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**ANALYSIS OF HEALTH TOURISM PROCESSES IN
SAMPLE REGIONS OF NORHTERN HUNGARY**

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1. BACKGROUND AND OBJECTIVES

All around the world, health tourism is developing in a way that tourists now are willing to travel in order to obtain the most up-to-date (although not necessarily the safest) treatments and healing processes. The increased importance of health and healthy lifestyle is not only a fashion trend but also a worldwide phenomenon; and as a result, a great emphasis is put on health awareness in almost every field of the service sector. Due to the worldwide expansion and dynamic local development of global health tourism, the 'traditional' health markets – mostly based on classic models of national social security services managed by governmental monopolies and lobbies – are going through a dramatic change. Although the transition affects almost every stakeholder on the market, not all of them are aware of the processes. A couple of centuries ago, the most important places of health tourism were spas and high altitude climatic destinations. As of today, the quality and popularity of a destination is not only a question of its natural environment: the availability of state-of-the-art technologies and medical services is just as important. In most cases, favourable natural conditions and modern medical technologies are a market advantage, but they are not the only factors in the decision making process.

The timeliness of my topic lies in the fact that although many studies have been published on the possibilities and challenges of health tourism in Hungary, we still know little about the results of the last decades' developments, especially in the light of the changes that took place in the international market of the industry.

In Hungary, the local municipalities had also joined the health tourism industry market, and they actively take part in the competition for health conscious consumers.

Thanks to the persistent efforts of experts and professionals, spa tourism had become one of the fastest growing segments of Hungary's health tourism industry; however, the development of the sector has not yet raised the interest of international researchers (KIM et al. 2010). Although it is a common prejudice that Hungary could have an increasing importance in the health and medical services market, our position has not improved in international rankings so far.

According to health tourism trends, beyond traditional and unconventional health services, there is a growing demand for specialised services like cost-effective rehabilitation treatments in relation with different types of addiction, mental conditions, 'manager's diseases' (VALLÓ et al. 2000), permanent nursing and rehabilitation development. Health tourism service packages offer complex solutions that consist of tourism and medical services at the same time, often complemented with local cultural programmes and other tourism activities. In the case of regional locations, where tourists and local inhabitants use the same micro-spaces at the same time, well-designed space planning is necessary in order to avoid the possible conflicts. The tourism industry has become such a complex system that in some cases, the appearance of tourists, by itself, may become an independent tourism product. In the light of the foregoing, it is clear that as a result of state-of-the-art tourism space development, not only traditional destinations (that have favourable natural resources or spa traditions) can play an important role in the international market, but thanks to novel ideas and conscious planning, new regions and destinations can also emerge. A good example for that is the 'Healing Regions' project which, funded by the Swiss-Hungarian Cooperation Programme, was implemented in the Northern-Hungarian region. The innovative model programme was especially designed for the professional development of health tourism in the region, in line with the emerging demands of the market. The professional health tourism market has enormous

economic and growth potential worldwide, and my research aims to contribute to its scientific background which can provide professional help for developers and decision makers in Hungary, in order to support further development both in already existing and new destinations.

Considering the fact that health tourism is declared a national economy priority in Hungary, it is crucial that the decision makers of the industry decide whether the developments and investments should focus on domestic or international tourists. International health tourism is a great resource to increase national income; however, due to the lack of a commonly accepted international legislative background, the quality assurance of the services is only ensured by the accreditations of different international organisations. The acquisition and maintenance of international accreditations is expensive and requires continuous participation in audits and quality assessment procedures. Furthermore, although they may offer international guarantees for the quality of services, they will not provide financial insurance in case of any possible legal procedures (e.g.: in case of medical error litigation). As of today, there are only 2 health tourism providers in Hungary that have international accreditations of any kind, and as a result, the insurance companies in the Hungarian market are not interested in developing a product especially designed for the health tourism industry. The current development level of the sector simply does not force the emergence of competition in the related insurance market.

The new Tourism Development Act - which was issued with the objective to provide the legislative background of the tourism industry in Hungary - will probably be amended to further clarify some of its paragraphs. In order to increase governmental income in the tourism industry, the Tourism Development Act aims to implement top-down governmental development incentives, with special focus on regional and rural development. Before the implementation of such incentives, prior research would be necessary to analyse and assess the current development level of the different regions, and to examine the share of the income-generating effect of tourism in the existing level of development. The general economic objective of the whole tourism industry is to increase local well-being, which eventually generates increased governmental income; however, based on the principles of social morality, the good of the local people should always be put before the growth of governmental income. The establishment of new destinations and target locations instead of the development of the existing tourism regions raises similar questions. There are many destinations with great potential that could be further improved, and with conscious investments and development, they could easily generate the required governmental income, in line with the expectations of the decision makers.

Thanks to the efforts of the service providers operating in the field, the new concept of health tourism had become a strategic sector of the Hungarian tourism industry in the past ten years. The relevant Hungarian and international literature and data published during this decade offers a great base for research. While analysing the respective data of the Northern Hungary region, my research focused on three distinctive objectives. My first objective (**O1**) is to analyse the existing terminology related to health tourism development so that the stakeholders of the tourism industry in the Northern Hungary region can assess their activities and opportunities precisely and introduce novel directions in strategic development, which are not only forward looking but also can provide a common ground for other researchers and experts in the field. The second objective (**O2**) was the evaluation of destinations located in the Northern Hungary region, with special regards to tourism planning and new challenges. The aim of the evaluation was to determine whether the terms

‘existing destinations’ and ‘destinations suitable for development’ are valid definitions. Based on the result of this analysis, further information can be produced to complete the current provisions of centralised legislation. The third objective (**O3**) was to analyse the governmental income generating capacity of health tourism (indicated by the Tourism Development Act), focusing on the role of the income generating dynamics of tourism in the local development level. In the case of regions where the role of tourism should be increased in order to enhance the local development, it is important to define and measure the impact of tourism on the economy; especially because the mere existence of tourism in the region does not necessarily mean that it will be successful and act as an income multiplier. As a new approach, I used a district (járás)-based territorial breakdown as the basis of my examination.

The hypotheses of my dissertation are the following:

Hypothesis 1: Health tourism in the Northern Hungary region has a wide offer of services, but differs from the new trends in international health tourism.

Hypothesis 2: Within the terminology of health tourism, definitions have different meanings, depending on the stakeholders who use them.

Hypothesis 3: The historical development of health tourism in the Northern Hungary region has distinctive development stages, different from other regions of the country.

Hypothesis 4: The health tourism offer of the Northern Hungary region can be subdivided into destinations that are suitable for further development.

Hypothesis 5: The Mátra region as a health tourism destination has a uniform image concept.

Hypothesis 6: The income generating dynamics of tourism has a significant impact on the local development level in Northern Hungary.

The data and results of my research will enable more precise decision making in order to enhance the development of health tourism in the region. According to recent statistics, the tourism attractiveness of the Northern Hungary region is increasing by the year; therefore I consider it important that my work should be introduced to a wide audience. The complex information gained from my findings can be utilised in an innovative framework, and with the use of state-of-the-art knowledge, the results can be applied in the development of other fields, too.

2. METHODOLOGY

Within the frameworks of the research programme, several quantitative and qualitative researches were carried out as a preparation for the large sample questionnaire. My research consisted of a primary and a secondary phase. Shift-share analysis was used as a mathematical statistical method.

Primary research:

- Based on the relevant literature, I have collected and analysed the basic terms of health tourism, in order to reveal the relationships and connections between the definitions.
- I have conducted in-depth interviews with health tourism stakeholders, professional leaders, tourism service providers and owners of private businesses. The interviews and their analysis have largely contributed to the better understanding of the health tourism processes in Northern Hungary.
- Several questionnaire surveys were carried out between 2014 and 2017.

The focus group interviews with health tourists largely contributed to my database, and the conversation with the tourists had helped to understand the fact that after setting up the frameworks of the strategies, it is not enough to outline the ideas; it is also necessary to establish focus groups in order to gain deeper understanding and information (MALHOTRA 2009).

Secondary research:

- Analysis of the data of EC, EUROSTAT, OECD, UNWTO databases.
- The databases of the research were created with data from the Hungarian Central Statistical Office.
- I have used the data collected by health tourism service providers and published by professional organisations as control data for my research. In addition, I have also used the public data of service providers.

