The Limits to Growth'' concluded: ''If the present growing tendencies of the world population, industrialization, global pollution, food production and the exploiting of the resources will continue without any changes, then the limits of growth on this planet will be reached in the following hundreds of years" (Meadows and Meadows, 1972).

2. Literature Review

The sustainable development concept was firstly issued in 1980, in the World Conservation Strategy for Conservation of Nature and Natural Resources, presented by United Nations Environment Program, the World Wildlife Fund and the International Fund. This concept proposed three factors - social, ecologic and economic - which have been developed until today (Mannan M.S. and al, 2012). The Social-Politic Dictionary ascertains that the achievement of the sustainable development supposes the integrating of the points of view from those three above mentioned areas (Pop, L.M., coordinator, 2002). The social aspect lies in standard of leaving, equity, social dialog, together with the protecting of cultural inheritance, as ecologic aspects means: preserving natural resources, bio-diversity, avoiding pollution; the economic factor is referring to efficiency, growth, and stability. Thus, the development is sustainable only when is based on these all aspects. E. Inskeep: in part four of his 1991's book discussed the environmental and socio-economic concerns, from the perspective of tourism planning, for an integrated and sustainable development.

The first organized discussions about this topic began with report entitled "Our Common Future", or also known as Brundtland Report[1], after the name of the prime-minister of that time Norway (Gro Harlem Brundtland, 1987) and it popularized the concept of the sustainable development, being published by World Commission of Environment and Development in 1987 (Azapagic et al, 2004). The most used definition of sustainable development is that given by Lester Brown, (the founder of the Worldwatch Institute): "Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs" (Brown, 1987, pp. 20-37). (WCED, 1987). This was downloaded by the Report of the Brundtland Commission, that above mentioned. Then, this was adopted as an overarching objective by the governments at the Earth Summit of 1992 in Rio de Janeiro, together with a set of Rio Principles and a global action plan and Agenda 21, that includes many goals and targets, some of them being informed the Millennium Development Goals a decade later on. In the 1997 year at Kyoto a number of 61 countries accepted the agreement named Protocol of Kyoto that settled the means of controlling the gas emissions with green-house effect. It established the quantitative limits and compulsory reductions, among the most important are the carbon dioxide (CO_2), which derives from fossil fuel, methanol (CH_4) and the nitrous oxide (N_2O).

Wolfgang Sachs's opinion is that "the new concept is so pushed, in a subtle way, the geometric place of the sustainability from nature to development" (2002). A sustainable development supposes a way of developing society, preserving the natural resources for the future generations, so as A.D. Xenopol named in ''long series" (1908), thus taking into account measures that could be applied for a long time and also with effects on the long run (Ştefănescu, 2003, p. 32). Naz Onel and Avinandan Mukherjee (2015, pp. 2-16) underlined the importance of the environment factors upon the people's health, and pointed out that the health of the environment also depends on the health of the planet inhabitants. Besides, even the World Health Organization highlighted that environmental health contains ''those aspects of the human health and disease, that are determined by factors in the environment'' (WHO 2011)[2]. So, the relationship between development and environment became a relationship between present and future (Pop, 2013, pp. 136–141).

[1] *Report of the World Commission on Environment and Development: Our Common Future* (1987)
[2] World Health Organization – published its annual report - World Health Statistics 2011, Progress on the health-related Millennium Development Goals (MDGs), Fact sheet N°290.

3. European Strategy of Sustainable Development – Some Important Aspects

The essential characteristics of the sustainable development are: equity, long term approach and systemic thinking. The European thinking about this topic is that this is a main objective, whose scope is to continue improve the quality of life and welfare for the present and future generations. This could be achieved by an integrated approach between the environment protection, economic development and social justice that is meeting all these requirements together. The sustainable development became a sized objective of the European Union when in 1992 year was adopted Program 5 of Action for Environment 33, having as object to promote the sustainable development, by including the concern for environment in other political fields and transforming the models of economic growth in E.U. Later, in 1997 year these objects were introduced in the Maastricht Treaty. Then, it was adopted the Sustainable Development Strategy in 2001 (at Goteborg), succeeded by adding the external dimension in 2002 and finally it was adopted the Revised Strategy of European Union for Sustainable Development. The essential stages of building up this strategy consist of: identifying the specific challenges for the sustainable development and then the issuing those measures to respond to those identified problems and, after that, the establishing of the assessing indicators and, finally, the evaluation and from time to time adjusting the politics. This European Union strategy is based on 7 priority axes, as follows: clime and energy changing, sustainable development, preserving and managing the natural resources, sustainable production and consume, social inclusion together with demography and migration, public healthy and global poverty together with the challenges of the sustainable development.

There are not only achievements, but also set-backs - one significant being that of groundless of the Kyoto Protocol in the road transportation; thus, the transport sector of European Union is depending on fossil fuel at a rate of 98% and on oil products at a rate of 96%. Another rate of 90% of the rising of gas emission of carbon dioxide between 1990-2010 was due to transport sector. The motors with internal combustion will represent the main available technology in 2030, so that will preponderantly use liquid and renewable fossil fuels.

