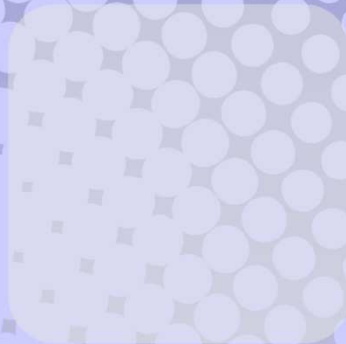


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DETUROPE

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IN MEMORY OF VLADIMÍR DVOŘÁK



uncommon language skills, he also contributed towards better communication in the multilingual environment of this editorial board.

We are very sad to announce the death of the founding Deturope's Editorial Board member Mr. Vladimír Dvořák. He initially promoted language teaching and he had worked in the field of tourism for his entire professional life. He had a great deal of experience in the academic sphere, but he also strongly contributed to the work of our editorial board as an excellent practitioner. He was a member of the Association of Scientific Experts in Tourism in the Czech Republic and he was also a member of the Tourist Association of the Town Rab in Croatia. The members of the Editorial Board will also miss him as an outstanding fellow, who managed to lighten the editorial board meetings' atmosphere. Thanks to his

Sa dubokom tugom javljamo svim našim cenjenim čitaocima, kolegama da je napustio ovaj svet član osnivač Uredjivačkog odbora naš poštovani kolega, gospodin Vladimír Dvořák.

Na početku karijere, posle školovanja na Pedagoškom fakultetu je radio kao nastavnik jezika, inače skoro cijelu profesnu karijeru je proveo u turističkoj privredi. Imao je dugogodišnje iskustvo u akademskoj sferi, ali u posao Uredjivačkog odbora časopisa DETUROPE je dao veliki doprinos kao izvrstan praktičar. Bio je član Društva naučnih eksperta u oblasti turizma i član Hrvatske turističke zajednice grada Raba. Članovima Uredjivačkog odbora će nedostajati i kao odličan kolega, koji je uvijek znao sve radne sastanke olakšati i takodjer je znao svojim jezičnim sposobnostima doprineti dobroj komunikaciji u višejezičnom prostoru.

S hlubokým zármutkem oznamujeme, že nás náhle opustil zakládající člen ediční rady pan Vladimír Dvořák. Původně vystudovaný jazykový pedagog pracoval po téměř celou profesní kariéru v oblasti cestovního ruchu. Měl dlouholeté zkušenosti v akademické sféře, ale k práci ediční rady časopisu DETUROPE přispěl také jako vynikající praktik. Byl členem Společnosti vědeckých expertů v cestovním ruchu a Chorvatského turistického sdružení města Rabu (Turistička zajednica Grada Raba). Členům ediční rady bude chybět i jako vynikající

společník, který dokázal odlehčit pracovní schůze rady a jazykovými znalostmi přispět k dobré komunikaci ve vícejazyčném prostředí.

Sajnálattal értesítjük kedves olvasóinkat, kollégáinkat, hogy eltávozott a Szerkesztő bizottság megbecsült tagja Vladimir Dvorak úr.

Nyelvtanárként dolgozott a tanulmányai befejezése után a Pedagógiai fakultáson, majd teljes további karrierjében a turizmusban dolgozott. Sok éves tapasztalattal bírt az akadémiai szférában, de a DETUROPE Szerkesztőbizottságában, mint kiváló gyakorlati érzékkel bíró szakember működött közre. Tagja volt a Turisztikai szakértők társaságának és a horvátországi Ráb sziget – város turista szervezetének. A szerkesztőség tagjainak hiányozni fog a kiváló kolléga, aki minden szerkesztőségi ülés munkáját és a többnyelvű kommunikációs terület zavartalan működését segítette.

EDITORIAL

The Hungarian Regional Science Association

The Association was established in February 2002 by proposal of Regional Science Committee of the Hungarian Academy of Sciences and became officially registered at the Baranya County Court in December 2002 in Pécs.

The Association:

- provides professional forum for regional scholars and practitioners,
- disseminates the latest developments of Hungarian and international regional science research,
- serves as a bridge between international and Hungarian regional scientists by getting connected with international regional science organizations (ERSA/RSAI, RSA),
- builds contacts with regional policymakers to publicize findings of regional science research,
- provides support to scientific research institutes, universities and other organizations where regional science is currently practiced or will be practiced in the future,
- supports regional scientists to publish and popularise their research findings by means of offering research funding, scholarships and other initiatives,
- organizes conferences, workshops as well as publishing books and other publications to widen the audience as well as the community of users of regional science research.

The Hungarian Regional Science Association has more than 400 registered members associated with various organizations (research institutes, universities, central, regional and local government bodies, public and private companies etc.). Currently the HRSA has 104 active members from Hungary and 93 registered members from neighbouring countries. HRSA operates 12 regional sections (in all the 7 regions of Hungary and in 5 regions abroad where Hungarian speaking regional specialists are working). Half of the sections operate on a regular basis. The Association also serves as the Hungarian section of the European Regional Science Association.

HRSA Annual Meetings

The HRSA organizes thematic annual meetings, which were as follows:

- 2003: Future of Hungarian regionalism (in Pécs, in co-operation with the Centre for Regional Studies of HAS)

- 2004: Regional development and planning (in Nyíregyháza, in co-operation with the College of Nyíregyháza)
- 2005: Regional Transition in the Carpathian Basin (in Sopron, in co-operation with the West-Hungarian University)
- 2006: The role of cities in regional development (in Szeged, in co-operation with University of Szeged)
- 2007: The role of industry in regional development (in Miskolc, in co-operation with University of Miskolc)
- 2008: New elements in rural development (in Gödöllő, in co-operation with Szent István University)
- 2009: Cross-border and transnational cooperation (in Subotica, Serbia, in co-operation with Regional Science Association Subotica)
- 2010: The role of knowledge in regional development (in Debrecen, in co-operation with University of Debrecen)
- 2011: The role of waters in spatial development – Development problems and opportunities of the Danube and Tisza regions (in Komárno, Slovakia, in co-operation with Selye János University)
- 2012: Regional science today and tomorrow (in Győr, in co-operation with Széchenyi István University)
- 2013: The New European Cohesion Policy (in Kaposvár, in co-operation with Kaposvár University)
- 2014: Local development (in Veszprém, in co-operation with University of Pannonia)

The 12th Annual Meeting

The 12th annual meeting of the Hungarian Regional Science Association held between November 27–28, 2014 in Veszprém was hosted by the Faculty of Business and Economics, University of Pannonia. The circa 160 participants of the two-day meeting discussed issues of local developments and local socio-economic opportunities. As in previous years, the conference began with the General Assembly of the HRSA. The morning programme was centered on annual reports, regional sections' reports and the debate on the 2015 Draft Programme. Following the General Assembly, two plenary sessions were held during the afternoon, the first in English and the second in Hungarian language.

The foreign guest speaker of the conference was Roberta Capello, Past-president of Regional Science Association International, and Editor-in-chief of the scientific journal

„Papers in Regional Science”. In her presentation, the Professor of Politecnico di Milano *Static vs. Dynamic Agglomeration Economies: Spatial Context and Structural Evolution behind Urban Growth* presented novel, dynamic possibilities of the analysis of agglomeration economics and urban growth in a European context. A general consensus exists in the acknowledgement of metropolitan growth narrowing the development opportunities of smaller cities. The higher development level of metropolises is evident in a static view, however, by taking into account the time factor, the development of each settlement (small and large cities) can be demonstrated. According to the results obtained from the model elaborated by the Author and her collaborators (Roberto Camagni and Andrea Caragliu), agglomerations containing one dominant large city are characterized by lower development levels than those constituted by several smaller settlements. The number of inhabitants does not significantly influence urban growth, as opposed to the availability of urban functions. This latter influence decreases with the increase of settlement size. (Roberta Capello received information about the current conditions of Hungarian metropolitan growth in Győr just one day before the annual meeting, in the framework of the presentation on the spatial dimensions of the knowledge-based economy in Europe given to the students and professors of the Doctoral School of Regional and Economic Sciences, Széchenyi István University.)

Ádám Török, General Secretary of the Hungarian Academy of Sciences, Professor of University of Pannonia gave a plenary speech on the competitiveness of Hungarian innovation and science policy in which he investigated the Hungarian results in a European and a global context. In relation to the R&D&I policy efforts of the European Union, it can be stated that it strives to improve the performance of innovation systems by enhancing a single input indicator, while output and results indicators remained in the background for a longer period of time. The objective of the Lisbon Strategy in 2000 was to raise overall spending in the Union on R&D with the aim of approaching 3% of GDP by 2010. However, the average **GERD/GDP** ratio was 1.9% in 2010, showing almost no increase in a period of ten years. The same 3 percent ratio figures among the main targets of Europe 2020, the most recent growth strategy of the EU as well. The inclusion of indicators measuring R&D expenditure in the business sector (BERD), the number of employees and the efficiency of R&D in the analyses is highly recommended. The second part of the presentation focused on the possibilities of the measurement of scientific activities, such as the number of publications, citation indices, scientific and university rankings.

The English-language session was closed with the joint paper of Zoltán Gál, Senior Research Fellow of HAS CERS Institute for Regional Studies and Gábor Lux, Research

Fellow of HAS CERS Institute for Regional Studies. They presented the main findings of the project titled ESPON ET2050 (Territorial Scenarios and Visions for Europe), with a special focus on Central and Eastern Europe and the Danube region. Their speech began by examining the roots and causes of economic disparities between Western and Eastern European territories, followed by a presentation of scenarios for 2050 as outputs of the project. Four heterogeneous visions were elaborated: a base scenario relying on current indicators, one designed for large cities, one for mid-sized cities and a last one targeting regional developments. A main conclusion of the research is that the current state of affairs is likely to prevail in the absence of significant political and technological changes even post-2030.

The Hungarian-language plenary session was opened by the presentation of Bálint Csatári, Former President of the Hungarian National Rural Network, in which he investigated the opportunities of community based local developments from the aspect of rural areas. This category, exceeding the notion of local development, in addition to investigating it from a complex interdisciplinary (politological, geographical, economic and sociological) approach, contains several elements and mechanisms which can be counted among the factors of smart, sustainable and inclusive growth, thereby enhancing the local development performance of sectoral policies. The knowledge, sense of belonging and the vision characteristic of the local economy and society are of key importance in the elaboration of development plans and concepts, however, leadership and community-forming capacities of local personalities are equally important. The Hungarian National Rural Network (MNVH) can be regarded as a possible pattern of community based developments, providing opportunities for project proposals in order to boost rural co-operations as a quasi non-governmental organization.

Zoltán Bajmócy, Associate Professor of Faculty of Economics and Business Administration, University of Szeged called attention to a major deficiency, namely that the objectives of local economic development are generally rarely discussed by the professional literature, while the main focus is on the analysis of the availability and application of instruments. While it is crucial to investigate instrument-oriented development, the study of skill-based local economic development cannot be neglected either. In the latter case, the individual participates in the processes as a stakeholder, disposes of capacities of choice, and at the end of the process, he or she will be able to live a life considered valuable with reason. The scope of the empirical analyses of the research extended to the developments of Hungarian cities with a county status, and it was demonstrated that competence-based local economic development was virtually absent from the Hungarian practice, new partners were

seldom included in the elaboration of urban partnership consultation plans, the inclusion of the local population and publicity were lacking during the initial phases. It was left for inhabitants to make certain steps towards increasing their chances of participation, however, participation tended to provide instruments only for those with power, and not for individuals excluded from power.

Cecília Mezei, Research Fellow of HAS CERS Institute for Regional Studies gave a presentation on the role of self-governments in local developments. During the 1990s, in harmony with the regulations post-regime change (Act on Local Governments, Act on Public Finances), the developments of municipalities were generally targeted at local infrastructure, had a typically ad hoc character, while during the second half of the decade, as a supplement to the provision of obligatory tasks, local development led by local governments was carried out on a residual basis. With EU integration in the 2000s, almost each development relied and depended on community funding. Due to the current centralization of public tasks and their financing, local governmental development resources and opportunities diminished. Local governmental developments are of crucial importance according to the empirical analysis, in 2003, 85% of the leaders of settlements considered that local economic development should be included among the basic responsibilities of local governments, which are in charge of ensuring its conditions, have access to local knowledge and must tackle unemployment and in general, they are the single most competent stakeholders. Nevertheless, they are lacking the necessary financial resources and their competences are not clarified either.

The closing speaker was Szabolcs Hollósi, Managing Director of BFH Európa Project Developing and Consulting Ltd., who gave a presentation on the role of the private sector in local economic development. The firm operating in three locations in Western Transdanubia participated in over 500 projects over the past ten years with an overall value of 40 bln HUF. The employment programs conducted by the organization are of outstanding significance, whose participants were local governments, enterprises and civil organizations, and their target was to increase employment through employment pacts and a broad partnership among participants. In order to achieve this, the employer-demand-led programs and the practice of dual training were often required. On the basis of the experiences of the head of the company, it is necessary to upgrade the professional and development institutions on each territorial level (national, county and settlement).

The granting of awards took place following the plenary session. According to the unanimous decision of the General Assembly, the Association granted the Pro Regional Science Award to HRSA Vice-president Attila Buday-Sántha, Founder of the Doctoral School

in Regional Policy, Professor Emeritus of Faculty of Business and Economics, University of Pécs, who passed away on May 17, 2014, to acknowledge his outstanding achievements in research, education and school-founding activities in the area of regional science. The Pro Regional Science Award was established in 2012. The HRSA grants this award to a natural person whose outstanding activities contribute to the development of regional science and the realisation of the objectives of the Association. This was the second occasion that the Award was granted to someone, the geometric small plastic and certificate of merit it involved were received by the family of Professor Attila Buday-Sántha.

The Association announced the call for applications for the Excellent Young Regionalist Prize, which the Presidency of HRSA - in collaboration with leaders of HRSA regional sections - awarded to Zoltán Bajmócy in order to acknowledge his valuable educational and research activities in the field of regional science. Twelve parallel thematic sessions – one in English language - were held during the second day of the conference which were as follows:

- Local developments in the globalizing world, global–local relations (Chair: József Nemes Nagy Professor, Eötvös Loránd University; Vice-president of HRSA)
- Local development strategies in city regions (Chair: János Rechnitzer Professor, Széchenyi István University; President of HRSA)
- Smart specialization of university cities (Chair: Imre Lengyel Professor, University of Szeged; Vice-president of HRSA)
- Local governments, public utility service (Chair: Zoltán Agg Editor-in-chief, Comitatus)
- Social development, innovations in the peripheries (Chair: Éva G. Fekete Professor, University of Miskolc)
- Community-led local development, agriculture and rural development (Chair: János Schwertner President, Academic Society for the Development of the Micro-regions)
- Social well-being and competitiveness (Chair: Viktória Szirmai Professor, Kodolányi János University of Applied Sciences)
- Local economic development, labour market, education and training (Chair: Károly Fazekas General Director, HAS Centre for Economics and Regional Studies)
- Tourism as a tool of local development (Chair: Tamás Molnár Associate Professor, University of Pannonia)
- Environmental factors, renewable energy and local development (Chair: Viktor Varjú Research Fellow, HAS CERS Institute for Regional Studies)

- Borders, borderlands and local development (Chair: Attila Fábián Dean, University of West Hungary Faculty of Economics)
- Local development in Central Europe (English session) (Chair: Zoltán Gál Senior Research Fellow, HAS Institute for Regional Studies)

Thematic Issue

Issue number 2. (2015) of the journal DETUROPE is of special significance from several aspects. This is the first time that an issue of the journal has a concrete topic as its focus. Moreover, this is the first volume which publishes only English-language studies. The thematic issue is also a novelty from the aspect of Hungarian Regional Science Association since the selected studies presented at its annual meeting are now published in an individual issue of a scientific journal. Over a 100 presentations were held at the annual conference. One-third of the presenters were requested to submit their publications on the basis of the proposals of sessions' chairs. 18 authors succeeded in meeting the requirements of the thematic issue and submitted their manuscripts in the form of journal articles before the deadline. The papers were adapted to the requirements of DETUROPE and following a lengthy (double-blind) process of peer review they were published all together at the same time. In our hopes, the publication of the issue will constitute a milestone both for DETUROPE and HRSA. It also contributes greatly to the realisation of our common objectives, especially those of internationalisation and supporting regional research. The Presidency of HRSA hereby expresses its gratitude to the Editorial Board of the journal and its Editor-in-chief, Prof. Sándor Somogyi.

Szilárd Rác

Editor of thematic issue

LOCALITY-BASED AND PLACE-BASED DEVELOPMENT IN THEORY AND PRACTICE – AN EXAMPLE OF THE HUNGARIAN COUNTRYSIDE

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Abstract

Local development has been always considered an important instrument in the renewal of the rural economy, society and settlements, but recent changes of rural areas led to the conceptual expansion of the term. Besides locality-based development, the significance of the novel concept of place-based development has also been recognised. Place-based development not only takes the local characteristics into account, but tries to harmonise the development processes of the different sectors and territorial levels. The core of place-based approach is the well-coordinated, multilateral and continuous communication between the actors and institutes from different territorial levels and different sectors. Our paper provides an overview of the concepts of locality-based and place based development, and investigates their applicability to the development of the Hungarian rural areas. The presented results of a survey which involved the experts in the Hungarian National Rural Network provide additional information about the Hungarian rural development and the necessity of place-based approach.

Keywords: locality-based development, place-based development, rural areas, rural development, Hungarian National Rural Network

INTRODUCTION

In the second half of the twentieth century European rural areas have undergone a drastic change in both the market and planned economies. Agriculture, the former backbone of rural economy, lost its dominant role in employment and its ability to sustain local population has been drastically reduced. Many rural localities are not attractive for the new, post-fordist industries and suffer from high long-term unemployment. With no barriers before it, globalisation can also freely form the countryside. Some of its processes threaten the local values and traditions, while others can lead to the renewal of the countryside. The growing global interest for sustainable living, fair-trade or locally produced food, local specialities and

generally local heritage can open the door for new approaches with an emphasis on local characteristics.

Local developments have always been considered an important instrument in the renewal of the rural economy, society and settlements. However, recent changes of rural areas necessitated the conceptual expansion of the term and further increased its significance. Nowadays developments are not only local in the sense that an investment, project or program carried out in a certain locality, but locality-based with a deeper connection to the local level. For example, the idea for the project or program can originate from the local community, the investment or project may take the geographical characteristics of the localities into account, the investors and project-makers seek for the agreement and support of the local community and try to involve them in the decision-making process. But most importantly, the overall impact of the development to the selected (rural) locality has to be positive with measurable outputs which can be assessed through complex evaluation methods, and it has to be in accordance with the long-term development concepts of the locality. Locality-based developments have to meet with many requirements: to stimulate the local economy, to emphasize sustainability, to provide new workplaces and to help the integration into the regional economy. Fulfilling these needs resulted in locally applicable rural planning and development methods, some of which later integrated into the LEADER type development models, in accordance with the increasing role of rural development within the EU in the last two decades.

In the new millennia, these main goals best represented in the complex strategic planning document Agenda 2020. The authors of the Agenda 2020, besides acknowledging the significance of locality-based development, also emphasized the importance of place-based development (Csatári, 2011; Zaucha – Swiatek – Stanczuk-Olejniki, 2013). The main concept behind the place-based approach is that the renewal, development and closing up of rural regions will not be successful, if the planning and development process in other sectors (e.g. social) do not take the local characteristics, the differences in needs, possibilities and innovative capacities into account. The experiences of the earlier Leader programmes, which have already proved to be effective, can help to integrate the place-based approach into the projects. The place-based approach institutionalised with the introduction Community-led Local Development (CLLD) groups.

The aim of this study is to introduce the concepts of locality-based and place-based development and to overview their applicability in the present and future framework of the Hungarian rural development. The empirical data of this study collected during a survey

involving the experts in the registry of the Hungarian National Rural Network in the spring of 2014 (Kovách – Czibere, 2014; Csatári – Farkas – Lennert, 2014).

APPROACHES OF LOCALITY AND LOCALITY-BASED DEVELOPMENT IN DIFFERENT FIELDS OF SCIENCES

One might think that the idea of taking the local characteristics into account is evident and does not require special attention, but it is enough to recall some recent historical examples to realize: this is not the truth. Both during the Fordist economic paradigm and in the socialist planned economy the different localities are considered as a natural space to carry out investments following a universal scheme. Some attempts of the socialist regimes ignored even the fundamental natural physical limits (like cotton plantations in Hungary). These extreme cases of geographical nihilism are nowadays the targets of mockery for a good reason.

However, because of their diverseness, taking the local characteristics into consideration is not an easy task. The attributes and differences of localities are investigated by a wide range of fields of studies. Each field of study uses different methodology and approach for spatial analysis. The lack of synthesis between the different fields and their research results can be held partially responsible for the failure of local developments in many cases, especially in Hungary. The four most important fields of studies in this aspect are geography, sociology, economics and public administration, but politology, ethnography and other social sciences also include spatial considerations.

Geography is known as the primary study of space. During its course of development, it mainly focused on the descriptive analysis of unique places for a long time. Besides that, geography also studies the properties of abstract space and tries to uncover the laws behind the patterns of spatial phenomena. The necessity to take the geographical characteristics into account often mentioned in the European and national development strategies, but we cannot talk about geographic characteristics in general. Geography has two main branches (physical geography and human geography) with features connecting it to both natural and social sciences. For a long time mostly only the physical geographic characteristics were taken into consideration, but recently the developers started to recognise the importance of human geography too.

Sociology is the academic study of social behaviour, and examines the structure, characteristics and relationship networks of society. One of its branches, rural sociology,

which main concerns are the characteristics of rural society, is especially important for the locality-based and place-based development.

In economics (especially in regional economics), spatial approach appeared first in the location theories. Location theory is concerned with the geographic location of different types of economic activities, and the determinants behind the patterns. Traditional location factors include, for example, physical geographic attributes and accessibility (distance from markets). With the post-Fordist paradigm shift, the role and acknowledgement of non-traditional location factors (e.g. local knowledge, cultural heritage, and preserved natural environment) increased. While economics tend to create laws for abstract space, the importance of geographic space was also recognised recently by significant economists, e.g. Paul Krugman (1998). Krugman also identified (and illustrated with examples) a previously overlooked factor for the location of economic activities: coincidence (Krugman, 1991).

Public administration and legislation (as an academic field and as a practice) can be viewed as the application of the knowledge of the aforementioned academic studies. Public administration has a key role in identifying and delimiting certain localities. Every local community has its own perception about its surroundings and its boundaries, which are based on the geographic, social and economic characteristics. The deeply embedded local identities connected to certain regions (Őrség, Kiskunság, Bereg, Ormánság) can be mobilized to contribute to locality-based development. In order to utilize these positive energies, the administrative divisions should reflect to the mental image of the localities as much as possible. Based on the common methodology of the different academic fields, each member state places the emphasis on different characteristics and uses different criteria to describe and delimitate the localities (e. g. rural areas). A delimited locality is suitable for locality-based development only if it has certain homogeneity, distinguishable functions (residential area, agricultural area, recreational area) and it is in accordance with the perception of the locals. In Hungary, the lack of a well-functioning micro-region system is a big hindrance for the rural development. The creation of the new Hungarian micro-regional system (járás system) could resolve this issue, but unfortunately these micro-regions mostly fulfil administrative roles and do not catalyse local development.

THE CONCEPT OF PLACE-BASED DEVELOPMENT

The changes in the concept of locality-based development and in the priorities of the European rural development policy are connected to the overall reform of the Common Agricultural Policy at the end of the twentieth century. In the modified concept of rural

development, dubbed “LEADER superproject” by Christopher Ray, the focus is shifted on utilising the endogenous resources and the unique characteristics of rural localities. This project-based developmental and institutional approach can be perceived as a common European answer for the challenges of the model of welfare state. The main goal of this European rural experiment was to encourage the local actors to take measures for their own well-being.

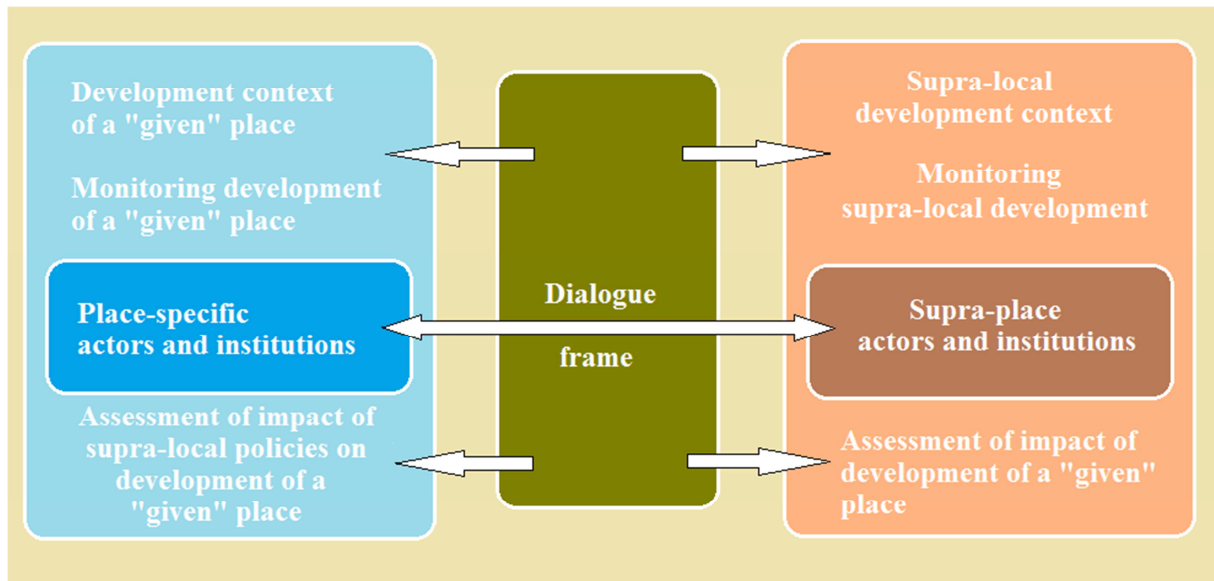
The enlargement of the EU also underlined the necessity of new methods of development. After the enlargement the existing regional (and rural) policies proved to be inadequate to achieve the stated goals for territorial cohesion. The limited success of reducing the territorial disparities in East-Central-Europe indicated that substantial change can be only achieved with synergy between the development programs of different sectors and additional efforts are necessary to integrate these development programs to become organic components of the localities.

In our opinion, place-based developments have a more complicated organisational and financial structure than locality-based developments. The financial sources of place-based developments include structural, cohesion, human or social EU funds too, and they form a very sensitive, integrated planning and programming approach with respect to the territorial aspects. This new development concept appeared in the Barca-report first (Barca, 2009, 2011).

This new concept anticipates that the place-based approach will improve the implementation and effectiveness of different sectoral policies with utilising the internal development potential of the localities and tailoring the planning and programming to the local circumstances. The fields of studies mentioned in the previous chapter can contribute with their research results to identify the different traits of localities (micro-regions). The place-based approach increases the significance of these different characteristics, and integrates them to the national and European development processes.

The core of place-based approach is the well-coordinated, multilateral and continuous communication between the actors and institutes from different territorial levels and different sectors (Fig. 1). This can also prevent the dominance of local and regional self-interest during the preparation of development policies.

Figure 1 Key elements of the place-based approach



Source: Zaucha et al., 2013, p.13

In the report Place based territorially sensitive and integrated approach, which was prepared at the request of The Network of Territorial Cohesion Contact Points (NTCCP), the following main conclusions were outlined about the place-based development (Zaucha et al., 2013):

- All the necessary ingredients of the place-based approach are in place
- Countries' approaches may differ, there is no universal template of the place-based approach
- Territory can be considered as an important topic for cross-governance dialogue within the place-based frame
- Elements of the place-based approach which require more attention: the way territorial knowledge is collected, multi-level governance dialogue and its instruments
- Some policies already strongly benefit from territorialisation (e.g. transport policy, environment policy, urban policy, regional policy, spatial policy) which should be continued, but there is a further need to extend the place-based approach to some other policies with the substantial potential for territorialisation, mainly: R&D policy, business policy, employment policy, education policy, health policy, and perhaps also fishery policy

Without doubt, the place-based development is more than a simple methodical improvement of the locality-based rural development already in use. Its main novelties are the focus on the synergies arising from the coordination of the sectoral policies in the development area, and the implementation of the already successful LEADER method in other areas, for example in the form of CLLD.

Figure 2 The two approaches of community-led local development



Source: Fekete, 2014

According to Fekete Éva, there are two paths of community-led local development (CLLD) (Fig. 2). One concentrates on the development of local economies and the other focuses on the improvement of local communities. The place-based approach will only be successful if both solutions are used, depending on whichever sector try to implement this novel thoughts.

Another key concept concerning the local characteristics is culture economy. After Cristopher Ray (1998), the term culture economies quickly became a keyword in rural development. Culture economies rely on the utilisation and capitalisation of local knowledge, which Ray considers a special product of the micro-region, and to some degree, a result of geographical determinism. The success of the wine routes across Europe and Hungary is a good example for the concept of culture economies in practice.

The spread of new approaches in the rural development also comes with some unfavourable consequences. A relatively new sociological phenomenon in the rural society, that the more and more exclusively project-based rural development lead to the formation of a new "project class". The power of members of the project class comes from their special knowledge about the often complicated project system and from their social connections (often with ties to the political sphere). Because of their fundraising ability, they became an essential part of local developments, and their absence in the most peripheral regions often lead to the lack of monetary funds and deepening poverty. On the other hand, the members of

the project class are outsiders in the rural localities and often engage in projects which are not in accordance with the local needs (Kovách, 2013).

The concepts of decentralisation and subsidiarity dominated the rural development policy for a long time, which was favourable for the place-based development. Unfortunately, the financial crisis limited the availability of central funds. The governments made attempts to centralise the financing (but they left the project-based funding untouched) and also decimated the financeable topics. This increases the chance that the local development projects remain isolated, without multiplicative effects and positive influence to their surroundings. These trends are observable in Hungary too. The legislative changes, although did not take the responsibility of settlement development away from the local municipalities, limited their authority and available funds. Centralisation also included the local primary schools, which are crucial for the identity and self-organisation of the local communities. The scarcity of income sources and the legislative changes also made the connection to the micro-regional development and the foundation of rural development cooperations more difficult.

PROBLEMS OF LOCALITY-BASED AND PLACE-BASED DEVELOPMENT IN THE HUNGARIAN COUNTRYSIDE

In Hungary, the first development programs after the economic transition, which specially targeted truly rural areas, were some of the PHARE programmes. Shortly after the political and economic transition, in many micro-regions the rural settlements already created similar organisations like their Western European counterparts. After agreeing on the common development goals, they created voluntary micro-regional foundations, cooperations and organisations in the hope of financial support. This was the beginning of real cooperation based on subsidiarity and local attributes in many rural parts of the country (Zala-KAR Regional Innovative Association, Cserehát Municipality Alliance, Siklós-Villány Wine Route Association). The Hungarian Rural Parliament, founded in 1998, was the first attempt to bring together these local associations.

These associations were trailblazer attempts in Hungary for the better utilisation of local values, and mostly based on self-support (see Fig. 2). The enactment of Act XXI of 1996 on Spatial Development and Planning provided a relatively well-described path for their further development. It defined the micro-regions as an indispensable institute for the development of the group of settlements. The first National Rural Development Plan of Hungary was prepared for the EU accession and successfully integrated the multidisciplinary knowledge and visions

of different fields and studies about the rural areas, unfortunately its new approach did not appear in practice (Csatári, 2005).

With the introduction of newer organisational and programming approaches, and with the changes in the distribution of EU funds, the main focus of the rural subsidies shifted to agrarian-rural development. In the development of the local economy, the emphasis shifted to the creation of new employment possibilities with the involvement of local enterprises (see Fig 2). In the programming period 2007-2013 local rural developments mostly connected to the third and fourth pillar of CAP, in the regional and sectoral programs the rural areas and specialities were not highlighted and did not provided sufficient funds either.

The Hungarian National Rural Network is a unique organisation in the Hungarian rural development. At its foundation in 2008, it mostly consisted of academic researchers and intellectuals longing for the renewal and development of the countryside (Glatz, 2008). After the end of 2010, it was operated within the National Agricultural Advisory, Educational and Rural Development Institute as a professional, quasi non-governmental umbrella organisation in regular contact with thousands of rural development organisations, associations, experts and local leaders, supporting the Hungarian rural development, especially local developments.

The legal sources of the European Agricultural Fund for Rural Development prescribe that each Member State shall establish a network. The national rural networks are formed from different stakeholders of the countryside in order to stimulate communication and exchange of information at regional, national and European level aiming the introduction the local development actions. These networks organise various professional events, operate communications tools and play an important role in the dissemination of proven best practices and of methods of local rural developments. At the European level, the national rural networks serve as an interface for the continuous dialog between national and local organizations and administrations taking part in rural development. The aim of the Hungarian National Rural Network (HNRN) is to organize governmental and local institutions, social organizations, professional bodies, business organizations that are involved in rural development into an information and cooperation network; as well as to coordinate their actions in order to the socio-economic development of the countryside together with the alignment of less developed areas and the effective use of supporting funds– to ensure this way the possible introduction of the tailor-made local development model.

According to the referring ministerial degree the HNRN had started its activity as a modern professional-civil network that paid attention to the bottom-up approach as well as to rural development solutions imposed “from above”. It was operating as a meeting-dialogue place,

as a body for collecting and transferring rural development ideas, and it served as a “sponsor” for other networks working in the countryside, too. Aiming for tailor-made local development the HNRN tried to unite all possible rural actors, because – as it has been demonstrated by researches of the private sector – the criterion of real innovation is cooperation or so called “network addiction”. One of the biggest challenges for the Hungarian rural society is the renewal of the planning and programming activity and to find answers to the new challenges. In this process a well-managed Network could play a significant role supporting professional organisations and uniting national and European Union actors.

In the past years it has become a characteristic of local and transnational cooperation supporting the planning and development activities: a number of cultural and traditional festivals, niche rural publications, booklets and theoretical and practical information were published (Tab. 1). A lot of rural projects were realised with the support of the Network. Nowadays these projects have become really active local and regional programmes containing socio-economic and social elements. The bigger part of these projects could be connected to the traditional local development activities. But there were some projects that were able to fulfil the criteria of the tailor-made local development guaranteeing the synergy effect of more sectors (environmental protection, organic farming, rural tourism, community-building trainings, etc). These successful attempts indicate that the expression „rural development” based on the characteristics of the Hungarian countryside has to be interpreted in a broader sense; and further expansion and operation of the Network could provide significant support to additional professional planning and programming activities.

Beyond the traditional rural actors the Network has to set the following targets: to promote education and training, culture, corporate social responsibility, gender equality, environmental awareness and sustainability, as well as to unite local youth policy actors working in the field of youth protection (rural formal and informal communities, religious communities, regional governments, entrepreneurs, etc.).

Using the experience - and results in case of success – from the HNRN related planning, management and implementation of professional, thematic model programs, could help to develop the local actions into programs with national coverage. Concerning these sample programs tailor-made local developments should be preferred with the following expectations: results oriented approach, embracing community initiatives, local modelling of multifunded aids and the testing, practising and widely spreading of the adaptable “best practices”.