The results of my dissertation is further complemented by first-hand research experience obtained while visiting not only Hungarian but numerous international health tourism destinations in Europe, North America and Asia.

To be able to understand the current situation of health tourism in Northern Hungary, a historical overview was necessary at the beginning of my research. It is important to note that although there had been many works published on the subject, they mainly focus on the history of Roman spas or Ottoman baths. With regards to the topic of medical tourism based on thermal spas, most of the relevant literature focuses on the spa traditions of Austria-Hungary. As for the historical development of Hungarian health tourism, no comprehensive study had been published so far on the history of the Northern Hungary region.

3. RESULTS

3.1. The characteristics of health tourism in Northern Hungary

As an administrative unit, the Northern Hungary tourism region – in which my research was carried out - consists of 3 counties: Nógrád, Heves and Borsod-Abaúj-Zemplén. The Northern Hungary region is bounded by the Central Hungary and the Northern Great Plain regions and is easily accessible via the M3 motorway. From the north, the region is bounded by Slovakia, while its eastern boundary lies close to Ukraine (see Fig 1.) The total area of the region is 13.428 km²; its population is 1.200.000 with a density of 90/km². Its major cities with county rank are Miskolc, Eger and Salgótarján. The capital city of the region is Miskolc.

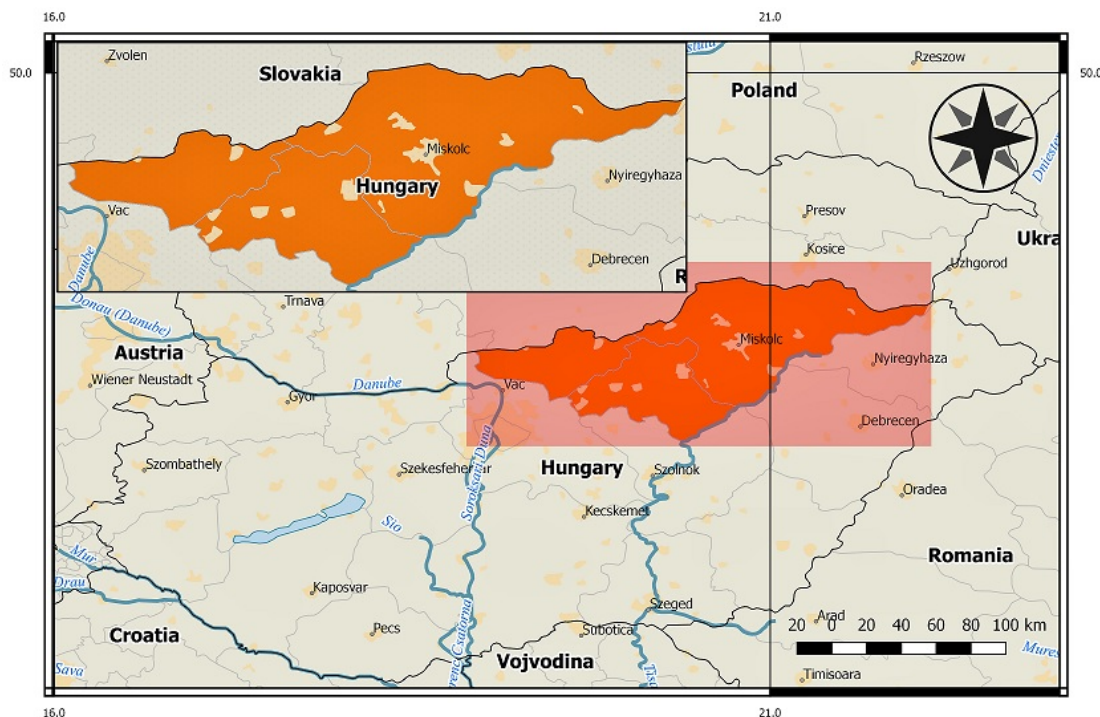


Figure 1: The Northern Hungary region and its location within Hungary
Source: QGIS map editor. Own edition

The Northern Hungary region is rich in natural and tourism resources like world heritage sites, natural and built heritage assets, culture and traditions. Beyond a wide variety of natural values and areas under local protection, almost 13% of the region is protected and belongs to national parks, nature reserves or protected landscape areas. One of the unique natural resources of the Northern Hungary region is its climate, slightly different from the general climate of the country. The region's northern exposure, high altitude and favourable climate altogether create a great background for climatic health tourism destinations.

The most popular types of tourism in the Northern Hungary region are health tourism, rural tourism, wine and gastronomy tourism, cultural tourism, eco-tourism, active tourism and thematic trips. One of the most typical types of tourism in the Northern Hungary region is rural tourism, which is defined as a set of tourism offers based on 'rural experience' and traditions (DÁVID et al. 2007b).

Among private accommodation providers, guest houses and village houses are the most common in the region. Accommodation and tourism-related services account for a significant part of local income generating capacity (DÁVID et al. 2009), and combined with regional traditions and folk elements, they can assure the long-term sustainability of the demand for tourism in the area.

As health tourism is a popular type of tourism in the region, my research focused on the analysis of health tourism-related attractions. I have collected the attractions of the settlements in a table and examined the financing possibilities of each available service. With regards to the available services and their financing schemes, I have worked with the public data of the National Health Insurance Fund (NHIF) of Hungary.

Settlement	Attraction	Financing possibilities
Szerencs	Spa and wellness centre	NHIF, Private
Lillafüred	Szent István stalactite cave	NHIF, Private
Miskolctapolca	Cave bath	NHIF, Private
Jósvafő	Béke medical caveg	NHIF, Private
Mezőkövesd	Zsóry thermal and medical spa	NHIF, Private
Bogács	Thermal spa	NHIF, Private
Sárospatak	Thermal spa	NHIF, Private
Tiszaújváros	Thermal spa	NHIF, Private
Tolcsva	Herbal house and beauty centre	Private
Eger	Turkish spa	NHIF, Private
Parádfürdő	Rehabilitation centre	NHIF, Private
Mátraháza	Climatic health centre	NHIF, Private
Kékestető	Climatic health centre	NHIF, Private
Gyöngyös	Thermal spa	Private
Bükkszék	Thermal spa	NHIF, Private
Mátraderecske	Carbon-dioxide healing bath	NHIF, Private
Egerszalók	Thermal and wellness spa	Private
Demjén	Thermal spa and Aquapark	Private
Parászasvár	Senior Wellness tourism	Private
Nógrádgárdony	Medical Wellness	Private
Pásztó	Thermal spa	Private

Table 1: Health tourism attraction and their financing possibilities in the Northern Hungary region.
Source: Own research. Own edition.

In the health tourism destinations of the Northern Hungary region, the services are available both in the frameworks of public and private funding. As a general trend, the public funding of health tourism services is showing a decreasing tendency: out of the 21 attractions, 6 only offers private

funding opportunities, while at the other 15, private and public funding are both available. The role of private funding is foreseen to grow in the future, and the increasing competition in the market is likely to encourage the improvement of quality, too. After visiting the attractions and analysing their websites, it is clear that the region does not offer internationally attractive - and thus income generating - medical treatments. In the case of destinations with hospitals, they either offer services that are not related to health tourism, or the services are only available within the frameworks of the public social security system. The current healthcare system of Hungary cannot handle the demands of self-financing patients.

In health tourism, various types of services are available on the market. Out of the 9 types, 5 is related to thermal and/or curative waters, while the others are connected to different features and assets. In the segment of wellness tourism, 4 different types are available, including the newest type: medical wellness. During my research, I have found 13 different offers in the Northern Hungary region, which is an outstanding result. It is important to note that the region is the only area in Hungary with climatic destinations and carbon-dioxide dry baths (mofetta). The health tourism offer of the Northern Hungary region consists of: climatic destinations, medical caves, cave baths, medical spas, a Turkish bath, thermal baths, thermal spas, carbon-dioxide dry baths and a rehabilitation centre. In the field of wellness tourism, the following services are available: spa and wellness houses, herbal house and beauty centres, senior tourism and medical wellness facilities.

