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Changes in Hungarian spa towns implicated by tourism

Theses of the (Ph.D.) dissertation

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I. Justification of research topic, literature review

The significant increase in global tourism demand (UNWTO 2018) has led to a steady increase in supply; more and more regions have become part of global tourism, driven by potential economic benefits (MATHIESON, A.–WALL, G. 1982; MEZŐ F.–KOVÁCS T. 2010; RAMUKUMBA, T. et al. 2012). Tourism can be an important tool for regional and urban development (AUBERT A. 2001; PÉTERI L. 2003; HANUSZ Á.–PRISTYÁK E. 2007; VANHOVE, N. 2011; GYURKÓ Á. 2020), as it can have a positive impact on municipalities through increasing revenues, new job opportunities, investments in infrastructure, cultural stimulation, improving urban environment, investments, demographic processes. However, due to the intersectoral nature of tourism, it can not only be a tool for regional development, but regional development also can serve tourism (MICHALKÓ G. 2001); since a well-established institutional system, infra- and suprastructure, adequate public safety and hygiene conditions, nice environment attracts tourists more (LENGYEL M. 2004). So the regional and urban development is interrelated with tourism.

According to the global appraisal of the role of tourism, more and more municipalities in Hungary started to put emphasis on tourism development. This applies to those settlements with potential sites and facilities to attract tourists. *Jenő Chohnoky* called the favourable natural factors available only at certain points of the space which can be beneficial for the formation and development of settlements, as local energies (PIRISI G.–TRÓCSÁNYI A. 2015). Such local energy can be thermal water, which is an outstanding potential for Hungary in world comparison. Hungary has the largest supply of ground thermal water in Europe (ÁRPÁSI, M.–SZABÓ, GY. 2000), and the Pannonian-basin has a very thin crust, so the average value of the geothermal gradient is one and a half times larger as the world average in Hungary. As a result, high-temperature ground thermal water can be extracted from shallower depths in our country (FISCHER, A. et al. 2009), moreover the most thermal waters are also classified as medicinal water due to their favourable mineral composition. This provides an appropriate basis for many municipalities to attract tourists by establishing a spa. Hungary is classified as one of the world's most important spa and health tourism destinations (MICHALKÓ G.–RÁTZ T. 2010). During the 20th century tourism and medical tourism boomed, this significantly valued thermal water in the development of settlements (e.g. Cserkeszőlő, Zalakaros, Bük) owe their existence and rapid development (KOVÁCS Z. 2002).

In the 21st century, several international tourism trends (e.g. increasing participation of older people in tourism or increased health awareness) gave

new impetus to the increase in demand; from the Millennium, health tourism trips around the world have shown one of the most dynamic increase (KISS K.–TÖRÖK P. 2001; AUBERT A.–BERKI M. 2007; JOPPE, M. 2010; VIZI I.–STRACK F. 2020). Moreover, one of the fastest growing branches of health tourism is spa tourism (MAK, A. et al. 2009; GUSTAVO, N. 2010), so based on the expected benefits of spa tourism, new settlements have become "spa towns" in Hungary. A significant contribution has been made to this by the sharp increase in the resources available for spa development since the 2000s (BUDAI Z. 2002).

The development of health tourism has also received priority in Hungary – alongside the favourable geological and hydrological potentials mentioned above and the increase in demand for spas – because this product can solve many weaknesses in domestic tourism: for example, seasonality and short-stays. Medical services provided by the spas can be used at any time of the year, and those who want to heal are usually characterized by longer periods of stays and higher average of spending (SMITH, M.–PUCZKÓ L. 2010; STRACK F. 2019). It can also play an important role in the deconcentration of tourism demand, since nearly 70% of Hungary has thermal water (BUDAI Z. 2001), so in many places of Hungary available this kind of local energy.

Taking advantage of all these opportunities, many Hungarian municipalities have become potential health tourism destinations in the last 20 years, either by developing the existing public pools or by creating a new spa. The development of spa tourism and the increasing number of tourists have generated a number of changes in these settlements, so it is worth to examine the effects. The assessment of the different effects of tourism on local entities is essential because it can determine the degree of success of tourism developments, and it can delimit the advantages and disadvantages of the changes that have occurred (PALANCSA A. 2005a).