Beyond the apparently incompatibilities between the three dimensions of the sustainable development there scored some theoretical and practical progresses for integrating the environment aspects in the economic aspects. As for the environment, beyond the long term impact, the European Union adopted some higher standards then all the rest countries in the world, and thus bringing along a minus of competitiveness. Inside the European Commission, there is the General Directorate for Enterprises (DGE) that sustains the integrating of the sustainable development in the companies strategies and it presents opinions regarding conceiving and

implementing the instruments of the environmental policy, so that this could boost the entrepreneurial and the innovation, which are key-factors in rising the competitiveness.

At the European Union level, the environmental protection pass through from a sectoral policy, to a horizontal principle of all sectors, this for the success of the sustainable development strategy.

4. Sustainable Development in Romania

Romania, as a member of European Union, had to follow the same line when issuing the environmental policy, this being a key aspect for elaborating the National Strategy for Sustainable Development. It is accordingly to the global and European priorities of the United Nations Organization and, respectively, the European Union. Sustainable Development Strategy renewed concerns over Europe and therefore proposes ways to improve cooperation with the government and other stakeholders, NGOs and citizens, entities must join efforts for sustainable development. Cooperation for sustainable development should be a concern for both the EU and Member States. Community sustainable development policy should be complementary policies implemented by the Member States.

Regional Operational Program is a strategic document programming, which has the overall objective of supporting and promoting economic and social development of the regions of Romania, with a focus on supporting sustainable development of cities, potential urban growth poles, improvement of infrastructure and the environment business that support economic growth, to make Romanian regions, especially those lagging behind, more attractive places to live, visit, invest and work. The overall objective of the Regional Program will be achieved through a differentiated financial allocation by region, depending on the degree of their development and through close coordination with the actions implemented by other Operational Program.

Balanced development of all country's regions will be achieved through an integrated approach, based on a combination of public investments in local infrastructure, active policies to stimulate business activities and supporting local resources capitalize on the priority axes.

The Regional Operational Program strategy is to mobilize and activate local potential that can have the most direct influence on regional and local development. The vital activities for a country are: knowledge, research, improvement and development of rural area, so the size of the rural area, expressed by area owned, and the population occupied in productive activities, social services and cultural activities, habitat and tourism. The report on the European Charter in the countryside, agriculture and rural development committee of the Council of Europe, considers that Europe's rural areas

represent 85% of its total area and affects, directly or indirectly, more than half of the European population.

The problem of rural development and settlement is one of the most complex themes of contemporaneity because, in essence, require a balance between the requirement of preserving the countryside economic, ecological and socio-cultural of the country, on the one hand and tendency to modernize rural life, on the other hand. Meanwhile, rural development and planning is at the confluence of the tendency of urban expansion, aggressive development of the industry at the expense of the rural area and the requirement to maintain as much as possible areas to its current size. Finally, the development and planning of rural tending to modernize, to Europeanize in scope, in each country, has as main objective the maintenance and preservation of the national character of the space and rural culture and where there have been serious damage (physical or socio-cultural) local, regional or national (such as ex-communist countries and in some areas super-industrialized Western Europe) was proposed solution reconstruction or possibly restore these areas, meaning placing at standards of rurality.

A milestone for scientific research on rural development was the International Conference in Europe entitled Cork Countryside - prospects for the future, which aimed to establish the fundamental guidelines of Community Europe's rural policies after 2000, gathering over 500 specialists, people scientists and politicians from EU countries, PECO countries, USA, Japan, Canada Conference in Cork has been described as the largest demonstration on rural development organized ever in Europe must respond to the great challenges: globalization of the economy, including agriculture; the introduction of the single European currency; enlargement of the European Union.

The Conference in Cork, theorized a broad practical application of rural development issues in EU countries and in other participating countries. The final declaration of the 10 points conference's which is placed in the center of rural preference based on sustainable development as a fundamental principle of European rural policy. Sustainable rural development is defined coordinate very precise stabilization of population in rural areas by eliminating or reducing rural exodus, eradication (combat) poverty by stimulating and increasing employment, promoting equality for all rural residents, increasing quality of life and the general welfare by conserving, protecting and enhancing the environment and countryside.