Table 1 In the period from 2012 to 2014 the following projects were carried out by the HNRN

Number of projects	2012	2013	2014	Total
I. Rural development project ideas				
1. Preparation of LEADER transnational cooperation	23	27		50
2. Knowledge transfer	11	36	51	98
3. Event	53	90	111	254
4. Publication	13	50	67	130
II. Projects of national importance	22	141	109	272
III. Projects of the Presidium	67	34	17	118
IV. Projects of the Sections				
1. Section: Competitive agricultural production	14	14	8	36
2. Section: Agro-environment	4	3	6	13
3. Section: Rural life quality	52	43	3	98
4. Section: LEADER	10	10	9	29
Total	269	448	381	1098

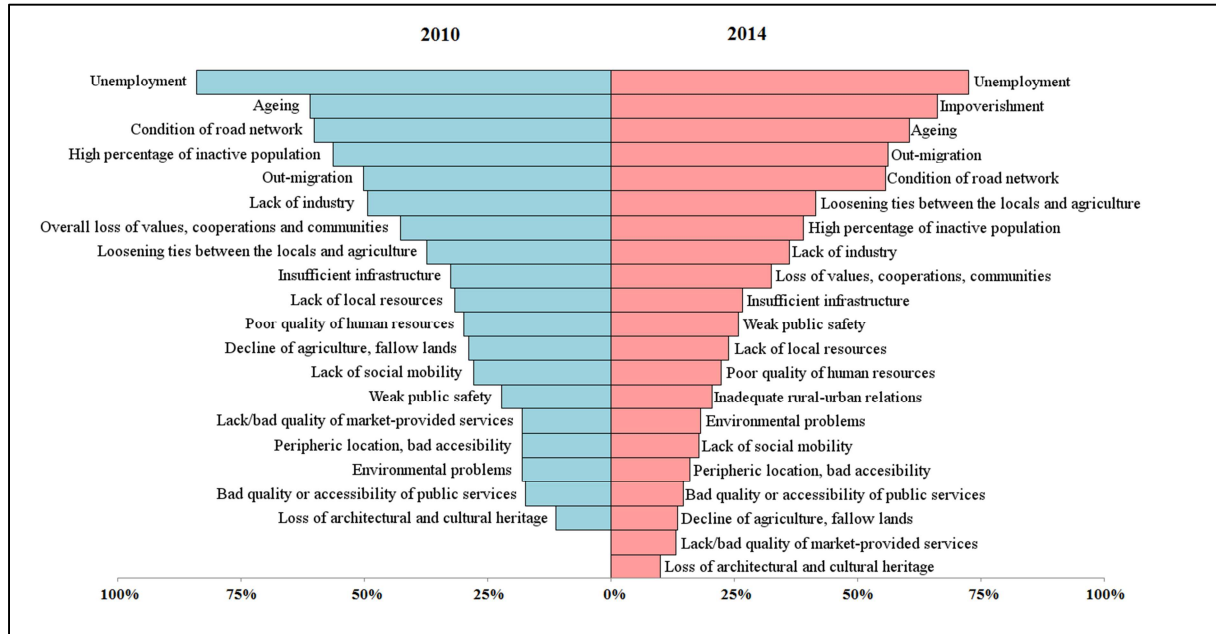
Source: The authors' own collection.

The experts in in the registry of Hungarian National Rural Network can also provide valuable insights about the rural areas and development. The changes in their perception of the rural problems and rural development were investigated with the help of two surveys, which were conducted over the internet in 2010 and 2014 (Kovách – Czibere, 2014; Csatári et al., 2014). In 2010, 1023 surveys were sent out and 351 individuals responded. In 2014, the response rate was different for each question. From the 11609 registered members of the Hungarian National Rural Network, 1750 individuals opened the questionnaire, and the number of answers for each question was varied between 500 and 1000. Their answers point out the most pressing problems of rural areas, and the issues which require locality-based or place-based approach.

In one question, the participants had to select the eight most pressing problems from a list (Fig. 3). The difference is minimal between the answers of 2010 and 2014, which implies the persistence of main problems in the rural areas. This also suggests the ineffectiveness of the recent problem-solving attempts. In our opinion, some of these problems, like unemployment, rural out-migration and ageing could be more effectively addressed with the extended use of place-based approach, including the coordination of the existing programs of adult education

infrastructure development and regional development, and utilising the endogenous resources of the localities.

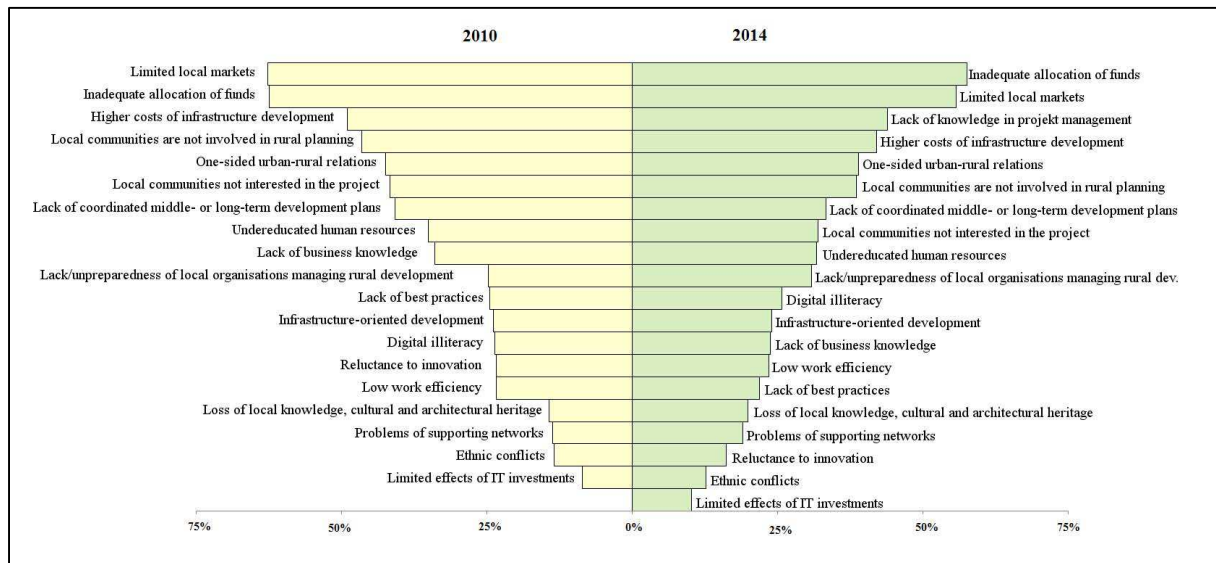
Figure 3 The most pressing rural problems in Hungary



Ed.: Lennert J.

Source: Csatári et al., 2014)

The answers also highlight the loosening ties between the locals and agriculture, which also means the weakening ability of primary production to sustain local production. This finding also supports the tendency to shift the focus of rural development from agriculture to a more integrative approach involving other sectors too. It is also worth to mention that the availability of local knowledge, cooperation and local values is not especially endangered according to the respondents. These local resources can form the basis of locality-based and place-based developments. The results of the other presented question about the biggest hindrances of rural development also underline the importance of locality-based and place-based approach (Fig. 4). According to the respondents, the success of rural development can be increased with a more adequate allocation of funds, boosting the local knowledge in project management and with the involvement of local community in rural planning. It is also worth to mention that while the recent attempts to promote local production networks was at least partially successful, the inadequate allocation of funds became the biggest obstacle of rural development to 2014, which is in accordance with the critical opinions about the distribution of funds during the 2007-2013 programming period.

Figure 4 The biggest hindrances of rural development

Ed.: Lennert J.

Source: Csatóri et al., 2014)

The answers also highlight the importance of locally present experts of rural development. They possess the essential knowledge in project management which absence is considered as one of the biggest hindrances of rural development, and they can also facilitate the involvement of local communities into rural planning. The registered members of the Hungarian National Rural Network with their connections to rural development and with their strong local identity can fulfil this role.

CONCLUSIONS

In the financial and programming period 2007-2013 the EAFRD funds have become the primary financial sources for local development in the Hungarian countryside. Yet, their impact on the local communities was only moderate, mostly because the plans and implemented programs took the local characteristics and resources into account insufficiently. The local developments could not exceed the sectorial limitations and lead to complex, integrated spatial development. This is partly the fault of the dysfunctions in the administrative system in regional and sub-regional level. While the role of the NUTS2 statistical regions decreased, the counties and the newly formed districts were incapable to contribute to rural planning and programming. Similarly to some international examples, after the economic crisis, centralisation tendencies appeared in connection to rural development.

Our survey also proved that many experts live in the Hungarian rural areas (some of them are registered members of the Hungarian National Rural Network), who can also contribute to

rural planning and development. They are also open to new approaches like place-based development, and they already realised that the limited effectiveness of rural development programs can be related to the lack of place-based approach. However, place-based approach will only be successful if the participating experts, entrepreneurs and institutes will be able to organise the necessary continuous multilateral dialogue. Also, in accordance with the shifting focus from regions to cities in the European development, a stronger cooperation between cities and rural areas is necessary, which, similarly to place-based development, also require multidisciplinary approach.

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REGIONAL DEVELOPMENT TRENDS AND THE REGIONAL DEVELOPMENT INSTITUTIONS IN THE VISEGRAD COUNTRIES – ENABLING OR HINDERING INSTITUTIONAL ENVIRONMENT?

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Abstract

Different regional development patterns and processes have emerged in the Visegrad countries (Czech Republic, Hungary, Poland and Slovakia) since their accession into the European Union, in the past ten years. The reasons behind these different regional development trajectories mostly have been contributed quite rightly to the economic transformation processes where these post-socialist countries have to reorganize and to reconstruct their economies.

The aim of this paper is to highlight the possible linkages between the individual countries' particular central and territorial development institutional settings with the different regional development process trajectories: the two types of regional development systems in the Visegrad countries (centralized and decentralized) and the two main regional development processes (growing and non-growing regional disparities).

Keywords: Regional Development, Institutions, Regional Disparities, Subsidiarity

INTRODUCTION

In the Visegrad countries there is one general phenomenon: the emerging development disparities between the capital regions and between the rest of the countries' regions, as it is highlighted in the Cohesion Reports of the European Commission. However, apart from this general feature, there are different trends in these countries' regional economic developments.

In the pre-accession process of these countries, the subject of multi-level governance had played an important role in negotiating with the European Commission (Bache, 2010). The incentive coming from the commission was twofold in the process of the adoption of the "Regional policy and coordination of structural instruments" chapter of the common European law. On the one hand the commission had effectively been pushing the countries towards a devolved, decentralized governance structure and on the other there was the objective to create an effective administration system, which can manage the European development

funds. The result has been emerging various territorial self-government and regional development systems in the new member states (Bruszt, 2007 and 2008, Scherpereel, 2007). 55% of the regulatory frameworks have been prescribed by the EU institutions, and the new member states have been responsible for the remaining 45% (Wostner, 2008).

THE ROLE OF INSTITUTIONS IN REGIONAL DEVELOPMENT

The national level – which had traditionally been considered to be the main focus of economic policy – has gradually lost of its importance mainly as the result of the various international treaties and emerging free trade systems especially within the European Union. In economic development policy literature a shift of attention has taken place where the source of competitiveness is increasingly considered to be the regional/local micro-economic level. Specific attention has been given to the territorial aspect of various factors and endowments which are more and more considered to be the localized source of economic development in the globalized world, making up the concept of territorial capital (Camagni, 2009). These local and regional factors can also be seen as “institutions”. According to the institutionalist view (Amin, 1999), the key element in the economic development of the regions is the “ability to evolve in order to adapt” (Amin, 1999, 372). The role of governance is especially important in the case of the less favored regions in mobilizing and building up local resources and capacities (Amin, 1999, 375).

Institutions (formal and informal) can be found in various forms in times and in places, consequently there are considerable difficulties to formulate adequate economic development policies which are primarily focusing on them. On the level of a national government, it is especially demanding to define the most appropriate economic development policies for any given region. There is the view, that regional development policy can only be effective when it is executed on regional level, with an institutional focus (Rodrigues-Pose, 2010). As Elinor Ostrom (Ostrom, 2007) has established – based upon the analysis of the various governance systems of collective goods –, that on any fields of social interactions the self-governing systems are more efficient. The source of this superior efficiency is not coming from the magical “grass-roots” quality, but rather it’s a reflection of the fact that the social capital in these systems – which is created by the operational (formal and informal) rules – is more likely to survive and to develop in the networks and norms created by the participants. This can also be seen as the real basis of the recently emerged concept of economic resilience and resilient regions (Tóth, 2012). There is also the view, that “market preserving federalism” (Weingast, 1995), that is “the political decentralization of economic authority” (Weingast,

1995, 6) have been historically the key factor in economic growth and development in various countries. These considerations give a more general framework for analysis of the Visegrad countries' regional development institutions, then the so called "effectiveness view", where usually the institutional arrangements considered only from the point of view of the "absorption of the EU funds" (Perger, 2009). Regional economic development, on the contrary is usually been analyzed and explained from multitudes of aspects, but "unfortunately, the economists' focus ignores politics" (Weingast, 1995, 2) and the role of formal and informal institutions (North, 1994). Based on these considerations, the regional development institutions of the four countries can be analyzed in a wider framework. It is especially important to see, to which extent these institutional developments were part of a larger scale institution building and especially effective decentralization processes in the Visegrad countries.

REGIONAL DEVELOPMENT INSTITUTION SYSTEMS IN THE VISEGRAD COUNTRIES - CENTRAL INSTITUTIONS

In Poland, the Ministry of Regional Development has been established right after accession of the country into the European Union in 2005 and was operating until 2013 with the same portfolio. From then on, the Ministry has taken over the responsibility for transport, building and maritime affairs, too.

In the Czech Republic, the Ministry of Regional Development has been established in 1996, and operating then on with the same portfolio. The responsibilities of the ministry—besides regional development - are including the housing and construction affairs, public procurement, spatial planning, investment policy and tourism.

In Slovakia, the Ministry of Regional Development and Construction has been operating since 1999. The ministry in the meantime had been merged with the Ministry of Transport and Communications. In addition to the regional development portfolio, the ministry is also in charge for construction, tourism, telecommunication and PPP (Public Private Partnership) projects as well.

In the case of Hungary there is an ever changing government structure concerning regional development. Compared to the other Visegrad countries in Hungary, the responsibility for the management of regional development policies has very frequently been restructured in the central government (Rechnitzer, and Smahó, 2011). It has been the subject of intra governmental reorganization for five times since 2004. In Hungary there had been a separate national office in charge for the management of the European funds (including the European

Regional Development Fund), and there is a separate central administration for regional development, which was managing domestic funds. It was an unusual solution, since in Hungary the central management of regional development in the middle of the 1990's, was established in order to be prepared for the EU accession. The resulting situation has been regarded as "the house built next to its foundations" (Pálné Kovács, 2004; Perger, 2010). One can observe an unusual institutional instability on the level of the central government in this policy area.

Thus concerning central government institutions dealing with regional development the situation was rather stable in the other Visegrad countries compared to Hungary. This stability is all the more striking given the fact that in Poland, in the Czech Republic and in Slovakia too, the ministries of regional development are also responsible for the management of EU funds and cohesion policy at the same time. There are even more remarkable contrasts between the other three countries and between Hungary in the territorial institutions of regional development.

THE TERRITORIAL SYSTEM OF REGIONAL DEVELOPMENT IN POLAND AND THE ECONOMIC DEVELOPMENT PROCESSES OF THE REGIONS

In Poland the regional self-governments, the voivodships are responsible for regional development. The 1999 administration and local government reform (OECD 2008) has created three layers of territorial division of the country. The 16 voivodships are at the NUTS II, regional level. The voivodship self-governments – among other things – are responsible for the regional development planning and for the implementation of plans, and all of them are having their own regional development agencies. In Poland – as it was noted earlier – the formation of territorial self-governments and the creation of the regional development system went hand in hand in a coherent manner. The subsidiarity principle in the decentralization process has been closely observed (Kulesza, 2002; Mezei and Schmidt, 2013). The creation of the Polish system of self-governments had been a long procedure which had already been started in 1989, and it had been ongoing for ten years, until 1999. The key momentum was the adoption of the new constitution in 1997, in which the subsidiarity principle and the foundations for the self-government system's fiscal autonomy have been laid. The voivodships have been established in a planned and organized way, based on a political and social consensus. The decentralization processes in Poland have resulted real autonomy for the local and territorial self-governments, in which fiscal autonomy was a key factor.

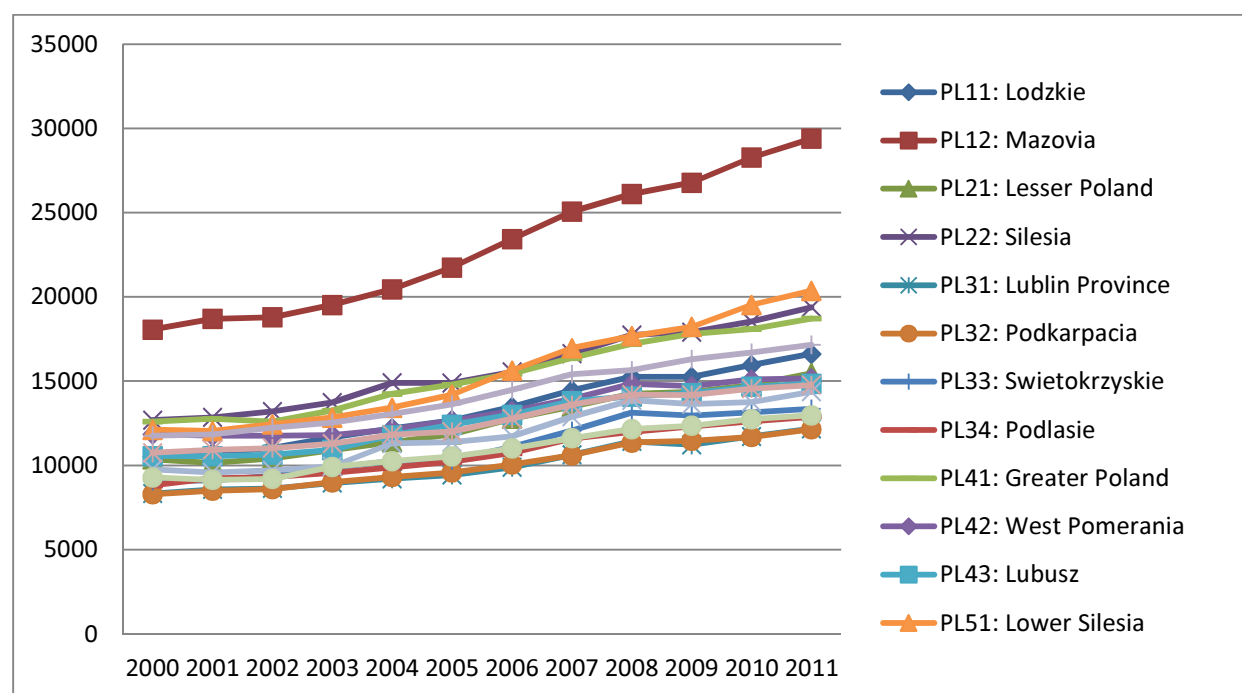
2004-2006 programming period

Right after the EU accession one regional development plan was implemented for all the regions in the country financed from EU funds. This single regional operational program had been managed and implemented in cooperation with the voivodships and the Ministry for Regional Development. These experiences have been considered by all the participants as a learning process by the help of which the voivodships were preparing for independent program planning and implementation (Dabrowski, 2007). The Voivode (the representative of the government) and the Marshall (elected head of the assembly) had a split responsibility in the execution of the program, while the partnership principle has been applied through the establishment of the regional management committees. The regional development agencies have also been established in this period.

2007-2013 programming period

In the current recently closing programming period of 2007-2013, all the voivodships have implemented their own regional operative programs. In this period 25% of all the EU funds have been allocated and spent in the framework of regional programs. Looking at the effectiveness of Polish regional policy, the regional disparities have been grown between 1995 and 2009, where the capital region and the western regions developed more rapidly. The recent development processes of the Polish voivodships show (Fig. 1), that apart from still significant difference between the capital region (Mazovia) and the rest of the regions, the development disparities have not grown dramatically within Poland.

Figure 1 Change in GDP / capita in the Polish Regions Between 2000 and 2011, in USD - constant PPP, constant (real) prices (year 2005)



Data source: OECD (OECD 2014)

In the Polish case it can be observed that the 2008-2010 world economic crisis have not made a significant impact upon the development of the regions. The main issue here is that even the less developed regions are going ahead, and – according to the EuroStat (EuroStat, 2014) – only one region is below the 50% development threshold (only with 1%).

THE TERRITORIAL SYSTEM OF REGIONAL DEVELOPMENT IN THE CZECH REPUBLIC AND THE DEVELOPMENT PROCESSES OF THE REGIONS

In the Czech Republic, like in Poland, the territorial self-governments are responsible for regional development. Here also a lengthy debate had taken place, which preceded the establishment of the regional government system (Baun, and Marek, 2006; McMaster, 2004; Neuman, and Neuman, 2010). The EU accession had played a significant role in the making of a decentralization process (Brusis, 2003). The European Commission had exerted pressure on the country in order to establish a territorial self-government system. Right after the “velvet revolution”, local governments have been established. On district level governmental offices operated above the level of the more than 6.000 local governments. These offices were belonged to the Ministry of Interior, and the other ministries operated branch offices in them (Suchacek, 2005). The large number of local governments had created coordination problems for the central government (Blazek, 2002), but this situation had initiated some spontaneous

solutions, too like the Ostrava-Kravina agglomeration's social and economic council (Suchacek, 2005). In the Czech Republic the establishment of the territorial self-governments has been a result of the Act on Regional Governments, which came into force in the year of 2000. The newly established regional government bodies' competencies and the role of the regions had been consolidated until 2004 and their identity creation role had also been increased. Many uncertainties surrounded the financial system of the municipalities and the regions. The local and regional governmental finances have undergone major changes between 1990-1992, 1993-1995 and 1996-2000 (Blazek, 2002). The present system is operational since 2001. The Czech local and regional governments are enjoying real fiscal autonomy provided within a stable legal framework since 2001. From among the established 14 regional governments only Prague, Moravia-Silesia and Central Bohemia meet the European NUTS II level criteria. Each region has a directly elected assembly. The competencies of the regional assemblies including regional development, the coordination between municipalities, secondary education, health, social care, public transport and the maintenance of the road network. The issue of the establishment of the Czech regions had been a subject of heated political debates, the result of which was a consensus about need and the usefulness of decentralization.

2004-2006 programming period

In the Czech Republic there are eight NUTS II level cohesion regions. In addition to the already NUTS II level two regions, the other regions grouped to form NUTS II level cohesion regions. In this first period the Czech Republic has also implemented one single Joint Regional Operative Program, in which the managing authority had been the Ministry for Regional Development, while there were the 26 intermediate bodies involved in the program's execution (Šumpíková, Pavel, Klazar, 2004). The Czech regional assemblies' secretariats and the regional offices of the Centre of Regional Development were responsible for these tasks (Šumpíková, Pavel, and Klazar, 2004). Here this first period was conceived also as a learning process, and as the result of it, the regional self-governments had become ready for full-scale program implementation in the next period.

2007-2013 programming period

In the Czech Republic all NUTS II level regions have had their own operational program in the currently ended 2007-13 cohesion period. The regions were responsible for the planning of the programs, and they have been responsible for implementation as well. The regional (2) and the cohesion regional councils (6) are the management authorities and their agencies are the intermediate bodies for their regional programs. It means that the Czech regions, similarly

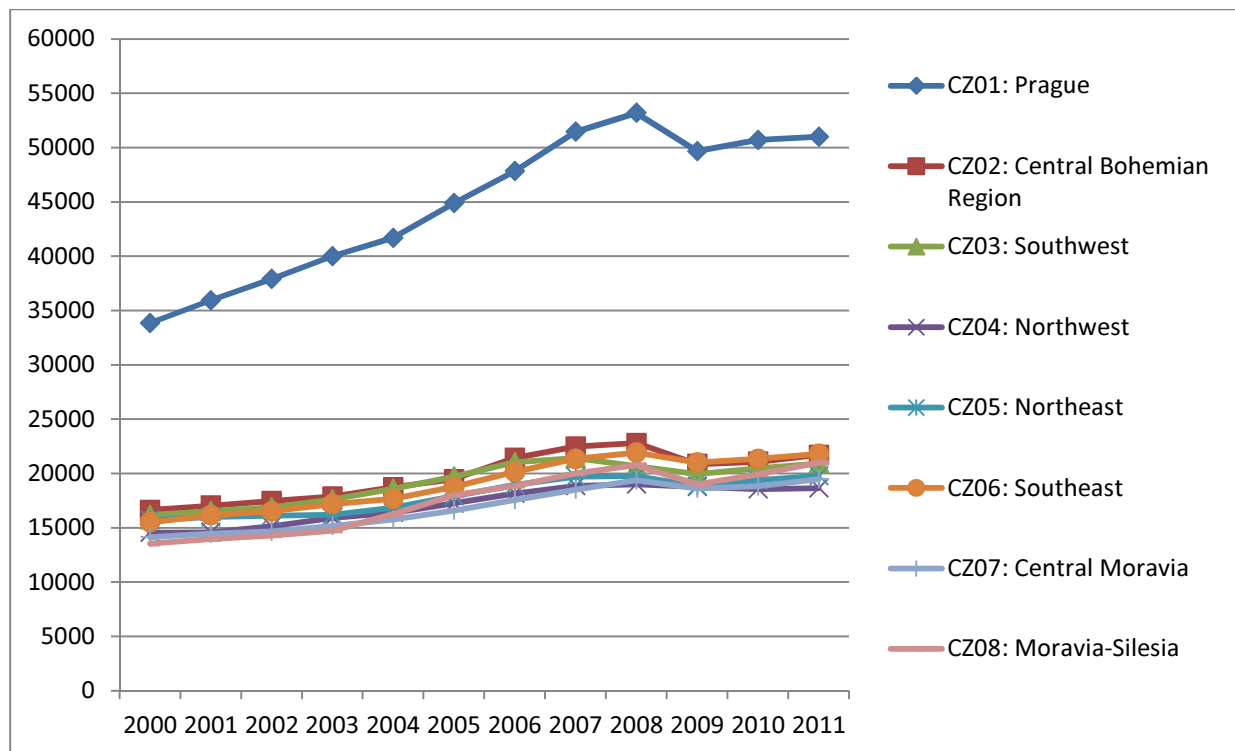
for the Polish voivodships are fully in charge for the management of their EU funds based development programs. The regional assemblies have also established their development committees in which the representatives of local governments, businesses, trade unions and non-governmental organizations involved. These committees are responsible for the monitoring activities.

Since their establishment, the Czech regional self-governments have played an important and growing role in regional development. Their approval has been increased and, according to some surveys, 85% of the Czechs are having regional identity (Baun and Marek, 2006).

The regional disparities in the Czech Republic are the second largest among the Visegrad countries after Slovakia, however this due to the outstanding development level of the capital city Prague. It should be noted that no Czech region is below the 50% of the EU average regional development level, even the most underdeveloped North-West region is standing at 63% (EuroStat 2014).

The development trajectory of the Czech regions shows (Fig. 2.) – similarly to the case of the Polish regions – that there is no widening development gap among them.

Figure 2 Change in GDP / capita in the Czech Regions Between 2000 and 2011, in USD - constant PPP, constant (real) prices (year 2005)



Data source: OECD (OECD 2014)

One can observe in the above figure, that the 2008-2010 economic crisis has made an impact upon the Czech regions' development, but the gap between the most and the least developed NUTS II level region is very small – excluding Prague – and not widening. The territorial differences are the least significant compared to the other three Visegrad countries.

THE TERRITORIAL SYSTEM OF REGIONAL DEVELOPMENT IN SLOVAKIA AND THE DEVELOPMENT PROCESSES OF THE REGIONS

Slovakia's eight county governments were established in 2002. The counties' competencies are similar to the Czech regions', with the exception of health care, where they have fewer tasks. It should be noted however, that despite the fact that the counties' basic duties include the regional development task, they are only partially involved in the implementation of EU programs. In Slovakia the decentralization process has not been implemented fully: the counties do not enjoy the same level of competencies in regional development like their Polish and Czech territorial self-government counterparts (Brusis, 2003). The counties' fiscal autonomy is also limited; all their financial resources are coming from the central government.

2004-2006 programming period

Slovakia had not implemented regional development operative program in the first cohesion period. The Agriculture and Rural Development Operative Program was the only territory focused, while the remaining four OPs were national level ones. (McMaster, Novotny, and Polverari 2005)

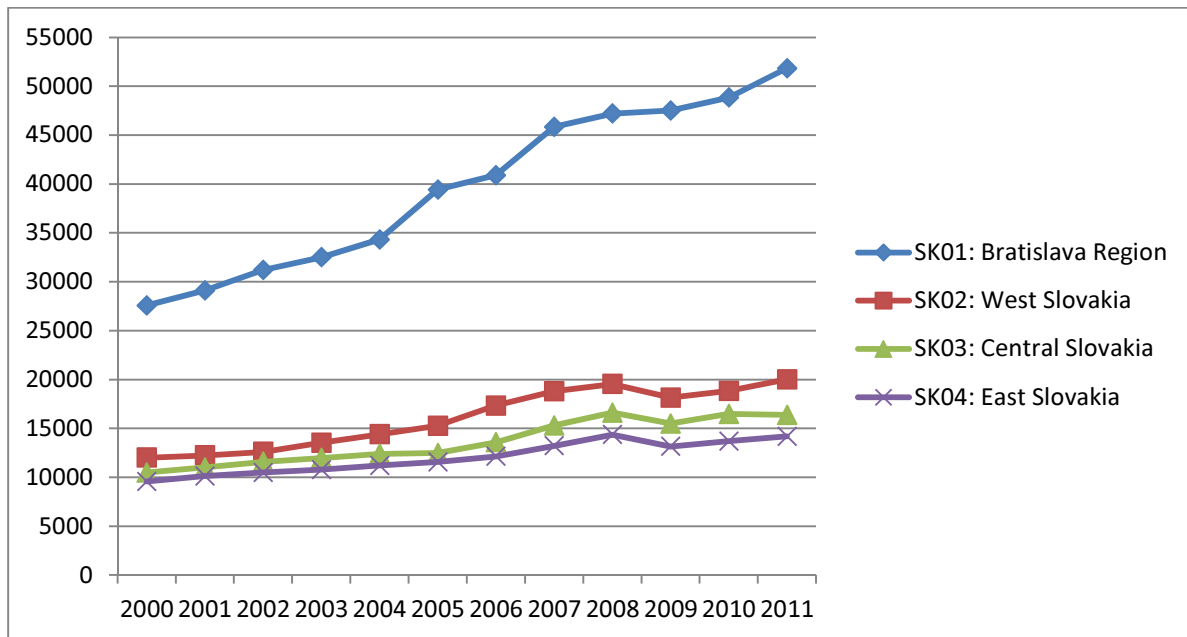
2007-2013 programming period

Slovakia has been implementing a single regional operative program in 2007-2013. The managing authority for the regional programs is the Ministry for Agriculture and Rural Development, based on the ministry's previous experiences in territorial program management. The Slovak counties are operating only intermediary body organizations. Interestingly, the regional development agencies owned by the counties are only part of the 52 such organizations operating nationwide. These intermediary bodies are contracted directly by the Ministry for Regional Development, to provide support for the project beneficiaries in the implementation of their projects. Their responsibilities are regulated in the 2008. Act No. 539 on Support of Regional Development.

Slovakia territorial disparities are among the largest in the Visegrad countries. It is primarily due to outstanding development level of the capital (Michalek, and Podolák, 2011). In Slovakia even the least developed region is reaching 50% of the EU average (Eurostat, 2014)

in GDP/head terms. The average level of economic development of the Slovak regions is essentially similar to the Polish regions'. The experts of the OECD LEED program have recommended recently that the counties responsibilities in regional development should be increased (OECD LEED, 2012).

Figure 3 Change in GDP / capita in the Slovak Regions Between 2000 and 2011, in USD - constant PPP, constant (real) prices (year 2005)



Data source: OECD (OECD 2014)

The (Fig 3.) three Slovak NUTS II level regions of West, Central and East Slovakia are showing diverging economic development dynamics - in contrast to the Czech and Polish experiences - where Eastern Slovakia falling back visibly.

THE TERRITORIAL SYSTEM OF REGIONAL DEVELOPMENT IN HUNGARY AND THE DEVELOPMENT PROCESSES OF THE REGIONS

In Hungary contrary to the systematic decentralization processes that have taken place in Poland, in the Czech Republic and to lesser extent Slovakia, an ever changing and complicated governance system for regional development has emerged, which has become more and more separated from the local governments.

With the establishment of local governments in 1990, the previous territorial development and coordination role of the counties had been abolished. At the same time the role and the importance of regional development planning had been downgraded. The counties (NUTS III level) while kept their role in providing territorial public services, had no taxation powers and

relied entirely on transfers from the central budget without any fiscal autonomy. There were no incentives in place for the local governments for cooperation, and the small associations usually were alliances of the villages against center town of the area. In the perspective of the EU accession, county level development councils have been established in order to observe the partnership principle within which along with the representatives of the county local governments were participating the representatives of business and the NGO sectors. Later the regional development councils were organized on NUTS II level. A more general problem however, that the Hungarian local governmental sector can be described as “decentralization without subsidiarity” (Vígvári 2008), meaning that fiscal autonomy have been downgraded so seriously by the consecutive governments since 1990, that it totally undermined the local and the territorial governments’ “decision making functions” (Capello, and Peruccia, 2013).

2004-2006 programming period

Following the accession of Hungary into the EU, the first regional operative program had been a “unified” one, similar to the other Visegrad countries. The regional development councils (NUTS II) were included into the decision making process and their regional development agencies were participated into the planning and acted as intermediary bodies in the program. The competencies and the membership of the councils had changed six times between 1999 and 2012. The outcomes of the actual changes were almost always the scaling back of the competencies and more and more government appointee, “delegated” members.

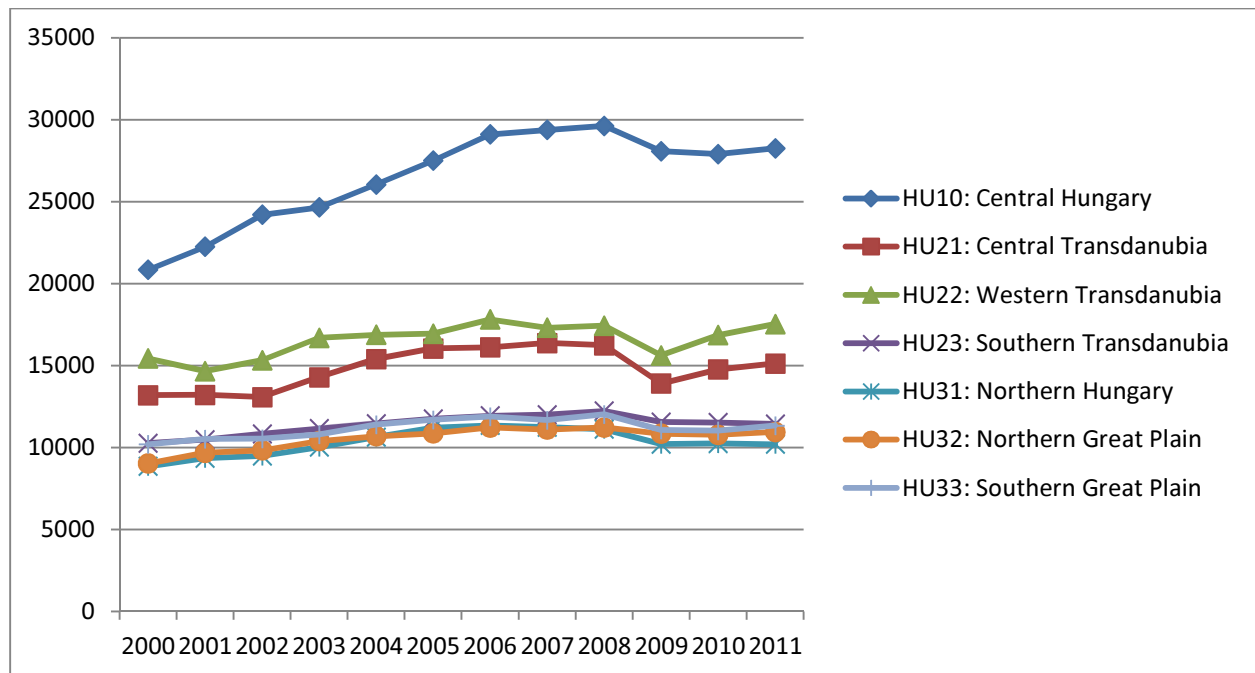
2007-2013 programming period

In the next cohesion period, the participation of the already operational regional development councils had been scaled back, which was an opposite development compared to the Czech Republic and Poland. The regional development agencies are again acted as intermediary bodies, but a central development agency had also started to open its regional offices and entrusted as intermediary body in the regional operative programs. While at the beginning of the period the regional development councils were managed some domestic funds, these had been scaled back significantly. The councils had a right to decide over 47 billion Ft domestic funds between 2007-2011, and they can only be consulted with about the 1252 billion Ft EU funds in “their” regional development program. After 2010, the entire development council system had been winded up, at January the 1st 2012. The local governmental competencies and finances have been totally transformed. The county governments have lost all their public service provider responsibilities and competencies to the central government, while they have been entrusted with regional development as their only task. The fiscal autonomy of the counties have not improved, they are operating only from transfers from the central budget.