Among the many consequences of tourism, the dissertation focuses on changes in the development and socio-economic situation of spa towns and how these changes are perceived and appreciated by local residents. Most researchers focused on the economic impact of tourism (SADLER, P.–ARCHER, B. 1975; MESCON, T.–VOZIKIS, G. 1985; FLETCHER, J. 1989; GETZ, D. 1991; DWYER, L.–FORSYTH, P. 1996), since most of the positive effects were able to be quantified in the local economy. At the same time, it was highlighted relatively early on, that changes have negative consequences and changes can be perceived and assessed in different ways by different interest groups. Thus, there was a strong emphasis among researchers on the social impact of tourism and on the attitudes of local people (HAUKELAND, J. 1984; AP, J. 1992; KING, B. et al. 1993; AKIS, S. et al. 1996).

Accepting the ideas of Lefebvre, H. (1991:26) that "*space is a social product*", regional and urban development should focus not only on space, but also on society, as space and society are interconnected and are in constant interaction. If tourism developments are opposing the interest of locals or if they do not benefit from the positive effects of tourism, they might be alienated from the settlement and from the tourists. LENGYEL M. also highlights that locals are one of the most important stakeholders of the tourism development process, without whom it cannot be implemented, tourism is "*worthless if locals are not the beneficiary of the whole process*" (LENGYEL M. 1995:51). The number of visitors and the success of a destination is significantly influenced by the attitude and behaviour of locals towards the tourism development, tourists (TÓTHNÉ KARDOS K. 2016), therefore the research of this topic is elemental.

It is also important to point out that tourism is a complex system which directly or indirectly affects a significant part of the local population (PALANCSA A. 2007). The changes in the life of the local community of the tourist destination is significantly depending on the characteristics of tourists visiting, the attitude of the local population towards, the maturity of the local tourism sector and the destination (DOXEY, G. 1975; BUTLER, R. 1980; PUCZKÓ L.–RÁTZ T. 2005; KUNDI V. 2012), so a complex research of the changes from several aspects is essential.

Due to the subsidies and international tourism trends a conscious tourism development has started. As a result, the Hungarian tourism supply has increased significantly in both quantity and quality. The settlements with spas are very popular, so tourist-generated traffic and tourism-related developments have led to a number of changes in these destinations. The evaluation of tourism developments, the nature of the changes in the socio-economic situation of the municipalities may be important for future investments, whether the development of the spa could contribute to the development of the municipalities or not. It is also important to examine how local society relates to these changes, i.e. how they experience the effects of developments. These aspects are the starting point for the dissertation.

II. Objectives and research questions

The aim of the dissertation is twofold. The first, is to examine the importance of the spas as a local stimulant for the development of the settlements, and the second is to research the advantages and disadvantages of the changes generated by spa development perceived by the local residents.

The related sub-questions and sub-objectives can be divided into two groups.

Theoretical questions of the dissertation:

- *How can tourism help the development of settlements and how can it change the lives of locals?*
- *Which settlements can be considered as spa towns in Hungary and how have they become an important tourist destination in recent decades?*

Sub-objectives related to the above questions:

- Based on the literature the aim is to explore the potential impact of tourism on the municipality and its residents. To define the concept of spa town, to do so, set up a relatively objective evaluation system. Examine the drivers of the growth of health tourism demand and explore the goals of the economic policy in support of spa tourism.

Empirical questions of the dissertation:

- *Since the Millennium, what detectable changes have been occurred in the municipalities with spas as a result of external conditions (supportive economic policy, tourist trends)?*
- *How does the developments of the recent decades' influence evolution of Hungarian spa towns, and the lives of locals?*

Sub-objectives related to the above questions:

- To determine whether there are differences between municipalities with and without spas based on various socio-economic indicators. Along case studies to examine changes since spa developments were done and to highlight the effects of tourism perceived by local residents.