Within the system of wellness tourism in Hungary, the offer of climatic destinations and medical caves is suitably complemented by the services of thermal and medical spas. The health tourism offer of the region differs from the international trends in the fact that in other countries, the services mainly focus on intensive income-generating medical services instead of only exploiting the existing health-related assets. International health tourism statistics are based on profitability and turnover rate. In the Northern Hungary region, 4 different types of services are available within the sector of wellness tourism, and each of the four service providers offer different and specialised services. The service providers are located in different areas and operate separately. In general, the wellness tourism of the region is in line with the demand of the consumer side, and thus similar to active tourism.

The result of my respective analysis shows that Hypothesis 1: *Health tourism in the Northern Hungary region has a wide offer of services, but differs from the new trends in international health tourism* is justified and true.

3.2. The ‘jungle’ of health tourism terminology

Health tourism is a constantly developing tourism product with many innovation possibilities; yet, due to its complex nature, the concept itself is not easy to define (DÁVID et al. 2007a). The common feature and main attraction of popular health tourism products is that they aim to preserve and improve health and general well-being (MICHALKÓ 2012). Health tourism is a complex system that goes through constant development and therefore does not have one single and internationally acknowledged definition (RULLE et al. 2011). The concept of health tourism includes medical, preventive and recreational tourism, where the main motivation is the

improvement and/or preservation of one's health. To achieve this goal, tourists consume health tourism services at the chosen destination (CASSENS et al. 2012). In health tourism, the demand side meets the offers of medical and health services at global level (BOOKMAN et al. 2007). Before 2000, *medical tourism* and *medicinal tourism* were used as descriptive terms in English-speaking regions. Since then, the terminology has widened, and today, *health tourism* is basically used as a synonym for *wellness tourism*. The English term of *medical tourism* has no relation with the Hungarian use of health tourism, which usually refers to a type of tourism related to thermal waters. In *medical tourism*, the tourist leaves his/her home with the aim to travel to a destination to consume some sort of medical services. In the case of *medicinal tourism*, the tourist will travel to use medical services available at the destination. In summary, *medical tourism* and *medicinal tourism* usually refer to some sort of medical service or treatment, while *health tourism* and *wellness tourism* are related to health improvement and prevention.

In Hungary, the current trends in health tourism mainly focus on the development of domestic tourism, which means that the segment of wellness tourism is most likely to be favoured. The biggest advantage of wellness tourism lies in the long term benefits of strengthening individual health awareness. The main opportunities in health tourism in Hungary are in social security funded rehabilitation and prevention therapies. The standardisation of the terminology used in the field would be necessary because as of today, the same terms are used with different meanings by each stakeholder in the industry. In addition, our competitors in the neighbouring Eastern Central European countries had already introduced their own terminology and definitions (KESAR et al. 2011).

During the implementation of the terminology of the field, the different interest groups have all tried to emphasize the importance of different terms in accordance with their own concern. Currently, the 8 stakeholder groups in Hungarian health tourism use 8 different terminologies.

Stakeholder group	Approach
Governmental legislation	National Health Tourism Development Strategy
Medical/healthcare organisations	Medical approach, 'ESKI' terminology
Tourism and geography sciences	Tourism-based approach
Sport sciences	Active sport tourism based approach
Health tourism service providers	Offer-based approach
Marketing and sales professionals	Simple communication panels
International professional organisations	Traditional and culture-based approach
Professional interest representatives	Concentration of specific interest areas
Health tourists	Everyday terminology

Table 2. Health tourism stakeholder groups and their approach

Source: Own research. Own edition.

In my opinion, it is in the common interest of all the aforementioned stakeholder groups to create a common basis for a clear and easily understandable terminology. A standardised and internationally comprehensive system could also contribute to a successful entry to the international health tourism market.

As of today, the terms and definitions used in health tourism have different meanings for professionals and tourists. ‘**Movement**’, ‘**Health**’, ‘**Lifestyle**’ and ‘**Sport**’ are the terms most often associated with the meaning of wellness. The fragmented terminology does not only affect the communication between the different stakeholders, but can lead to misunderstandings between service providers and consumers. As the terms are not defined clearly, the meaning behind them is constantly changing.

Based on the results of the respective research I conclude that Hypothesis 2: *Within the terminology of health tourism, definitions have different meanings, depending on the stakeholders who use them, is justified and true.*

3.3. Historical stages of health tourism development in the Northern Hungary region

When looking at the history of Hungarian health and medical tourism, it is clear that the development path of the Northern Hungary region has some unique characteristics. The analysis of the respective literature and the interviews have connected many - formerly isolated - data sets that had not been set into chronological order. During my research, I had tried to explore the unique local characteristics that are important from the aspect of the historical overview of health tourism from a wider context. As a result, I have defined 3 separate development stages (see Table 1).

The history of Hungarian health tourism in general dates back to the days of Pannonia province of the Roman Empire; however, as the frontiers of the province ended at the line of the Danube river, today’s Northern Hungary had never been a part of the empire itself. Nevertheless, the impact of the Roman culture in Hungary’s development cannot be overlooked. With regards to the times of Attila the Hun or the age of the Hungarian conquest, I have not found any valid information related to my research topic. We also only have presumptive data of the pagan bathing rituals of the age of St. Stephen, when the shamans had been driven out from the Pilis mountains and found refuge in the Mátra mountains. In my dissertation, I had started the historical overview at the Ottoman age, from which period a wide array of valid written information is available. The conscious pursuit of healthy life had begun in the 1st development stage, in the 16th century in Eger, thanks to the bathing traditions of the invading Ottomans; these traditions had greatly affected the customs of local people and visitors, too. The various herbs growing in the Mátra mountains and the sour, bitter and sulphurous waters of the ‘Chevice’ springs in Parádkövesd were mentioned frequently in the notes and journals of travellers of the age. Thanks to the development of health tourism, Parádkövesd was considered an international tourism destination in the age of Austria-Hungary.

The end of World War I marks the end of the 1st stage of historical development. The 2nd stage begins with the allocation of the new state borders after the Treaty of Trianon. Within the new boundaries, Kékestető with its height of 1014 metres became the highest peak of Hungary, and the Mátra, located in the middle of the North Hungarian Mountains could exploit the advantages of its climate and mountainous surroundings. During the 2nd development phase, the Mátra and Bükk mountains were in the focus of decision makers’ attention. The offer of the highland areas was further widened, when – whilst originally looking for crude oil resources -, valuable spring and thermal waters were discovered in the area before World War II (e.g.: Salvus water in Bükközd or the Zsóry water in Mezőkövesd). During the communist era, several state-funded spas and related facilities were established in the region, but their significance usually remained at local level and

due to their seasonality, they could not serve as a basis for permanent income. After the fall of the communist regime, the health tourism market of the region had quickly deteriorated. The 3rd development stage is marked by the issuance of the National Development Strategy and the National Health Tourism Development Strategy. In this period, conscious and targeted health tourism development processes had been initiated, affecting all the three counties (Nógrád, Heves, Borsod-Abaúj-Zemplén) of the Northern Hungary Region.

Historical stages
<p>1st stage from the end of the 16th century until 1920</p>
<p>2nd stage from 1920 to 2000 <i>(from the Treaty of Trianon until the issuance of the National Development Strategy)</i></p>
<p>3rd stage from 2000 - <i>(from the issuance of the New Széchenyi Plan until the Széchenyi 2020 plan)</i></p>

Table 1: Historical development stages of health tourism in Northern Hungary

Source: Own research. Own edition.

Based on the analysis of historical data I conclude that Hypothesis 3: *The historical development of health tourism in the Northern Hungary region has distinctive development stages, different from other regions of the country, is justified and true.*

3.4. Health tourism destinations in Northern Hungary

In December 2016, the Government of Hungary issued the National Tourism Development Act (T12737). It consists of a novel concept that does not directly focus on tourism itself, but rather on the development processes. The glossary of the law clarifies the meaning of several terms that had not been defined before. From the aspect of my research, the key element is the definition of the term ‘tourism destination’, in section (1) of paragraph 2§.

The legislator defines ‘tourism destination’ as follows: according to the legislative intent, geographically defined areas with complex elements need to be created, and their targeted branding should be the first step of the development. As a result of uniform tourism planning and development, key areas of tourism development will be formed, in line with the governmental interest.