The only players among the local governments with reasonable fiscal autonomy are the bigger towns, with appropriate business tax income, but they are “below of critical mass” (Lux 2013), meaning that they are insufficient in size to be a real regional economic growth pole. The regional development institutions (both formal and informal) have been subject to very frequent changes, in which the constant element was the systematic reduction of their “decision making functions”.

The economic development level of the Hungarian regions show large differences, where four out of the seven regions are below the 50% of the EU 27 average. The development gap between the most prosperous regions and the least ones have been growing, even more than in the case of Slovakia. The data shows no economic convergence in the cases of the four most underdeveloped Hungarian regions (Fig. 4.).

Figure 4 Change in GDP / head in the Hungarian Regions Between 2000 and 2011, in USD and in Purchasing Power Parity - PPP



Data source: OECD (OECD 2014)

As it is clear from the above figure (Fig. 4.), the capital region (Central Hungary), Western and Central Transdanubia were able to regain their position following the 2008-2010 economic crisis, while the other four regions are lagging behind. Capello and Peruccia have analyzed the economic development of the Eastern European regions (Capello, Peruccia 2013). They have concluded that the successful Eastern regions are “relying more and more on local elements like knowledge...” (Capello, and Peruccia, 2013, 21.). Furthermore they

claim that economic resilience is the quality of those regions, which were “able to increase the presence of decision making functions” (Capello, and Peruccia, 2013, 21.). This finding can be seen as a clearly reinforcing case for effective subsidiarity and decentralization.

In Hungary the regional development policies seem to be rather ineffective. As one of the chief scholars on public finances András Vígvári has put it "the regional development policies adopted since 1996, has not been able to slow down the growth of any regional disparities" (Vígvári, 2008, 164).

The reasons behind this relative ineffectiveness of the regional development public policy in Hungary are to be found largely in its institutional history, which is clearly in line with the conclusions of Capello and Peruccia. In Hungary the local and territorial self-governments and the regional development institutions, quite unprecedentedly have evolved into separate institutional systems. The regional development institutions went through extreme frequent changes concerning their competencies and territory.

The ever governing political forces have utilized the changes in development institutions, for their own short term political purposes by creating and serving rent seeking coalitions, while claiming that all the restructuring were necessary because of “European principles” (Pálné Kovács, 2013). Another study has claimed that "the party political influence, the weakened state (government) and the real lack of civic control had resulted the spreading of rent-seeking" (Pulay, and Vígvári, 2010, 229). Due to their centralized and frequently changing nature, the Hungarian regional development institutions have never been able to function as mechanisms of market preserving federalism (institutions of political decentralization of economic authority), and they – as it is seen from the above cited evaluations – were unable to diminish the level and the pervasiveness of economic rents-seeking and the formation of distributional coalitions (Weingast, 1995, 6). The road which has led to this situation was totally unplanned, and- despite all the recommendations - was not based on any kind of strategy or social and political consensus (Lóránd, 2009).

Comparing (Fig. 5) the 2007-2013 period regional development institutional settings in the four countries, it is visible that only the Czech and the Polish regions had real influence on their development policies, while their Slovak and the Hungarian counterparts had very minimal competencies.

Figure 5 Regional development actors in territorial level in the Visegrad countries, and their main competencies

	Hungary	Poland	Czech Republic	Slovakia
Territorial level actors of regional development 2007–13	Regional Development Councils	Voivodships	Regional Councils	Counties
Their level of fiscal autonomy	No fiscal autonomy	Medium level fiscal autonomy	Medium level fiscal autonomy	Low level fiscal autonomy
NUTS II level Operative Programs	7 Regional OPs	16 Regional OPs	7 Regional OPs	1 Regional OP
Competencies in the execution of the regional OPs	Owners of one of the intermediate body organization in their regions until their dissolution	Full control and ownership of the managing authority and the intermediate body organization	Full control and ownership of the managing authority and the intermediate body organization	Operating intermediate body organization (not exclusive competency)
Decision making competencies	No decision making competency, only opinions can be formulated	Independent decision making competency	Independent decision making competency	No decision making competency, only opinions can be formulated
Elected/Delegated members	Delegated members are in majority	Only elected members	Only elected members	Only elected members

Edited by the author

CONCLUSIONS

In the Czech Republic and in Poland regional development policies have been integral part of the consensus based decentralization processes. In these countries the formal and the informal institutions have been consolidated (rules, practices, players), by the help of their competencies and autonomy. In these countries the regional disparities have not grown, the regional institutions have been able to mobilize endogenous resources and the regions are showing signs of economic resilience. Slovakia also showing diverging regional development pathways, but even the most underdeveloped Eastern Slovakia is above the 50% EU average development level. Neither the central nor the territorial institutions have been able to consolidate their positions, and the subsidiarity principle was never seriously applied in

Hungary. Regional development has become highly centralized and as a consequence, the most ineffective among the Visegrad countries. The “political decentralization of economic authority” (Weingast, 1995) had never been taken place here. No wonder that as a result of these processes the economic development pattern of the Hungarian regions are falling into the “ineffective reorganization” category (Capello and Perucca, 2013). Centralized regional development does not seem to be a working solution.

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METROPOLISATION AND THE EVOLUTION OF SYSTEMS OF CITIES IN THE CZECH REPUBLIC, HUNGARY AND POLAND SINCE 1950

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Abstract

This article examines the evolution of systems of cities in the Czech Republic, Hungary and Poland since 1950, and especially since the fall of the Berlin Wall in 1989 when Central and Eastern European cities started to experience the process of metropolisation. This period corresponds to an intense globalisation of the economy which has been characterised by some researchers as an emergence of a world urban system. While the metropolises of formerly industrialised countries had already been strongly interconnected on a macro-regional level, Central and Eastern European countries took on the unique approach of prioritising relations directly at an international level. In addition to its highly exacerbated characteristics, the metropolisation in Central and Eastern Europe has been taking place within a substantially shorter time period in relation to other countries. This article investigates how these phenomena might have influenced the configuration of today's urban systems.

After presenting the methodology used to reconstruct urban agglomerations since 1950 until now, we examine the evolution of the Czech, Hungarian and Polish systems of cities by using several national databases. By analysing the changes in urban hierarchy and new urban patterns, we can stress that after 1989 the metropolisation has rather contributed to raise the predominance of the capital city in the urban systems than to diminish inequalities between the cities.

Keywords: systems of cities, the Czech Republic, Hungary, Poland, Central Europe, metropolisation, urban hierarchy, urban patterns

INTRODUCTION

The process of metropolisation can be defined as a concentration of population and major economic decision functions in metropolises, in particular at the world-system level (Sassen, 1991; Taylor, 2001; Vandermotten et al., 2010). Metropolises of formerly industrialised countries, playing the role of “gateways of globalisation” (Bretagnolle et al., 2011), have already been competing between each other to attract the most qualified and dynamic activities (Pumain, Rozenblat, 2007). Indeed, we consider the structure of urban systems as, “the product of a complex evolutionary process, involving mainly a **competition between cities**” (Bretagnolle et al., 1998).

In Central and Eastern Europe¹, metropolisation at the world-system level was restricted during the socialist period and has only been taking place since 1989 (Dostál, 2008; Pyka, 2011). Urbanisation in the state socialist systems was characterised by an “overwhelmingly industrial character” of cities largely located in the countryside, thus turning villages to medium size cities (Enyedi, 1998). This context leads to questioning of the fate of these cities during the transformation period after 1989 and the role of the larger cities, put aside in favour of the medium-sized under socialism. The period since 1989, corresponding to an intense globalisation of the economy, has also been characterised by the process of city networking at a worldwide level (Michalet, 2007). Metropolisation in Central and Eastern Europe has been exacerbated by being directly launched on a worldwide scale. In addition, it has been taking place in a subsequently shorter period of time than in the liberal system countries (Pyka, 2011).

At the level of national systems of cities or the “set of cities interdependent in their evolution process” (Pumain, 2007), metropolisation generally concerns the capital cities, although sometimes it affects other cities of important size as well (Cattan, Saint-Julien, 1998). Today, Czech, Hungarian and Polish cities are a long way from playing a role as global cities such as New York, Tokyo or London (Sassen, 1991). However at least eight² Polish cities have metropolitan functions in the sector of finance (Bourdeau-Lepage, 2004), IT technology, industry, services, administration and international politics (Pyka, 2011). One³ city in Hungary and three⁴ in the Czech Republic have these characteristics. These new metropolitan functions are certainly the simultaneous result of implementation of large firms but also of new urban dynamics since 1989. How did this exacerbated metropolisation influence the evolution of the systems of cities in the Czech Republic, Hungary and Poland?

The hypothesis of this article proposes that metropolisation since 1989 has rather contributed to raise the predominance of the capital city in the urban systems than to diminish inequalities between the cities.

METHODS

Urban hierarchy of Czech, Hungarian and Polish system of cities will be evaluated by analysing databases on LAU2 populations from 1950 until 2002, specifically referring to

¹ Understood in this article as post-socialist countries part of the European Union since 2004.

² Warsaw, the Katowice or Upper Silesia Conurbation, Cracow, Poznań, Gdańsk-Gdynia-Sopot, Wrocław, Łódź, Lublin (OECD iLibrary).

³ Budapest (OECD iLibrary).

⁴ Prague, Brno and Ostrava (OECD iLibrary).

those produced by the Czech Statistical Office (Český statistický úřad), the Hungarian Central Statistical Office (Központi Statisztikai Hivatal) and the Central Statistical Office of Poland (Główny Urząd Statystyczny). The *Urban Morphological Zones of 2000* database produced by the European Environment Agency (EEA, 2002), will serve for urban morphological agglomeration construction since 1950 by applying the “retropolation” methodology. This methodology consists of “reconstructing data from the past based on currently defined criteria” (Bretagnolle, 2009, p. 60).

The construction of an urban agglomeration database since 1950 in the Czech Republic, Hungary and Poland

The definition of a city is variable, open to interpretation amongst countries in Europe. Some have adopted approaches that could be defined as juridical (based on legal status delivery); quantitative (statistical threshold population); morphological (more or less concentrated character of housing); and later as functional (related to commuting to work) (Bretagnolle, 2009). The definition of a city in the Czech Republic, Hungary and Poland is juridical. In the Czech Republic, a municipality can be afforded city rights to become a *město*, if it has a least 3000 inhabitants. However some smaller municipalities obtained city status because of their historical backgrounds, and since 2006 a special category *městys* was instituted to distinguish historical villages (Parliament of the Czech Republic, 2000). In Hungary, a village can enter candidacy for the status of *város* (city), delivered by the Minister of Internal Affairs, if it falls within a set of public service and infrastructure constraints. Becoming a city can bring many fiscal advantages. Therefore many villages compete to obtain their city rights (Hungarian Central Statistical Office, 2012) and many were successfully bestowed with them after 1989⁵, often for political reasons. In Poland the status of a city (*gmina miejska*) is delivered by the Council of Ministers (Ustawa o Samorządzie Gminnym z dnia 8 marca 1990 r.⁶). Different criteria relating to size and the state of infrastructure are taken into account, although the decision is often based on very flexible and subjective arguments (Zborowski, 2009).

To counteract all of these potentially problematic juridical definitions, which do not permit the analysis of comparable entities for the given countries, it seems justifiable to consider

⁵ Commentary issued from an interview with professor Zoltan Kovács in November 2014.

⁶ Project of law on municipal administration of 8th March 1990, Council of Ministers of the Republic of Poland, 1990.

further definitions based on morphological or functional criteria, relatively corresponding to the concept of agglomeration and functional area (Bretagnolle, 2009).

A few databases on functional areas have been generated in Europe, among those one that is entitled *Functional Urban Areas* which is based on commuting between the place of residence and the place of work (Peeters, 2011). National experts have identified 48 FUA in Poland, 25 FUA in the Czech Republic and 77 FUA in Hungary (ESPON project 1.4.3, 2007). The problem with this approach is that the important extent and size of FUAs tends to exclude small cities as they are often integrated to a given FUA. This presents a challenge while working on and analysing the evolution of urban hierarchy. In addition, the databases have generally been constructed only since 2000, which does not permit the inclusion of any real sense of historical perspective. For this reason the concept of agglomeration seems to be more advantageous.

Two types of morphological criteria permit the definition of an agglomeration: the continuous ***built-up area*** and the minimal density (Bretagnolle, 2009). Some of the databases rely on a minimal density criteria as in *Cities* (Dijkstra, Poelman, 2012), or in the *Morphological Urban Areas* (MUA) (Vandermotten et al., 1999). The *Urban Morphological Zones of 2000* (UMZ 2000) of the European Environment Agency (EEA, 2002) are defined with the context of a continuous ***built-up area criteria***. ***These UMZ are only defined for the year 2000 which involved the necessity of constructing a methodology to retropolate them, and more precisely to apply to the previous years the rules of construction established for 2000. This methodology is part of a work conducted in the TRADEVE project framework within the UMR Géographie-Cités and the ESPON DataBase project.***

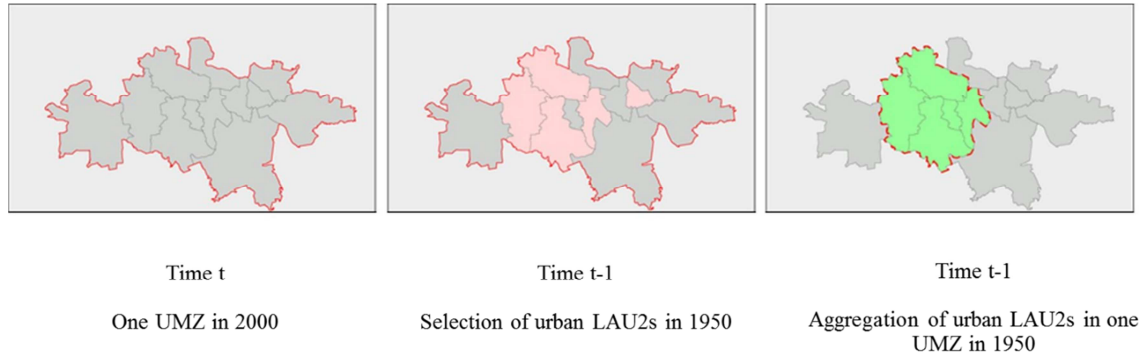
The *Urban Morphological Zones of 2000* database is a very solid working tool, which can be applied in Central and Eastern European countries, where no national morphological database has been yet produced (Guérois et al., 2012).

Taking as a starting point the coverage in 2000, we have constructed a multi-communal agglomeration definition in the Czech Republic, Hungary and Poland, combining a contiguous ***built-up area and a minimum density or population threshold of population criteria***⁷. The delimitations of the Czech, Hungarian and Polish UMZ have been retropolated

⁷ For the moment two criteria of minimal density and population are investigated for the Czech Republic, Hungary and Poland, but also for the rest of Central and Eastern Europe as a part of the thesis.

for the period until 1950 using temporal series on population of the administrative units composing them.⁸

Figure 1 Retropolation of *Urban Morphological Zones of 2000*: theoretical example



An important issue of this retropolation is to choose the most appropriate criteria to aggregate the LAU2 within a UMZ. The UMZ 2000 database has been constructed according to a distance criteria of a maximum of 200 meters between the build-up areas (EEA, 2002). This maximal spacing out of 200 meters is used by numerous European countries (Le Gléau et al., 1996) such as France in the case of "unités urbaines" (Le Gléau et al., 2006), and also Denmark and Sweden (Bretagnolle et al., 2012). Consequently, we have also selected it regarding the Czech Republic, Hungary and Poland. Nevertheless the definitive choice between minimal density and population threshold has still not been undertaken and as such is under investigation. We have tested different possible parameters: some databases recommend applying a minimal population threshold of 10,000 inhabitants (Moriconi-Ebrard, 1994), 20,000 (Vandermotten et al., 1999) or 50,000 habitants (Parr, 2007), other databases are constructed upon a minimal density criteria of 650 inhabitants per km² as in the case of the FUA (Peeters, 2011). For this reason, several versions of the Czech, Hungarian and Polish databases have been generated and submitted for expertise analysis. For the moment, the criterion of a threshold of 10,000 inhabitants leads to relevant and appropriate results for the three countries according to Czech, Hungarian and Polish specialists⁹ (Fig. 2, 3, 4).

⁸ The limits of the Czech, Hungarian and Polish UMZ in 2000 have been retropolated in time back until 1950, using a time series on population of the administrative units composing them. More precisely it has consisted in selecting the Czech, Hungarian and Polish LAU2 situated in the 2000 envelopes of the UMZ, and subsequently make appear their population or density for the years since 1950 corresponding to the census dates, and aggregate into one UMZ all those verifying the chosen criteria.

⁹ Based on interviews during fieldworks in 2014–2015 with professors P. Dostál, M. Hampl, E. Kiss, T. Komornicki, Z. Kovács, G. Lux, Z. Gál, P. Śleszyński, G. Węclawowicz and A. Zborowski.

Figure 2 Retropolated *Urban Morphological Zones* for the Czech Republic with a criterion of a 10,000 inhabitants minimal threshold

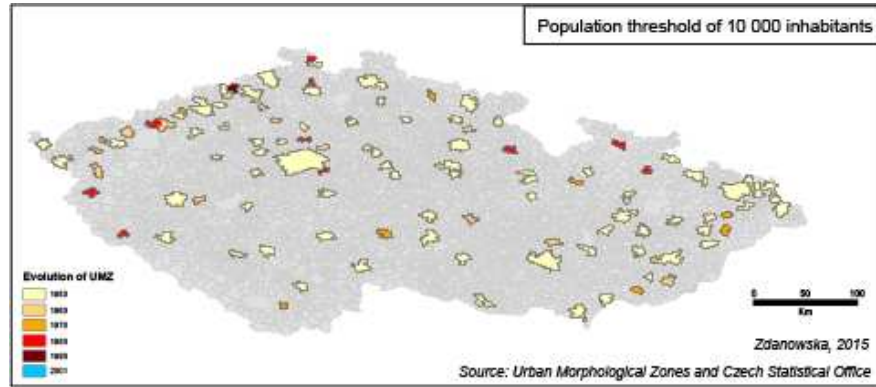


Figure 3 Retropolated *Urban Morphological Zones* for Hungary with a criterion of a 10,000 inhabitants minimal threshold

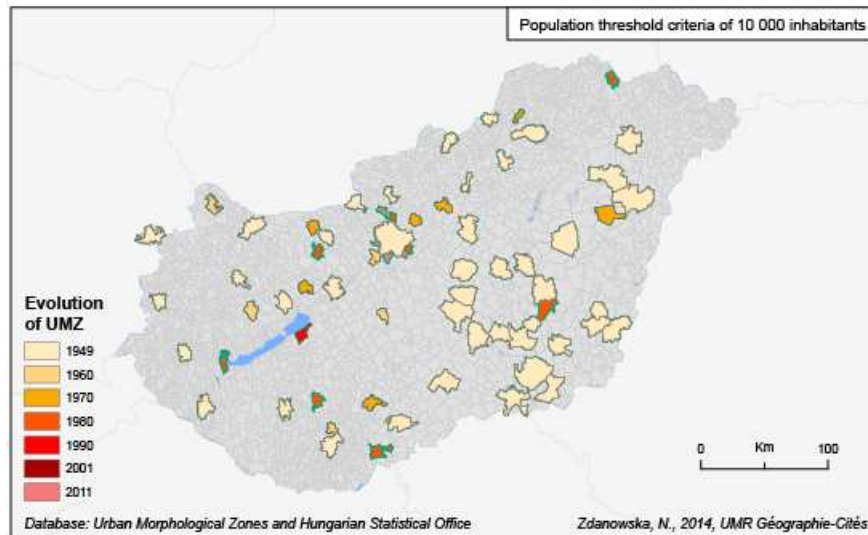
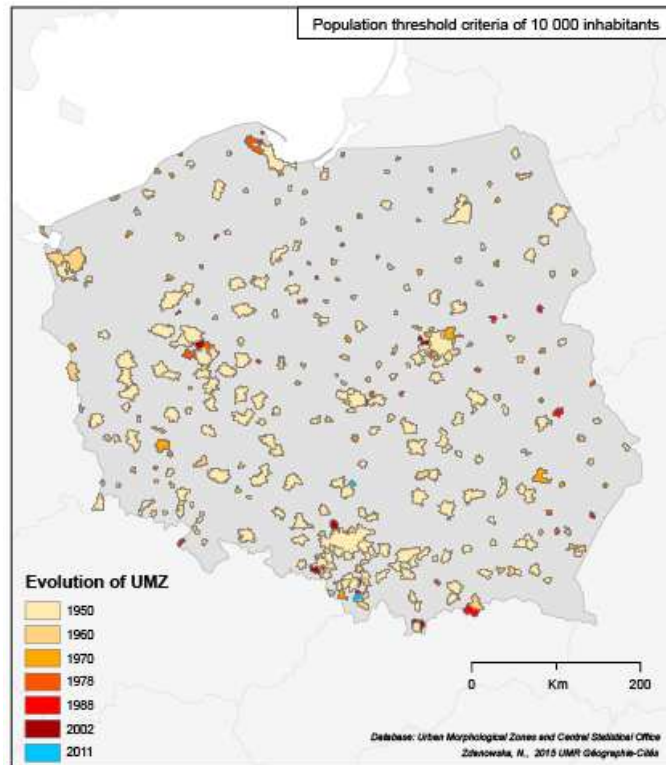


Figure 4 Retropolated *Urban Morphological Zones* for Poland with a criterion of a 10,000 inhabitants minimal threshold



In the case of Poland we have additionally initiated some historical expertise on several large cities in Poland as Warsaw, Poznań and the Upper Silesian Conurbation.

An initial type of analysis consisted of observing the urban development along the railway transport axes via a personal analysis based on train timetables of Warsaw’s suburban railway lines in 1950, 1960, 1970, 1978, 1988 and 2002 issued from the archives of the Polish National Railway company PKP.

A second type of analysis consisted of comparing the year in which the locality obtained the official administrative status of a city and the moment when the same locality entered the UMZ according to the retropolated database. Indeed the moment when the government delivers municipal rights to a rural commune, reflects certain dynamism and a sufficient development of its urban infrastructure (Jakóbczyk-Gryszkiewicz, 1998).

The results of both analysis revealed strong arguments toward a more realistic version of the database with a minimal population threshold of 10,000 inhabitants¹⁰.

¹⁰ Other verifications must be done on other cities.

RESULTS

The evolution of urban hierarchy since the 1950s¹¹

A first step in analysing urban hierarchy consisted of representing the distribution of the city sizes in rank-size graphs, plotted with a bi-logarithmic scale. Then this distribution has been adjusted by a regression line to measure the evolution in time of the slope's absolute value. In fact, compared in time, this slope is an indicator measuring the intensity of the contrasts between the sizes of cities and by consequence reflects the urban population concentration (Moriconi-Ebrard, 1994).

Rank-size distribution graphs and slopes of the regression lines for the entire period have been generated (between 1950–2001 in the case of the Czech Republic, 1949–2011 for Hungary, and 1950–2002 for Poland). Then an analysis of the urban primacy has been done by dividing the population of the two largest cities of the distribution of successive ranks (Bretagnolle et al. 2007).

Figure 5 Rank-size distribution graphs for the Czech Republic in 1950 and 2001 and the evolution of the slope values of the regression lines between 1950 and 2001

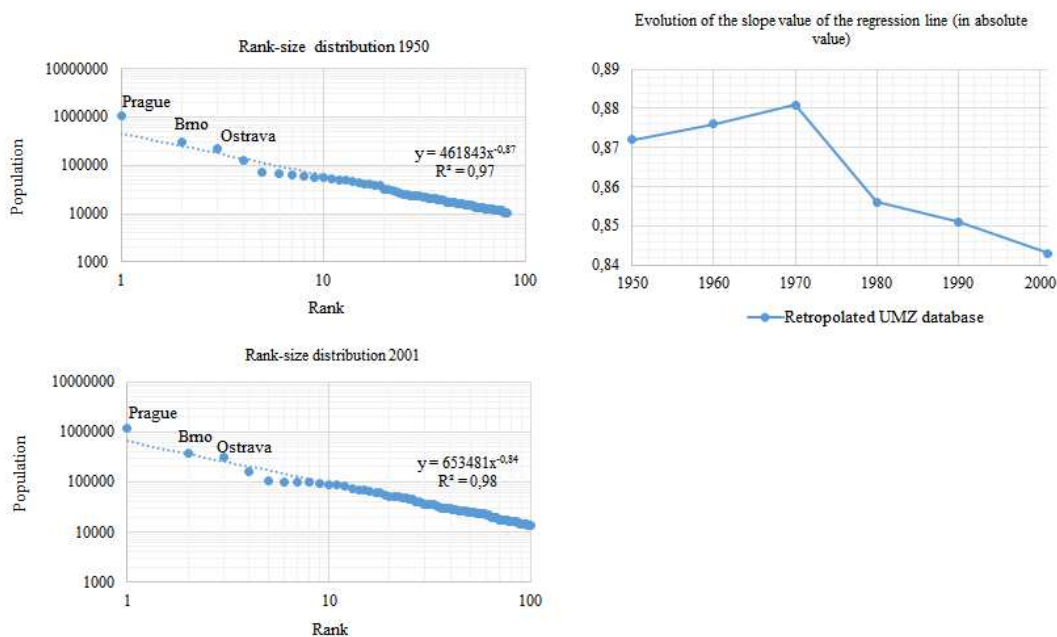


Figure 5 shows a predominance of the capital-city Prague over the rest of the urban system. Indeed in 2001, the first city Prague was populated by 1 169 106 inhabitants and the second city Brno by 376 172 inhabitants. This observation refers to *the capital city effect* (Dostál,

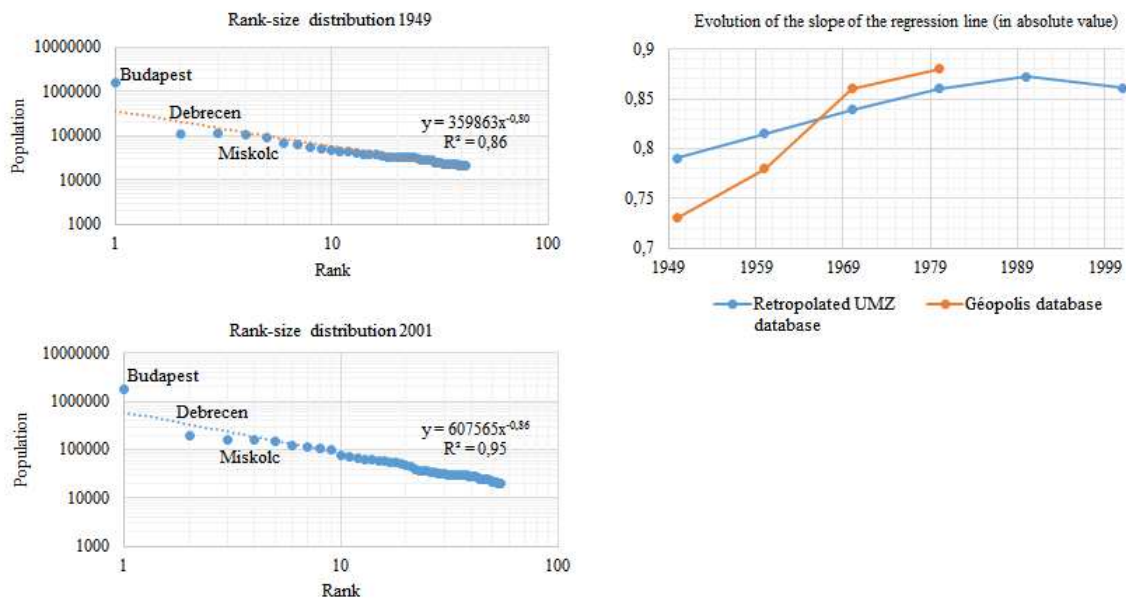
¹¹ For all the following analysis a 10,000 population threshold version of the reprojected UMZ databases has been used for the calculations, but remains under investigation within the Ph.D. thesis. For the Czech Republic and Poland census population data starts from 1950 and for Hungary from 1949.

2008) inherited from the pre-communist period's regional development. In spite of intensions to decentralise the economic activity, the main administrative and political power remained in the hands of the capital city, which has its impact still today in the majority of Central and Eastern European countries (Dostál, 2008). Jiří Musil has indeed predicted that at the international level, urban hierarchy will rise in Central Europe especially due to the widening weight of the capitals in national systems (Musil, 1993).

Nevertheless, the decreasing slope value of the regression line in figure 5 since 1970 permits us to conclude that a tendency of slight decrease was prevalent regarding hierarchy in the Czech urban system, which accelerated since 1990. Indeed the concentration tendencies, which corresponded to the hierarchization process, were significantly dynamic between 1870 and 1970 – an industrial era, and then followed by a relative stagnation. This latter tendency is due to administrative changes (urban districts were united with rural districts) and an important growth of towns populated by 10,000–20,000 inhabitants especially between 1950 and 1991 (Hampl et al., 1999). These changes may have an impact on our rank-size distribution.

In addition the acceleration of the loss of population in the capital city Prague in relation to Brno can be partly explained by the suburbanisation and commuting phenomena (Ouředniček et al., 2011), making the centre of Prague less populated.

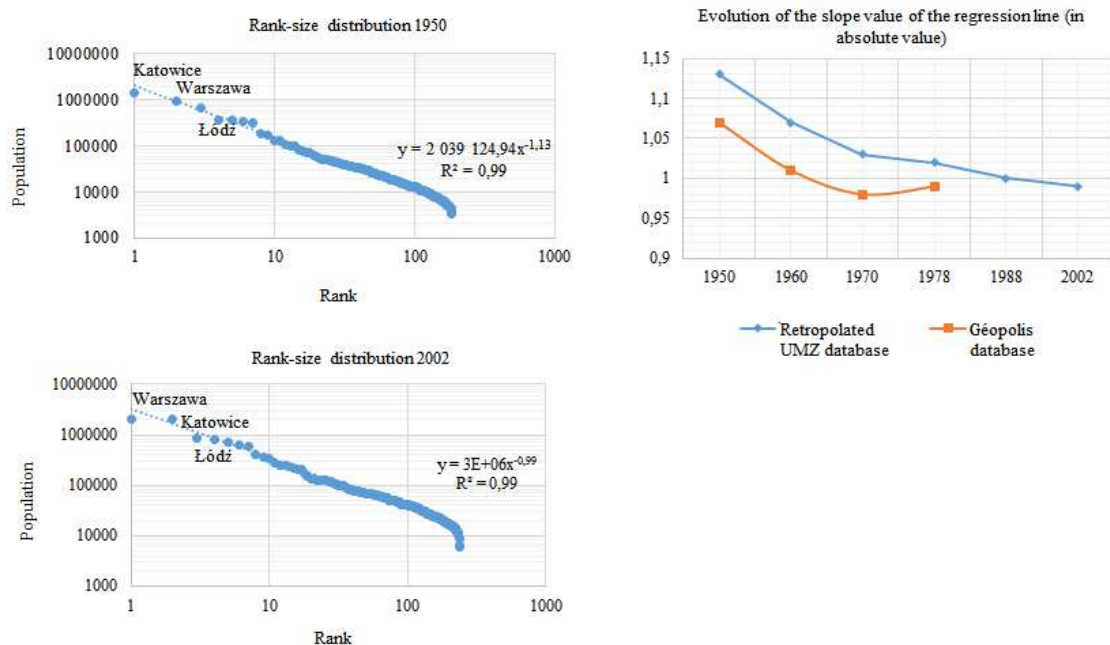
Figure 6 Rank-size distribution graphs for Hungary in 1949 and 2001 and the evolution of the slope value of the regression line between 1949 and 2001



The analysis of the rank size distribution in Hungary reveals that the *capital city effect* is even stronger in the Hungarian system of cities than in the Czech case. In fact in 2001, Budapest was populated by 1 909 214 inhabitants according to the retroplated UMZs and the second city Debrecen by 198 905 inhabitants. The gap between the capital city and the second city is even wider than in the Czech Republic, which makes the Hungarian urban hierarchy very high.

When focusing on the evolution of the slope of the regression line, an interesting result develops concerning the rising urban hierarchy as the coefficient grows from 0,79 to 0,87 between 1950 and 1990, followed by a slight drop to 0,86 in 2001. The rising hierarchy is also confirmed by the *Géopolis* database¹² (Moriconi-Ebrard, 1994). It would suggest that in spite of the socialist equalisation period, the predominance of the capital in the system of cities was highly important and the centralisation of administration was predominant (Dostál, 2008). Therefore the decentralisation of industry throughout the territory during the communist period was not an entire success as Budapest remains today a leading dominant unit in the national city-system with a growing regional polarisation (Kovács, 2004).

Figure 7 Rank-size distribution graphs for Poland in 1950 and 2002 and the evolution of the slope value of the regression line between 1950 and 2002



¹² The data in this form was available until 1980 (Moriconi-Ebrard, 1994).

The results for Poland show an absence of ‘macrocephaly’ in the system of cities. In 2002, the first city’s population (Warsaw) was 2 027 657 inhabitants and the second city (the Katowice or Upper Silesia Conurbation) was populated by 1 990 877 inhabitants. Additionally a persistence between 1950 and 2002 of secondary cities can be observed, as it is the case of Łódź and the Katowice Conurbation¹³ (Pyka, 2011).

In figure 7, a remarkable result concerns the drop of the absolute value of the coefficient of the slope between 1950 and 2002 from 1,13 to 0,99. This reflects a process of *re-equilibration* of population with a passage from a high contrast between cities to a fairly hierarchized system. The coefficients of the slope of the regression line in Poland from the *Géopolis* database (Moriconi-Ebrard, 1994) are also showing a diminishing trend between 1950 and 1980, which brings even more evidence and weight to our results.

Therefore, the cases of Hungary and the Czech Republic highlight evidence of an urban system characterised by macrocephaly where the capital city’s population size predominates over the second’s city population through time. However while the Czech system tends to be less and less hierarchized from as early as 1970, Hungary’s system still presented growing inequalities between cities, although with a slight fall of hierarchy since the 1990s.

The urban system in Poland is characterised by an absence of macrocephaly. The urban hierarchy of cities seems to reveal a tendency towards less inequalities between cities. It has to be pointed out that even in recent years, the declining tendency is still persisting, although less rapidly than in the 1950s.