Three hypothesis were set:

1. *The spa has a positive effect on the socio-economic indicators*
2. *The economic and social positive effects of tourism do not always extend to spa towns as a whole.*
3. *In the case of spa towns with significant positive changes, the key to success is the integration of tourism developments.*

III. Methods

In order to answer theoretical questions, an analysis of Hungarian and international literature and content analysis of national development documents were made. I examined in particular how the development of health tourism appears in these documents, what kind of opportunities were created for the municipalities to help planning and implementing the spa development and how effective these central subsidies and efforts were.

In order to have a more focused analysis, I narrowed the range of examined municipalities to small towns when analysing the statistical data. The basis of the determined Hungarian settlements was defined by TÉRPORT on the basis of the population number. I examined settlements with a population between 5,000 and 20,000. The selection was not dependent on the existence of a city rank. A total of 218 municipalities were included in the analyses based on the Census data of 2001. I divided these settlements into three categories: spa towns, settlements with smaller spas and the so-called “control” settlements without baths. Spa town category included 55 municipalities, settlements with smaller spas included 27 municipalities and 136 municipalities were in the control group. (Fig. 1.)

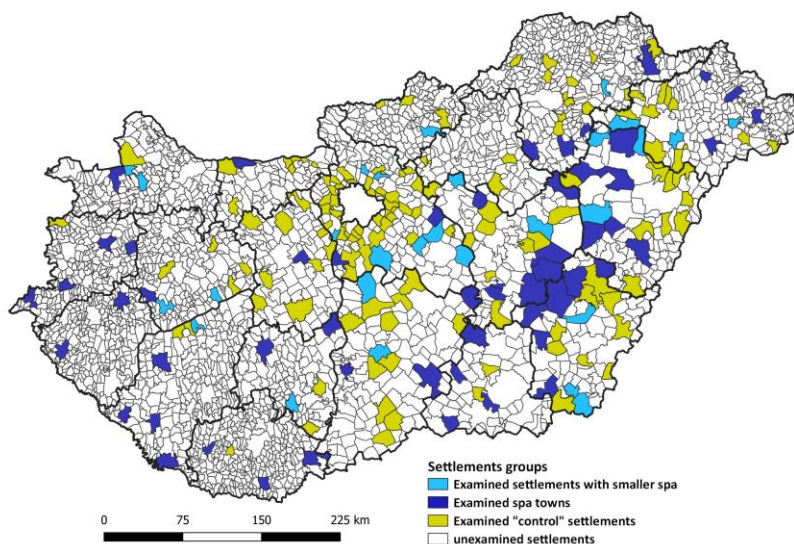


Fig. 1.: Municipalities included in statistical analysis

Source: own map

In order to determine the measurable benefits of the spas, I compared municipalities with and without spas along 20 socio-economic indicators (Table 1), from the CSO database. The indicators were examined during the take of period of Hungarian health tourism, at a 15-year interval; from 2001 to 2015.

During the analysis, I worked with the average values of indicators for the interval examined, using specific indicators for comparability. First, I made

one-variable analysis, where I compared the average values of the settlements with and without spas. Then, a principle component and cluster analysis was made. I carried out multivariate analysis separately, only for municipalities with spas (82), to see if there was any grouping factor or difference between them along certain indicators.

| Indicators | |
|--|--|
| number of cars | number of registered jobseekers |
| capacity in all commercial accommodation | capacity in other (until 2009 private) accommodation |
| number of overnights in other (until 2009 private) accommodation | number of overnights in commercial accommodation |
| local business tax | number of crimes |
| number of new dwellings built | migration balance |
| aging index | number of registered enterprises |
| number of recipients of regular social aid | number of enterprises in accommodation and food service activities |
| tourist tax | number of retail units |
| income on Personal Income Tax base | amount of money provided by Touristic Operational Programmes |
| amount of municipal support | local government balance |

Table 1: Indicators examined

Source: own edition

To answer the question, how the developments of recent decades have affected the evolution of Hungarian spa towns and how satisfied tourists and local residents are with the changes a selection of a small number of sample areas was made. The aim was to know the processes deeper and to process carefully and thoroughly the changes. Two settlements were selected for case studies due to the successful spa developments, Mórahalom and Tiszakécske, are also referred as "best practice" in Hungarian literature (see RUSZINKÓ Á.–DONKA A. 2015).