This recent initiative overwrites the former idea of nine tourism regions, which was laid down in the 28/1998. (V. 13.) IKIM Government Decree. Based on the previous legislation, the tourism regions used to cover the whole area of Hungary. According to the new idea, the tourism regions to be developed will not cover the whole area of the country; moreover it is possible that they will not be statistical units. This is a new concept of legislative thinking and planning; the list included in

paragraph 3§ helps to understand the new approach. The respective part of the act reveals that - in line with the legislative intent – the term ‘tourism destination’ refers to geographical areas.

Of course there are different, alternative approaches that co-exist with the legislative ideas, like for example the operative units of Tourism Destination Management (TDM) areas. My research aims to introduce some examples of health tourism destination development concepts. With my work, I wish to demonstrate that by taking into account the important professional interests of all stakeholders and concentrating on the existing health tourism opportunities, excellent results can be achieved. In the Hungarian health tourism system, the suitable infrastructure and the proximity of the destinations is essential¹. Therefore, it is important to evaluate the accessibility of health tourism regions and the maturity of highways and motorways in the area. The proximity of each destination is also essential; based on the distance between the attractions, a regional centre can be created that concentrates the attractiveness of the region. During the analysis of the health tourism offer of the region, I have examined the spatial concentration of attractions.

I have grouped the health tourism settlements of the Northern Hungary region based on their attractions. While evaluating the health tourism offer of each settlement, I have taken into account the available health tourism services, the development level of the infrastructure and the location of nearby attractions, in line with the conceptual idea of the new tourism development act.

Group	Borsod-Abaúj-Zemplén county	Heves county	Nógrád county
I.	-	Mátraháza, Kékestető, Parádsasvár, Parádfürdő, Mátraderecske, Bükkszék	-
II.	Sárospatak, Tolcsva, Szerencs Mezőkövesd, Bogács, Tiszaújváros Lillafüred, Miskolctapolca	Eger, Egerszalók, Demjén	-
III.	Jósvafő	Gyöngyös	Pásztó Nógrádgyárdony

Table 4. Spatial grouping of settlements with health tourism attractions in the Northern Hungary region
Source: Own research, own edition.

The total number of groups is 9. The groups were defined based on the environment and natural resources of the settlements, and the findings of the interviews with professionals were also taken into account. According to the priorities set out in my research, more than one group belong to the group of settlements that are worthy of further development. The settlements of Heves county that are listed in group I. or II. are the ones with the best opportunities. Although the ‘Heves county I.’

¹ http://medicalonline.hu/eu_gazdasag/cikk/egeszsegturizmus_infrastruktura_fejlesztes_nelkul

group does not have a centre or a significant catchment area, the settlements in this category offer a wide range of services, currently mostly for domestic visitors. The segment of international tourists have a great potential and can play a key role in the development of the area.

The other group of destination settlements has significant domestic and international guest flow, complemented by the local health tourism offers. The ‘Heves county II.’ group has a suitable centre and catchment area, and thus holds a potential for development. The Borsod-Abaúj-Zemplén II/a and II/c’ groups are areas of possible development. The settlements in the vicinity of Miskolc create two independent groups, based on their eastern or western location from the city. The II/c group in Borsod-Abaúj-Zemplén county is also located separately; it is not in the surroundings of Miskolc, but has good infrastructure. The groups in which the general conditions of the settlements lag behind from the development objectives, have the less favourable situation: the underdeveloped infrastructure, peripheral location or the lack of development ideas or concepts hinder the development processes.

As a confirmation of the result of the analysis (i.e. that the grouping of the settlements is suitable to describe the destinations), I have examined the ratio of each group’s share from the total of guest nights registered in the respective county.

Heves I.	3,26 %
Heves II.	52,77 %
Heves III.	10,11 %
Borsod II.	32,79 %
Borsod III.	0,28 %
Nógrád III.	2,37 %

Table 5. Destination settlement groups’ share of total guest nights registered in their respective county.
Source: Hungarian Central Statistical Office. Own edition.

The results show that the % ratio of each group’s share from the total of guest nights registered at commercial and business accommodation providers in 2016 clearly indicate the existence of possible destinations in two cases. The Heves II. and Borsod II. groups hold significant shares in the total of guest nights registered in the county. The result of the Heves III. group needs to be corrected, because in this group, the guest nights registered in the Southern Mátra area are combined with the statistical data of Gyöngyös. The slightly worse result of Heves I. group also needs revision because if there were separate statistics about the “tourists” who stay at the Mátra Medical Institution and the Parád-fürdő Hospital for recreational reasons, the current percentage would probably be much higher.

The result of the analysis proves that the statement of Hypothesis 4: *The health tourism offer of the Northern Hungary region can be subdivided into destinations that are suitable for further development is justified and true.*

3.5. The context of health tourism in the Northern Hungary region in light of the interviews

Within the Northern Hungary region (and even at country level), Heves county has the highest number of health resorts, and within the county, the Mátra region’s health tourism offer is special.

The analysis of the tourism destinations revealed that the neighbouring settlements create a ‘tourism destination string’, a special type of tourism destination. Based on the results, I have defined the so-called ‘Mátra health tourism string’: a special group of settlements that - in a narrower sense – consists of 4 settlements (Mátraháza, Kékestető, Parádsasvár, Parádfürdő), or, from a wider approach, 4+2 settlements (the former 4 and Mátraderecske and Bükkszék). As this string-like feature is a special characteristic worthy of further attention, the question is whether the whole of the Mátra region and the settlements that are located in a string-like pattern within the health tourism destination could count for a uniform tourism product, communicated with the image of ‘Mátra tourism’.

In my research, I wanted to clarify why there had been no significant developments in the Mátra region despite the fact that local tourism service providers and the local incentives enjoy nationwide popularity and acknowledgement. The vast majority of the stakeholders are aware of the assets and resources of the Mátra region, and happy to share their experience and knowledge on the topic. Within the frameworks of my research, the summary of the results of the initial questionnaires and interviews was followed by an in-depth analysis. The questionnaires taken with experts had revealed some novel information, and the interviews also brought interesting results to light. During the interviews, I have met not only with local stakeholders but local influencers and decision makers like local tourism organisations, institutions with interest in health tourism, tourism entrepreneurs, local mayors and politicians. From the aspect of tourism opportunities, the Mátra is special, as it is the only region in Hungary that has more than one TDM organisation within the same region.



Figure 2: The operation areas of TDM organisations in the Mátra².

Source: Own research, edited with Google Map

² Blue: Gyöngyös-Mátra TDM, yellow: Mátra Jövője Turisztikai Egyesület (Future of the Mátra Tourism Association), pink: Ski cluster

The Gyöngyös-Mátra Turisztikai Közhasznú Egyesület (Gyöngyös-Mátra Non-profit Association) and the Mátra Jövője Turisztikai Egyesület (Future of the Mátra Tourism Association) operates with little spatial overlapping for the same tourism objectives. The former mainly operates in the Southern Mátra region (from Gyöngyös to Kékestető), while the latter is active in the northern areas of the Mátra. Within the Northern Mátra region, in the proximity of Nógrád county (around Mátraszentimre and Mátraszentistván), the local ski cluster plays an important role, mainly due to the popularity of winter sports in the area. Recently, the two tourism associations have established the Mátra Térségi TDM Turisztikai Nonprofit Korlátolt Felelősségű Társaságot (Mátra Region TDM Tourism Non-profit Ltd.), with the aim to strengthen the representation of their common interest and to participate in tenders jointly.

Another incentive in the Mátra region is the Szövetség a Mátráért Mozgalom (Alliance for the Mátra Movement), established by László Horváth, the parliamentary representative of the region. The declared objective of the movement is to make the Mátra region a priority tourism destination area. The alliance intends to operate as an umbrella organisation, creating a joint platform for the tourism-related businesses and entrepreneurs of the region in order to create a uniform image for the Mátra.

The data and conclusions of my research are not exhaustive. The interviews had proven to be very useful as they had complemented the data of the questionnaires with further objective, subjective and situation-based information. The interviews revealed that while most of the tourism experts and professionals are familiar with the terminology of tourism, other actors of the field considered health tourism as a type of active tourism. Accommodation and service providers adjust their services to the demand of customers and, in the short term, they are not willing to integrate novel or innovative solutions into their businesses. The vast majority of the business owners take part in the day-to-day operation of their businesses, which has a negative effect both on the professional development and career motivation of their employees.