The evolution of urban patterns since 1950

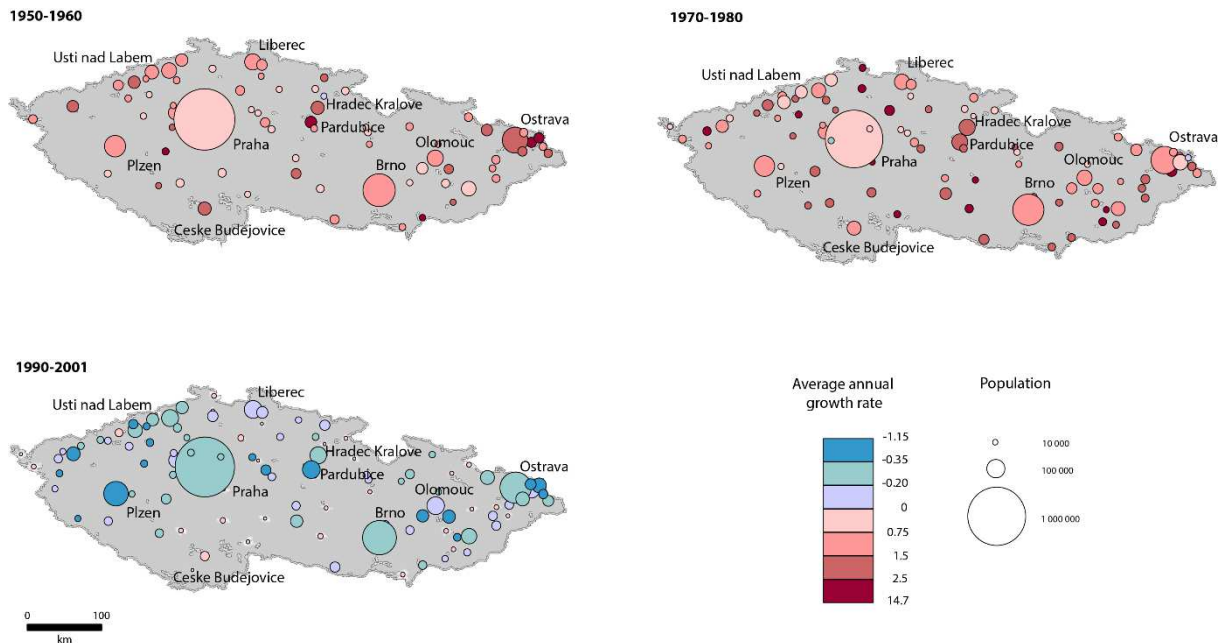
The average annual growth rate of the retroplated UMZ for Hungary, the Czech Republic and Poland, for the years 1950–1960, 1970–1978 and 1988–2002, has been mapped to interpret the spatial evolution of inequalities between the cities observed previously.

It is important to bear in mind that in the case of the three investigated countries of Central Europe, prior to 1990, migration was strictly controlled and restricted within Central and Eastern Europe. The shift to a market economy from the 1990s onwards enhanced a migration flow of a different type: from labour mobility through transitory migration to the forced migration of asylum seekers and refugees (Kaczmarczyk, Okólski, 2005).

¹³ According to the Central Statistical Office this conurbation is composed of 19 cities (Katowice, Sosnowiec, Gliwice, Zabrze, Bytom, Ruda Śląska, Tychy, Dąbrowa Górnicza, Chorzów, Jaworzno, Mysłowice, Siemianowice Śląskie, Tarnowskie Góry, Piekary Śląskie, Będzin, Świętochłowice, Knurów, Mikołów, Czeladź).

A. The Czech Republic

Figure 8 Average annual growth rate of the Czech retropolated UMZ of more than 10,000 inhabitants between 1950 and 2001



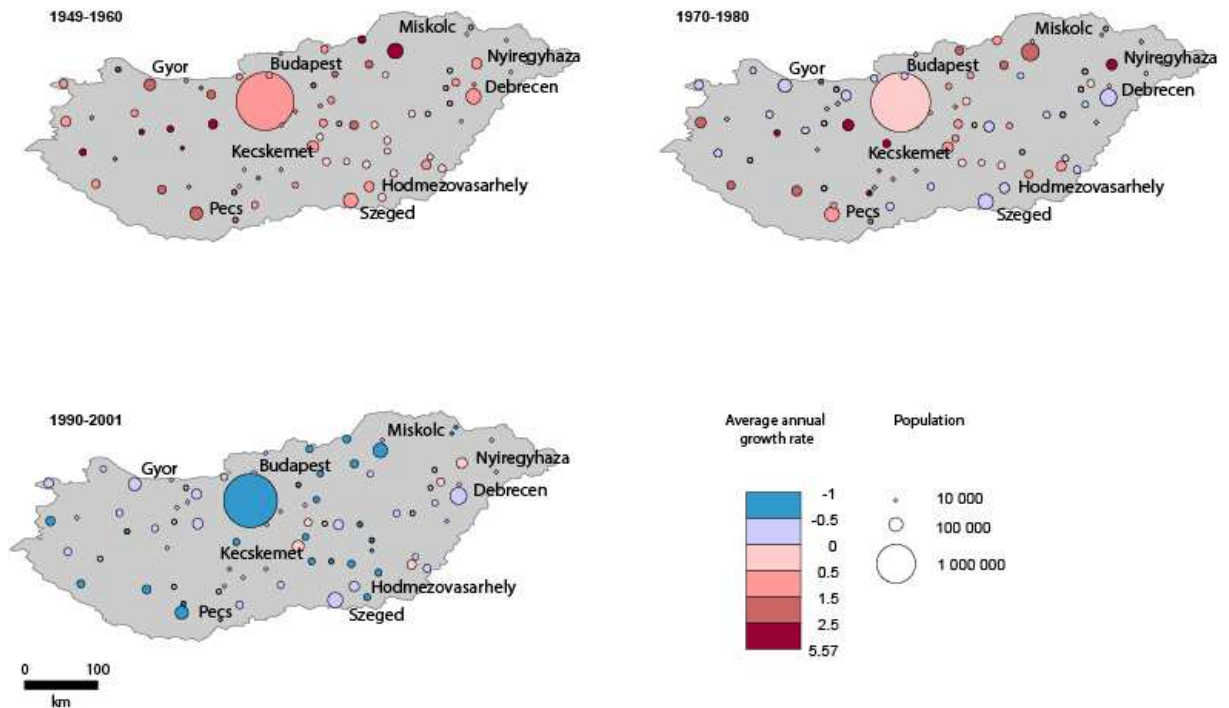
Source: *Urban Morphological Zones and Czech Statistical Office.*

Zdanowska, 2015.

These maps reveal that the majority of cities are closely located to the northern border of the country. Additionally we can point out an important decline of the average annual growth of cities especially between 1990 and 2001. These negative growth rates are due to the important outflows from the Czech Republic, which caused population loss, especially among citizens of a young working age (Gesano, Heins, 2008). Indeed, a very important number of Czechs left the country between 1991–1993 seeking better employment opportunities (Drbohlav, 2003). After 1993, migration became less popular as opportunities to develop new businesses increased (Drbohlav, 2003). Some cities passed through a period of population loss in the 1990s as a result of the decline of old industrial regions as is the case of Ostrava (Sucháček, 2005). Moreover, major displacements of population between Czech and Slovak cities after the dissolution of Czechoslovakia took place after 1993 (Cattan, Grasland, 1996).

B. Hungary

Figure 9 Average annual growth rate of the Hungarian retropolated UMZ of more than 10,000 inhabitants between 1949 and 2001.



Databases : Urban Morphological Zones and Hungarian Statistical Office.

Zdanowska, 2015.

Figure 9 confirms the spatially important disproportion in size between the capital city of Budapest and the other medium sized cities. They form a “half-ring” around the capital and are located in different parts of the country along its borders (Kiss, 2004). In terms of growth of population we can point out the positive average annual growth rate of practically all the cities between 1950–1960; the beginning of negative growth in cities such as Győr, Debrecen or Szeged between 1970–1980; and a negative average annual growth rate covering all the territory in the 1990s.

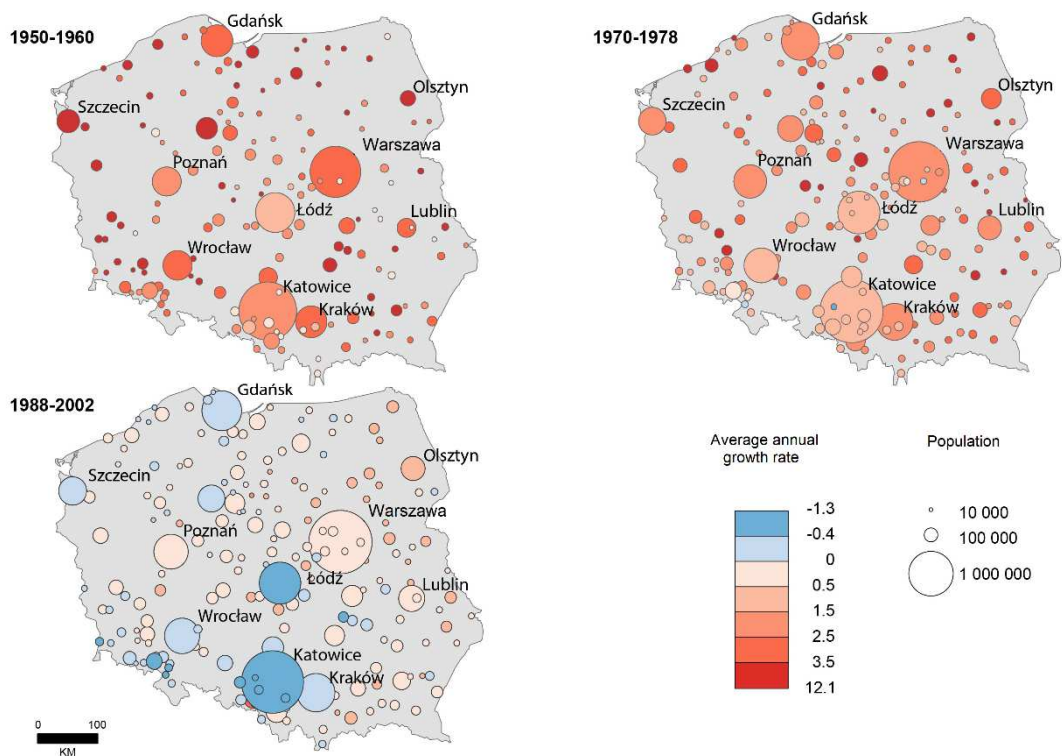
This massive decline can be firstly explained by very low fertility rates and the demographics of an ageing society from 1980 onwards (Kovács, 2004). The natural decrease of population was particularly occurring in Budapest and Western Hungary. In the Eastern part, fertility rates were higher because of cultural factors in the rural areas (specifically the tradition of large families amongst the Greek Catholics and Roma populations) (Kovács, 2004). A second reason might be an important ethnical migration to the West and a displacement of labour forces, particularly to Germany, after the collapse of communism in

1989 (United Nations, 2002). The important decline of population in Budapest and other big cities in the 1990s can also be explained by a rapid suburbanisation process (Kovács, 2004).

The city of Miskolc is a typical case of an important industrial city during socialism, which in the 1950s developed an increasing population because of the attraction of labour to new working places (Kiss, 2004). Since the 1990s, after the closure of the majority of the industrial parks in Miskolc, the area concerned was dealing with important losses of population and some average re-settlement of ethnic minorities that moved there from Romania (Hárs et al., 2001).

C. Poland

Figure 10 Average annual growth rate of the Polish retroplated UMZ of more than 10,000 inhabitants between 1950 and 2002



Source: Urban Morphological Zones and Central Statistical Office of Poland

Zdanowska, N., 2014

Figure 10 reveals an imbalanced system of cities between the East and West of the country in terms of the repartition of big cities. Apart from Warsaw, there are very few medium sized cities in the Eastern part of the country. This configuration can be explained by the partition of Poland between the Austrian, Prussian and Russian Empires in the 18th and 19th century, leading very different sets of urban politics (Trzeciakowski, 1981). However, the more

important growth rate of the cities in the Eastern part of Poland between 1988 and 2002, contributes to the idea of a more equilibrated system in terms of urban hierarchy. In fact these cities were not affected by the industrial crisis of the 1990s and shifted more rapidly to the services' sector era (Węclawowicz, 2010). Large industrial cities steeped in socialism as the Katowice Conurbation and Łódź, have experienced a decline since the 1980s, announcing the decadence of the regime and its collapse in 1989 (Węclawowicz, 2010). Numerous inhabitants of the cities from the Katowice Conurbation have decided to move to Cracow because of environmental issues and began commuting over 50 km to work every day instead (Węclawowicz, 1996). Furthermore, the explanation for the decline of the cities in the Western part of Poland lies in the emigration of the ethnic minorities of German origin from the Upper and Lower Silesia regions (Gdańsk and Szczecin) to Germany (Okulski, 1996; Nowosielski, 2012) after 1989. Germany registered at least a quarter of a million of immigrants of this kind from Poland (Stoła, 2001). The fall of the Berlin Wall was also a moment of intensification of immigration from Poland, with the aim of finding better employment prospects, which had already started in the 1980s mainly in the direction of West Germany (Korcelli, 1992; Stoła, 2001). Indeed at the beginning of the 1990s, Poland had experienced the highest rates of migration among the Soviet satellites of Central Europe, as Czechoslovakia and Hungary had a more restrictive emigration policy (Stoła, 2001). We also have to keep in mind that the institutions at that time were not prepared to register the influx into Poland of labour migration from Asia and the former Soviet countries (Krywult-Albańska, 2011; Stoła, 2001), which is subsequently not reflected in the statistics of this period and consequently in figure 10.

Therefore, an analysis of the hierarchy and urban pattern in the Czech Republic, Hungary and Poland gives evidence of a rather unbalanced system of cities in the Czech Republic and Hungary and a relatively equilibrated system of cities in Poland in terms of urban structure. Nevertheless it is permitted to confirm that Prague, Brno, Ostrava, Budapest, Warsaw, the Katowice Conurbation, Cracow, Poznań, Gdańsk-Gdynia-Sopot, Wrocław, Łódź and Lublin, are considered today as metropolises by the OECD, and have always been important urban areas of these three nations systems of cities since 1950.

To summarize, it is important to point out that at the collapse of communism, the Czech Republic, Hungary and Poland had very different settlement structure inherited from the state socialism, but also differing historical background (Enyedi, 1998). They also jettisoned markedly differing sets of primary skills to initiate the shift to a market economy (Sucháček, 2014). For example, in Hungary and Poland private ownership was partially permitted, which

was strictly not the case in Czechoslovakia (Sucháček, 2014). These different backgrounds can also provide a hint into understanding their current development.

CONCLUSION AND DISCUSSION

The objective of this article was to put into perspective the metropolisation phenomena in the Czech Republic, Hungary and Poland and the dynamics of their system of cities since 1950.

After presenting the methodology of the construction of a database on morphological agglomeration in the Czech Republic, Hungary and Poland since 1950, the first step was to analyse urban hierarchy and urban patterns in these three countries. It permitted us to point out an evolution towards a less pronounced urban hierarchy in the Czech Republic since 1970 until 2001, a system with growing inequalities in Hungary in the last fifty years and a long-term tendency to less inequalities between cities in Poland from 1950 until 2001. The Polish system of cities was the only one among the three analysed countries to present an evolution towards polycentricity in terms of its urban pattern since 1950. On the contrary, the Czech Republic and Hungary have been characterised by an important predominance of the capital on the other cities for the last 50 years.

These results show that in spite of the common socialist past between 1950 and 1989, the Central European system of cities has evolved in a very heterogeneous way which can be verified in the cases of the Czech Republic, Hungary and Poland. Consequently these three countries entered the transition period characterised by these different configurations.

We are aware that an analysis based on a morphological definition of a city is not the only alternative and by far not the most perfect one. Additionally the selection of a unique criterion of delimitation for all Central European countries for the re-topology is a considerable challenge. Nevertheless, in our case the *Urban Morphological Zones of 2000* database gives us the unique possibility to make a long-term analysis of the evolution of Czech, Hungarian and Polish urban systems with one homogeneous definition of urban units since 1950.

Parallely to the analysis presented in this article, we have investigated the firms' location in these three countries since the 2000s (from 1995 in the Czech Republic)¹⁴. The results reveal that the concentration of activities has driven extreme inequalities between capital

¹⁴ The impact of the economic attractiveness of metropolitan areas on firm location in Central Europe has been investigated using the *Hoppenstedt Bonnier* with regards to the location of Hungarian firms, their capital in 2014 and the foreign ownership of this capital; the *Czech Top 100* in reference to the location of Czech firms and their turnover in 1995, 2000 and 2005 (Sucháček, Baránek, 2012); and the *Word Connexions* database (*Połączenia Świat*) elaborated upon professor P. Śleszyński (Śleszyński, 2007) in terms of the location Polish firms location and foreign owner control of their capital in 2004.

cities and the rest of the urban system in the Czech Republic, Hungary and Poland. The economic maps coincide with the urban settlement maps for recent year, although the population spatial repartition is less hierarchized than is the case regarding firm localisation. Even in the case of Poland which has a relatively equal urban system in terms of population, the location of firms indicates a strong concentration in Warsaw and in only a few other large cities in Poland.

All in all, we can suppose that our hypothesis stipulating that metropolisation since 1989 in Central Europe contributed to raise the predominance of the capital city among the national system of cities level appears to be close to reality. Furthermore, the most interesting point is that the cases of Czech Republic, Hungary and Poland seem to show that this predominance is verified no matter if the urban system was initially more or less equal in terms of urban hierarchy and urban patterns.

Indeed, the role of cities has been crucial in the process of globalisation. It is not surprising that it was those offering the best opportunities that have attracted the headquarters of big international firms and gained international metropolitan functions. In Central Europe, capital cities have been the first to provide this kind of openness towards the Western world. All these interpretations and the role of metropolisation in orientating the spatial dynamics of urban systems in Central Europe are a subject of further analysis in future research.

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MEASUREMENT LEVELS OF THE SPATIAL INTEGRATION – SUGGESTIONS FOR A CENTRAL-EUROPEAN FACTOR GROUP

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Abstract

The objective of the study is to point out, what kind of measurement methodologies and factor groups are used to determinate the depth of the spatial integration in the national and international scientific literature. Integration means in this sense the interconnection of several (spatial) units (Kulcsár-Rostás, 1989; Kovács, 2001; Kiss, 2005). One of the most widely interpreted types of the integration is the economic integration, which can be applied to enterprises and spatial units as well. This study focuses on the last one and examines it at three territorial levels, distinguishing global, supranational (among national states) and subnational levels. The possible measurement methods are significantly determined by the spatial levels. The paper makes some suggestions for the possible measurement method in Central-European context.

Keywords: measurement, spatial integration, global, regional, cross-border, functional urban area

INTRODUCTION – CONCEPTUAL FRAMEWORK

Because of the complexity and importance of the concept of spatial integration, it is necessary to define the meaning of this phenomenon in the paper. The idea of integration (social, economic, political) underpins the formation of the European Union. Integration tends to be regarded as a positive response to the disintegration of traditional structures caused by the globalisation. Within the EU, several distinct concepts of integration can currently be identified. This paper applies the first version of the definition, summarised in the first official project of ESDP: "*Spatial integration expresses the opportunities for and level of (economic, cultural) interaction within and between areas and may reflect the willingness to co-operate. It also indicates, for example, levels of connectivity between transport systems of different geographical scales. Spatial integration is positively influenced by the presence of efficient administrative bodies, physical and functional complementarity between areas and the absence of cultural and political controversies.*" (Boe, Grasland, Healy et.al., 1999:7).

The measurement of the integration at global and supra-national level

Regional integration is a worldwide phenomenon of territorial systems that increase the

interactions between their components and create new forms of organisation, co-existing with traditional forms of state-led organization. The processes of regional integration that emerged after WW II, were originally mostly about trade and economics, but it has become clear that, especially since the 1980s, with the so-called ‘new regionalism’ wave, regional integration can be seen as a multidimensional process that implies, next to economic cooperation, also dimensions of politics, diplomacy, security, culture, etc. (Lombaerde – Langenhove, 2005)

At global level, the *globalization index* was introduced by the KOF Swiss Economic Institute to measure the integration processes at global level in 2002. This index investigates the integration in three dimensions (economic, social and political) with distinct weights. In the globalization index of 2014 included 36% economic, 38% social and 26% political dimension. In KOF index 2014, 207 were analysed and Hungary is ranked at the 9th place. (KOF Swiss Economic Institute, 2014)

Moreover, the so called “*System of Indicators of Regional Integration (SIRI)*” provides another opportunity to measure the global integration, which can monitorize the regional integration processes at global scale, involving the most relevant key variables. There is evidence of a growing interest of policy-makers for such a system (Lombaerde - Langenhove, 2005) (Tab. 1).

Table 1 Proposal for classifying variables in the System of Indicators of Regional Integration (SIRI)

Categories	Sub-categories
I. Actors	Number of integration units involved (countries, regions, organisations, ...) Number and quality of actors in the decision-making process Level of activity of the actors Actors’ opinions and perceptions (survey results) Overlapping memberships
II. Structural factors	Proximity of the actors (geographical, cultural, etc.) Structural complementarities Structural asymmetries Historical patterns of cooperation, integration and conflict
III. Institutionalisation	Number of treaties and agreements Contents of treaties and agreements Time frames of treaties and agreements Institution building Arrangements on common policies and policy coordination Gradualism, exemptions and differential treatments
IV. Implementation	Status of implementation of general treaties Status of implementation of specific agreements Degree of accomplishment of convergence criteria

Table 1 (continued)

IV. Implementation	Status of implementation of general treaties Status of implementation of specific agreements Degree of accomplishment of convergence criteria
V. Effects	Human development Economic growth Trade Migration Capital flows
VI. Interdependence	Mobility of persons Political interdependence (existence of common policy variables, de facto coordination of policies, occurrence of conflicts, tensions, ...) Economic interdependence (trade, capital flows, correlation of activity levels, symmetry of shocks, ...) Information and knowledge flows

Source: Lombaerde – Langenhove, 2005:21.

Practically, the application of this method is rather difficult, because of the complexity of measurement of special variables, availability of reliable data and the financing of the measurement system. A crucial issue can be the translation of the chosen variables into indicators (Lombaerde - Langenhove, 2005).

Moving on the next level of the spatial integration, let's take a look at the *supranational integration*. The process of economic and political integration in Europe began shortly after the World War II, and was intended to support the economic development of all participating countries. European integration did not happen overnight, but has been an ongoing piecemeal transition process. Two major components of European integration are the free movement of goods and services, as well as labour (Bartz – Fuchs-Schündeln, 2012). Many of empirical evidence reveals the ongoing long-term parallel trends of increasing regional integration and globalisation. The EU is a part of this phenomenon: on the one hand, within-EU integration has become more important over the last decades and, on the other hand, the EU as a whole has gained greater exposure to the world economy (Commendatore et.al 2014). So, the supranational integration means the integration process between (in this case: European) countries. At this level, König (2014) summarises the content of the “*European Integration Index*”. Due to limited data availability for the Central and Eastern European (CEE) countries (especially until 2004), the EU Index only covers those member states that entered the EU no later than 1995 (the EU-15). Since Luxembourg contains many extreme values, it is not considered in the index. In these 14 remaining member states, 25 different indicators (in 4 categories: EU single market (for goods, services, capital and labour); EU homogeneity (degree of economic convergence); EU symmetry (of business cycles); and EU conformity

(institutional participation and compliance with the *acquis communautaire*) over the period 1999 – 2010 are investigated. Belgium shows the highest level of European integration in 2010, whereas Greece is at the very bottom of the ranking (König, 2014).

Another measurement belongs to the United Nations University Comparative Regional Integration Studies (UNU- CRIS), which analyzes the integration processes of the ASEAN, NAFTA, Integrated Asia (IA16), East Asia Summit, Mercosur, and the EU 15 in the point of economic, political and cultural view (Palánkai, 2010). Kocziszky (2000) pointed out that the supranational integration can not be expressed with only one index, therefore he has separated it into four distinct dimensions: integration of the inland markets, protection of the inland markets, integration of the institutional system and integration of the economic policies (Kocziszky, 2000). Moreover, at this level can be measured the maturity of integration in the case of countries, which can be associated with Palánkai (analysis of Central-and Eastern European countries in 2004) and Endrődi-Kovács (analysis of Croatia in 2010 and Serbia in 2012). It is important to mention that this kind of measurement is not equal to the accession criteria. The detailed description of the results does not belong to the subject of this paper.

Measurement of the integration at sub-national level, with special regard to the cross-border functional urban areas

Around 80% of the European population lives in **urban areas and cross-border urban areas** represent a large part of this category (URBACT, 2014). The importance of cross-border urban areas has increased in the last decades among policy makers and researchers as well. In the scientific literature, there are two main definitions for the functional urban areas.

First of all, the OECD with the EU has developed a harmonised definition of urban areas *“as functional economic units, consisting of highly densely populated municipalities (urban cores) as well as any adjacent municipalities with high degree of economic integration with the urban cores, measured by travel-to-work flows.”* (OECD, 2013:155) This definition overcomes previous limitations for international comparability linked to administrative boundaries. The definition is applied to 29 OECD countries. It identifies 1 179 urban areas of different size. The functional urban areas with more than 500 000 population are defined as metropolitan areas (OECD, 2013). According to the OECD *“each functional urban area is an economic unit characterised by densely inhabited “urban cores” and “hinterlands” whose labour market is highly integrated with the cores.”* (OECD, 2012:1) In the classification of the OECD the functional urban areas do not cross the border; they are located within the country in all of cases.

The other meaning of the functional urban areas was identified by the ESPON Metroborder project (2010). Metroborder stands for cross-border polycentric metropolitan regions. It is a European multi-annual research project and funded by the European Spatial Planning Observation Network (ESPON). The objective of the ESPON Metroborder project is to determine the added value of an organised metropolitan region in comparison to a “laissez faire” approach and to identify what are the main obstacles of governance in the Greater Region and the Upper Rhine Region. (Metrolux, 2013) The Final Report of this project (2010) defines the concept of cross-border polycentric metropolitan regions (CBPMR) “*as political constructions based on cross-border agreements which consider the existence of national borders as a resource for increasing interactions at the local level and based on the embeddedness of the metropolitan centre(s) in global networks. Because CBPMRs are composed of several urban centres located on either side of a border, these regional political initiatives can mobilise different geographical scales in order to utilise the assets and complementarities of the morphological and functional polycentricity*” (ESPON, 2010). Each CBPMR has a cross-border core area, which are defined on the scale of „Functional Urban Areas” (FUAs), and thus on a local scale. “*Functional urban areas are defined primarily by commuter flow data at the local level. The precise delimitation of the FUA is associated with the threshold of 10% of the occupied of the active population commuting to the central Morphological Urban Area (MUA). These MUAs are defined as densely built and inhabited urban areas.*” (ESPON, 2010)

One of the first attempts to measure the sub-national integration took place in 1999 with a workgroup of Belgium, France, Portugal and United Kingdom. Their investigation, which was related to the Western-European core areas of the EU, has analyzed the spatial integration from three different aspects: spatial interactions, spatial patterns and spatial co-operation. The main aspects and their associated indicators are summarised in Table 3. (Boe, D. – C. Grasland – Healy, A. et.a.,1999) (Tab. 2).

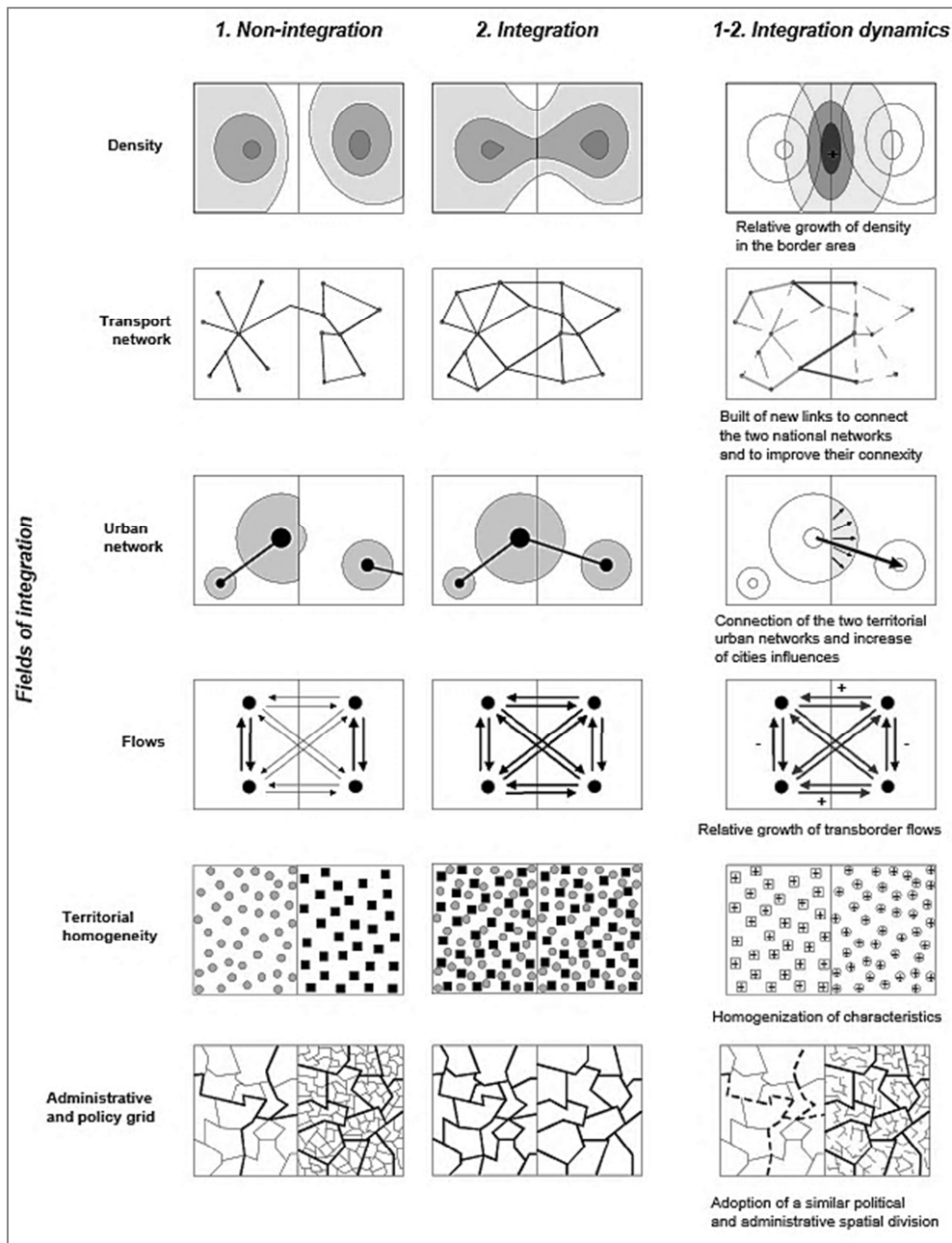
Table 2 Main aspects and potential indicators to measure the spatial integration in cross-border regions

Main aspects	Potential indicators
Spatial interaction measured through flows and barriers	goods transport flows, inter-regional migration flows, barriers to trade flows, flows of goods, residential migration flows
Spatial patterns: homogeneity, discontinuities and multiscalar position	wealth differential between neighbouring regions, multiscalar profile and dynamics of regions (based on GNP per capita)
Spatial co-operation	national financing of the Interreg II A programmes, town and city twinning activities

Source: Boe, D. – Grasland, C– Healy, A. et.a.,1999

Taking into consideration the aspects above, spatial integration in cross-border regions was determined by the difference of density, transport network, urban network, flows, territorial homogeneity, and administrative and policy grid. Figure 1 summarises the main features of integrated versus not-integrated cross-border regions and the integration dynamics.

Figure 1 Selected fields for a systemic approach of spatial integration in cross-border regions



Source: Boe, D. – Grasland, C. – Healy, A. et.a.,1999

Another approach can be read in the Report 2010 of the ESPON-Metroborder project. The cross-border integration was examined through the interaction and convergence in economic, transportation, population, political and urbanisation dimensions (Tab. 3).

Table 3 Indicators of cross-border integration in the ESPON-Metroborder project (2009-2010)

Domain	Interaction	Convergence
Economy	Cross-border commuting	Gross domestic product (GDP) per capita Labour force
Transportation	Cross-border lines of transportation	-
Population	-	Population density Residents' citizenship
Policy	Structures of cross-border cooperation	-
Urbanisation	Functional urban areas	Morphological urban areas

Source: Metrolux, 2013.

The project mentioned above included the following cross-border functional urban areas: Aachen-Liege-Maastricht, Basel, Geneva, Lille, Luxembourg, Nice-Monaco-San Remo, Copenhagen-Malmo, Saarbrucken, Strasbourg, Vienna-Bratislava and Katowice-Ostrava. (Fig. 2).

Figure 2 Cross-border functional urban areas in ESPON-Metroborder project



Source: ESPON, 2010

Decoville – Durand, et.al. (2010) have also examined the process of the spatial integration in demographic, labour market and economic dimensions, from the aspects of economic interactions, economic disparity, territorial homogeneity and cultural differences, based on the above mentioned functional urban areas, except Ostrava-Katowice, which was not involved to this analyzis. Table 4 summarizes the main results of this investigation

Table 4 Results of the analysis of Decoville

Cross-border metropolitan regions	Economic interactions	Economic disparity	Territorial homogeneity	Cultural differences
	Cross-border commuters	Differentials of GDP per capita	Residents' citizenship	Language barrier
Aachen-Liege-Maastricht	2	2	5	Yes
Basel	4	5	3	Partial
Geneva	4	4	4	No
Lille	3	1	3	Partial
Luxembourg	5	5	5	No
Nice-Monaco-San Remo	3	4	3	Partial
Copenhagen-Malmo	2	2	2	Partial
Saarbrücken	3	1	2	Yes
Strasbourg	1	1	1	Yes
Vienna-Bratislava	1	3	1	Yes

Note: 1=very weak, 2=weak, 3=moderate, 4=strong, 5=very strong.

Cross-border commuters: 5: > 60 000; 4: 40 000 – 60 000; 3: 20 000 – 40 000; 2: 10 000 – 20 000; 1: < 10 000

GDP: 5: > 30 000 €; 4: 20 000 – 30 000 €; 3: 10 000 – 20 000 €; 2: 5000 – 10 000 €; 1: < 5000 €

Source: Decoville – Durand et.al., 2010

Vienna-Bratislava functional urban area is the most important from the point of view of this paper among the above areas, because it represents the Central-and Eastern European region. According to the results of this examination, the economic interactions (measured by the number of the cross-border commuters) and territorial homogeneity (differentials of GDP per capita) are very weak, the economic disparities can be considered moderate, moreover cultural differences (language barriers) also appear. In summary, based on this indicator system this region belongs to the weakly integrated cross-border functional urban areas (Decoville – Durand, et.al., 2010).

Suggested factors for the measurement of integration in Central-European (CENTROPE) region

As we know, there are numberless approaches for the interpretation of the term “Central-Europe”. One of these concepts is the so called “Centrope”, which has been created in 2003, with the Declaration of Kittsee. This declaration was signed by governors and comitatus presidents of the above mentioned countries, provinces, regions and cities. (Schwiezer-Koch, 2013) and it is one of the most important formal frameworks of the cooperation in the Central-European region and it also functions today in several regions including Vienna and other Austrian provinces such as Lower Austria and Burgenland, the region of South-Moravia in the Czech Republic, the region of Bratislava and Trnava in Slovakia, Győr-Moson-Sopron

and Vas counties in Hungary, and the cities of Eisenstadt, St. Pölten, Brno, Bratislava and Trnava (Centrope, 2015) (Figure 3.).

Figure 3 Centrope partner regions and cities



Source: Centrope, 2010

Today, Centrope may be called one of Europe’s most dynamic and interesting economic areas: almost all partner regions are among the economic driving forces of their respective countries and boast above-average performance indicators. Roughly six and a half million people live in the eight federal provinces, regions and countries that make up the Central-European region. The two capitals Bratislava and Vienna are situated at a distance of around 60 kilometres from each other, Brno and Győr as additional cities of supra-regional importance as well as numerous other towns are the driving forces of an economically and culturally expanding European region (Centrope, 2015).

Further part of this chapter suggests some factors, which can influence the integration processes in Centrope region.