On the one hand, I researched the history of the settlements, examined the development documents, as well as the changes in the urban morphology, structure and functions using satellite images and archive photos and field observations. In addition, in the case of both municipalities, my aim was to get to know the opinions of local decision-makers, tourists and local residents. Thus, one method of my research was semi-structured interviews with local residents who have lived through the changes and are in some way more closely linked to local tourism. As a total of 12 interviews were made in the two municipalities (Tiszakécske 5, Mórahalom 7) with local government

representatives, key tourism suppliers and entrepreneurs. The purpose of the interviews was primarily to get to know the different points of view and opinions about local changes and the success of the developments.

Another aspect of the primary research was to introduce the opinion of tourists and local residents using questionnaire surveys. I personally asked tourists in the spas of the surveyed settlements with the help of interviewers. In the spa of Mórahalom two surveys were done. The first taking place between 15 and 19 July 2010, as a result of which 255 appreciable questionnaires were completed. In the experience of the 2010 survey (MARTYIN Z.–BOROS L. 2012), young and middle-aged women were over-represented, while men and older age groups were under-represented, so I used quota sampling for the 2012 survey (BABBIE, E. 2008). To do this, prior to the questionnaire survey, I carried out an observation standing at the entrances of the spa. The questionnaire was carried out according to the results of the observation, i.e. we asked the guests' opinions in light of age and sex proportion of visitors. The second questionnaire survey was conducted two weeks after the observation, from 20 to 23 July 2012, during which 311 appreciable questionnaires were completed.

In the case of Tiszakécske, the questionnaire survey took place between 16 and 21 July 2013 at the Thermal Spa on the Tisza Coast after an observation, during which 283 questionnaires were completed. In case of both questionnaire surveys conducted among spa visitors, I wanted to know in particular how visitors see the municipalities and their spas, what are the reasons, why visitors spend their free time in these small-town spas.

The questionnaire survey on the opinions of local residents was also carried out personally, with the help of interviewers. During the survey systematic sampling method was applied. In every street resident of one in three houses (over the age of 18) was asked. Unfortunately, this system was later overridden by the willingness to respond. In this case, neighbouring houses were questioned. In Mórahalom, the population survey took place between 18 and 26 October 2013, resulting in 281 completed questionnaires. The questionnaire survey for the residents of Tiszakécske took place between 18 and 21 July 2013, during which 273 questionnaires were completed. The research focused mainly on local attitudes towards tourism, the relationship of tourists and locals, the perceptions of the effects of tourism among local population.

IV. Summary of the results of the dissertation

1. According to the Hungarian literature, development documents and regulatory system, I have created a set of indicators to define spa towns relatively objectively using a scoring system. During the literature review I have concluded that health tourism plays a prominent role in the Hungarian tourism industry due to the good potentials and the positives characteristics of the users of health tourism products. The most important destinations of Hungarian health tourism are municipalities with spas, moreover the most dynamic increase in demand is also linked to these destinations. Thus, more and more municipalities are advertising themselves as spa towns, but there are significant differences in the quantity and quality of the services offered. That is the reason why I have defined a set of criteria by which it can be decided whether a municipality is entitled to use the spa town rank or not. According to these criteria *a spa town is defined by medicinal water, a spa with at least five pools and several additional services, to which commercial accommodation is directly linked.* In addition, it can provide a relaxing, attractive environment, and there are other attractions or activities besides the spa, which expand the touristic offer and can contribute to the extension of the overnight stays.