Although local TDM organisations are very useful in their operation area, without sufficient financial resources, their activity remains complimentary. A centralised programme or a joint project may provide an important background to enhance their prestige. The majority of health tourism service providers group around governmental stakeholders and in most cases, they had established their infrastructure with the help of public tenders and funds. Most of the health tourism service providers in the Mátra region are located in the Upper and Northern Mátra region. There are several tourism organisations in the Mátra. The fact that they cover different areas and operate with specialised activities separately, seriously hinders the possibility of creating a uniform tourism image in the region. My results show that there are at least 3 different elements that define the tourism image of the Mátra: active tourism, health tourism and winter sports. With regards to their spatial distribution, active tourism dominates the Southern Mátra; health tourism is the most important image element in the Northern Mátra, while in the Upper Mátra, the most significant types of tourism are winter sports and religious tourism. In my opinion, the main reason for the lack of uniform image in the region is that there is no central settlement that would influence the whole region, and therefore could define a common and central image. Without a central settlement, it is not possible to define a centralised and common objective which stakeholders could follow.

Based on the results, the statement of Hypothesis 5: *The Mátra region as a health tourism destination has a uniform image concept* is falsified and thus refuted.

3.6. Analysis of the impact of tourism on income in the Northern Hungary region

The newly issued Tourism Development Act envisages the establishment of new priority tourism destinations which are supposed to generate a predetermined amount of governmental income. Therefore, it is important to analyse the true economic role of tourism in these regions, where the industry is foreseen to be developed. The existence of local tourism itself does not guarantee the success of the sector; it is crucial that decision makers know precisely how much income they can expect, based on the real significance of tourism within the given economic environment.

The analysis examined the changes of municipal income and per capita income at settlement level, and how much they are impacted by tourism and other factors. To determine the results, I have used shift share analysis, comparing at least two sets of data (regional and sectoral dimensions). The sectoral dimension can refer to any kind of disjunctive distribution: industrial sectors, age groups, settlement-size groups, etc. Likewise, the spatial dimension can refer to many types of factors: settlements, regions, countries, special spatial aggregates (in this case, regional districts), etc. Shift share analysis can be used to examine the growth of different phenomena over time and also for the analysis of the difference between specific data like per capita income. In this chapter, I will use both approaches.

My first analysis focused on the fluctuation of municipal income between 2001 and 2015 and I tried to determine how much of the growth of income can be attributed to tourism and how much of it was due to other independent local reasons. I have defined the significance of tourism by the number of guest nights in 2015, and I have grouped the settlements into 5 categories based on their respective number of guest nights. The spatial dimension was defined by the districts of the region. The results of my analysis are shown in the tables below. The districts where the growth of local income was above the regional average in the respective period are marked with +100% and -100% marks the districts where the growth ratio was below the average. In 10 out of the 29 examined regions, the growth rate remained below the average between 2001 and 2015, and in 19 cases, the growth exceeded the regional average. Given that in 20 out of the 29 districts, the role of tourism was higher in absolute value than the role of independent spatial dimensions, it is clear that the tourism sector plays a significant role in the change of regional income. In other words, the income dynamics of these 20 districts are below or above the regional average because of their actual situation of tourism.

A closer look of the results implies further conclusions. If we compare the data of the Mátra region with the data of the other districts, we can see that the Mátra region covers 7 of the examined districts. However, there are only 3 districts where the majority of the settlements belong to the Mátra region: the Gyöngyös, Pétervására and Bátorfyerénye districts. Out of these 3 districts, the growth of income exceeded the regional average only in the case of the Pétervására district, while in the other two, the rate was below the regional average. In the case of the Bátorfyerénye district, the role of tourism is definitely a determining factor. With regards to the Gyöngyös district, the role of tourism and other independent factors are both negative and the significance of tourism lags behind the other factors. In the case of the Pétervására district, the significance of tourism is positive, but not enough to counterbalance the other local factors.

When we look at the data with regards to the whole Northern Hungarian region, it is revealed that the data of the Putnok and Füzesabony districts are similar to those of the Bátortereny district: tourism plays a significant role in the growth of income at district level. The results of the Belpátfalva district are the most similar to the data of the Pétervására district. The following table shows the distribution of different factors affecting the fluctuation of income in the case of each district.

District	Total	Spatial	Tourism
Cigánd district	100,0	53,9	46,1
Edelény district	100,0	31,1	68,9
Encs district	100,0	35,4	64,6
Gönc district	100,0	59,4	40,6
Kazincbarcika district	-100,0	-19,7	-80,3
Mezőcsát district	100,0	46,0	54,0
Mezőkövesd district	100,0	99,1	0,9
Miskolc district	-100,0	33,8	-133,8
Ózd district	-100,0	-137,8	37,8
Putnok district	100,0	-265,4	365,4
Sárospatak district	100,0	141,3	-41,3
Sátoraljaújhely district	-100,0	-0,5	-99,5
Szerencs district	100,0	7,3	92,7
Szikszó district	100,0	49,2	50,8
Tiszaújváros district	-100,0	-67,7	-32,3
Tokaj district	100,0	71,1	28,9
Belpátfalva district	-100,0	-203,0	103,0
Eger district	-100,0	14,3	-114,3
Füzesabony district	100,0	-149,1	249,1
Gyöngyös district	-100,0	-68,6	-31,4
Hatvan district	100,0	31,6	68,4
Heves district	100,0	-85,7	185,7
Pétervására district	-100,0	-518,4	418,4
Balassagyarmat district	100,0	-17,4	117,4
Bátortereny district	100,0	-113,9	213,9
Pásztó district	100,0	6,0	94,0
Rétság district	100,0	-24,6	124,6
Salgótarján district	-100,0	-33,0	-67,0
Szécsény district	100,0	-15,1	115,1

Table 6. Factors affecting the rate of surplus/missing income in the districts of the region³, (%)
Source: Hungarian Central Statistical Office. Own edition.

In the table below, green lines mark the positive changes in tourism, while the red lines indicate the negative processes. As the data are calculated in relation with a base value, we also need to analyse the deeper reasons. For example, the data of Miskolc and Eger (marked in red) are not necessarily ‘bad’, but indicate a slowing tendency, of which special attention should be taken.

³ Positive tourism effects are marked in green, negative tourism effects are marked in red.

District	Surplus income	Missing income	Favourable territoriality	Unfavourable territoriality	Positive effect of tourism	Negative effect of tourism
Cigánd district	5,6	0,0	6,0	0,0	3,0	0,0
Edelény district	7,7	0,0	4,8	0,0	6,2	0,0
Encs district	6,2	0,0	4,4	0,0	4,6	0,0
Gönc district	5,4	0,0	6,4	0,0	2,6	0,0
Kazincbarcika district	0,0	5,1	0,0	2,0	0,0	4,8
Mezőcsát district	5,1	0,0	4,7	0,0	3,2	0,0
Mezőkövesd district	8,5	0,0	16,8	0,0	0,1	0,0
Miskolc district	0,0	29,7	20,1	0,0	0,0	46,3
Ózd district	0,0	7,1	0,0	19,5	3,1	0,0
Putnok district s	1,1	0,0	0,0	5,8	4,7	0,0
Sárospatak district	4,9	0,0	13,9	0,0	0,0	2,4
Sátoraljaújhely district	0,0	3,9	0,0	0,0	0,0	4,5
Szerencs district	8,0	0,0	1,2	0,0	8,7	0,0
Szikszó district	5,7	0,0	5,6	0,0	3,4	0,0
Tiszaújváros district	0,0	18,2	0,0	24,7	0,0	6,9
Tokaj district	2,3	0,0	3,3	0,0	0,8	0,0
Bélapátfalva district	0,0	1,1	0,0	4,6	1,4	0,0
Eger district	0,0	17,4	5,0	0,0	0,0	23,2
Füzesabony district	2,7	0,0	0,0	7,9	7,7	0,0
Gyöngyös district	0,0	2,9	0,0	4,0	0,0	1,1
Hatvan district	11,1	0,0	7,0	0,0	8,9	0,0
Heves district	3,4	0,0	0,0	5,8	7,4	0,0
Pétervására district	0,0	0,7	0,0	7,6	3,6	0,0
Balassagyarmat district	7,1	0,0	0,0	2,5	9,8	0,0
Bátonyterenye district	1,6	0,0	0,0	3,7	4,1	0,0
Pásztó district	7,4	0,0	0,9	0,0	8,2	0,0
Rétság district	3,5	0,0	0,0	1,7	5,0	0,0
Salgótarján district	0,0	13,8	0,0	9,1	0,0	10,8
Szécsény district	2,8	0,0	0,0	0,9	3,8	0,0
<i>Total</i>	<i>100,0</i>	<i>100,0</i>	<i>100,0</i>	<i>100,0</i>	<i>100,0</i>	<i>100,0</i>

Table 7. The share of districts from surplus/missing income and their factors (%)
Source: Hungarian Central Statistical Office. Own edition.