First of all, we have to mention that the Central-and Eastern European countries have a long common history. At the dawn of the World War I. the Austrian-Hungarian monarchy comprised contemporary Austria, Hungary, Slovenia, Croatia, Bosnia-Herzegovina, the present-day Czech and Slovak Republic, Vojvodina, Transylvania, Trentino-Alto Adige and parts of contemporary Southern Poland and Western Ukraine. In contrast to the Western European countries, it was a multi-ethnic state formation, in which people of different ethnic descent (Germans, Hungarians, Czechs, Slovaks, Croats, Serbs, Bosnians, Romanians, Poles,

Ruthenians, Slovenes and Italians) lived together (Jennissen, 2011). However, this empire split into a number of different countries in 1918 the empire, this coexistence determined the historical and economic development process of these states for a long time. Thus, the common *historical background and roots* can be considered as a potential integration factor.

The next influencing factor may be the *cross-border commuting*. This indicator was also applied in the former international scientific literature as well. Its relevance in the case of Centroepe is unquestionable, because its intensity is very different across several borderlines of Centroepe.

As for *Austrian-Hungarian border*, after 1989, the borders have opened and the crossings were more and more significant, especially the shopping tourism has flourished. The cross-border relationships have become stronger and diverse (employment, ownership, tourism, use of services etc.) After the EU accession of Austria (1995), the country turned westward and paid more attention to the Western integration, the economic and political importance of the Austrian-Hungarian border region has temporarily decreased (Rechnitzer,1999). Despite of this political phenomenon, the connections have become more intensively.

In the case of *(Czech) Slovak-Hungarian borderline*, cross-border employment and shopping were usual activities already during the socialism as well (Jagodič, 2010). The two states, Czechoslovakia and Hungary have signed an international convention about the bilateral employment in 1985. In this era, the commuting was dominant in both directions. Since 1999 the number of commuters from Slovakia to Hungary increased rapidly. In the western part of the border region on the Slovakian side the unemployment rate is higher than and on the Hungarian side, large industrial centres can be found near the border (Győr-Komárom-Almásfüzitő, Esztergom-Dorog-axis, Tatabánya, etc.), which has been exhausted the local workforce capacity. Since 1999, the development of the commuting was supported by a Framework Agreement between the two countries and it imposed so loos conditions that practically the barriers have discontinued. Therefore, May 2004 was not a great change for the labour market. In 2005, the number of the Slovak citizens working in Hungary has been estimated at around 30 thousand people. Since the EU accession, a very strong economic development can be observed in Slovakia and of course, it has got effects on its labour market as well. Thus, the number of commuters is decreasing in the western border section too, probably; it will stabilize at a healthy level. However, it is recognized that the process started also in the opposite direction. (Hardi–Lampl, 2008)

As for the *Austrian-Czech border*, since 1990 the labour market relationships have taken place either in the form of cross border labour migration or cross-border commuting

especially from the Czech regions to Austria. The typical sign of the regional labour market is one-way economic migration and commuting. Workers from the Czech Republic use the opportunity to find employment in nearby Austrian regions in branches like construction, tourism and social and private services, agriculture and forestry. Although the EU accession in May 2004 allowed the Czech citizens to enter the Western Europe labour market without working permission, Austria like one of most EU15 countries introduced transitional provisions to free movement of labour up to 7 years which affects the bilateral labour market (Operational Programme Objective European Territorial Co-operation Austria – Czech Republic 2007–2013).

In the case of *Czech-Slovak border*, according to research of Halás (2006), the intensity of cross-border relations is very different at the several parts of this borderland. It is especially high in the northern and southern parts of the borderland, but both sections are of a clearly different character. In the southern part, besides a good permeability of the state border makes it possible to expand the inter-settlement relations, moreover, the short transport distances support the creation of relations. For the inhabitants in the northern part of Slovak borderland Ostrava-Karviná region in the Czech Republic is very attractive. These centres are more remote from the state border in comparison with Hodonín or Břeclav in the south, but are much more numerous and larger. In the central section of the borderland, the intensity of the cross-border relations is very low, because the orientation of local communes mainly to the regional centres of the Central Považie region (Halás, 2006).

As we could see, the main characteristics and intensity of cross-border commuting in Centrope are very distinct, thus a deeper analysis is necessary.

The next suggested factor is the *ethnic composition of inhabitants*. It shows the proportion of the population from neighboring countries. In an integrated border region this rate is obviously higher, than in a separated one, because this factor may represent the extent of the common land use. In the case of Centrope, it is also the tendency of the last years that a significant number of Slovak citizens settled down at Hungarian settlements near Bratislava. Their lifestyle primary connects to Slovakia, thus everyday cross-border travelling requirements occur in their case (Prileszky, 2010). Based on the data (March, 2010) of the Land Office of Győr-Moson-Sopron country, 1269 people living in Győr-Moson-Sopron have registered address in Slovak, 1256 of them purchased real estate since 1. May, 2004 in this country. The purchases were made mostly in 2008 and 2009, but the purchase of real estate wave has started in 2004. The resolution of the country office confirms that Rajka, Dunakiliti,

Dunasziget, Feketeerdő settlements are the most attractive due to the proximity of the Slovak border and extending suburbanization of Bratislava (Baj, 2010).

In addition, it can be assumed that similar *political and administrative systems and decision-making competencies* may support the integration process of a cross-border region. In contrast, Centrope unites countries and regions whose political and administrative systems, while principally similar, do vary markedly in some respects, as federally organised administrations exist side by side with those that attach greater importance to the central government (Centrope, 2014).

The next factor in the Central-European integration model can be the *existence of language barriers*. The relevance of this indicator was also proved by the above presented research of Decoville - Durand, 2010. Language barriers appear in the case of Centrope, where four national languages meet.

The Centrope, as a polycentric region is not viable without rapid and well-established transport infrastructure, which allows a significant degree of economic integration, labour mobility and commuting. Since the 2003 foundation of the Centrope region always played an important role in the region's life the transport development issues. A significant growth of the traffic between the member regions of the Centrope countries may support the dynamic integration. The other factor, which contributed to successful integration, is the efficiency of more transnational transport corridor crosses. A greater traffic growth can be expected in the future between the four countries, which is also displayed in the Austrian cross-border traffic forecast. (Uszkai-Jóna, 2014) In the topic of *physical accessibility*, it is necessary to examine the continuity of the transport network across the border and explore its deficiencies.

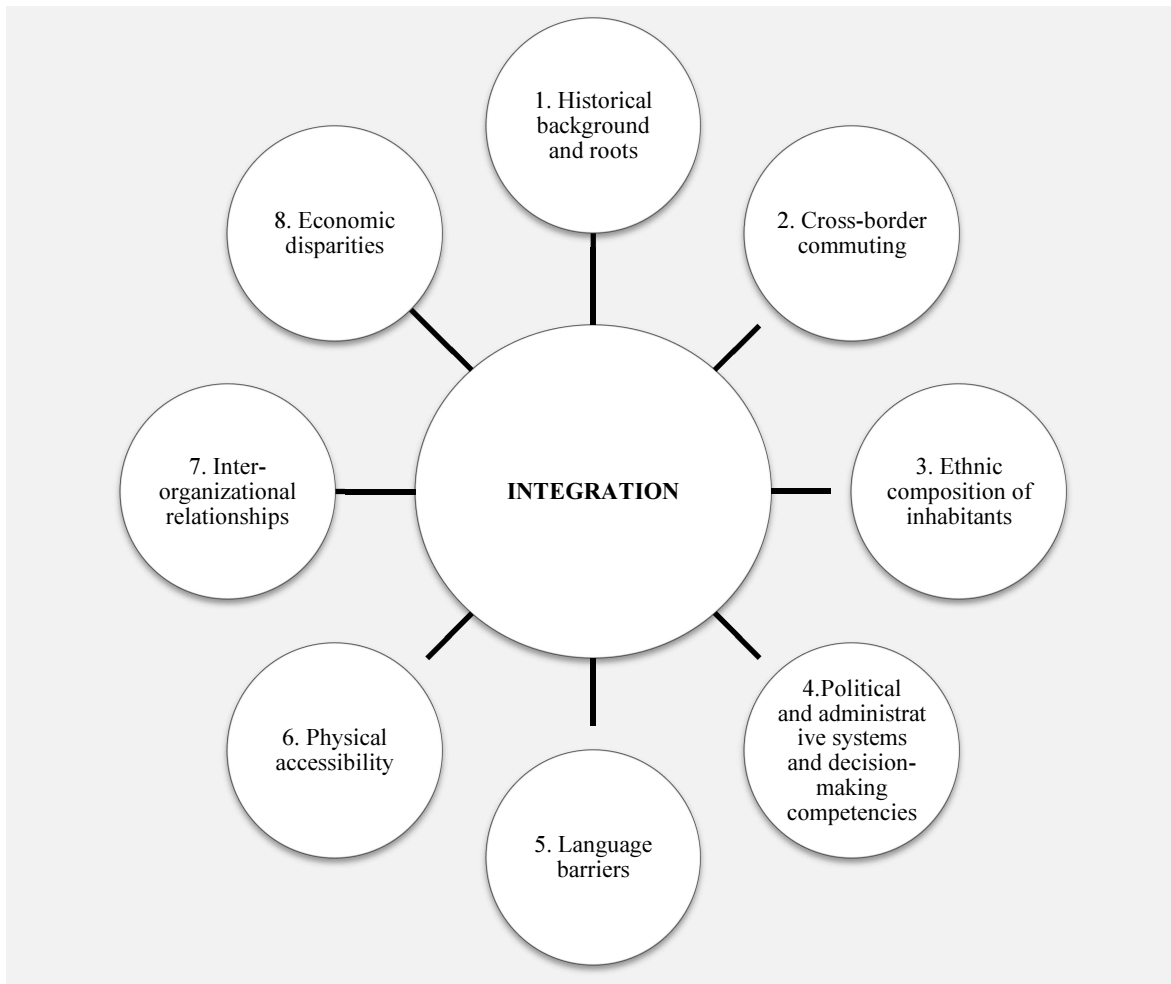
Networks can appear in other context as well, such as *inter-organizational relationships*, including corporate, government and non-profit sector. The intensity of their cross-border relationships can be examined from the aspect of integration. If these cooperations are uncertain and short-term, it can negatively influence the integration of the given region. The exploration of clusters and networks within the Centrope can help to understand the operation of several inter-organizational relationships.

Another suggested factor is *economic disparities* (measured by GDP per capita), which was applied in former researches as well. Its relevance among the indicators is unquestionable. Before the financial and economic crisis, Centrope was one of the fastest-growing areas of the EU in terms of GDP, although the individual performance of countries tended to differ significantly. While Slovakia and the Czech Republic had very high GDP growth attaining 7,7% and 5,9%, respectively (measured as average growth in constant prices

in 2004-2007), Austria's performance (3.1%) was weaker if compared to the Centroe average (5,0%). However, when compared to the EU-27 average of 2,7%, Austria also performed above average. Hungary suffered in the pre-crisis period from a restrictive fiscal policy, and its growth rates amounting to 3,3% were lower than in Slovakia and the Czech Republic, but higher than in Austria. Over a longer time horizon, the average growth performance in centroe tended to improve from 2004 onwards, with the exception of Hungary (Centroe, 2010).

Figure 4. summarizes the suggested factor group, which can influence (positively or negatively) the spatial integration process in Centroe region.

Figure 4 Possible factors influencing spatial integration



Source: Edited by Author

CONCLUSION

The paper has examined the possible measurement methods of spatial integration at three (global, supranational and subnational) levels. Based on the reviewed scientific literature, the methodology of the measurement is significant distinct, not only from the aspect of several levels, but at same levels as well. The suggested integration factors can be developed and tested in the case of Central-Europe in the future, considering the specialities of this region. These factors can be divided into two different parts: hard and soft factors. The first one is relatively easy to measure, e.g. economic disparities, because several databases provide quantitative data, while soft factors e.g. common historical background and roots require in more cases literature review or qualitative research. These are suitable for the explanation of the results coming from hard factors. Presented researches for the integration processes of cross-border functional urban areas can provide an excellent basis to this investigation. The above mentioned Vienna-Bratislava relation is necessary to extend for the whole Centrope region and measure the integration in this multilateral system.

Acknowledgement

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EDUCATION IN SERBIA AS FOUNDING PRINCIPLE OF THE LOCAL ECONOMIC DEVELOPMENT

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Abstract

The aspiration of Serbia to join the European Union requires the transformation of the educational system of the country to adapt EU mechanisms. Such endeavours are reflected in the Law on Higher Education modified in July 2013 and Law on Adult Education, which is published in 2014. These may infer social and economic consequences on a wide scale. Our intention was to present the structure of the Serbian education system and the distribution of the educational level of the population applying secondary data analysis in our study. Furthermore, our goal was to shed light on a particular section of the Law on Higher Education which regulates the recognition of foreign degree (diploma); in addition, we intended to touch upon the issue of trainings in non-formal education controlled by the Law on Adult Education. Lastly, we addressed changes in the unemployment rate and levels of qualification of those without a job. Our work is applied from the perspectives of knowledge and knowledge transfer; since local economic development depends highly on the accumulated pieces of information acquired by experts.

Keywords: Serbia, education system, university, economic development

THE STRUCTURE OF THE SERBIAN EDUCATION SYSTEM

The primary pedagogical-educational system is of a unitary nature with eight years of primary school attendance with learners admitted at their age of seven.

It is followed by secondary schooling. The secondary (specialized) education is divided into three and four year training (SORS, 2014).

Secondary education is realized within the following institutional framework: gymnasium, vocational school, arts school, and mixed schools (gymnasium and vocational school or arts school). Profession can also be acquired, - in its classical sense- (it has to be preceded by two years of work experience) by one or two year specialist training, so called master vocational training after whose completion students take a specialist – master exam.

In accordance with the regulation of the adult education, individuals who have not completed their primary or secondary studies can apply for the admittance to an adult primary or secondary training.

Higher education activities carried out through academic and professional career courses based on the approved and/or accredited study programmes for acquiring higher education.

The Law on Higher Education divides academic studies into three stages:

1. First level studies or courses shall include:

- basic academic courses (BSc); and
- basic professional career courses.

2. Second level studies or courses shall include:

- diploma academic courses for a master's degree (MSc);
- specialist professional career courses;
- specialist academic studies.

3. Third level courses shall include doctoral academic courses (PhD) (Law on Higher Education, 76/2005).

The required amount of credits for the basic academic studies is set to 180-240 ECTS¹⁵ credits, while for the basic professional career 180 ECTS credits.

The required amount of credits for the MSc degree is 60-120 ECTS, which depends on the number of points obtained following the foundational courses. Nonetheless, to get hold of a Master Degree, candidates are required to collect 300 ECTS credit.

Doctoral studies shall be given 180 ECTS credits at least, with a compulsory previous total of at least 300 ECTS credits earned through the core academic and master's degree courses.

The levels of the educational achievement are ranked on a scale from I. - VIII. on the territory of the Republic of Serbia.

The Higher Education National Committee accorded each of the higher education level rendered in Figure 1.

¹⁵ European Credit Transfer and Accumulation System

Figure 1 National framework of qualifications

Level of professional degree	Faculty/art academy/college/university		College		Framework of EU qualifications (levels)
VIII	Doctor of Sciences	-	-	-	8
VII-2	Master of Sciences	Specialization	-	-	
VII-1	II level	Regular studies	-	-	7
VI-2			Specialization	3 year studies	6
VI-1	I level		2 or 5 year studies		5

Source: ENC- National Committee on Higher Education

Non-higher education system encompasses the I.-V. levels of professional degree defined by the Law on Secondary Pedagogy and Education, as follows:

- V. level of professional degree: specialization studies;
- IV. level of qualification: secondary education of four years;
- III. level of qualification: secondary education of three years;
- II. level of qualification: professional education of two years;
- I. level of qualification: vocational training of one year.

THE EDUCATIONAL LEVEL OF THE SERBIAN CITIZENS

The educational level of the Serbian citizens, according to the Statistical Register of Republic of Serbia (SORS), has been showing a steady rise considering the census of 2011. The increase of the educational level is represented in Table 1, in comparison with figures from 1991.

Table 1 Population aged 15 and above by educational attainment, according to the censuses of 1991 and 2011.

	1991	2011
Republic of Serbia	6 294 350	6 161 584
Without educational attainment	590 682	164 884
Incomplete primary education	1 522 639	677 499
Primary education	1 541 778	1 279 116
Secondary education	2 022 048	3 015 092 ¹⁶
High education (college)	241 416	348 335
Higher education (university studies)	322 888	652 234
Unknown	52 899	24 424

Source: Author's own construction based on SORS, 2013 data.

In line with registered data during the course of twenty years, the increase in the educational level seems even more salient, represented in Table 2.

Table 2 Population aged 15 and above by educational attainment, according to the censuses of 1991 and 2011 - expressed in percentages and the percentage difference of data of the two years observed.

	1991	2011	Difference %
Republic of Serbia	100%	100%	-
Without educational attainment	9,38	2,68	6,7
Incomplete primary education	24,19	11,00	13,19
Primary education	24,49	20,76	3,73
Secondary education	32,13	48,93 ¹	-16,8
High education	3,84	5,65	-1,81
Higher education	5,13	10,59	-5,46
Unknown	0,84	0,40	0,44

Sources: Author's own construction based on SORS, 2013 data.

¹⁶ Presented are data for persons who completed secondary school and for persons who completed specialisation after secondary school.

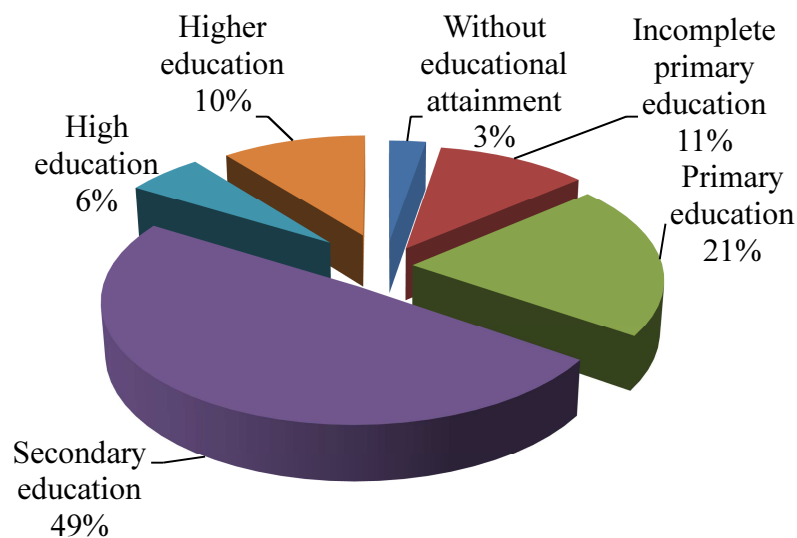
The numbers of those without a primary level degree or without completed primary studies have significantly decreased, while the number of those who successfully terminated their secondary formation shows a notable increase. On top of this, the number of those who finalized their second or third level (high education and higher education) studies has doubled.

Nonetheless, the number of those who completed their academic studies still remains under the statistical level of the Hungarian graduates in point of the ratio of population (KSH, 2013).

The percentage difference between those who do not graduate from primary school and those who complete their primary education is quite high rising to cca. 35%, while the percentage ratio of pupils graduating from secondary school reaches 50%.

The structure of the educational level of the population is shown in Figure 2.

Figure 2 Structural distribution of the educational level of the population



Source: Author's own construction based on SORS, 2013 data

RECOGNITION OF FOREIGN HIGHER EDUCATION DOCUMENTS AND THE LAW ON HIGHER EDUCATION

The fact that the number of professionals holding academic (college or university) degree could somewhat be higher and requires special attention, because degrees obtained in foreign countries in Serbia do not successful undergo domestic recognition process.

"In Serbia, technically, though, the term "recognition" is in use, practically, however, the process of recognition is necessary to hold a foreign qualification which must be in compliance with a domestic diploma or qualification. Consequently, the process of recognition is demanding and takes long. In case of a mismatch, the university, which is processing the recognition, may require additional testing. However, in case of interdisciplinary diplomas, in praxis, recognition is in many cases impossible." (Maksimović, 2012, p. 62)

According to the Law on Higher Education recognition of a foreign document of higher education means a procedure on the basis of which the right of the holder of that document shall be established to continue education and/or to seek employment.

Any higher education degree got in the SFRJ till April 27th, 1992, in the Federal Republic of Yugoslavia, or in Serbia and Montenegro - till June 16th, 2006, or in Republic of Serbia is not subject to the domestic higher recognition process or diploma naturalization (Law on Higher Education, 76/2005).

In accordance with the regulation of the law "the evaluation of a foreign study program is carried out on the basis of the type and level of the acquired knowledge and skills taking into account the educational system of the country where the foreign diploma was issued, the conditions of admittance, competencies acquired by the end of the study program, rights stemming from and by the foreign higher degree, and other relevant facts, without considering formal notations and structures of the study program (Law on Higher Education, 76/2005).

The law distinguishes two types of recognition:

- Evaluation of the entire foreign study program or part of it, for those whose aim is to pursue further studies, is accomplished by an expert body of an independent higher educational institution to which the academic degree request was sent. Law from 2013 stipulates that the evaluation of a foreign study program, with the aim of seeking employment, is carried out by the National Centre for Certification of Foreign Higher Educational Degrees (ENIC/NARIC center), acting as an organizational unit within the scope of the Ministry. Such a development brought a good deal of change; thus, it was inevitable to include it within the framework of the law in question. Furthermore, it was necessary to define such cases of recognition which did not have precedence so far: "For the matter of providing professional opinion in the course of the evaluation of a foreign study program for employment purposes, the minister summons a committee of at least three academic professors from the relevant field, who are enlisted in the Serbian Conference of Universities" (Law on Higher Education, 76/2005).

A completed evaluation of a certain study program is to be considered valid in subsequent cases of recognition of a foreign higher educational degree obtained within the scope of the same scrutinized study program.

- The recognition of a foreign higher educational degree for employment (professional recognition) is in the jurisdiction of the Ministry through the ENIC/NARIC centre. Professional recognition is carried out according to the previously established criteria of the evaluation of a foreign study program.

This approach would accelerate the recognition process, since if the application was submitted properly a decision is required to be made within 90 days; on top of that, the decision of the professional recognition body is to be treated as final.

ADULT EDUCATION AND THE LAW ON ADULT EDUCATION

The first law related to adult education system comes into force in 2013, and called Law on Adult Education. This law acknowledges the term Life Long Learning, whose framework provides an opportunity to obtain skills within a formal, non-formal, and informal education. Formal education is intended to be accomplished within the framework of a primary and secondary education, while its non-formal counterpart offers an entirely separate educational program.

The practical application of the Law on Adult Education seeks to accomplish the following:

1. Enhancement of the educational and qualification structures and the advancement of employment possibilities of the citizens;
2. Foundation of a sustainable socio-economic development of the Republic of Serbia;
3. Enhancement of the professional mobility and flexibility of the working population;
4. Decrease of poverty, establishment of equality, social inclusion, and inter-generational solidarity;
5. Enhancement of the quality of life - personal, family, and of the natural and social habitat;
6. Development of democracy, inter-cultural understanding and tolerance;
7. Integration into the European social and economic space with the appreciation of the European Educational Framework (Law on Adult Education, 55/2013).

The law, besides regulating educational forms and the acquisition of a degree within a formal education, also prescribes forms of education within non-formal training whose completion would provide competencies and skills that would be beneficial to develop

occupation (practice) related knowledge, acquire supplementary knowledge, or to help find a different employment.

According to the Law on Adult Education, the organizer of educational activities may be:

1. Primary and secondary schools;
2. Other institutions (public agencies, public firms, organizations responsible for employment issues, employment agencies, economic societies, carriers of professional rehabilitation affairs, entrepreneurs, trade union organizations, societies, professional bodies, organizations for adult education (public, workers', or open universities, universities for the third era, etc.), centres and organizations for professional development, for foreign language acquisition, for information-communication technology, for the training and development of human resources, driver training firms, chambers of commerce, centres for carrier management and advice, societies of employers, cultural-educational centres, culture centres, and other subjects registered and adhering to the criteria of educational activities (Law on Adult Education, 55/2013).

In order to a company to accomplish non formal education, it has to adhere to licensing procedures in accordance with the Law on Education.

The process of issuance of a licence to an organization to acquire the status of a publicly recognized organizer of educational activities is to be initiated with an application submitted to the Ministry.

The program proposal for educational activities in adult education contains an adult educational plan and a program. Furthermore, it is necessary to compile a syllabus of its accomplishment, to adhere to conditions required to carry out adult educational activities, to hold necessary pieces of equipment and tools, as well as to hire an appropriate number of qualified personnel who would be responsible to conduct educational activities.

The Ministry, afterwards, hands over a part of the request to the Office for Educational and Pedagogical Development, which informs about the adult education plans and programs and about their implementation, for further consideration.

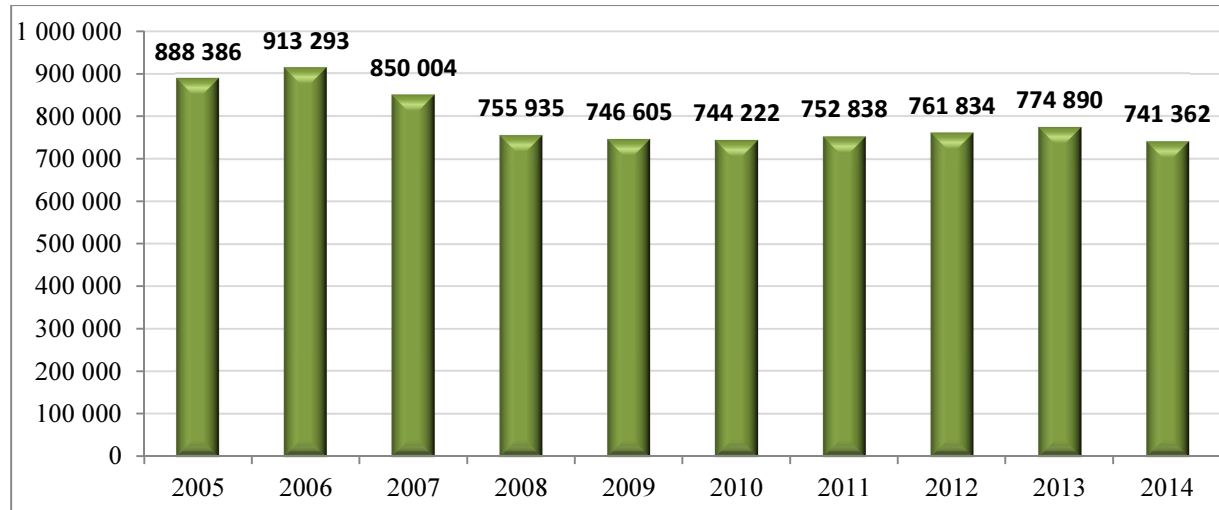
After receiving an approval from the Office for Educational and Pedagogical Development, the application is handed over to the supervisor of the Ministry to determine other requirements to be fulfilled to grant the licence.

The Minister is required to make a decision if the licence is granted, based on the findings of the educational supervisor, in three months from the submission of the application.

LABOUR MARKET REGISTER

The National Employment Service (NES) stores data on the number of unemployed on the territory of Republic of Serbia represented in Figure 3:

Figure 3 General unemployment characteristics from 2005 to October 2014

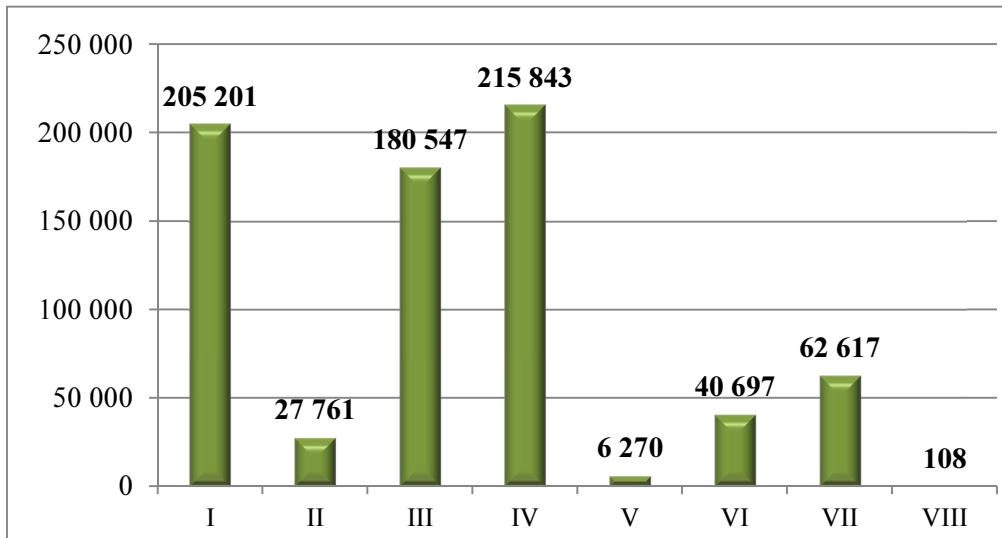


Sources: Author's own construction based on NES data

We may conclude that there were 147 024 less unemployed on the territory of Republic of Serbia in October 2014 with respect to 2005. Though, we must remark that the decreasing tendency in the unemployment rate may be due to emigration (in living or educational purposes), and also due to the fact that employment in the neighbouring countries is open to citizens living close to the border territories.

The educational level of the unemployed is best shown on the following Figure of November 2014 (Fig. 4).

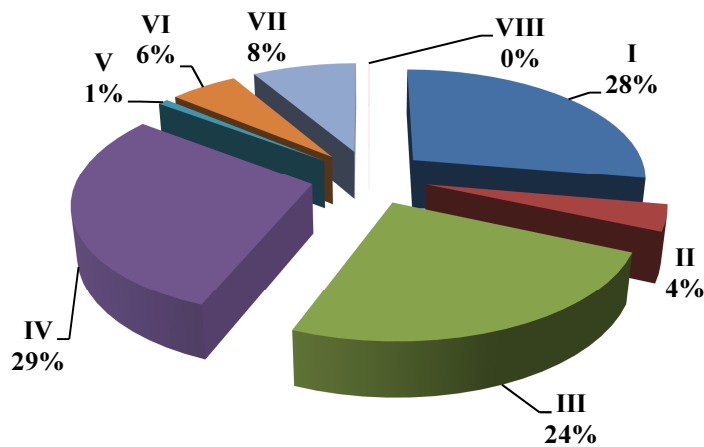
Figure 4 Number of unemployed by qualification in November 2014.



Source: Author's own construction based on NES data

According to percentage distribution, it signifies shown on the following Figure.

Figure 5 Number of unemployed by qualification in November 2014.



Source: Author's own construction based on NES data

85% percent of the unemployed are constituted of job seekers with an I.-IV. education level.

The National Employment Service (NES) database makes it possible to gain a precise insight into the unemployment rate of each of the occupational sector, demonstrated by Table 3.

Table 3 Unemployment, vacancy filling requests from job matching services by occupation groups during November 2014

	Occupation groups	Unemployd persons		Occupation groups	Unemployd persons
1.	Agriculture, food production and processing	41.389	11.	Trade, hotels & restaurants and tourism	67.596
2.	Forestry and wood processing	8.810	12.	Economics, law and administration	81.516
3.	Geology, mining and metallurgy	3.759	13.	Education and upbringing	14.493
4.	Mechanical engineering and metal processing	98.710	14.	Social and humanistic field	10.789
5.	Electrotechnical engineering	37.562	15.	Mathematics and other natural sciences	12.553
6.	Chemistry, non-metals and typography	21.43	16.	Culture, art and media	8.498
7.	Textile and leather processing	35.608	17.	Health, pharmacy amd social protection	23.896
8.	Public utility, upholstery and painting services	3.142	18.	Fitness and sports	795
9.	Geodesy and civil engineering	17.297	19.	Other	232.493
10.	Transport	18.701	-	-	-

Source: Author's own construction based on NES data

CONCLUSIONS, AFTERWORD

Serbia has significantly decreased the number of people holding only a completed or partially completed primary level degree. In the same time, the number of high-school graduates has notably increased.

There is a lack of accurate statistical data or database on the number of people with a higher degree mostly because the number of the exact cases where the diploma naturalization was unsuccessful or just haven't been completed yet is still unknown.

The government recognizing the obstacles behind the recognition process has established a centre (office), in accordance with the Law on Higher Education from 2013 with the aim of simplified recognition procedures for employment purposes, which would function independently and differently from existing practices and also out of the scope of colleges and universities. However, after one and a half years of enacting the law, i.e. till February 2015 the ENIC/NARIC centre has not started its functioning. If we put this fact into the perspectives of a foreign investor, we may conclude that the simplicity and promptness of recognition process would provide beneficial conditions to ameliorate employment conditions.

In our view, the Law on Adult Education aims at putting adult education into practice within the frames of formal education (primary and secondary), aspiring to help those individuals who have not completed their primary education, on top of which they could seek further specialization at a secondary level, since "it is indispensable that the citizens of the region be as much educated as possible" (Pecsenyánszky, 2014, p.23.).

Regarding non formal education system, it seems that time has stopped, since we have no evidence of a firm that has obtained a permit to engage in adult education. It is, though, foreseeable, that degrees obtained within the framework of a non-formal education could provide for adequate demands of special skills and knowledge. Educational methods adopted in a non-formal educational environment are able to respond the most efficiently to labour market demands. In line with this, to our mind, non-formal education would act as a great facilitator among employees, since after a success in finding a workplace; individuals would be required to continue their training to adapt themselves to new professional conditions by permanent and vocational training.

If we compare the percentage rates of the education level of the unemployed with the education level of the rest of the population, we may conclude that they overlap with each other; in other words, on the rough estimate the percentage distribution is almost the same. However, by examining the unemployment rate in each employment sector, it becomes obvious that in case of some professions the unemployment is rather high. Some possible solutions could include retraining and reskilling and the acquisition of further useful competencies.

As Takács concluded, the solution for those who are enlisted in the unemployment database would be a well-organized and institutionalized adult educational infrastructure (Takács, 2008, p. 291.).

All in all, education plays a significant role in local economic growth, whose development would determine the pace at which those who seek employment would be able to adapt themselves to the demands of the labour market. It is in a direct correlation with local economic development, since local economy can only prosper in a progressed educational milieu.

With the new Law on Adult Education coming into force the unemployment rate in Serbia is expected to fall significantly, mainly thanks to retrainings.

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THE IMPACT OF THE DEPTH OF COOPERATION IN ESTABLISHING REGIONAL ECONOMIC COOPERATIVES IN SZEKELYLAND.

AZ EGYÜTTMŰKÖDÉS MÉLYSÉGÉNEK HATÁSA A VIDÉKI GAZDASÁGI TÁRSULÁSOK LÉTREJÖTTÉRE SZÉKELYFÖLDÖN

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Abstract

The thesis of the research: The apparition and operation of regional economic partnerships is a precondition of regional cooperation.

In the society of our age it is of major importance to strengthen the communities' values, which represent belonging, standing and last but not least financial security. This supposition can be taken as a general statement, but it is essential from the point of view of Szekely people's picture about future, and has its part in finding ourselves. Building a community does not only mean sharing the same values and thoughts, but can also mean a common resource management in case the participants would like a joint utilization of values. A condition for this is cooperation, depending on the attitude of people with different behavior and value system.

The topic has been dealt with by several researchers in the last few years, thus substantially contributing to the development of communities by highlighting those problematic areas, which supposedly influence contribution in each community.

To get to know these areas I have conducted a study in the region of Udvarhely, from the results of this I have stated real conclusions, which are preconditions of the appearance of the cooperation and operation of economical cooperation in Szekelyland.