2. Municipalities with spas do not show better values for all socio-economic indicators compared to municipalities without spas. Therefore, spas and the tourism it generates cannot eliminate all local socio-economic problems. The first hypothesis of the dissertation was partly confirmed based on the statistical analysis since in the case of small towns with spas it was generally observed, excluding the better performance in the tourist indicators, that business tax revenues were higher, the expenditures and revenues of the municipalities were balanced, subsidies were more concentrated than in small towns without spas. Not so markedly, but there was a higher number of registered businesses and retail units in the municipalities with spas. At the same time, municipalities without spas lower unemployment or outmigration was detected. On the basis of the results, it can be concluded that for certain indicators (e.g. unemployment or outmigration), the location of the municipality plays a greater role, which cannot be compensated by the existence of a bath or tourism

3. Based on the values of the selected indicators there are differences between the spa towns examined they do not form a homogeneous group. Five clusters were defined along the selected indicators in which three clusters had significant number of spa towns, but they dominated only one cluster

(where 21 of the 30 small towns were spa towns), this group of settlements was called "prospering – touristic" cluster. These settlements are featured with large number of overnight stays and high concentration of subsidies from EU founded operational programmes. This group of municipalities has the highest tax revenues and the most favourable financial balance. On the basis of the indicators, it can be stated, that this cluster is the cluster for "*successful spa towns*". The two case studies analysed (Tizsakécske and Mórahalom) were also included in this cluster (Fig. 2).

There were also 21 spa towns (and another 13 smaller settlements with seasonal pools) in the "less developed" group, which included most of the small towns (90). Municipalities in this cluster are disadvantaged, and the revenue and expenditure is imbalanced. Settlements in this cluster are featured by weak tourism indicators, high rate of outmigration and ageing. Despite, the 1/3 of the municipalities have some kind of health tourism attractiveness. Based on the lower subsidy concentration capacity and moderate tourist performance, this group is called "*spa towns to be developed*".

11 spa towns were included in the group of the most disadvantaged settlements based on the average values of the indicators. Most of the settlements are located in the eastern part of Hungary over the river Tisza. The cluster was named "underdeveloped settlements". This cluster is featured by the lowest number of cars and rate of personal income tax. Most of the municipalities have been affected by outmigration, high unemployment and social aid ratio, as well as high number of recorded crimes. Spa towns in this cluster were named "*less successful spa towns*". This does not always mean the unsuccessfulness of the attraction, but the positive socio-economic effects generated by the spa are marginal to the effects of the macro-environment.

4. Although, spa and the tourism it generates cannot eliminate all negative trends, it can be concluded that it can contribute to strengthening the positive socio-economic processes of the municipality and reducing negative processes. According to the cluster analysis, it can be concluded that, spa towns in the cluster with the lowest value of indicators had a better average value for almost in all indicators than the control municipalities (mainly in terms of the number of newly built dwellings, municipal revenues, registered companies, retail units). The role of the spa in amplification of the existing positive processes is confirmed by the case study of Mórahalom. The spa town Mórahalom has the highest immigration rate among the neighbouring municipalities in the suburbanization zone of Szeged.

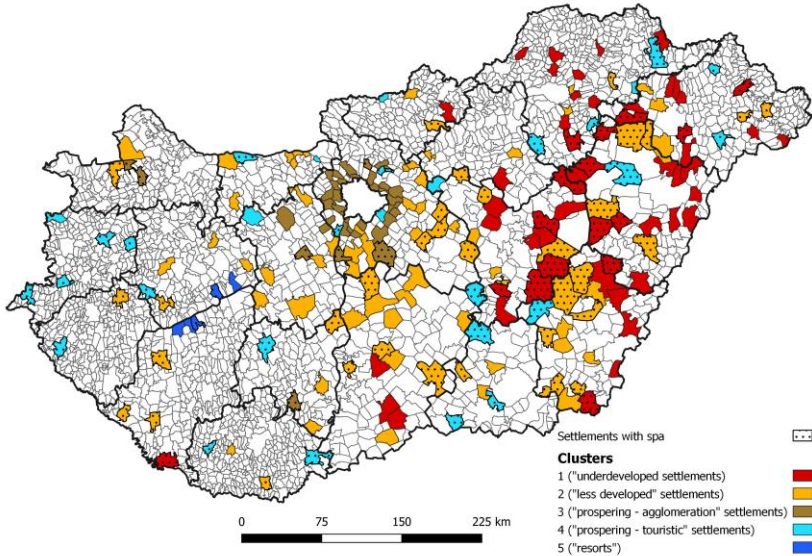


Fig. 2.: Categorisation of small towns based on the average values of indicators
Source: edited by Kriska, O.