Rural development is a concept and an integrated action that requires a methodical approach multidisciplinary, cross-sectoral and territorial (regional). All guidelines contained in the new CAP reform and found correspondence in the funding mechanism of Agriculture and Rural Development, included in the new European agricultural model defined by Agenda 2000, as agreed in Berlin in March 1999. Through this document, the new common agricultural policy balances system of

allocating EU structural funds on the two pillars of (1) and of agricultural markets (2) rural development. There emerges the need for comprehensive programs to counter desertification – which is another weak point of our country. If that will not interfere with vigorous measures to eliminate the negative factors, desertification will install or irreversible ecological huge costs of rebalancing. Desertification is both a physical phenomenon (naturally) and a social and economic phenomenon. Economic and social desertification is a complex phenomenon that is installed, usually in peripheral regions with smaller population and poor development. Social desertification must be studied in order to establish economic and financial policies of deterrence. These localities through a drastic reduction in economic activity, no longer self-administration and potential economic development. A first question that rises in this case is to identify areas (regions) lagging behind. The second issue relates to the now thoroughly researched insider knowledge of land for the causes underdevelopment. And, finally, on this basis, preparing the reorientation of food products, expansion of SMEs complementary upstream and downstream agriculture or agriculture, non-agricultural economy or complementary expansion of agriculture. The State, through fiscal and financial policies, has the opportunity to support rural development in these regions.

For Romania, in an economic reform, restructuring dynamics sectoral, regional, zonal and local is more pronounced. Reconversion programs and restructuring have some characteristics determined by the transition from a guy occupational to another, from one branch to another (or others), the transition from one activity relative specializes in multiple activities, from one activity concentrated at others disparate territorial and so on. Also re-restructuring programs are medium and long-term programs with durations of 3-15 years.

The period 2013-2025 will represent Romania's developments trajectories of sustainable growth, similar to those of countries with high level of development, the main effects of EU integration, as of hating our own efforts to be estimated by the absolute reducing disparities and relative to the average level of the European Union. For the time horizon, the setting of targets in qualitative terms, especially quantitative, will be possible in a relatively small number of indicators. What seems important for the future is not so prospective numerical scale of our development and, especially, qualitative sense of evolution and the speed with which we will cross the path of scientific progress and technological world. There are also a number of quantitative estimates in physical expression and value of certain indicators to predict with regard to possible levels achieved for certain parametric economic, social, technological and environmental, as well as the necessary financial resources that have to allocate.

In the long-term, macroeconomic projects, our representations regarding the prospective level of GDP per capita in Romania compared to the EU average in 2025 takes on a strategic importance. It is evidenced in the evolution of this indicator

dynamics necessary to achieve 60-80% of the EU average and how they can reach such a performance, citing a series of macroeconomic balances and correlations, creating a series of equilibria and macroeconomic correlations, achieving a number of objectives were, concrete. Alternative baseline scenario and the macroeconomic evolution in the period 2005-2025. Romania's major strategic objective is to reduce long-term social and economic disparities compared to developed countries.

Romania's macroeconomic evolution scenarios, developed under the strategy, we propose two possible variants (the baseline scenario and the alternative scenario) mitigation of these gaps, taking into account long-term developments on the labor resources, namely: working age population will decrease by about 12% in 2025 from the level recorded in 2003 and unemployment will translate to the level considered "normal", naturally in a market economy, or around 4.5-5%.

Baseline scenario outlines a path to future economic development, given that the results are boosted mainly by stimulating domestic factors. Alternative baseline scenario and the macroeconomic evolution in the period 2005-2025. Romania's major strategic objective is to reduce long-term social and economic disparities compared to developed countries. It remains to see up to which level it will be succeded to achieve.

5. Conclusions

Real and nominal convergence of Romanian economy countries members of the European Union is already a real phenomenon and the sustainable development process will accelerate in the years ahead speed near the Romanian economy Community standards. In recent years, real convergence of Romania to the EU economy improved significantly. In perspective, by 2025 no prerequisites, highlighted by the two development scenarios, to achieve a degree of real convergence, equivalent to that of other new Member States of the European Union.

Sustainable development of Romania is not a result that is obtained in an easy way. On the contrary, it requires an ongoing efforts and conjugated supported by every member of our society who, directly or indirectly, can make its contribution. Awareness of this goal of sustainable development of Romania must expand and harden in the spirit of national solidarity and social expectations regardless of politico- ideological conjunctures more or less favorable. Our common mission for Sustainable Development will have to take into account a number of factors constraining narrowly nature objective/subjective, that we will strike. The "hardest" constraints internally are determined by: the limited natural resources (especially energy and the deteriorating quality of soil); demographic decline (declining birth rate, aging, migration); social-economic existence of significant gaps (productivity, standard of living, technological level, degree of culture, education, differences

between rural and urban areas, high population share of agriculture); natural disasters and extreme weather caused, among others and the general deterioration of the balance of eco-systems and the quality of environment; existence of significant gaps (productivity, standard of living, technological level, degree of culture, education, differences between rural and urban areas, high population share of agriculture); natural disasters and extreme weather caused, among others, and the general deterioration of the balance of eco-systems and the quality of the environment.

Economic objectives of sustainable development is to reduce economic gaps separating Romania from developed countries. This objective is in reality a means to human development, improving living standards and reducing social inequities.

The future is industrial–agricultural type, promoting green technologies, which are not environmentally destructive. Since the environment is one of the factors that act globally, we are compelled to build strategies correlated and consistent with those developed in other countries and worldwide.

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