Keywords: community, cooperatives, values, farmers, regional development, partnership

Kivonat

Kutatási tézis: A vidéki gazdasági társulások létrejötte és működése feltétele a regionális együttműködésnek

Korunk társadalmában jelentős fontossággal bír a közösségek értékalapú megerősítése, amely a részt vevő tagjaik számára összetartozást, megbecsülést és nem utolsósorban anyagi biztonságot jelent. Ez a tézis általános megállapításnak is elfogadható, de a közép-kelet-európai vidéki térségek önmagukra találásában és ezen belül a székelyföldi emberek jövőképe szempontjából létfontosságú. A közösségi építkezés a hasonló értékek, gondolatok megosztásán kívül egy közös erőforrás-gazdálkodást is jelenthet, ha a résztvevők közös értékhasznosítást is szeretnének. Ennek a feltétele az együttműködés, amely a különböző közösségekben a más és más magatartású és értékítéletű emberek hozzáállásától függ.

A témával számos kutató foglalkozott az évek során, ezáltal lényegesen hozzájárultak a közösségek fejlődéséhez; beazonosították azokat a problémás területeket, amelyek minden közösségben nagy valószínűséggel befolyásolják az együttműködést.

Ezek megismerésére végeztem egy felmérést Udvarhelyszéken, amelynek eredményei alapján valós következtetéseket fogalmazok meg, amelyek feltételei a székelyföldi gazdasági együttműködések létrejöttének és működésének.

Kulcsszavak: közösség, szövetkezetek, értékek, gazálkodók, regionális fejlesztés, együttműködés

INTRODUCTION

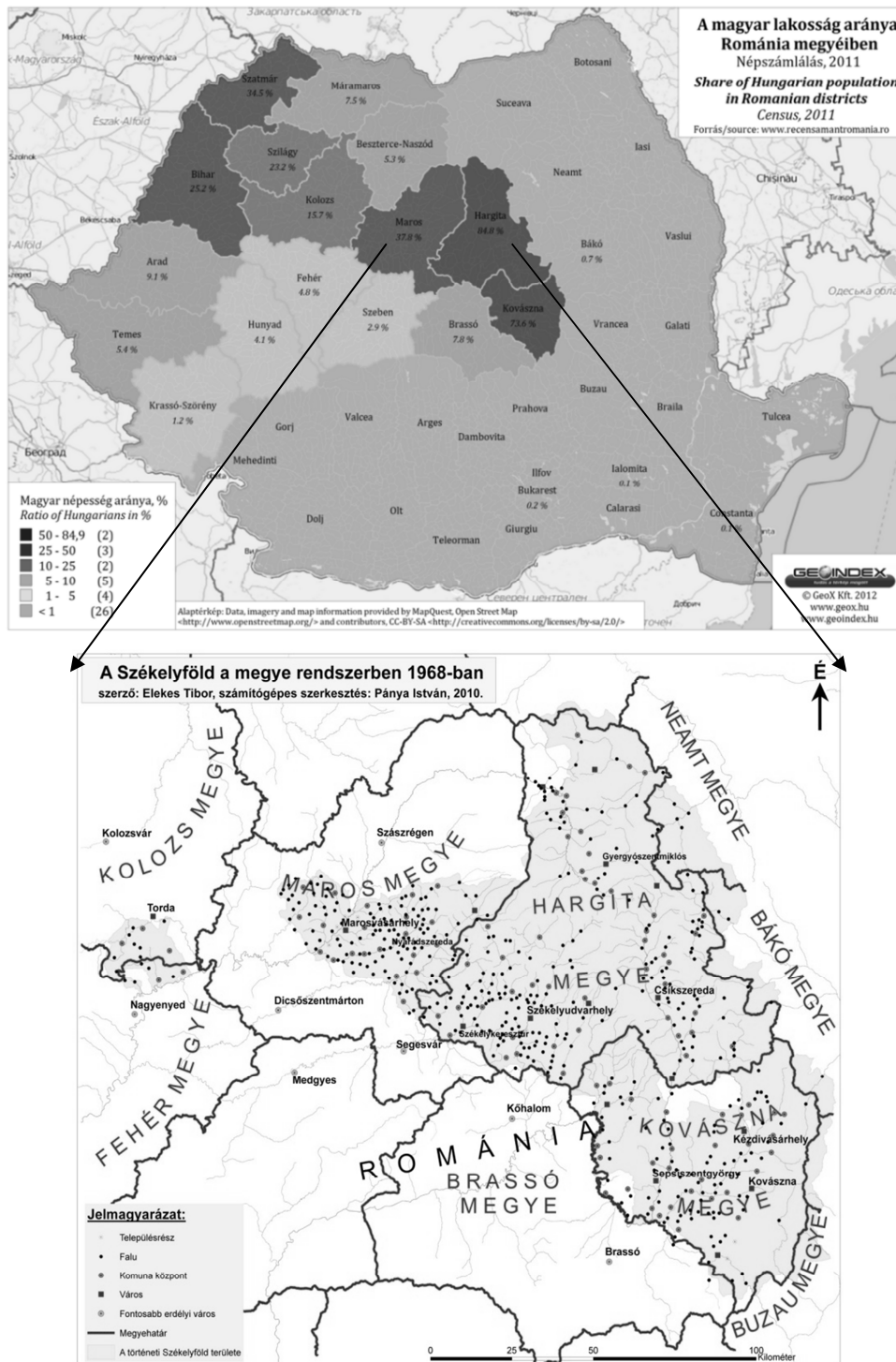
Szekelyland is situated in the central part of Romania, being embraced by the Western Carpathians.

Table 1 2011 statistical data of Romania and counties of Szekelyland

Nr.	Name of indicator	Romania	Hargita county	Kovászna county	Maros county	Székelyland together (or in average)	Székelyland in percentage compared to Romania
1.	Area – square kilometer	238 391	6 639	3 710	6 714	17 063	7,16
2.	Population – person	22 435 205	341 570	230 537	601 558	1 173 665	5,23
3.	– urban	12 244 598	155 184	119 993	308 132	583 309	4,76
4.	– rural	10 190 607	186 386	110 544	293 426	590 356	5,79
5.	Number of employees	4 774 263	62 983	48 089	124 747	235 819	4,94
6.	–agriculture	110 079	1 303	1 512	2 124	4 939	4,49
7.	– industry	1 371 064	22 803	19 119	40 620	82 542	6,02
8.	Rate of unemployment*	7,80	10,50	11,10	8,00	10	126,50
9.	Gross average wage*	1 845	1 458	1 378	1 623	1 486	80,56
10.	GDP – million lej	514 700	6 001	3 993	10 851	20 845	4,05
11.	GDP/resident – lej*	22 942	17 568	17 321	18 038	17 642	76,90

Source: Geréb (2013)- Romanian Statistics Yearbook (National Statistics Office – 2011)

Figure 1 Map of Székelyland in the area of the Romanian public administration



As reflecting the Romanian data, Szekelyland is a bit more by area, representing 7.0%, as by the division of its population hardly goes over 5.0%, but in economical average indicators it performs under the country's average (Geréb, 2013). It is important to mention that the statistically analyzed three counties only partly cover, or in certain cases contain other territories than that of the historical Szekelyland, but statistical data exists only on the level of

these administrative units (Elekes, 2010; Geoindex, 2012). Besides the unpunctuality of territorial cover, these data also contain the probability of mistakes of statistical calculations.

In the development of the economy and society of Szekelyland the community's keeping force has always been of prominent importance, which could survive even after several battles and hardship. The half century dictatorial period before 1989 for the Szekely community meant a time of interdependence, when the individual survived by being locked together in small family, friendly, religious communities, thus acquiring huge amount of trust capital. Of course these communities first of all cooperated in terms of values and spiritual way and not in terms of economy. The former socialist system misused cooperatives, in the form of producers cooperatives it showed to individuals a negative example of it, an experience which questioned the efficiency of cooperation and the meaning of trust for more generations.

With the changes in Romania, communities became a bit looser, the freedoms of the individual place the person on their own orbit, the ties become loose, and the primary economical storage raises mistrust. The individual is left alone, many of them find the social net the only common program, although, after each change in the system it was advertised in all political campaigns that the factors needed for cooperation are known and those economical and social co operations can be set up, which are needed for the regional development. There were several initiatives of founding community organizations though among their activities was everything like culture, religion, education, leisure, but no economical ones, which could concentrate the power of the economical characters on strengthening each others' economical product.

As I was doing my research in the field of regional economics and politics, I was also studying the development of the economic history of the Szekely people in more depth. My objective was to get to know and understand the recipe of those cooperative forms, to see environmental changes, which were quite different between the two ages. One of the solutions that can be overtaken is the idea of economical joint action, being transformed according to the expectations of today's people. Previously, the tool for this was the cooperative, which has not been able to be started again and made popular in the last 25 years. The reason for my research was to find out as much as possible about this system of conditions; and also to work out a methodology, which on the level of the region is able to set up cooperatives in the society of the rural areas. On the territory of Szekelyland this was the characteristic form of organization, several community's economic life was organised according to the same pattern.

The single example of this way of thinking at present is The Agricultural Cooperative of Nagyküküllő established in 2011 by 500 milk producing farmers. In order to be able to

process the milk the farmers bought the previously nationalized and closed milk factory, thus being able to process and sell their own raw material. Is this an isolated and forced case, or is it rather the starting point for a regional economical organization? A question that can be used as a thesis for my research. These cooperatives can be those economical co operations, which will have a direct effect on the regional development of Szekelyland. This is why it is important to examine and identify those factors and systems of conditions, which will lead to the set up of cooperatives and operation of these.

The topic of my thesis is the forming of co operations on community level, their operation and their effect on the regional development. Both during my primary and my secondary research I have been trying to find out what makes people in rural areas cooperate, and from the given economical and human resources, and logistical aptitudes what type of cooperative forms can be established, types that would enhance a certain region's economical development. In order to be able to understand the essence of cooperatives it is the international organizations we need to turn to for well worded definitions: "According to the International Co-operative Alliance (ICA): a cooperative is an autonomous association of persons united voluntarily to meet their common economic, social, and cultural needs and aspirations through a jointly owned and democratically controlled enterprise. Another widely accepted cooperative definition is the one adopted by the United States Department of Agriculture (USDA) in 1987: A cooperative is a user-owned, user-controlled business that distributes benefits on the basis of use (Zeuli and Cropp, 2004, pg. 1)."

I have been looking for the answer to those values and interests, which would lead people of the modern society towards such a cooperation, as a result of which the quality of their life would become better, and their values would grow.

As taking part in a community brings along certain sacrifices, I am also interested to what extent would today's people be willing to give up their individual freedoms, to gain community benefits in exchange.

The change in the economical-social environment has made major changes in the individual's daily lifestyle, it has transformed their social network, communicational behavior. It would be important to get to know, to what extent has the willingness to cooperation been influenced by changes. The consequence that can be seen from the experiences (Horváth, 2003; Hunyadi, 2007; Balaton, 2004; Egyed, 1981), is that cooperation has brought about important social benefits in the development of Szekely communities.

The social economical restructuring after the changes in 1989 did not go along a well thought strategy, but it was the result of a political restructuring. (Horváth 2001, 2003;

Kolumbán, 2001; Geréb, 2013.) The basis of the economical-social restructuring in Romania was the 18/199 law of land, the 112/1995 returning the nationalized goods, such as the 165/2013 laws (Official Journal 279/1995; 1/1998; 278/2013). These regulations have resulted in interesting situations in Transylvania and Szekelyland,, because the region was reorganized to the situation before the Romanian nationalizing process of 1848. The partial rearrangement of parcel structure can be mentioned here, which earlier defined the social relationship of communities. Before 1945 the success and results of the Romanian Hungarian communities' growth in rural environment was due to the results and consequences of cooperating processes after the Settlement. Even if this process was transformed after the Treaty of Trianon, it greatly supported the everyday life of the community of Hungarian minority. The happenings between 1945- 1989 supported cooperation, though they started an individualization process, and put down the basis of survival of the individual in the Eastern-Middle European countries. There appears to be a question, that after the restructuring of 1989 to what extent did the Szekely communities retain the ability of cooperation. Does the experience of the past represent any advantages in dealing with the effects of economical and social crisis in 2007. What are those conditions that would need to be fulfilled, so that people could think in communities, in times of problems, in a way that primarily their own knowledge and resources are used.

OBJECTIVES AND METHODS

The idea of cooperatives – as possible forms of organizations for rural restructuring – has reached the tables of decision-making bodies several times (Somai, 2003; Nagyné-Orlovits, 2007; Géró, 2009), but nobody was able to set up a movement (Somai, 2003) of model like cooperatives.

The aim of my research is mapping the economical and human resources in different locations, moreover there is research of those attitudes and norms that those farmers, who can be potential members of a newer cooperation have. In order to be able to get to know the Szekely people's cooperation habits, I have conducted a qualitative research in the form of deep interview. Using a half structured interview I would have liked to find out from the formal and informal opinion forming people of the region, which factors should be taken into consideration in relation with my research area, and knowing their environment which points of view would be placed in the foreground. These interviews were conducted in the area of Udvarhely, the four people asked live 20 kilometers from each other, thus assuring a regional

coverage. The research was done in the period of 10 April – 20 May 2014. The core of the deep interview was a series of previously developed list of questions, this making possible a processing structure, which led to the evaluation. (Babbie, 2001; Malhotra, 2009). The evaluation will soon be published on its own, under the title „The Conditions of Regional Economical Co operations and Examination of Cooperation Willingness in Szekelyland”, which contains the evaluation, summary and conclusions of the deep interviews.

On the basis of the processed conclusions of the half structured deep interview I have set up the following hypotheses, which later were found real or were disconsidered.

H1: The basis of regional development is the active country – town economic relationship.

H2: Those farmers, who are active members of the organizations in their villages, are more probable to become members of an economical partnership;

H3: The presence or absence of lending in a community shows its willingness to cooperate;

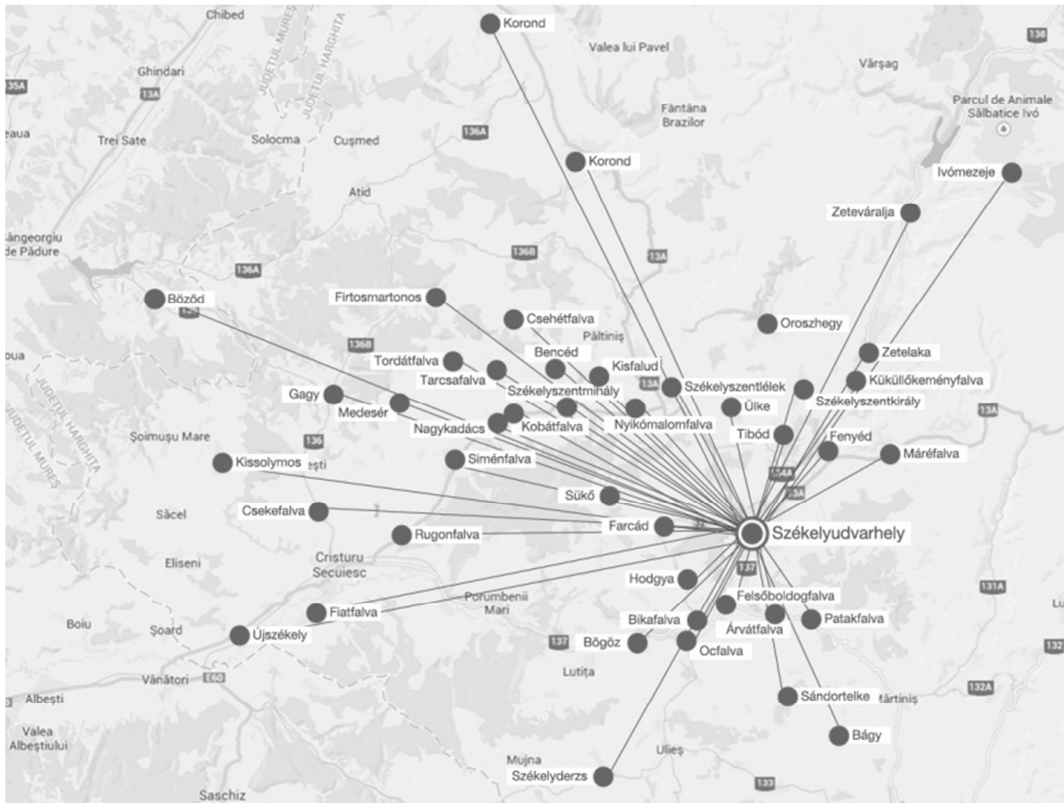
H4: There is a need of trustworthy community leaders, who are able to run a cooperative;

H5: The non-refundable financial supports help the cooperation willingness of the individual.

For the justification or rejection of the above drawn up hypotheses I conducted a survey in the given region, where with the help of a questionnaire 250 persons were asked about their ideas about, or expectations of a partnership. From among the non-random sample collection techniques the peremptory sample collection process was chosen (Malhotra, 2009), which was asked randomly on the basis of selective criteria. These selecting criteria are the following: rural residence, above 18 of age. The period of the survey was between 1 August – 15 September 2014.

From among the townships of this region 46 villages were chosen. The criteria according to which the villages were chosen were: the size of the township, its administrative role in the parish, and the economical structure character of the township. The topic of the questionnaire required to a great extent the development of a high level of trust; this is why the person was of key importance. As a result of this some townships took part in the sample with higher or lower number of interviewees. The number of interviewers was 10, when choosing them it was a criterion that they were acquainted in the given region. With this I support that supposition of mine that the Szekely village dweller can be asked more easily through a person who is well known by them. The final questionnaire was preceded by a trial one, the conclusions of which were built in my final questionnaire.

Figure 2 Townships in the region of Udvarhely visited during the survey



Source: Edited by author, 2014

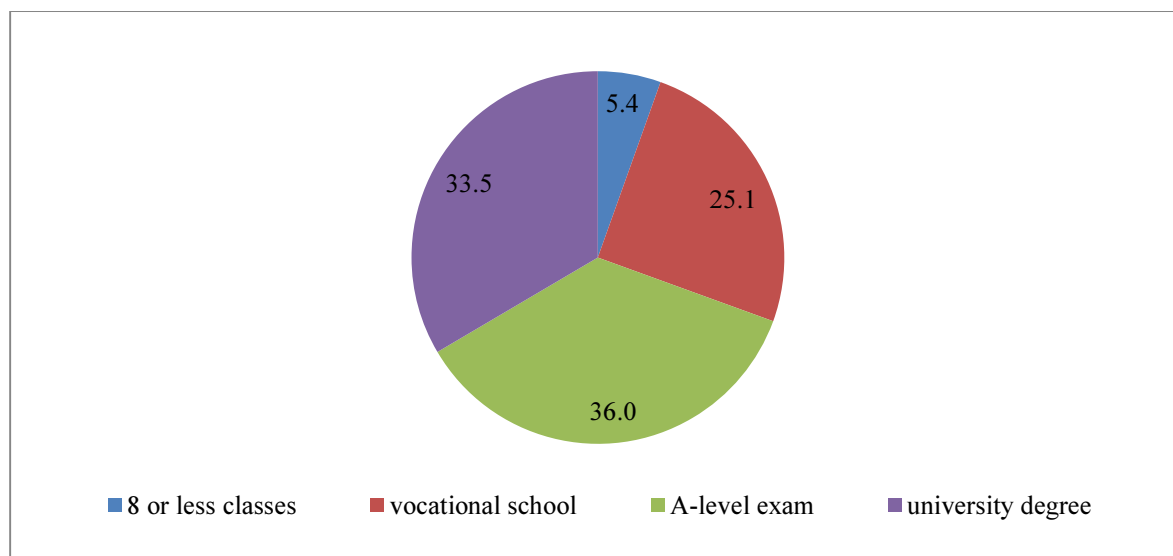
The type of the work is problem showing survey, having the aim of finding those conditions and factors, which in certain circumstances can produce results in setting up community organizations. The survey is not a representative research, which would come up with valid results for residents of Udvarhely region. In the survey, in the case of found correlations or derogations I accept the lower significance levels ($p=0.07$, as opposed to $p \leq 0.05$ significance level accepted by professionals) as well, because they supply such information in supporting my main hypothesis, that can be used in conclusions and phrasing future projects.

The results are valid in case of the communities of those 250 people taking part in the survey, but from the results such conclusions can be drawn, which are enough in order to be able to define those trends and regional conditions which are enough to certify or decline the hypotheses in this research.

The amount of financial support available for this survey greatly influenced the number of people asked.

RESULTS

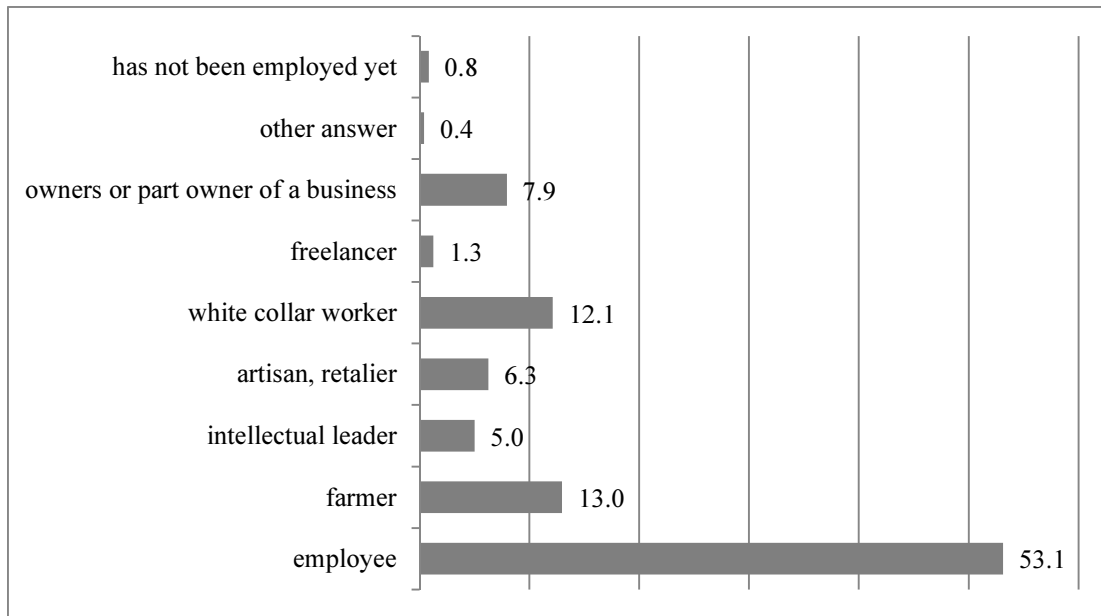
Figure 3 Division(%) of interviewees by highest school degree



Source: Edited by author, 2014

One of the important identifying question of the research is the division of the interviewees according to their school degrees, as based on this underlying differences can appear as far as economic cooperatives are concerned. The larges group of the interviewees is that of those who have A-level exam, who represent 36.0 % of the pattern, followed by the 33.5% university degree owners and by the 25.1% of those having vocational school degrees. The lowest rate 5.4% is represented by those who have less classes than the 8th form.

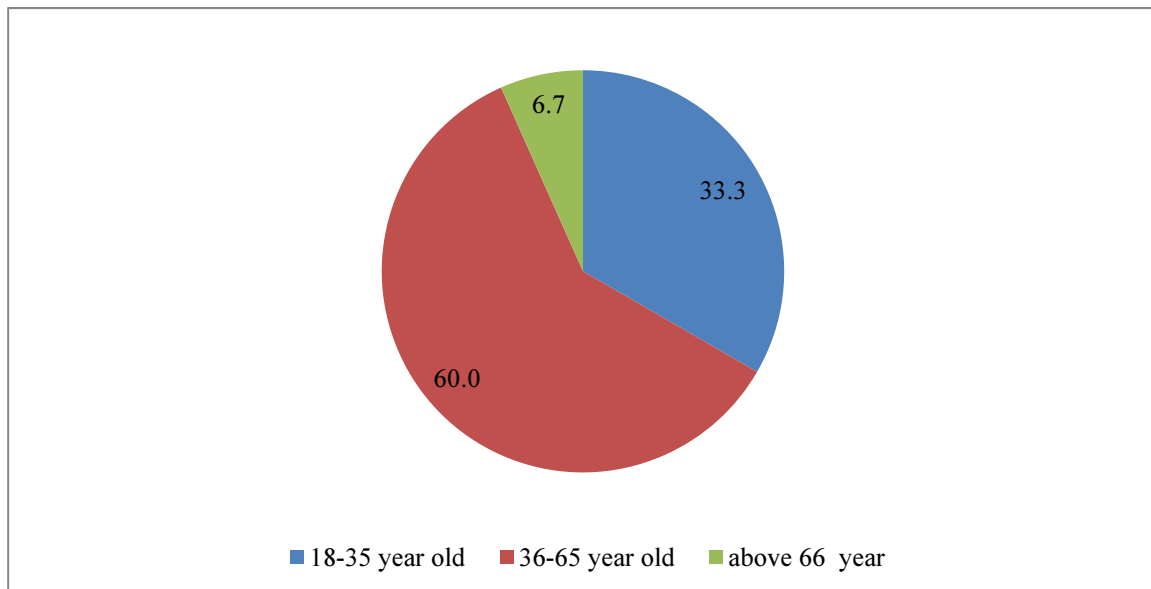
Figure 4 The division of interviewees by job and function



Source: Edited by author, 2014

53.1% of the interviewees was employed, 13.0% was private farmer, and 6.3% was artisan, retailer and sole proprietor.

Figure 5 Division of interviewees according to age



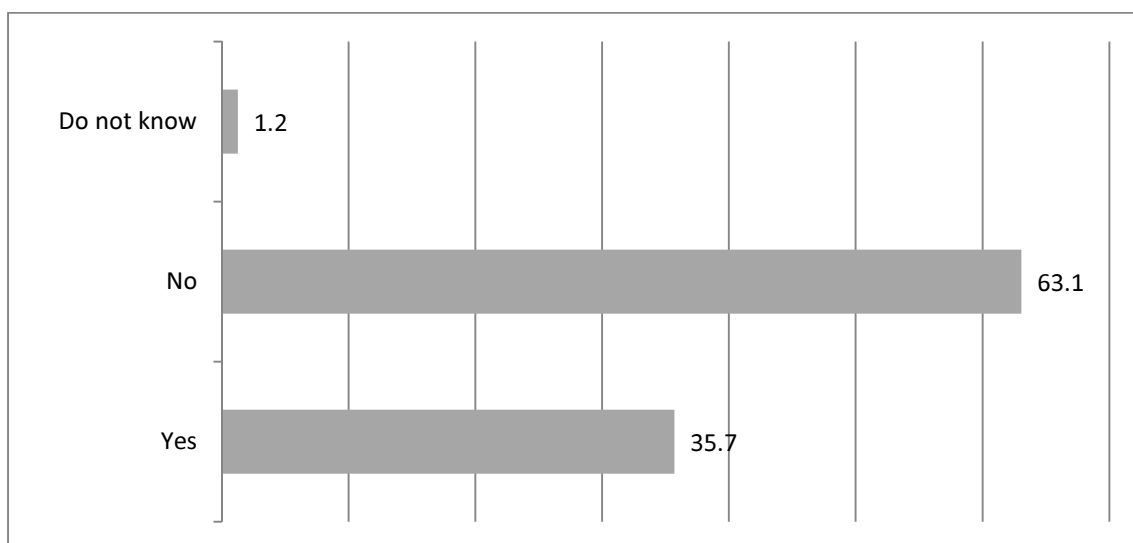
Source: Edited by author, 2014

The division of the interviewees according to their age is the following: the 36-65 year-old – group represents itself by 60.0%, this is followed by the age group of 18-35 with a rate of 33.3% and finally comes the group of 66- year- olds with the lowest rate of 6.7 %.

H1: The basis of regional development is the active country – town economic relationship.

The certification of the above hypothesis was measured by a suppository question about the knowledge of the link between rural and urban. More precisely, I was curious about the fact, how much the experience of urban distribution is used, because I supposed, that those people who invest the surplus coming from their rural lifestyle in the town, would be more likely to take part in economical partnership than those who do not have such experience. The answers given to this question were set against the division of qualifications of those interviewed.

Figure 6 Did the interviewees personally sell products or services in the nearby town?

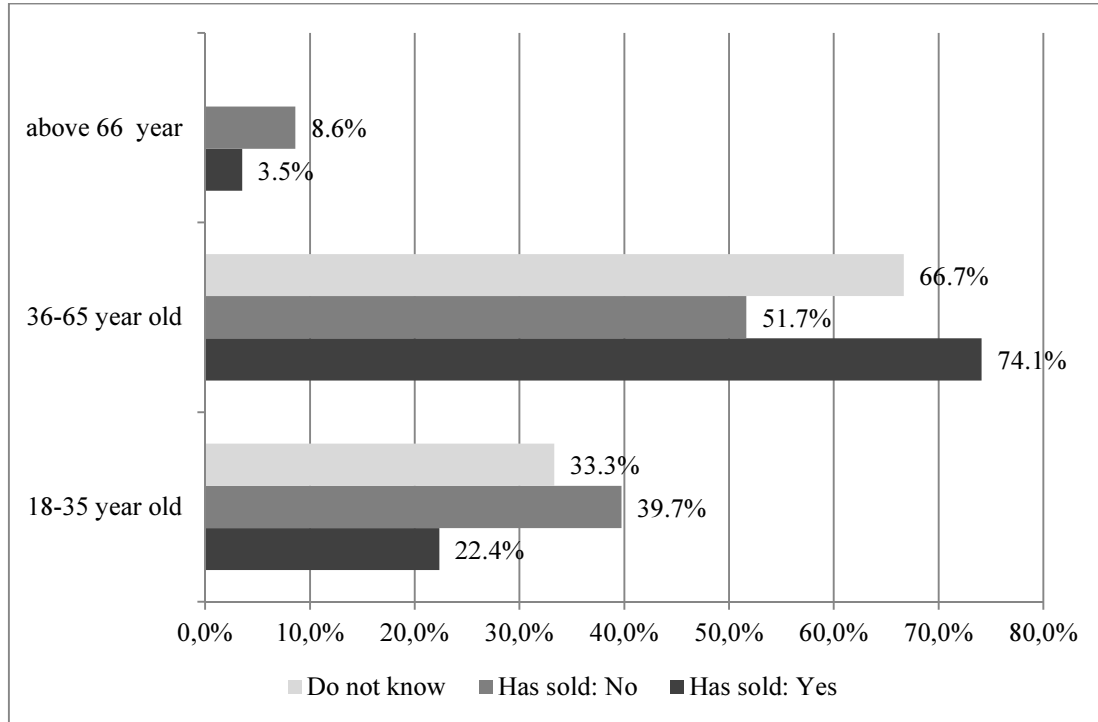


Source: Edited by author, 2014

It can be seen that 36% of the interviewed people had tried to sell their products, while 63% had produced only for themselves. This can be the result of that factor, that most of the rural residents produce agricultural products only for themselves, selling or exchanging their surplus within their immediate environment. In case the market selling experience is related to age division of interviewed subjects it can be stated – with a 92% probability- that from among those giving –yes- answer, those being between 36-65 have the most market selling experience. The members of this middle-aged group are the breadwinners at present, they are the most active in income production. Among those, who do not have experience in selling products in the town, the 18-35 year of age takes its part to the extent of 40%, while the 36-65 year of age takes its part to the extent of 52%. This conclusion leads to the result if the young generation does not gain selling experience in the near future, at the change of generations there will be less people having this kind of experience than earlier. In the strategy planning

of the given townships an important diagnosis element can be that a certain ability of the community will be lost.

Figure 7 Selling experience according to age division

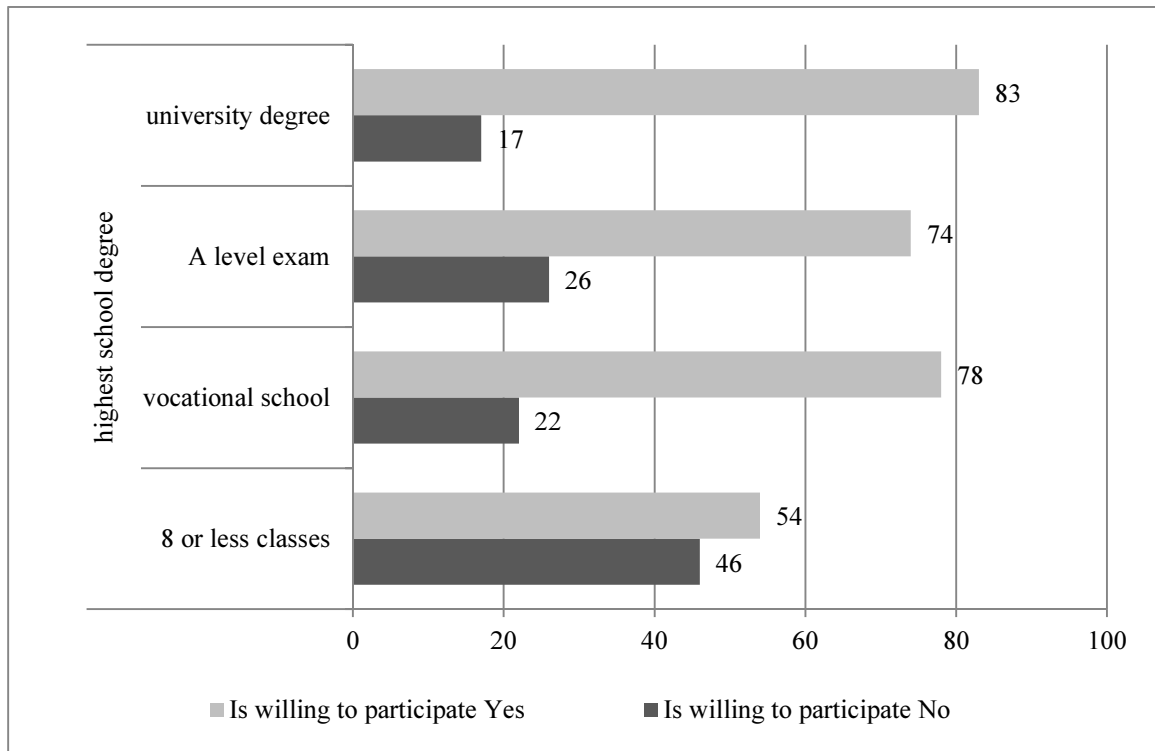


Source: Edited by author, 2014

In case if the market selling experience is compared to the age division of the interviewees it can be stated –at a rate of 92 % probability, that the age group of 36-65 has the most market experience from among those answering with yes. The members of this middle-aged group are at present breadwinners, they are the most active in producing income. From interviewed people aged 18-35 years almost 40% has not had experience in selling in the town as for people aged 36-65 years this rate is 52%.

It can be concluded from this age division that if in the near future the young generation does not gain selling experience, at generation change there will be substantially less individuals with selling experience than earlier. In the strategic planning of the given villages it could be an important diagnostic element that the community’s given skill is lost.