5. The spas of the two study areas can be considered successful on the basis of the number of visitors and on the satisfaction of the guests. The visitor number of the thermal spa of Tizsakécske doubled in the examined time period, and the Mórahalom complex increased visitor number by 12 times, which is a national record. Revenues increased almost fourfold for Tizsakécske and more than 48 times for Mórahalom. One of the key for the success is the continuous improvement of the spas and another is the exploitation of the tender opportunities. The success and need for investments is shown by the sharp increase in revenues for both spas after the investment and improvements (*Fig. 3*).

In both municipalities, the interviewed spa visitors were basically satisfied with the spa. When evaluating the spas on a 1 (poor) to 5 (excellent) scale, all examined aspects received an average value above 4. In general, the visitors of the Mórahalom spa were more satisfied than the visitors of the Tizsakécske spa. In Tizsakécske, guests were most satisfied with water quality, environment and cleanliness, and in the case of Mórahalom, the variety of pools, the environment and the staff received the best reviews.

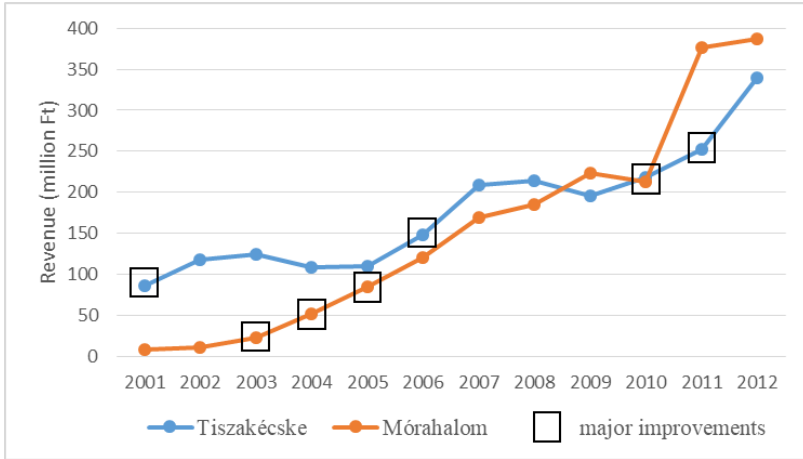


Fig. 3.: Evolution of the revenues of the spas and date of major improvements

Source: according to the data of the spas, own edit

6. Even in the case of similar size settlements with spas of similar development intensity, varying socio-economic changes can be seen. Based on the statistical- and content analysis, questionnaire surveys and interviews carried out, a more dynamic development and significant changes can be detected in Mórahalom. Thanks to the development of the spa in the center of the city, the number of visitors of the complex has increased significantly, which has also generated an expansion of accommodation. The municipality also responded relatively quickly to the demand for quality accommodation, so the number of guest overnight and the city's tourism tax revenue increased dynamically. The capacity of the municipality to allocate financial resources is outstanding compared to other spa towns (both regionally and nationally, among municipalities of similar size). This is also significant because, in the case of health tourism, the ability to attract capital has a larger significance in success, since it is extremely resource-intensive tourism product (AUBERT A. et al. 2012).

In Mórahalom, the vivid tourism also caused significant changes in the built environment. Many buildings went under functional transformation now serving touristic purposes, as commercial accommodation and health tourism services. Public services have moved further from the spa, and the buildings connected to the spa offer tourism services with a uniform image. During the tourism development special attention was paid to the infrastructure. The settlement is considered as a clean, landscaped and floral city. Due to the boom in tourism, several cultural and community programmes, sports and

leisure opportunities have been created. This is highlighted by local residents as a positive result of tourism. The immigration rate is growing in the small towns with increasing attractiveness resulted by spa development, which also results urban sprawl and the growth of urban built up area. Mórahalom confirms all the potential positive socio-economic impacts of tourism due to the integrative reinvestment of tourism revenues. It is confirming the hypothesis: *integrative tourism developments is one of the keys to the success of the spa towns.*

7. The tourism and urban development strategies of spa towns are influenced not only by their size, functions and tourist features. In case of Tiszakécske and Mórahalom despite the similar size and economic and social conditions a different tourism and urban development strategy has been drawn up. The Mórahalom spa is owned by the municipality, so the main attraction, as well as other tourism and urban developments are based on the ideas of the municipality, taking into account the interests of the local people. It is concluded in the dissertation that the development of the city is not a spontaneous process, but the result of conscious planning.