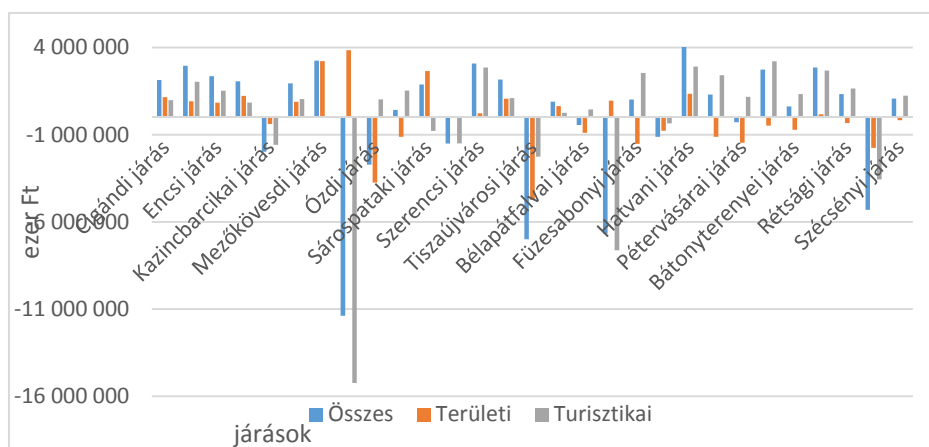


Figure 3. Surplus/missing income and their factors in the districts of the region, thousand HUF
Source: Hungarian Central Statistical Office. Own edition.

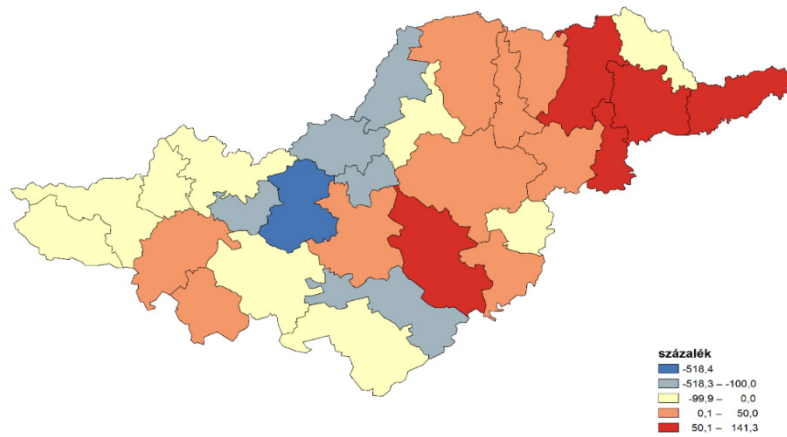


Figure 4. The role of spatial factors in the change of income in Northern Hungary between 2001 and 2015, (%)
 Source: Hungarian Central Statistical Office. Own edition.

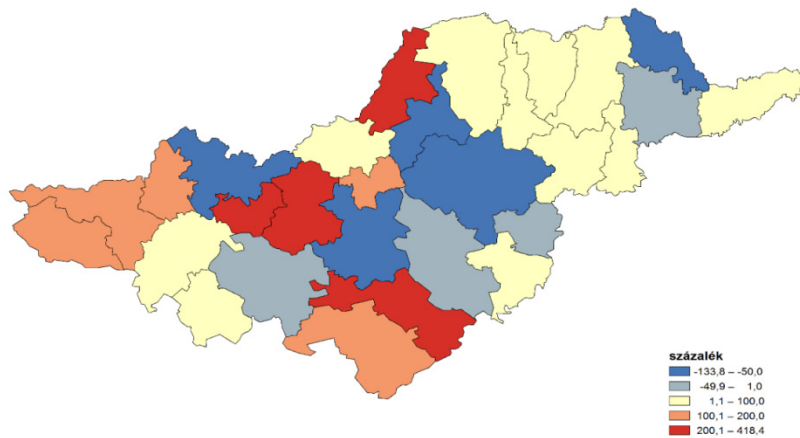


Figure 5. The role of tourism in the change of income in Northern Hungary between 2001 and 2015, (%)
 Source: Hungarian Central Statistical Office. Own edition.

The next analysis aimed to define how much the development level of each district is affected by the situation of tourism. The overall development level of the districts was indicated their economic situation, quantified by the per capita income in 2015. Out of the 29 districts, 12 has higher income than the regional average, with all the others lagging behind. With regards to the impact of tourism on the development level, there are 14 districts, where in absolute value, the role of the tourism dimension is more significant than the other factors. The table below clearly indicates the unfavourable situation of the Cigánd, Ózd and Szerencs districts. In the case of the Kazincbarcika, Mezőkövesd, Sárospatak and Sátoraljaújhely districts, the tourism dimension has a significant impact on the development level.

District	Total	Spatial	Tourism
Cigánd district	-100,0	-61,0	-39,0
Edelény district	-100,0	-59,5	-40,5
Enes district	-100,0	-53,3	-46,7
Gönc district	-100,0	-71,0	-29,0
Kazincbarcika district	100,0	-157,5	257,5
Mezőcsát district	-100,0	-40,4	-59,6
Mezőkövesd district	100,0	-492,5	592,5
Miskolc district	100,0	23,0	77,0
Ózd district	-100,0	-79,6	-20,4
Putnok district s	-100,0	-42,4	-57,6
Sárospatak district	100,0	-817,5	917,5
Sátoraljaújhely district	100,0	-167,3	267,3
Szerencs district	-100,0	-40,2	-59,8
Szikszó district	-100,0	-41,1	-58,9
Tiszaújváros district	100,0	84,8	15,2
Tokaj district	-100,0	-53,9	-46,1
Bélapátfalva district	-100,0	-55,9	-44,1
Eger district	100,0	41,1	58,9
Füzesabony district	-100,0	-6,8	-93,2
Gyöngyös district	100,0	92,3	7,7
Hatvan district	100,0	139,3	-39,3
Heves district	-100,0	-59,0	-41,0
Pétervására district	-100,0	-68,4	-31,6
Balassagyarmat district	100,0	233,4	-133,4
Bátonyterenye district	-100,0	-40,1	-59,9
Pásztó district	-100,0	34,1	-134,1
Rétság district	100,0	270,3	-170,3
Salgótarján district	-100,0	-186,0	86,0
Szécsény district	-100,0	-66,5	-33,5

Table 8. Factors of surplus/missing income in the districts of the region⁴, (%)
Source: Hungarian Central Statistical Office. Own edition.

⁴ With regards to tourism, positive changes are marjed in green; negative changes are marked in red.

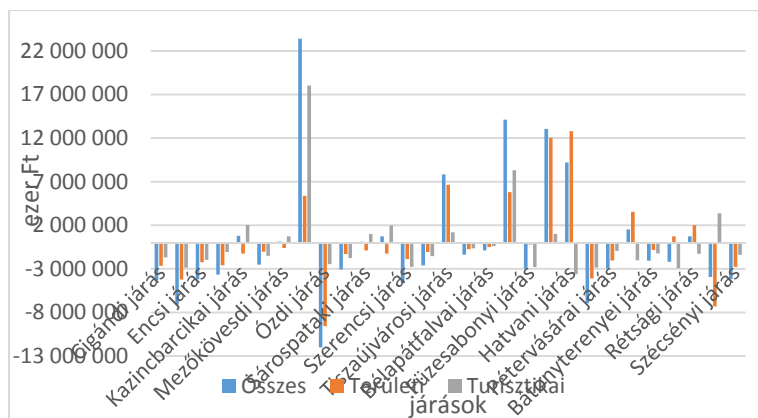


Figure 6. Factors of surplus/missing income in the districts of the region, thousand HUF
Source: Hungarian Central Statistical Office. Own edition.