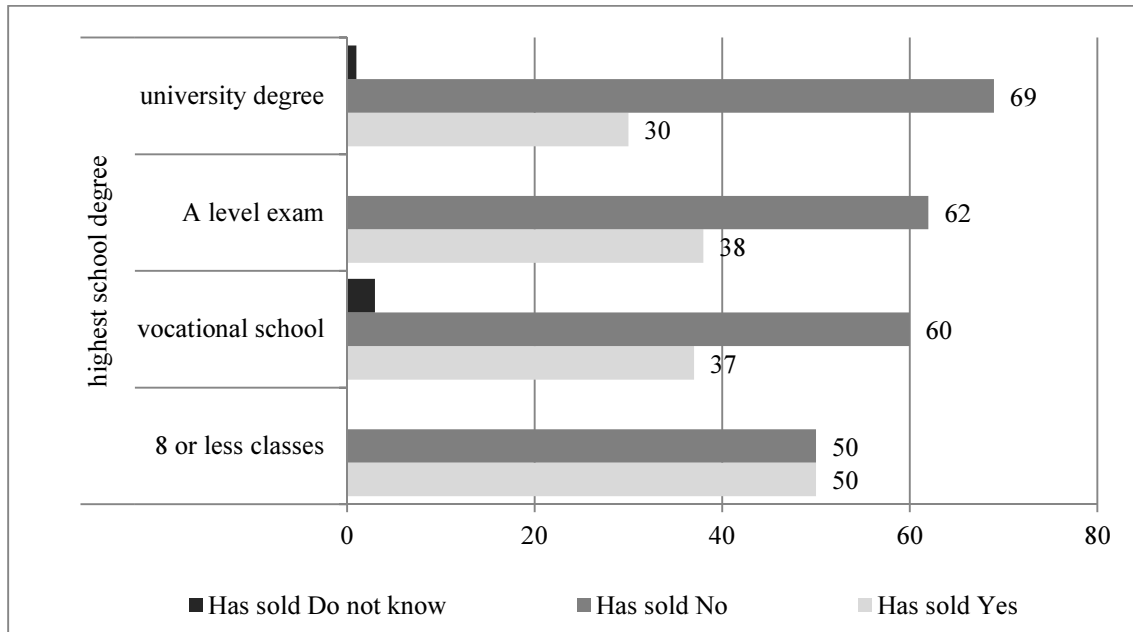
Figure 8 Analysing the willingness of cooperation according to the interviewees degrees



Source: Edited by author, 2014

Looking at the willingness of cooperation in the light of school degrees it can be stated that the school degree is an important variable of a given society's cooperative state. The division according to school degrees shows that cooperative willingness goes together with the increase of the level of degrees. 54% of those who only have 8 classes intend to take part in an economic association, while 83% of those who have finished university are willing to do the same.

Figure 9 Division of selling experience in the light of division of interviewees' school degrees



Source: Edited by author, 2014

The division according to school degrees of the interviewees' selling experience shows a unique pattern. Selling experience decreases with higher degrees. This is, to some extent, real as those with higher degrees have been working in other fields, this is why they have not been able to gain experience in selling traditional local products. 50% of those with 8 or less classes have selling experience, but only 30% of the interviewees with higher degrees have the same experience.

It can be stated that the willingness to cooperate increases with higher school degrees, which is positively strengthened by existing selling experiences. In the case of those who do not have high degrees, although, in many cases, they have selling experience, this does not influence the willingness to cooperate.

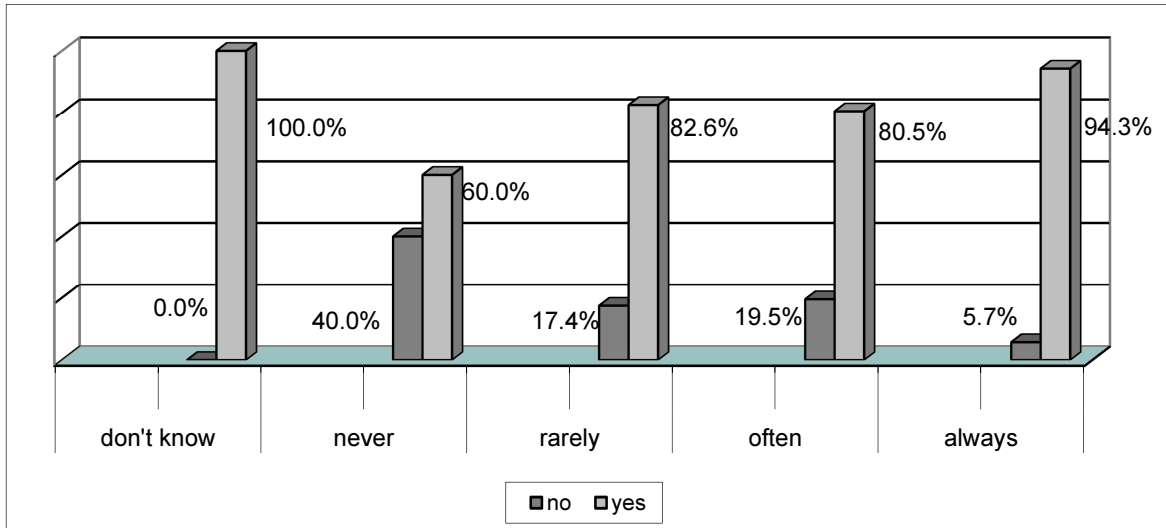
I accept the H1 hypothesis as it can be stated at a 0.07 significance level, that the rural-urban relationship stimulates those rural residents who actively keep contact with urban residents. On the basis of cross examination it is proved that the most initiative comes from those rural residents who have university degrees, however the result is valid only for the interviewed individuals.

H2: Those farmers, who are active members of the organizations in their villages, are more probable to become members of an economical partnership;

In order to prove the hypothesis I examined in what way the active-inactive members of the township relate to the question of economic partnership. I started from the supposition that

those farmers who take part in different groups, who are active members of their communities, are more willing to become members of an economic partnership.

Figure 10 Events organized for farmers and willingness to participate in an economical partnership



Source: Edited by author, 2014

I accept the H2 hypothesis as it can be stated at a 0.01 significance level, that the willingness of those farmers is the highest who lead an active community life. Moreover it is proven through the cross examination, that there is no difference between residents of the village center and of its outskirts. The result is valid only for those asked.

According to the data shown in Figure 4. it is 99% sure that my supposition is real: those farmers who would rather take part in such events that are organized for them are much more willing to become members of economical partnerships. From among those individuals who answered that they *never* participate any farmer's meetings, 40% would not take part in an economic partnership either, while from those giving the answers *rarely* and *often* less than 20% said the same thing. For those giving the answer *always* staying away from an economic partnership is below 6%. One of the major activities in establishing economical co operations is the professional meeting organized for the farmers. In connection with these meetings the interviewees answered to the greatest extent compared to all the other community events that had been organized (see Tab. 2). There has been a difference with high significance level looking at the type of residence. 25 persons from civil parishes, 45 persons from member villages had never taken part in such programs. The rate of those coming from civil parishes that answered never and rarely is 60.0%, the rate of those answering from member villages is 70.0%. This casts light on a totally new problem: the reason for staying away from programs

can be either the lack of interest, or the lack of frequency or in some cases the quality of the programs for farmers. In the case of civil parishes 32 people, in the case of member villages 45 people said they always or often attend programs for farmers; their willingness to partnership is above 90.0%. On the basis of answers given in villages I can say that 40.0% of those farmers who had never taken part in such programs are not willing to become members in economic partnerships either.

Table 2 Cooperation willingness in the cross examination of the variables of residence and meetings organized for farmers

Type of residence of those interviewed			Would they be willing to take part in any kind of economic partnership?		Total
			no	yes	
civil parish center	Please, note how often you take part in different programs: programs for farmers	don't know	0	3	3
			0.0%	100.0%	100,0%
		never	11	14	25
			44.0%	56.0%	100,0%
		rarely	4	22	26
			15.4%	84.6%	100,0%
	often	1	16	17	
5.9%		94.1%	100,0%		
always	1	13	14		
	7.1%	92.9%	100,0%		
Total			17	68	85
			20,0%	80.0%	100.0%
village	Please, note how often you take part in different programs: programs for farmers	never	17	28	45
			37.8%	62.2%	100,0%
		rarely	11	49	60
			18.3%	81.7%	100,0%
		often	7	17	24
			29.2%	70.8%	100,0%
	always	1	20	21	
4.8%		95.2%	100,0%		
Total			36	114	150
			24,0%	76.0%	100.0%

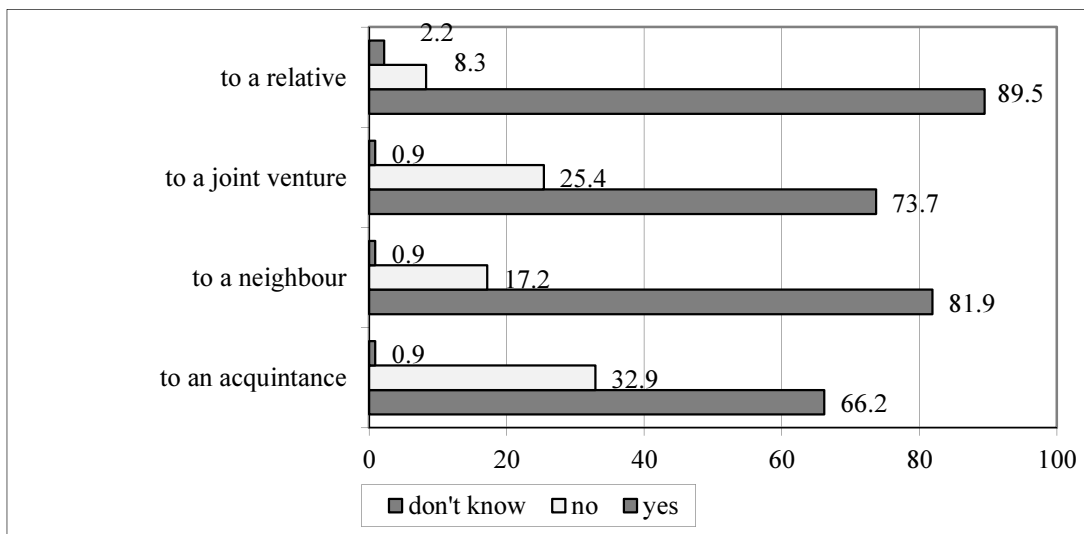
Source: Edited by author, 2014

H3 The extent of lending in a community shows its willingness to cooperate

According to my supposition those farmers who happily lend their equipment to others can easier become partners in economic co operations. The willingness of lending was measured through the possible beneficiaries for example: relatives, neighbors, acquaintances, and a given joint venture. In order to prove the present hypothesis I took into consideration the willingness of lending towards a joint venture. I can say at a lower, but still at a 93%

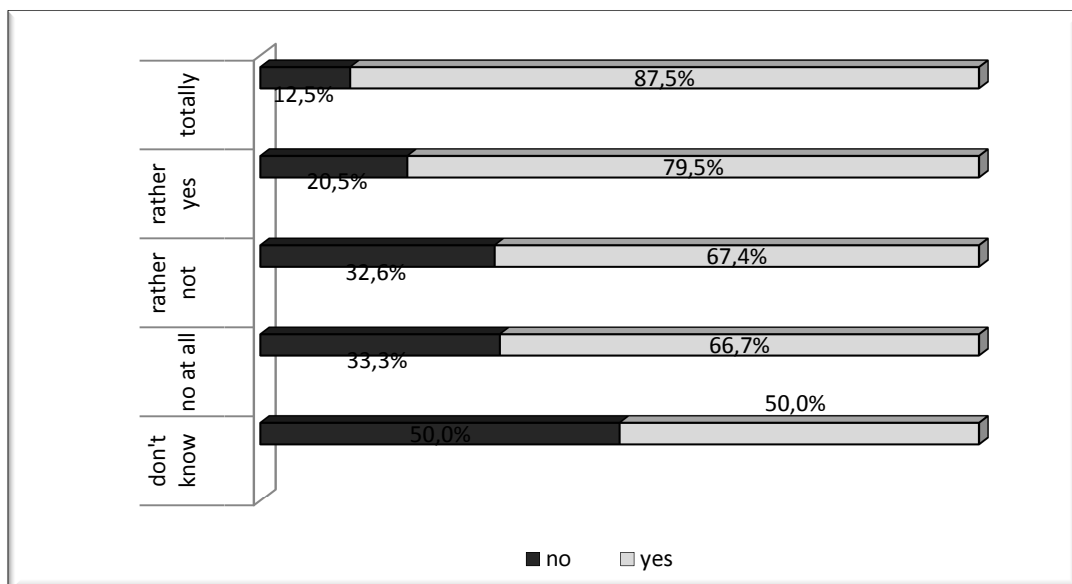
significance level, that those people who would happily lend their machines, farming equipment free of charge to a joint venture would also be willing to become members in case of a partnership. It can be seen well in Figure 5, that almost 78% of those who are willing to take part in an economic partnership would lend their equipment to a joint venture, while almost 40% of those farmers, who would not be willing to become members would not lend their appliances either.

Figure 11 Examining the willingness to lending



Source: edited by author, 2014

Figure 12 Correlation between lending equipment and willingness to partnerships



Source: Edited by author, 2014

I accept the H3 hypothesis, it is true that at a 0.07 low significance level, which only supposes a loose relationship, according to which there is a correlation between the

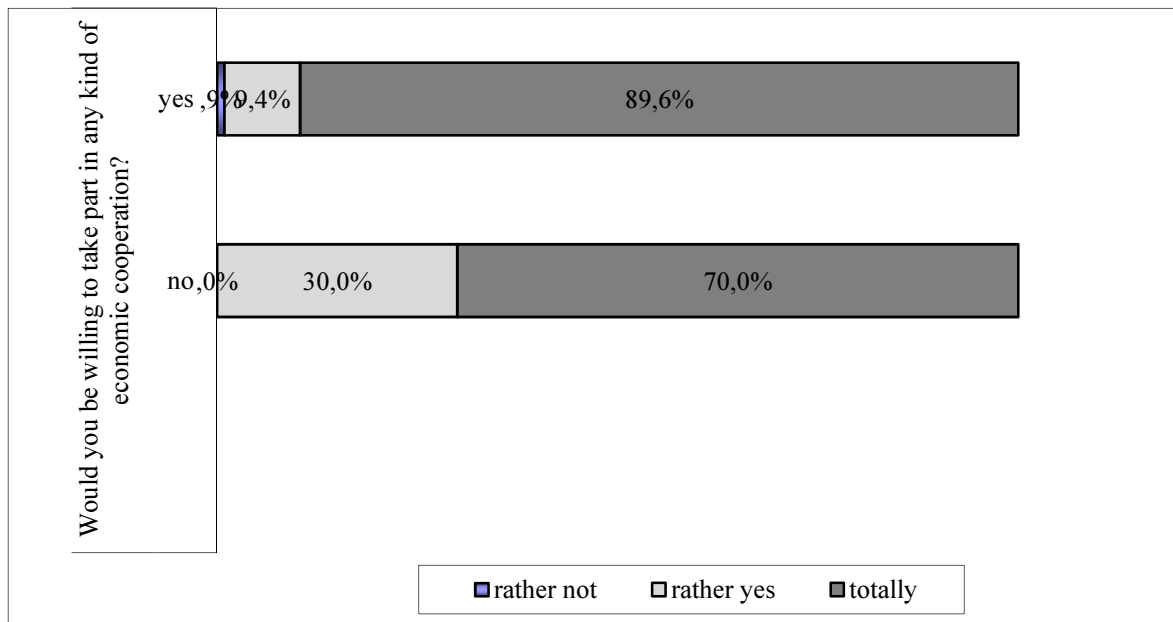
willingness to lend and the willingness to become members in a partnership. The result is valid only for those asked.

H4 There is a need for truthful community leaders, who are able to run a cooperative

To prove this hypothesis I examined the interviewees ‘expectances in connection with leaders. What their expectations are in connection with a person leading a future community venture, a venture that would offer them the possibility to join in. The interviewees needed to rank a leader’s qualities: should have leading experience, should have market connections, to share the same values as the community, should have the qualities of a leader, to suggest trust, should exercise control. The most points were given to the following answers: suggesting trust and sharing the same values.

I made a cross examination between the interviewees willingness to partnership and their opinion, that a „leader has to represent the community’s values”, as according to me there is a correlation between the two opinions. On the basis of the results, with a 98% certainty I can state that more than 89% of those who are willing to take part in an economic cooperation said that they totally agreed with the fact: the leader has to represent the values of the community. (Fig. 14).

Figure 13 The result of cross examining cooperation willingness and leaders characteristic (should represent the values of the community)

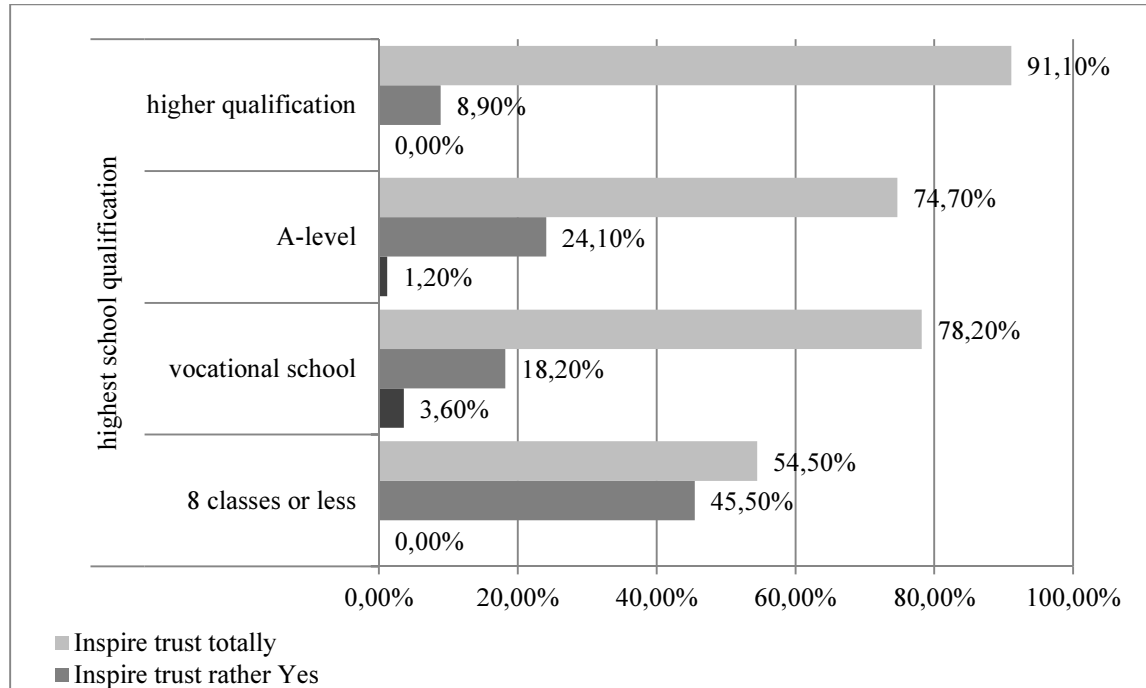


Source: edited by author, 2014

I also compared another quality (should be trustful) with high points with school qualifications – I found discrepancies when looking at the answers. I can state with a 99%

certainty, that those having university expect from a leader to be trustworthy. Their opinion is shared by other groups as well, but at a lower rate.

Figure 14 The leader should be trustful – answers given according to different age groups to expectancies towards a leader



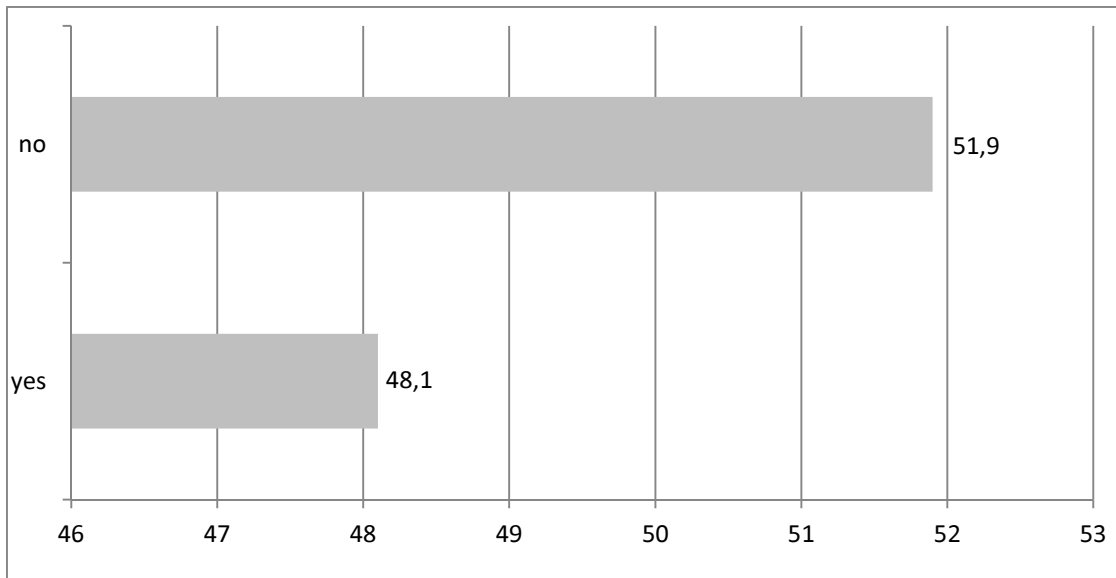
Source: edited by author, 2014

I accept the H4 hypothesis at a 0.01 significance level, I can state that a community needs good leaders, who represent the community values and are trustful. The result is valid for those asked.

H5: The non-refundable financial supports help the cooperation willingness of the individual

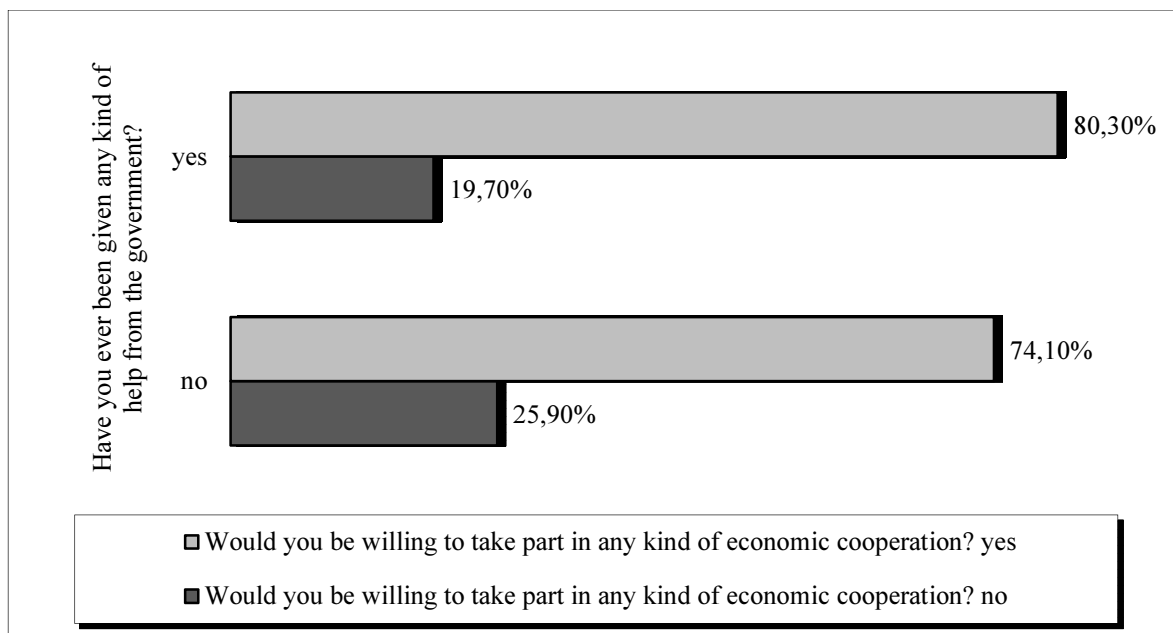
In my questionnaire I also asked people about their opinions about non-refundable supports. According to me those farmers who had been given such supports are more willing to cooperate. On the basis of the answers more than half of the interviewees had never been given any kind of support by the state.

Figure 15 The division (%) of interviewees whether they had been given support



Source: edited by author, 2014

Figure 16 The correlation between the fact of being supported and the willingness to cooperate



Source: edited by author, 2014

I accept the H5 hypothesis at a 0.07 significance level. It can be said that the supports have a positive effect on the willingness of setting up community economic organizations. However, it is important to state that although the hypothesis is proven, supports have little effect on community initiatives. The present result is valid for those asked.

My supposition was proven only at a 93.0% certainty level, as 80% of those who had been given support answered that they would be willing to take part in a partnership, and 74% of those who had never been given any kind of support said the same thing.

CONCLUSION

Rural communities expect leading role, caring, connections and market possibilities from the nearby town. The connections between villages should be built with more attention and this would strengthen the development of both parties.

There is a need to activate the rural individual, so that they can recognize, appreciate and take active role in community deeds. Modern communication tools can supplement but not replace personal gettogethers in building a community's relationships. Different community building activities support the willingness of cooperation of the rural individuals, the day by day care of informal relationships, education, cultural, sports and religious activities is also very important. It would be an important step to appraise the active role of rural intellectuals.

The initiative is expected from such leaders who are trustful and share the values of their communities. Breeding such leaders should be a priority among each community's tasks. At present what is typical is waiting, waiting for an example to be followed, waiting for a leader. Financial supports help the growth of rural development, but they do not directly lead to community initiatives, there would be a need to supervise the system of supports at community level.

The composition of rural communities is mosaic like, for each initiative individuals have to be involved on the level of behavior and attitude, and they should not be grouped on the level of villages. During the survey it turned out that the interviewees have certain preconditions when coming to taking part in their community's life. However, the different groups resemble in one thing, namely they can rely on each other in times of catastrophies, although opinions differ when talking about „non-danger led „cooperation. The largest group is built up by the so called 'awaiters' and 'initiators from community funds'. Those who initiate are very few, due to this their deeds are opposed by the majority, or even in some cases they have to face hostile behavior.

Here are some of Maria Vince's confessions in connection with community thinking: „Cooperatives have to be set up. (...) In Transylvania several publications dealing with the 'glorious past of cooperatives' have been published, moreover a lot can be read by those interested about Western-European cooperatives existing at present, however, there is a lack

of information in connection with the aims and operating mechanisms of Transylvanian cooperatives at present. It is a fact, in the period between 2014-2020 there is a greater emphasis on cooperation, so theoretically speaking there will be money for it, but there would be a need for results that can be financially followed and controlled in order to get the required support. It should be clarified, what should be expected from the outside, and what the responsibility of farmers' and of those living in that region is. Needless to say, cooperation is such a task. Besides the economical references, an important influencing factor is the mentality of rural residents. It is a well-known practice to avert handling risks towards upper and outer levels; high degree of distrust, which results in a low level of cooperation willingness; partial refusal of the norms of market economy, etc" (Vincze, 2013, pg 40.).

There is a need for setting up such pilot community projects and publicity of obtained results, which can start a wave of cooperation among the Székely people. The background supporter of this movement is the abolishment of the quota on the milk market, and the rural expansion of multinational companies. It is a must for rural communities to understand that the local economy depends on the local communities' efficient cooperation and work.

An important element of strategic development of regional economy is shaping the future vision of the new generation; vocational training and education in this direction. However, this cannot be imagined without the active involvement of families and communities, involvement, through which the youth experiences and can see models which make rural life attractive.

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**THE MODEL OF THE SUCCESS OF SETTLEMENT TWINNING IN
THE HUNGARIAN-CROATIAN CROSS-BORDER REGION**

**A TESTVÉRTELEPÜLÉSI KAPCSOLATOK SIKERESSÉGÉNEK
MODELLJE A MAGYAR-HORVÁT HATÁRTÉRSÉGBEN**

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Abstract

The number of twin settlement relations grows continuously in the European countries, including Hungary and Croatia as well. During our quantitative research we examined the inhibitory factors of twin settlement co-operations, the nature of relationships, taking into account the current content of relationships as well. We have also mapped, what benefits the questioned local authorities can expect from the co-operation, which target groups are involved in this, and how intensively they can involve the public. The survey explored the formed municipal and county government cooperations in Zala, Somogy and Baranya counties on the Hungarian side, while on the Croatian side in Međimurska, Koprivničko križevačka, Virovitičko-podravska and Osječko-baranjska counties. The unique nature and the importance of our work is given by the fact that we provide an answer to the question that how can the success of twin settlement relations be measured.

Keywords: twin settlement, Hungary, Croatia, cross-border region, success

Kivonat

A testvértelepülési kapcsolatok száma folyamatosan nő az európai országokban, így Magyarországon és Horvátországban is. A kvantitatív módszert tartalmazó kutatásunk során görcső alá vettük a testvértelepülési együttműködések generáló tényezőket, a kapcsolatok jellegét, jelenlegi tartalmát is görcső alá véve. Feltérképeztük továbbá, hogy a megkérdezett önkormányzatok milyen előnyeit látják az együttműködésnek, mely célcsoportok vesznek részt ebben, illetve milyen mértékben tudják a lakosságot bevonni. A kérdőíves kutatásunk a magyar oldalon a Zala, Somogy és Baranya megyékben, horvát oldalon pedig Muraköz, Kapronca-Körös, Verőce-Drávamente és Eszék-Baranya megyékben kialakult települési és megyei önkormányzati együttműködésekre terjedt ki. A munkánk unikális jellegét és jelentőségét az adja, hogy választ kívánunk adni arra a kérdésre, hogyan mérhető a testvérvárosi kapcsolatok sikeressége.

Kulcsszavak: testvértelepülés, Magyarország, Horvátország, határon átnyúló régió, siker

INTRODUCTION

The regions along the borders of East-Central Europe had experienced the negative effects of being borderlands for a long time since such economic, social and ethnic conflicts – partly aroused by the national governments - were present in these areas that led to the decline of these regions and to the break-off from the central territories.

Thanks to the regional politics of the European Union (EU) more attention was paid to the border regions forced into the peripheries; the tenders facilitated the more intensive nature of regional co-operations. All these were reflected in scientific researches as well: the scientific investigation of the separating and connecting roles of frontiers and the issue of cross-border programmes got more and more frequent in social sciences.

The increase of cross-border co-operation is not only important to certain affected states but it is also a common European integration interest since border regions strengthen the economic and social cohesion due to their economic-social compensating roles. Following the EU accession of Hungary and Croatia the cross-border regions got into a more beneficial situation since they received substantial development aid.

The increase of the significance of cross-border co-operations directed our attention to „settlement-twinning networks” since it is one of the main means to build networks on a local level.

OBJECTIVES AND METHODS

During our quantitative research we have looked at the factors that generated twin-settlement arrangements in the Hungarian-Croatian border region. We also looked at the nature of the relationships and their current content. We have examined, what the interviewed municipalities consider to be the advantages of such cooperation, what target groups are participating in the process and to what extent they can involve the public.

Our work is unique and significant in that regard that we would like to provide an answer to the question of measuring the successfulness of twin settlement relationships.

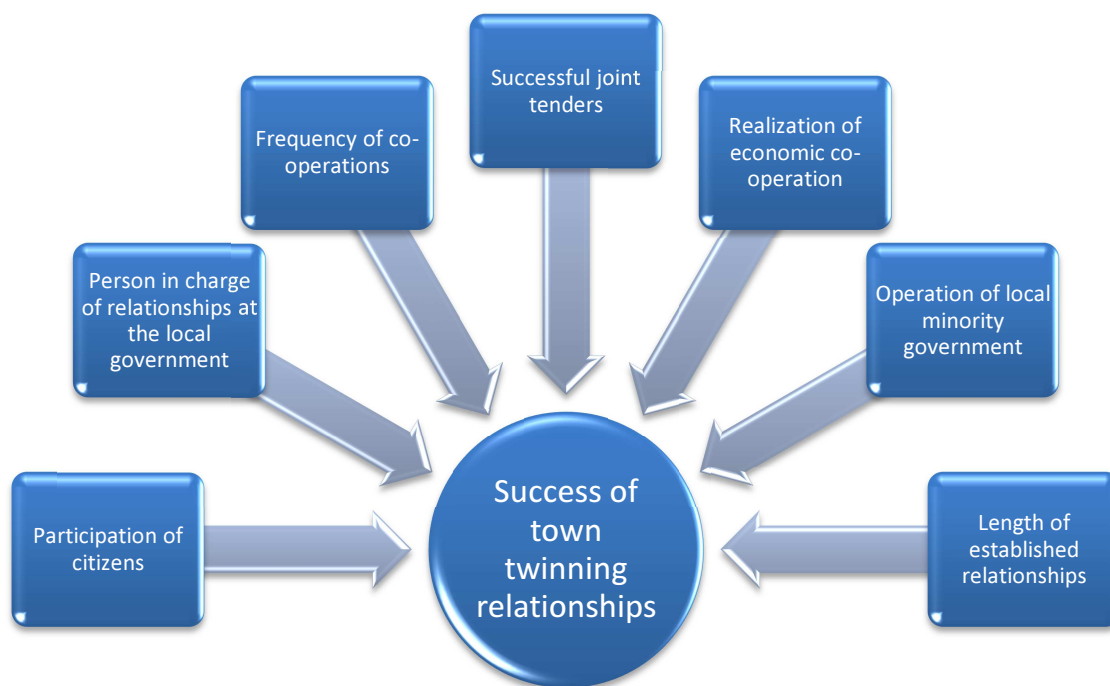
Based on the database we prepared, 70 Hungarian and 68 Croatian communities have twin settlements in the reviewed region (on the Hungarian side Zala, Somogy and Baranya counties, on the Croatian side Međimurska, Koprivničko-križevačka, Virovitičko-podravska and Osječko-baranjska counties), so these formed the entire population and all of the elements were asked.

We looked for a person in each settlement between April 1 and May 31 of 2014, who could provide a substantial answer about settlement twinning relationships. The questionnaire was sent out electronically.

58 Hungarian settlements filled out our questionnaire and this number was reduced to 52 after the processing and clarification of the data (51 municipalities and 1 county authority). In case of the Croatian settlements, the number of respondents decreased from 13 to 10 after data processing. The reason for this in case of both countries was that some of the municipalities gave the answer that contrary to the information in the database they do not have Croatian twin settlements. This means that the response rate was 74.43% in Hungary and 14.7% in Croatia.

At the beginning of our work we had set up the following model:

Figure 1 Research model



Source: own design of the authors

RESULTS

History and contents of twin settlement relationships

Several names for settlement twinning arose in different expressions (twin cities, friendship towns, partner towns, sister cities, brother cities); however, the essence of the co-operation remains the same everywhere. As Jean Bareth, one of the founders of the Council of

European Municipalities and Regions defined after World War II: „A twinning is the meeting between two municipalities to act together within a European perspective, confronting problems and developing increasingly closer and friendlier ties between one another”.¹⁷

Presently the highest number of twin settlements can be found in the territory of the European Union; the idea of twinning itself was conceived in Western Europe. Following World War I the mutual war tragedies and memories unified nations and meant the beginning of establishing contacts.

Following World War II these relationships gained bigger significance since the primary aim was now to establish peace and to re-build the continent. The first French-German settlement twinning contract between the towns of Montbéliard and Ludwigsburg was set up in this spirit on May 31 1950, which was followed by a number of similar agreements. The fundamental goal of each of these relationships was to bring the different nations and their citizens closer to each other; thus, developing the „Europe of citizens”.¹⁸

On April 28 1957 the United Towns Organization was established in France with the aim of rendering help in developing co-operations and relationships to those communities that suffered a lot during the war.¹⁹

A new organization came to life by merging United Towns Organization and International Union of Local Authorities, the aim of the United Cities and Local Governments (UCLG) is to represent and protect the interest of its members in over 100 countries, regardless of the size of the settlements.²⁰

UCLG operates as an umbrella organization representing the organizations of seven regions. The Council of European Municipalities and Regions (CEMR) represents European municipalities.²¹

There is no need for an official oath, charter, agreement or signing a brotherly or co-operation contract legally in order to authenticate a twin settlement relationship; however, a formal document encourages the development of a long-term confidential relationship. In

¹⁷ Mit takar a testvérkapcsolat kifejezés? - Rövid áttekintés áttekintés [What does the term ‘twin town connection’ refer to? – Summary review] http://www.twinning.org/hu/page/r%C3%B6vid-%C3%A1ttekint%C3%A9s#.U9Forfl_swQ

¹⁸ Bali I., Ürmössy I. (2004). Testvértelepülési kapcsolatok a gyakorlatban [Town twinning connections in practice] Krónika-4 Bt., Szolnok. p. 5.