In the case of Tiszakécske, the development of the privately owned spa has led to similar successes in increase of the revenue and visitor number of the complex, yet the impact of this increased traffic on the municipality and tourism development is less noticeable. This is mainly due to the fragmentation of the urban structure of municipality and the different development priorities of the involved decision-makers in the tourism development process. In Tiszakécske, the development of tourism was not a top priority during the time period examined, so professional organisations, documents and institutional background to support tourism were lacked. A significant negative consequence is that the tourism-related changes in the settlement are not conscious, the monitoring of the effects is not consistent, which can be observed in the fluctuation of statistical data. Another negative consequence is the weaker capacity for financial allocation which results incoherent expansion of the tourist offer, and the lack of creation of a uniform touristic image of the city. Both the development of the spa and the hotel were carried out with the involvement of private capital. On this basis, it can be stated that the active involvement and cooperation of the municipality is decisive for increasing the positive effects of tourism.

In Tiszakécske more emphasis was given to strengthening of central, urban functions, while in Mórahalom, due to the integrative tourism development, the strengthening of the tourist function has brought the strengthening of the central functions as well.

8. *The satisfaction of the locals surveyed and the perception of the positive effects of tourism are more significant in Mórahalom.* Since the tourism developments in Mórahalom, the local identity is strengthened, locals are proud for the development, they feel comfortable in the city. 92% of the local respondents like to live in Mórahalom, only few would like to move. In the case of Tiszakécske, 86% of the local respondents like to live in the city, 20% plan to move. In Tiszakécske, the larger settlement size and the peripheral location of the spa results that the positive effects of tourism is less perceived by locals. According to the respondents in Tiszakécske, tourism has had the most positive impact on the image of the city, increased city tax revenues and the hospitality of the locals. At the same time, the majority of respondents said that living standards, real estate prices, programmes, sports opportunities were not affected by the spa development. A number of positive effects (e.g. infrastructure development) can only be detected in the vicinity of the spa or in the city centre. The results of the survey in Tiszakécske confirmed the hypothesis that *the positive effects of tourism developments do not always extend to the municipality as a whole*, and that residents living further away from the spa perceived effects of the development differently than those living near the spa.

9. *The negative effects of increased tourist traffic can be detected by local residents.* In Mórahalom, 40% of respondents are not happy about the presence of tourists in the city, and 45% are disturbed by their presence in some of their everyday activity. Especially, during transport and parking, in connection with the congestion of the complex. Interview partners living in the vicinity of the spa were able to give examples of other problems, such as expropriation of land in favour of tourist developments, or conflicts resulting from loud music. These neighbouring properties in strategic locations are all in municipal hands, so although the negative effects are detectable residents cannot do anything about it, as they might risk keeping their apartments. Residents in Tiszakécske have fewer personal contacts with tourists than in the case of Mórahalom, despite the fact that visitors arrive there for a longer period due to the resort area of Tisza River. In Tiszakécske 91% of the local residents surveyed are not disturbed by the presence of tourists in any everyday activity.

According to the above described results, it can be stated that the spa in a settlement represents some kind of local energy, a locally stimulating facility for development of small towns in Hungary.

- The **first hypothesis** that the spa has a positive effect on the socio-economic indicators of the municipalities **has been partly confirmed**, since for some indicators of the municipalities without spas had better results.
- The **second hypothesis** that the economically and socially positive effects of tourism do not always extend to spa towns as a whole **was confirmed** since in the case of Tiszakécske, only those living near the spa and those affected by tourism felt the positive effects.
- The **third hypothesis** that integrative tourism developments is important key to success in spa towns with significant positive changes **was confirmed**, along the successful model of Mórahalom.