District	Surplus income	Missing income	Favourable territoriality	Unfavourable territoriality	Positive effect of tourism	Negative effect of tourism
Cigánd district	0,0	6,0	0,0	5,4	0,0	4,5
Edelény district	0,0	9,9	0,0	8,6	0,0	7,6
Encs district	0,0	5,9	0,0	4,6	0,0	5,2
Gönc district	0,0	5,1	0,0	5,3	0,0	2,8
Kazincbarcika district	1,1	0,0	0,0	2,6	5,4	0,0
Mezőcsát district	0,0	3,5	0,0	2,1	0,0	4,0
Mezőkövesd district	0,2	0,0	0,0	1,2	2,0	0,0
Miskolc district	32,7	0,0	11,0	0,0	47,9	0,0
Ózd district	0,0	16,8	0,0	19,5	0,0	6,5
Putnok district s	0,0	4,3	0,0	2,7	0,0	4,7
Sárospatak district	0,1	0,0	0,0	1,8	2,6	0,0
Sátoraljaújhely district	1,0	0,0	0,0	2,5	5,3	0,0
Szerencs district	0,0	6,5	0,0	3,8	0,0	7,4
Szikszó district	0,0	3,6	0,0	2,2	0,0	4,1
Tiszaújváros district	10,9	0,0	13,6	0,0	3,2	0,0
Tokaj district	0,0	1,9	0,0	1,5	0,0	1,7
BÉlapátfalva district	0,0	1,2	0,0	1,0	0,0	1,0
Eger district	19,7	0,0	11,8	0,0	22,1	0,0
Füzesabony district	0,0	4,2	0,0	0,4	0,0	7,4
Gyöngyös district	18,2	0,0	24,6	0,0	2,7	0,0
Hatvan district	12,8	0,0	26,2	0,0	0,0	9,6
Heves district	0,0	9,7	0,0	8,4	0,0	7,6
Pétervására district	0,0	4,2	0,0	4,2	0,0	2,5
Balassagyarmat district	2,1	0,0	7,2	0,0	0,0	5,4
Bátonyterenye district	0,0	2,9	0,0	1,7	0,0	3,3
Pásztó district	0,0	3,0	1,5	0,0	0,0	7,8
Rétság district	1,0	0,0	4,1	0,0	0,0	3,3
Salgótarján district	0,0	5,5	0,0	14,9	9,0	0,0
Szécsény district	0,0	5,8	0,0	5,7	0,0	3,7
<i>Total</i>	<i>100,0</i>	<i>100,0</i>	<i>100,0</i>	<i>100,0</i>	<i>100,0</i>	<i>100,0</i>

Table 9. The share of each district from surplus/missing income and their factors, (%)
(With regards to tourism, the positive data are marked in green, and the negative data are marked in red.)
Source: Hungarian Central Statistical Office. Own edition.

With regards to the districts located in the Mátra region (highlighted with grey), the Gyöngyös district has a higher value of per capita income, but the share of tourism in that is only marginal. In the case of the Pétervására and Bátorfyerenye districts, their development level is below the regional average and the underdevelopment of tourism definitely has a negative impact on the situation. The Edelény, Ózd and Heves districts are in a similarly unfavourable situation. In the Northern Hungary region, the Eger and Miskolc districts have their per capita income above the average, with tourism playing a definitive role in both cases.

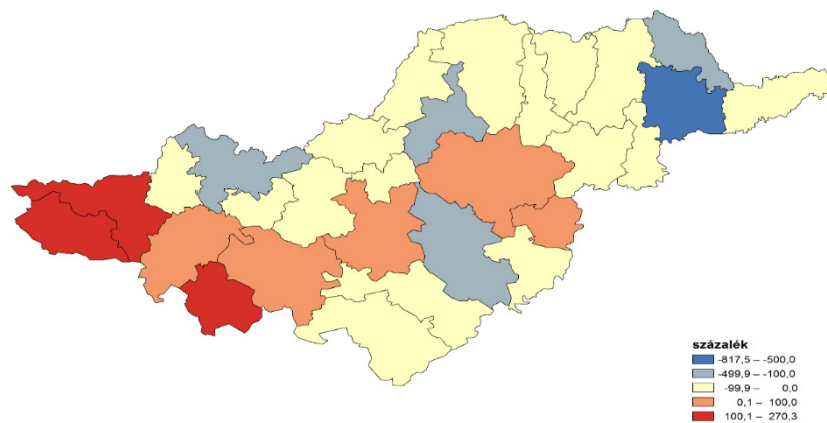


Figure 6. The role of territoriality in the development level of districts in the Northern Hungary region 2015, (%)

Source: Hungarian Central Statistical Office. Own edition.

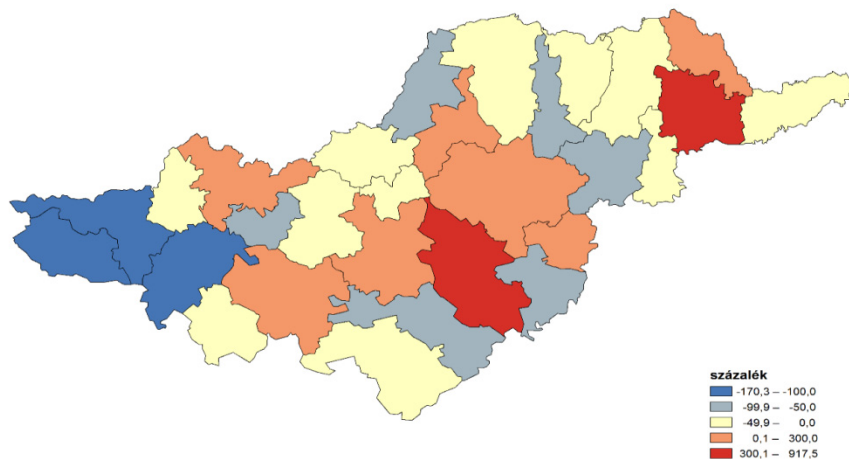


Figure 7. The role of tourism in the development of districts in the Northern Hungary region 2015, (%)

Source: Hungarian Central Statistical Office. Own edition

In summary, we can say that the role of tourism in the income dynamics and development level of the districts in the Northern Hungary region are lower than required. When comparing the districts of the region, tourism affects the income dynamics significantly only in the case of the two county capitals (Miskolc and Eger). In the case of districts with existing tourism destinations, their impact on the local development level is lower than expected.

Based on the results of the analysis, Hypothesis 6: *The income generating dynamics of tourism has a significant impact on the local development level in Northern Hungary* is partly justified and true.

4. CONCLUSIONS AND SUGGESTIONS

4.1. Summary of the research results

My research problems have defined three main objectives, divided into separate groups. My first objective (**O1**) was to analyse the existing terminology related to health tourism development so that the stakeholders of the tourism industry in the Northern Hungary region can assess their activities and opportunities precisely.

The second objective (**O2**) was the evaluation of destinations located in the Northern Hungary region, with regards to tourism planning and new challenges and the newly issued Tourism Development Act. I have examined the development opportunities of the existing destinations and whether they are suitable for further development and governmental investment, based on their historical background and traditions.

The third objective (**O3**) was to analyse the governmental income generating capacity of health tourism (indicated by the Tourism Development Act), focusing on the role of the income generating dynamics of tourism in the local development level in the Northern Hungary region.

Hypothesis	Research hypothesis	Result	New scientific result
H1	Health tourism in the Northern Hungary region has a wide offer of services, but differs from the new trends in international health tourism.	justified	R1
H2	Within the terminology of health tourism, definitions have different meanings, depending on the stakeholders who use them.	justified	R2, R3
H3	The historical development of health tourism in the Northern Hungary region has distinctive development stages, different from other regions of the country.	justified	R4
H4	The health tourism offer of the Northern Hungary region can be subdivided into destinations that are suitable for further development.	justified	R5
H5	The Mátra region as a health tourism destination has a uniform image concept.	falsified	R6
H6	The income generating dynamics of tourism has a significant impact on the local development level in Northern Hungary.	partly justified	R7

Table 10. Summary of hypotheses.

Source: Own edition.