V. Utilization of the results

The results of the dissertation can be utilized in several ways:

- The theoretical benefit of the research is the definition of spa towns, which can be important for the classification and demarcation of different settlements with spas. It can be taken into account in tender applications and developments strategies (as a kind of quality indicator).
- The impact assessment of tourism development can have several benefits: it can determine the degree of success of tourism developments, the positive and negative consequences of changes, which can be an important for the conscious tourism and urban development efforts of the municipalities.
- The methodology used in research emphasises the importance of complexity, as the effects of tourism can be interpreted and perceived in different ways. This complexity can help shape the approach of subsequent studies.
- The methodology and results of the research can be useful in detecting changes and conflicts in other spa towns, thereby addressing conflicts and defining steps to prevent them.
- The results of the case studies can provide useful clues to the efficient operation of spa towns.

VI. Possible further directions of the research

Several future directions of research can be outlined, since the research outlines new questions.

- The spa town definition should be tested on further case studies and further categories should be created based on the scores achieved (e.g. spa town of international importance, spa town of regional importance).

- In order to monitor changes and understand the changing attitude of locals, it would be worth repeating the research again in the municipalities. In this context, can it be interesting how well they have been able to adapt to the challenge posed by the COVID-19 pandemic?
- On the basis of the two case studies presented, it can be seen that, even in municipalities of similar size, similar (spa) developments can have different effects, so it would be worth analysing more examples in detail in order to identify different development paths.
- It would also be useful to further clarify the results of the questionnaires with a few in-depth interviews. During the interview, it would be worth targeting those who moved from and to the cities.
- It would be beneficial to repeat the same research in smaller, monofunctional spa towns and comparing the results with the recent research results. This would facilitate the exploration of the effects of developments and the causal link between changes in settlements.

Publications related to the topic of dissertation

1. **MARTYIN Z.**–BOROS L. 2012: A turizmus szerepe Mórahalom fejlődésében. – Közép-Európai Közlemények 5. 2. pp. 145–158.
2. **MARTYIN Z.** 2012: A termál- és gyógyfürdők szerepe a határon átnyúló turizmusban. – Virtuális Intézet Közép-Európa Kutatására Közleményei 4. 3. pp. 155–162.
3. **MARTYIN Z.** 2012: Mórahalom turisztikai vonzerői. – In. PÁL V. (szerk.): A társadalomföldrajz lokális és globális kérdései. SZTE TTIK Gazdaság- és Társadalomföldrajz Tanszék, Szeged. pp. 280–290.
4. **MARTYIN, Z.** 2013: Tourism and local development – The case of Mórahalom. – Geographica Timisiensis 22. 2. pp. 49–64.
5. **MARTYIN Z.** 2013: A vajdasági fürdők megítélése – látogatói- és szakértői vélemények alapján. – In. JÓZSA K.–NAGY GY.–DUDÁS R. (szerk.) Geográfus Doktoranduszok XIII. Országos Konferenciája. SZTE TTIK Gazdaság- és Társadalomföldrajz Tanszék, Szeged (CD kiadvány) Paper: 18.
6. **MARTYIN, Z.** 2013: Developments and customer satisfaction at spa of Mórahalom. – In. ILIES, A.–KOVÁCS, Z.–KOZMA, G.–POPA, N. (eds.): Regional development and cross border cooperation. Universitatii din Oradea, Oradea. pp. 38–45.
7. **MARTYIN Z.** 2014: A mórähalmi gyógyfürdő a látogatói vélemények tükrében. – In. BOROS L.–JÓZSA K. (szerk.): Geográfus Doktoranduszok XII. Országos Konferenciája. SZTE TTIK Gazdaság- és Társadalomföldrajz Tanszék, Szeged (CD kiadvány). pp. 84–100.

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9. **MARTYIN Z.** 2015: A turizmus hatása egy kisváros funkcionális változásaira – Mórahalom példája. – Településföldrajzi Tanulmányok 2. pp. 135–148.
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