With regards to my first hypothesis (**H1**), I have analysed the available health tourism offers of the Northern Hungary region. Thanks to its geographical assets, the region has the most versatile health tourism opportunities in Hungary. According to the central development ideas, the region plays a key role in the national health tourism strategy. The history of the health tourism culture – based on natural resources – dates back to the era and area of Austria-Hungary, and the new development

ideas from the 2000s are mostly based on these historical traditions. Due to their proximity and similar offers, the neighbouring countries are a serious competition in the Central Eastern European market. The international health tourism trends are changing rapidly; as of today, the most profitable segment is the sector of cost-effective medical services.

The research related to my second hypothesis (**H2**) revealed that both the Hungarian health tourism system and the development of its terminology were affected by several professional stakeholder groups. After the analysis of the processes in the health tourism industry, it appears that tourists tend to use additional and different terms related to the sector beyond the vocabulary set out in the legislative background documentation of the sector. However, the conscious use of terminology is essential in order to create a clear background of health awareness and prevention. As of today, the terminology used in Hungary is ambiguous and in many ways different from the vocabulary of international health tourism.

With regards to the third hypothesis (**H3**), I have carried out a historical overview of the development of health tourism in the Northern Hungary region. The results revealed that the development of health tourism in the region started in the Ottoman times, with the Turkish bath culture, which was also connected to the occupying Turkish population's intention to change the poor hygienic habits of local people. After WW I, the Northern Hungarian region appreciated and several central development projects took place in the area. During the communist regime, the area became an integrated part of the national development processes, with focus on the region's natural health tourism resources and thermal waters. After the 2000s, and mainly due to the National Development Strategy and the following Széchenyi Plans, the new and old destinations of the region have grown together with other national investments, and a unique health tourism model - the 'Healing Regions' pilot project - was also implemented.

With regards to the fourth hypothesis (**H4**), I have grouped the settlements of the Northern Hungary regions with regards to their health tourism destination opportunities. The detailed knowledge of spatial processes is essential for successful professional tourism planning, in order to design suitable spaces for the industry. The effects of climate change, the aspects of sustainability and the constantly changing trends in the industry require adequate preparedness both from entrepreneurs and professionals. As a result of the analysis, I have set up two groups of destinations: those to be improved and the group of settlements that are lagging behind. As a result of the historical development in the region, Eger and the Northern Mátra have the longest history of health tourism development in Heves county. According to the ideas of the Tourism Development Act, the legislative intent is to create new priority destinations; therefore it is essential that the decision makers have clear and detailed information about the existing conditions and opportunities of the settlement groups located in the region.

The fifth hypothesis (**H5**) was based on the idea of an existing health tourism image in the region. The analysis have revealed that the Mátra region does not have a regional central area or settlement that could determine or influence the development of a regional image. The independent TDM organisations that co-exist in the Mátra region, operate in separate geographical areas. Although they have some joint programmes and publications, they have different ideas of the regional image. In addition, the administrative fragmentation of the Mátra region further hinders the development of a unified regional image. As of today, health tourism entrepreneurs and service providers consider themselves as independent destinations and are not likely to take steps towards co-operation with their competitors.

The last hypothesis (**H6**) have analysed some contradictory phenomenon and processes. Within the frameworks of the research, I have examined the administrative districts and their tourism destination locations in the Northern Hungary region. The analysis of the processes clearly revealed that the income generating dynamics of tourism is not necessarily the key factor of local development. The results show that in some districts, tourism plays a priority role in the development processes; however this is mostly true in the case of the already developed areas. As for the less favourable districts, tourism may have some positive impact on the economic processes, but clearly cannot be the key of local development. In the case of the less favoured areas, even large scale tourism projects could not affect the improvement of development, because the existing local circumstances would prevent the facilitation of the industry's multiplier effects.

4.2. New scientific results

R1. The historical development of health tourism in the Northern Hungary region dates back to the era of the Ottoman invasion. As a result, health tourism in the Northern Hungary region had developed in a unique way, lacking the Roman traditions that can be traced in other regions of the former Pannonia province (i.e. in the western parts of Hungary).

R2. Introduction of the definition health tourism 2.0.

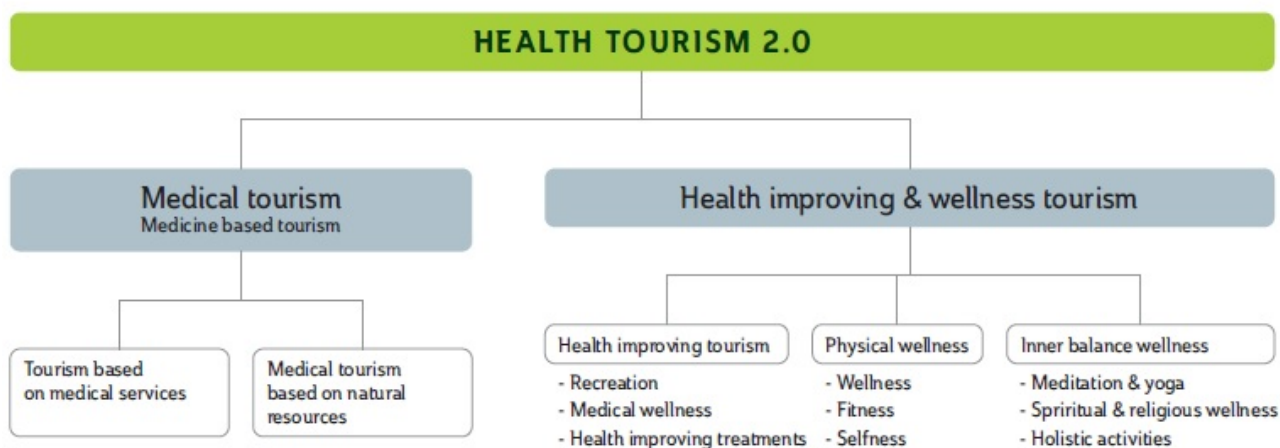


Figure 8. Health tourism 2.0
Source: Own research. Own edition.

Whilst studying the relevant Hungarian and international literature on health tourism, I have taken into account the novel tendencies that are likely to modify the current terminology. For the purpose of better understanding, I have compiled a novel structure (see Fig.8.) to illustrate the connections in a clear and detailed way.

R3. Health conscious tourism is popular in Hungary and its terminology is still developing. During my research, I have frequently come across a phenomenon, when – for health improvement, prevention or rehabilitation purposes - tourist take part in activities that are not accompanied with

accommodation or any other tourism services. This type of tourism is mostly specific to the groups of senior people.

R4. The Hungarian health tourism industry is mostly based on natural health resources, and its characteristics are similar to the features of health tourism in the neighbouring countries with the same historical background. This ‘traditional’ type of health tourism in Central Eastern Europe dates back to the era of Austria-Hungary, and is still specific to the health tourism of our neighbouring countries. At the same time, the more progressive international trends today focus on the profitability of the industry and offer cost-effective medical services for the consumers on a competitive basis. The leading countries in this new industry are located in Asia.

R5. Within the Northern Hungary region, the settlement groups in Heves County that are related to health tourism, are considered as possible priority health tourism destinations. Due to their unique development path, the settlements and settlement groups in Heves county have the oldest history of health tourism in Northern Hungary. With regards to their resources, Eger and its surrounding area and the Mátra region have the most diverse health tourism offer in Hungary. Heves county also has the highest number of settlements involved with health tourism.

R6. The Mátra region has no central settlement that would define its unified tourism image or further development opportunities. As of today, the Mátra region consists of numerous administrative units. Several TDM organisations operate in the region simultaneously, and their activities are mostly independent, except for a few joint events or publications. The health tourism destinations aim to sell their services and products independently and they are building their own separate brands.

R7. In comparison with other factors, the income generating dynamics of tourism is not a key element in local development processes. The detailed analysis of the data have revealed that successful tourism is not, by itself, sufficient to guarantee the success of local development. The process of local development is a complex phenomenon, and tourism is only able to contribute to the process under otherwise favourable conditions.

Suggestion 1: Uniform and state-of-the art health tourism accreditation standards should be introduced, with suitable legislative background in accordance with the demands of the health tourism industry.

Suggestion 2: The health tourism development of the Mátra region (which has outstanding health tourism resources) should be centralised with Eger as the regional centre.

Suggestion 3: To facilitate further and more detailed research in health tourism, a data service system, connected to the Hungarian Central Statistical Office, should be implemented at the health tourism service providers.

Suggestion 4: Introduction of the term '*health conscious tourism*', in relation with health tourism.

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