¹⁹ Április 28. A Testvérvárosok Világnapja [28 April – World Twin Town Day] (2013). <http://www.mtva.hu/hu/sajto-es-fotoarchivum/4719-aprilis-28-a-testvervarosok-vilagnapja>

²⁰ The constitution of the world organisation of United Cities and Local Governments. <http://www.cities-localgovernments.org/uclg/upload/template/templatedocs/Constitution.pdf>

²¹ Introducing CEMR, http://www.ccre.org/en/article/introducing_cemr

default of regulation the form and contents of the settlement twinning agreement or oath are unbound.²²

The number of settlement twinning relationships was estimated to be over 40,000 in 2009. Hungary has a distinguished place among European states with its 1,704 settlement twinning relationships; moreover, in proportion to the number of inhabitants it can definitely be considered a leader.

The relatively low number of contacts (279) in the case of Croatia may be derived from the fact that the independent Croatian state has been in existence for less than 20 years. According to the figures of 2010 of CEMR Croatian municipalities formed settlement twinning contacts in the highest number (67) with their Hungarian partners. They developed 59 relationships with Italian municipalities while they established 40 such co-operations with Slovenian ones.²³

The intensity of twin settlement relationships in Hungary

According to point of Art 32 (1) k) of the Fundamental Law of Hungary a Hungarian local government „can freely form associations with another local government, can create advocacy alliances, can cooperate with local governments of other countries in its authority and jurisdiction as well as be a member of international municipal organizations”.²⁴

The connections, created before the regime change, were established mainly for political reasons by governmental order. The town twinning movement served a twofold goal: it was meant to realize foreign affairs goals with specific tools and to take over public administration experiences.²⁵

The initially formal co-operations gradually widened so on top of the cultural groups and sport clubs, the socialist companies also became partners in the cooperation. Besides the formal protocol visits, exchange of professional experience, brigade meetings and networking between families started. The regime change provided an opportunity to form new

²² Enter our universe of twinning! http://www.twinning.org/en/page/enter-our-universe-of-twinning#.U4tTI_l_swQ,

²³ Európai Önkormányzatok és Régiók Tanácsa [Council of European Municipalities and Regions] (2010). <http://www.twinning.org/uploads/assets/news/Number%20of%20twinning%20in%20Europe%20in%202010.pdf>

²⁴ Magyarország Alaptörvénye (2011). [Fundamental Law of Hungary] http://net.jogtar.hu/jr/gen/hjegy_doc.cgi?docid=A1100425.ATV

²⁵ Farkas, O. (1987). A tanácsok nemzetközi kapcsolatai [International connections of councils] Állam és közigazgatás, p. 47.

relationships.²⁶

With the exception of the Pécs-Osijek (1973) and the even older Mohács-Beli Manastir (1970) twinning agreements, the Croatian-Hungarian settlement twinning relationships were formed after the regime change. The process received a big impetus by the fact that during the Yugoslav Wars between 1991-1995 Hungarian cities helped Croatian refugees with hospital treatments, providing education for their children or providing temporary accommodation for families.

In the next phase at the beginning of 2000s tourism took centre stage. During this period the municipalities of Somogy County were looking for partners on the Croatian coast.

As the effect of the Hungarian-Croatian IPA Cross-border Cooperation Programme 2007-2013 the settlement twinning relationships received a boost again and new ones were formed. During this time period the two main directions of the co-operation were writing and managing joint tenders and preparing for the Croatian EU-accession.²⁷

The Social Research Institute carried out an extensive twin settlement research in Hungary in 2002 for the last time. The leaders of the research, Johanna Giczi and Endre Sik studied where, how and for what reasons certain settlements form short-term or long-term relationships, in what form this relationship is realised and what characterises the co-operation between the towns and villages in the relationship. “33% of the Hungarian settlements have town twinning connections. Out of this, 62% have a connection with one town, 18% have with two, 10% have with three while the remaining 10 % have connections with four or more foreign towns. 27% of the settlements are in close communication with Romania, 21% with Germany and 13% with Slovakia. Our ties are also significant with Austria, Finland, France, Croatia and Italy.”²⁸

The intensity of twin settlement relationships in Croatia

The idea of generating twin settlement relationships is not a recent one in Croatia, either. To become a full member of the European Union, Croatia could not have imagined a better way

²⁶ Gergó, Zs. (2006). A transznacionális és mikroregionális hálózatok szerepe és működése [The role and function of transnational and micro-regional networks] In: Kaiser Tamás: Hidak vagy sorompók? A határon átvívelő együttműködések szerepe az integrációs folyamatban. Új Mandátum Könyvkiadó, Budapest, p. 179.

²⁷ A magyar-horvát testvérvárosi megállapodások története, a testvérvárosi kapcsolatfelvétel technikai szakaszai és protokollja [The history of Hungarian-Croatian town twinning agreements; the technical stages and the protocol of attempts to establish town twinning] (2012). <http://www.hmep.eu/hu/testverek-vagyunk/72-a-magyar-horvat-testvervarosi-megallapodasok-toertene-a-testvervarosi-kapcsolatfelvetel-technikai-szakaszai-es-protokollja-.html>

²⁸ Giczi, J., Sik E. (2004). A települések kapcsolati tőkéjének egy típusa - A testvértelepülések [One type of social capital of town twinning - Twin towns] Szociológiai Szemle, p. 36.

than to prove that it respects other nations' culture and show its own traditions. The formation and maintenance of twin settlement networks significantly contributed to this effort.²⁹

Based on Art. 14-17 of the Act on Local and Regional Municipalities in Croatia the municipalities and counties can establish a co-operative agreement with other local and regional municipalities of other countries. The representative body of the municipality can make a decision to establish an international cooperation and the Ministry of Public Administration of the Croatian Republic verifies the legality of it; after that the government can supervise it.³⁰

The average length of the official twin settlement relationships is only about 12 years, which can be attributed to the short history of Croatian municipalities. For Croatia, the main goal of establishing twin settlement relationships is the protection of the culture of the Croatian minority groups living in other countries and the more efficient maintenance of ties with the scattered population. The Croatian settlements have four important criteria in mind when they choose a twin settlement: geographical closeness, the presence of national minority, humanitarian activities and the state of affairs of tourism.³¹

Out of the 20 counties of Croatia, Istria has the most twin settlement relationships – 38 – in the European Union. It is followed by Seaside-Mountain Area with 35, then Split-Dalmatia with 33 partners. It is interesting that these three counties are the most developed in terms of tourism.³²

The characteristics and possibilities of the Croatian-Hungarian cross-border co-operation

The first studies concerning the problems of the Croatian-Hungarian cross-border co-operation were published in the middle of the 1990s. The University of Pécs as an active participant of the co-operation closely examined the different features of the Hungarian border areas and settlements with regards to the possibility of establishing interregional co-operations. We can talk about the continuous increase of Croatian-Hungarian scientific

²⁹ Ercegović, M., Ivanović M. (2009). *Bratimljenje gradova i sve što o njemu morate znati* [Town twinning and everything you need to know about it] Zagreb, Publisher: Udruga općina u Republici Hrvatskoj, p. 5.

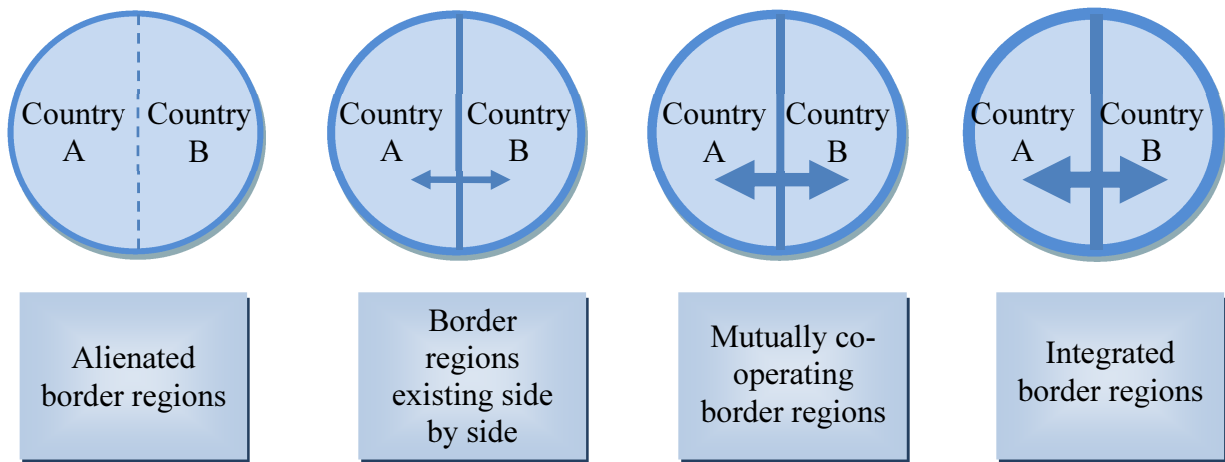
³⁰ Bakota, B., Fábíán, A., Ljubanović, B. (2013). „Határtalan” önkormányzati együttműködés Horvátországban és Magyarországon [“Borderless” co-operation of local governments in Croatia and Hungary] In: Drinóczi Tímea – Novák Barnabás (szerk.) *Jog – Régiók – Fejlesztés*, Pécsi Tudományegyetem Állam- és Jogtudományi Kara, Pécs, pp. 157-167.

³¹ Damjan, M. (2009). *Bratimljenje gradova-primjeri dobre prakse iz Hrvatske* [Town twinning - examples of good practice from Croatia] Zagreb, Kiadó: Udruga općina u Republici Hrvatskoj, p. 5.

³²Damjan ib. p. 3.

connections from 1998; however, it is a crucial question how to maintain co-operations and how to manage the “ties” in the social sphere.³³

Figure 1 Levels of interactions of the cross-border regions



Source: Hardi et al., 2009, p. 30.

The development of the Croatian-Hungarian border region could be described by existing side by side in 1990s reached the level of mutual co-operation. The co-operation between the two countries is characterized by stability and the social complements facilitate establishing interactions. But the interactivity which is necessary for the highest level has not been achieved yet.³⁴

The number of those co-operations that move bottom up from their own resources is insignificant. Only those co-operations are capable of functioning that are externally supported and “controlled” by the state and the local government.³⁵

Following the Croatian-Hungarian Compromise of 1868 the Hungarian-Croatian border only had public administrative function although it continued to be a dividing line as regards ethnicity and identity. The river Drava flowing between the two countries at a length of 144 km plays a separating role due to its limited navigability; moreover, it is joined by the

³³ Bali, L. (2012). A horvát-magyar határon átnyúló kapcsolatok jelene és jövője [The present and future of Croatian-Hungarian cross-border relations] Underground Kiadó és Terjesztő Kft. Budapest-Szepetnek, pp. 122-123.

³⁴ Hardi, T., Hajdú, Z., Mezei, I. (2009). A határ menti városaink helyzete a 21. század elején [The condition of the towns in the border region in the early 21st century] In Hardi, T., Hajdú, Z., Mezei, I. (2009). Határok és városok a Kárpát medencében. MTA Regionális Kutatások Központja, Győr-Pécs, p. 30.

³⁵ Bali, L., Kurilla, A. (2011). Pécs és Eszék testvérvárosi kapcsolatai és azok néhány interregionális aspektusa. [Twin town connections of Pécs and Osijek and some of their inter-regional aspects] Comitatus: önkormányzati szemle. p. 65.

disadvantageous traffic and spatial structure conditions as well as the underdevelopment of human resource.³⁶

Cross-border territories belong to the rural area on both sides of the border; that is, they are characterised by a loose network of settlements without a centre and a society that is only capable of innovation restrainedly.³⁷

The enterprises can improve the quality of life and shape the identity of the Hungarian-Croatian cross-border region by creating new jobs. On the other hand, it is necessary to establish a coalition of forces and collaboration of inhabitants in the region.³⁸

The lack of bridges over the river Drava – which is a geographical border – makes the relationship between South-Transdanubia and the Croatian periphery more difficult since travelling is only possible with great detours. Along some of the border sections the relationship between citizens is quite active; however, the institutionalized partnerships are still at a low level.³⁹

So far the results of the research in the Croatian-Hungarian border region have shown that decision makers – on both sides of the border – see the best co-operation possibilities in tourism, in developing the infrastructure of public roads and in the education and culture.⁴⁰

Statistical data of the studied settlements

We have sent the questionnaire to Hungarian municipalities with five different types of legal status. Almost half of the respondent settlements were villages. 20 towns and 4 towns of county rank filled out the questionnaire. Additionally, two large villages and one county council answered. On the Croatian side six towns and four villages filled out the research questionnaire. The geographical position of the respondent settlements can be seen in the figure below (Fig. 3).

³⁶ Bali ib, p. 149.

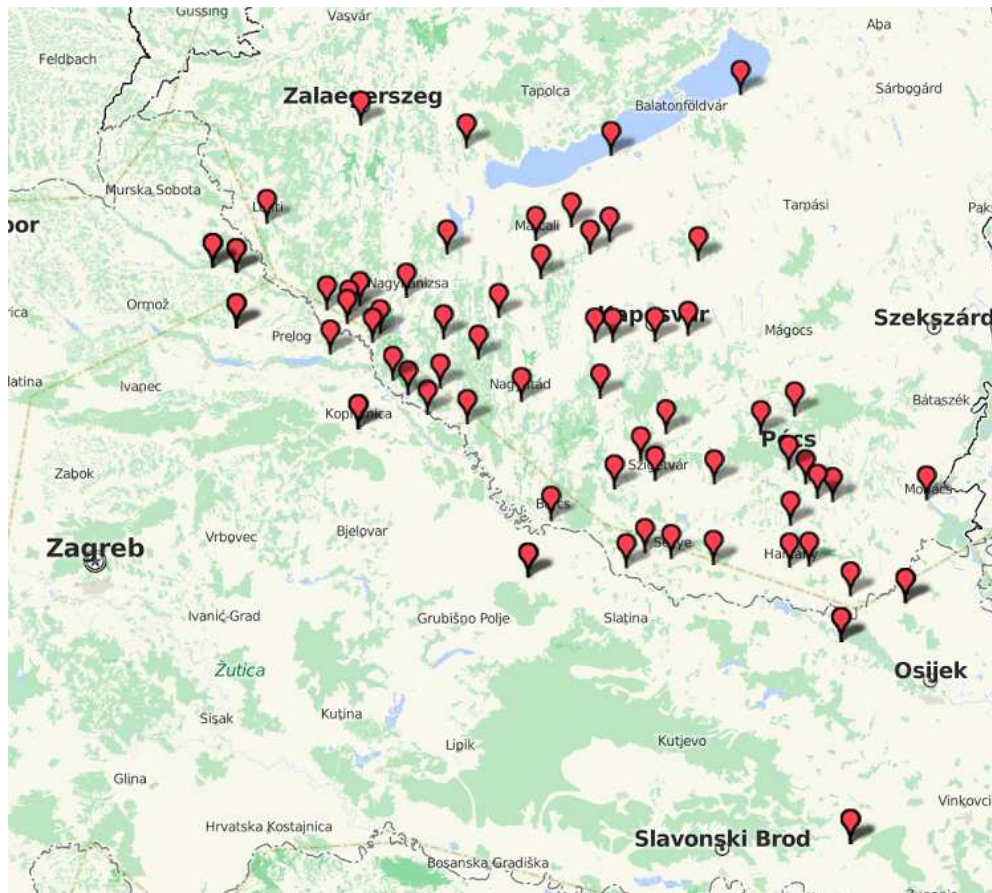
³⁷ Bali, L. (2006). A horvát-magyar határ sajátosságai, a határon átnyúló kapcsolatok kérdései [The characteristic features of the Croatian-Hungarian border, the issues of the cross-border connections] In: Pap N. (szerk.) A Balatontól az Adriáig, Pécs, Lomart Kiadó, p. 149.

³⁸ Péter E. – Weisz M. – Kovács E. (2009). Analysis of the Retail Trade and Catering Sector in the Largest Rural Resort Area of Hungary (Lake Balaton), *Acta Agriculturae Serbica*, Vol. XIV, 27 (2009) p. 78.

³⁹ Bacsi, Zs., Kovács, E. (2007). Határrégiók fejlődésének sajátosságai [The characteristic features of the development of border regions] *Keszthely-Hévíz Kistérségi Többcélú Társulás - Nyugat-Balaton Társadalomtudományi Kutatóműhely*, Keszthely, p. 122.

⁴⁰ Svržnjak, K., Kantar, S., Jerčinović, S., Gajdić, D. (2014). Az ökoturizmus fejlesztési lehetőségei Kapronca-Kőrös megyében [The development potentials of ecotourism in Koprivničko-križevačka County] p. 6.

Figure 3 Geographical position of the respondent settlements



Source: own design of the authors

The majority of the responding Hungarian municipalities can be found in Somogy County, whereas the municipalities in Baranya County answered in almost the same number, which constituted 38.6% of the sample. Compared to this, Zala County (11 respondents) represents less importance (21,1%) in the sample.

From the Croatian communities four are situated in Međimurska county, three in Osječko-baranjska county, two in Koprivničko-križevačka county and one in Virovitičko-podravska county.

The average population of the responding Hungarian municipalities was 10.523. The lowest number was 110 people while the highest was 156.000. The population living in the territory of Somogy County Council is 318.000.

The average population of the responding Croatian municipalities was 14.066. The lowest number was 2.336 whereas the highest was 37.200.

Out of the 52 Hungarian respondents 28 have an operating Croatian Minority Government. Out of the 10 Croatian municipalities that responded to our survey only one, Beli Manastir has a Hungarian Minority Government.

Advantages of twin settlement co-operation

Our next question was concerned with the advantages of the co-operation. The majority (in 44 cases) named the possibility for local citizens to meet each other, the sharing of experiences between leaders of local governments and the popularization of the settlement as a tourist destination (in 34-34 cases). These were followed by the opportunity of getting financial resources from tenders (in 27 cases), while 25 municipalities considered the promotion of shared interest to be an advantage of the co-operation. The educational co-operation (in 18 cases), the popularization of the settlement as a foreign investment destination (in 15 cases) and the disaster management (in 2 cases) goals were mentioned the least often. The latter example is surprising considering the fact that numerous Hungarian and Croatian twin settlements are located right at the border, which means that they should be prepared to manage disaster situations together.

Compared to the Hungarians, the Croatian municipalities see opportunities for co-operation in a lot more fields. 9-9 respondents mentioned the possibility of getting financial resources from tenders, the sharing of experiences between local authority officials, the „popularization” of the settlement abroad as a tourist destination or investment and 8 of them mentioned the enforcing shared interests. Seven of them listed the educational co-operation and five of them the chance for local citizens to meet each other. Similarly to the Hungarian respondents, the disaster management goals were mentioned the least but considering the number of respondents these four references indicate that this subject is more important on the Croatian side.

The target groups of the twin settlement relationships

We considered it to be important to raise the question of what kind of target groups the municipalities have in this area.

The majority of the target groups of the twin settlement relationships were the elected representatives (in 45 cases). The staff members of the municipality (in 35 cases) and local enterprises (in 34 cases) were listed in almost equal numbers. What we consider to be a negative characteristic is the fact that the participation of local associations and clubs (in 28 cases), cultural institutions (in 25 cases) and local citizens (in 18 cases) is far from adequate – bigger emphasis has to be put on how to get them involved.

The Croatian settlements mentioned the elected local representatives, local associations and clubs (in 9-9 cases), cultural institutions (in 8 cases) and local enterprises (in 6 cases) most often. Similarly to Hungary, the local citizens are pushed into the background also in

Croatia – only 3 municipalities listed them as target groups for twin settlement relationships. Employees of the municipality were listed twice.

Participation of local citizens in twin settlement relationships

In our opinion one of the most important questions related to twin settlement relationships is how much the participating partners can get the local population involved.

The majority of the municipalities (21) were only able to address less than 20% of the population. It is notable that in 20 cases 20-39% of the population, in seven occasions 40-59% of the population takes part in locally organized events where twin settlements also participate. In four cases this proportion is even bigger and reaches or exceeds 60%.

The less than 20% participation rate definitely has to be improved and the respondents had the opportunity to elaborate the method of this in the framework of an open question.

The majority of the respondents saw the solution in organizing programmes: they would like to have even more and more diverse cultural and traditional events (in 8 cases) and we have received suggestions for other programmes (sport events, activities for children) that would be interesting for „a wider range of the population” (in 8 cases).

A number of communities came up with the idea of starting exchange programmes, where the participants would spend the night at the other village and the exchange-holidays or student-exchange programmes could provide an excellent opportunity to get to know each other better (in 4 cases). Another three municipalities also mentioned giving tasks to the local population.

Seven municipalities agreed that the co-operation should be expanded involving „institutions, civic organizations and employees of municipalities” or finding local producers, cultural communities and asking them to participate actively. Three respondents mentioned that bigger financial support is needed to be able to achieve this goal.

In Croatia the local citizens are less involved in the twin settlement events. Eight respondents mentioned that the participation rate does not even reach 20%. Only one put the rate between 20 and 40% and one between 40 and 60%.

To improve this rate the Croatian respondents provided similar answers as the Hungarians: they suggested organizing educational, cultural, sport and touristic programmes, better informational campaigns and the co-operation between companies.

Frequency of co-operation

The success of the co-operation is indicated by the frequency of contact between the partners. To the question regarding the frequency of contact 26 municipalities reported that the contacts

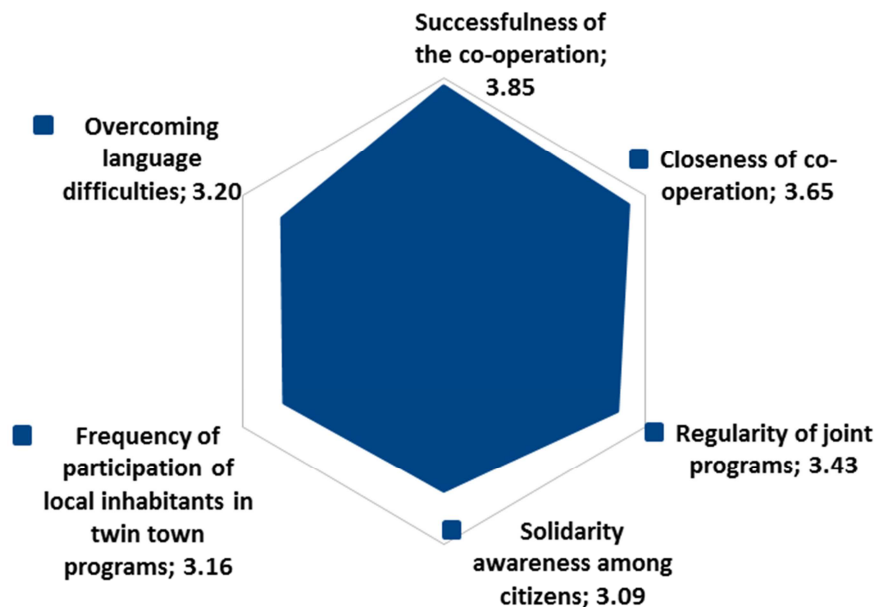
are intensive since they meet on more than two occasions a year. 15 communities co-operate on some issue twice a year, while 7 do so once a year. Some of the respondents mentioned that meeting even once a year is not realized: one of them contacted their Croatian partner once in every three years, whereas another three said that in their cases the communication practically ceased since they contact each other even less frequently than the above mentioned time periods.

Half of the Croatian communities reported that they meet their Hungarian partners more often than twice a year, while three of them said they meet twice a year and two said they meet once a year.

The successfulness of the relationships with the Croatian twin settlement

The next question deals with the successfulness of the relationships with the Croatian twin settlement. We have asked the respondents to evaluate their co-operation based on different aspects on a five-scale Likert-scale (according to school grades: 1: not satisfied at all, 5: fully satisfied).

Figure 4 The successfulness of the different aspects of the co-operation with the Croatian twin settlement in case of the respondent Hungarian municipalities



Source: own research

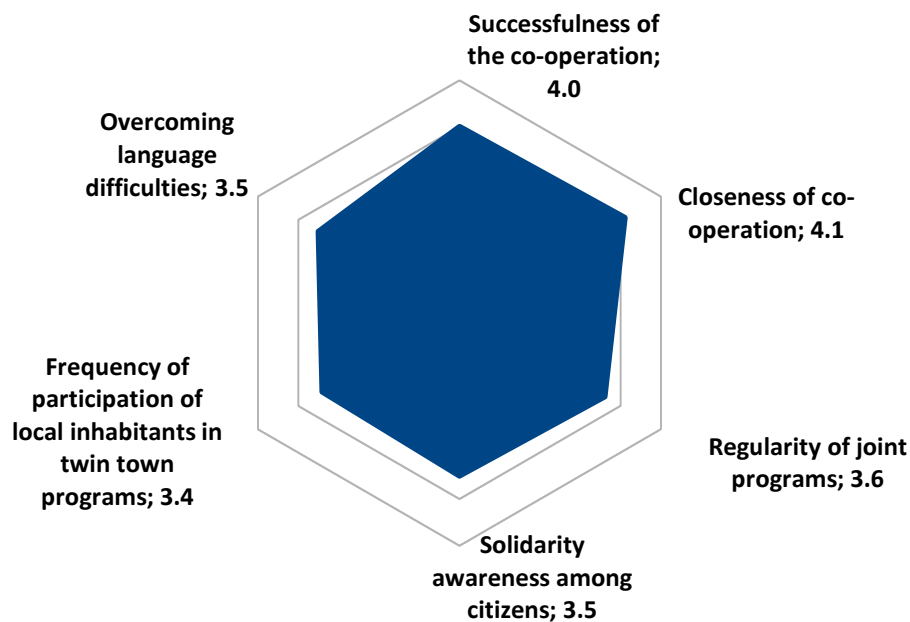
Before the evaluation we started with the assumption that we will consider a given region successful if the satisfaction rate reaches 4.00 on average.

Results show that the respondent municipalities do not consider the cooperation successful on the whole since the arithmetic mean measured on the five-scale Likert-scale was 3.85. However, we have to emphasize that there were several municipalities that provided a fail (in 3 cases) or pass mark (in 2 cases) to this question but these municipalities did not even meet once in every three years. It is, nevertheless, important to highlight that 21 municipalities gave a good mark, while 10 of them considered the co-operation to be excellent.

Neither were respondents satisfied with the closeness of co-operation (3.65) and the regularity of joint programs (3.42) in all cases. It is also noticeable in the above figure that the weakest points in the relationships are indicated by the overcoming of language difficulties (3.2), involvement of the local population in the programs (3.16) and the solidarity awareness of the citizens (3.09).

The successfulness of the relationships with the Hungarian twin settlement

Figure 5 The successfulness of the different aspects of the co-operation with the Hungarian twin settlement in case of the respondent Croatian municipalities



Source: own research

We have also asked the Croatian respondents what they think about the co-operation with their Hungarian twin settlement.

The values seen on the above figure are higher regarding all the factors than in the case of the Hungarian answers so all in all, we can say that the Croatian respondents are more satisfied with the co-operation.

The Croatian respondents were most satisfied with the closeness (4,1) and with the successfulness (4,0) of co-operation. It is important to stress that only one community regarded the relationship as a failed one, while five considered the joint work to be excellent.

Cross tabulation analysis

We carried out a crosstab analysis to find out whether the seven factors described in the research model are connected – and if yes to what extent – to the successfulness of the twin settlement relationships. We would have liked to do this analysis with regard to both countries; however, since a sample with at least 30 items from Croatia would have been necessary to do this, we could only do this calculation with the data received from the Hungarian settlements.

During the research we examined the correlation between the variables and the Chi square test provides the answer to this. This statistics measures the statistical significance of the correlation between the two variables. To reach a significant result the value of the index has to be under the chosen $p < 0,05$ threshold significance level. However, it is important to note that “one of the main characteristics of the Chi-square statistics is that it is sensitive to sample size since the Chi-square is linearly dependent on the number of items in the sample, which means that in the case of same distribution it can occur that two variables do not show significant results with low item number while with high item number they do”. As our sample can be considered to contain a relatively low item number, we will draw conclusions even when there is no significant correlation between the variables based on the test statistics. “In case there is no correlation we can still analyze the cross-table but we have to add to our findings that the result did not prove significant.”⁴¹

Summarizing the obtained results it can be ascertained that the result was only significant in the case of a single factor: there is moderately strong correlation (Cramer V: 0,403, significance level: 0,007) between the frequency of contacts and their successfulness.

The significance level (0,12) is above the chosen threshold; however, it is still worth investigating the correlation between the operation of the Croatian Minority Government and the successfulness of twin settlement relationships. In the area of those five municipalities that gave a fail (1) or pass (2) mark for the co-operation with their Croatian twin settlement there is no Croatian Minority Government in function. Out of those municipalities that gave a

⁴¹ Sajtos, L., Mitev, A. (2007). SPSS Kutatási és adatelemzési kézikönyv [SPSS Research and data analysis manual] Budapest, Aliena Kiadó, p. 156.

“good” mark twelve had, while nine did not have minority governments. The difference is even more visible in case of those municipalities that considered the co-operation to be excellent: out of the 16 respondents eleven reported a Croatian Minority Government.

For this reason we presume that – even if not in a statistically significant way – there is a correlation between a functioning Croatian Minority Government and the successfulness of the twin settlement relationship.

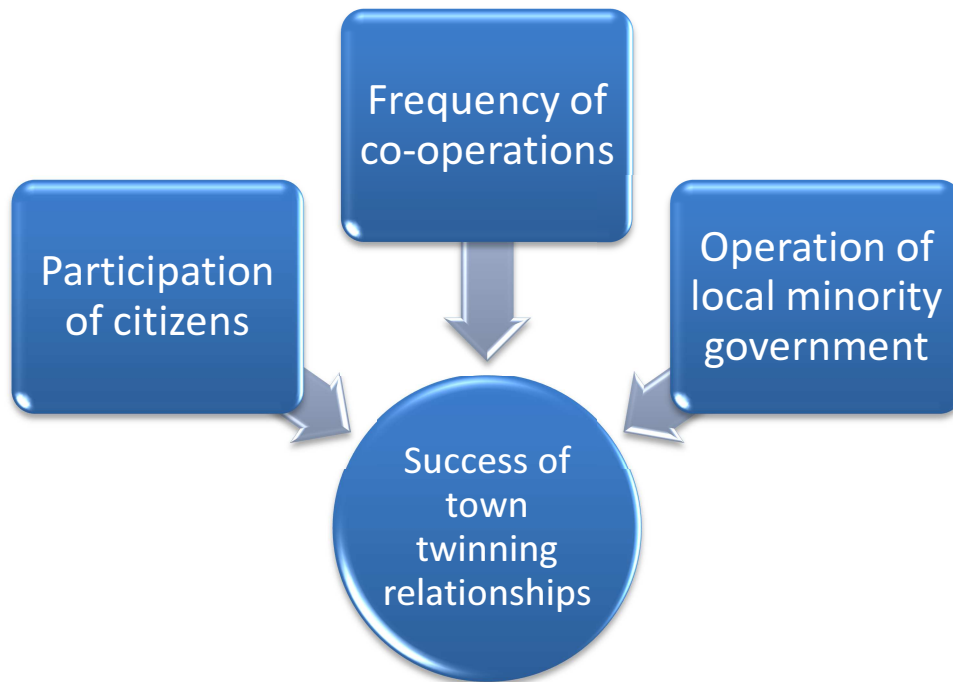
The correlation between the participation rate of the population in the twin settlement programs and the successfulness of the twin settlement relationship was the subject of the next study. We cannot talk about a significant correlation in this case either, since the significance level (0.31) exceeds the chosen level here as well. Again, it is worth exploring the percentage values of the above table as they are pointing out some useful correlations.

In those communities, where at least 40% of the population participates in the twin settlement programs, co-operation is considered to be at least good; out of the eleven respondents none of them gave even a mediocre evaluation. Four of the five respondents who gave a fail or pass grade for the successfulness of the relationship had less than 20% of the population participating in the events so the involvement of the citizens is quite insignificant. For this reason we believe that – even if not in a statistically significant way – it can be stated that there is a correlation between the above mentioned two factors.

In case of appointing a person responsible for twin settlements in charge at the local authority, the existence of joint tenders and the realization of economic co-operations, our hypothesis – that these have an effect on the success of twin settlement relationships – was not verified.

Taking these results into account the successfulness of twin settlement relationship is shown in the following diagram (Fig. 6).

Figure 6 Research model showing the results



Source: own research

CONCLUSION

In our research we studied the available Hungarian and Croatian scientific literature with regards to the history of twin settlement relationships and their intensity in the European Union.

In research comprising a quantitative method we have studied the factors generating settlement twinning relationships, the nature of these relationships, their current content and their institutional background in the Hungarian-Croatian cross-border region. We have also explored what benefits the studied local authorities think they can gain from the cooperation, which target groups are involved and to what extent it was successful to involve the inhabitants. The questionnaire survey research included cooperation between settlements in counties Zala, Somogy and Baranya on the Hungarian side as well as in counties Međimurska, Koprivničko-križevačka, Virovitičko-podravska and Osječko-baranjska on the Croatian side.

According to the respondents the twin settlement relationships would primarily mean the opportunity for the local citizens to meet, for the local authorities to share their experiences and promoting the community as a tourist destination.

We considered the involvement of the population as one of the most important issue since in 41 settlements less than 40% of the inhabitants participate in the programs; this rate definitely needs to be improved.

During our empirical research we have pointed out that between the Hungarian and Croatian communities the relationship is generally intensive but naturally there are negative examples as well. The studied Hungarian communities generally assessed their twin settlement relationships as mediocre – the solidarity awareness of the population got the lowest value, while the successfulness of the co-operations received the highest. It is important to emphasize that the Croatian respondents were more satisfied in every aspect than their Hungarian partners.

During the testing of our initial research model we have detected significant and moderately strong correlation between the frequency and the successfulness of the twin settlement relationships. We have also ascertained that the existence of Croatian Minority Governments and the active participation of the population in the jointly organized programs can also have an effect on the positive assessment of the twin relationships.

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**SOCIO-ECONOMIC AND SPATIAL CORRELATIONS OF THE
EASTERN EUROPEAN HEALTH PARADOX IN HUNGARY**

**A KELET-EURÓPAI EGÉSZSÉGPÁRADOXON TÁRSADALMI-
GAZDASÁGI ÉS TERÜLETI ÖSSZEFÜGGÉSEI MAGYARORSZÁGON**

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Abstract

This paper describes the Hungarian aspects and the latest results of the so-called Eastern European health paradox in terms of (micro-)regions. In particular, this paper aims at highlighting the spatial correlations of premature mortality and the main causes of death by gender as well as their socio-economic and spatial embeddedness. The tool for our study is represented by exploratory spatial data analysis (ESDA): the main health inequalities of Hungary's micro-regions are described with the use of global autocorrelation tests as well as regression models suitable for the identification of general and spatial features.

According to our findings, the causes of premature death are characterised by a marked spatial determination for both genders but mostly for men. The regression models of the causes of premature death have confirmed that neighbourhood relations and micro-regional inequalities in issues like the level of socio-economic development, settlement structure, lifestyle, social capital, healthcare infrastructure or social deprivation have substantial impacts on mortality in a given area in the case of men. These findings are also true for women, except for one issue: neighbourhood assimilation. It should be noted in view of our research findings that, in addition to socio-economic explanatory factors, spatiality (belonging to a region) is a major explanatory factor regarding the micro-regional inequalities of premature mortality. In particular, Borsod-Abaúj-Zemplén county, known as a former industrial base, should be noted here; this county is a significant and complex crisis area with regard to the health status of both genders in Hungary today. As a short-term measure for the improvement of spatial health status, the development of health awareness and the mitigation of psychosocial stress (by civil organisations) are suggested.

Keywords: health inequalities, health paradox, spatial autocorrelation, premature mortality, spatial regression analysis

Absztrakt:

Dolgozatunk az ún. kelet-európai egészségparadoxon magyarországi vonatkozásait, legújabb eredményeit ismerteti (kis-)térségi megközelítésben. Tanulmányunkban arra vállalkoztunk, hogy bemutassuk a nemenkénti korai halandóság és a főbb halálokok térbeli összefüggéseit, valamint azok társadalmi-gazdasági és területi beágyazottságát. Vizsgálataink eszköztárát a területi adatok feltáró módszere (ESDA) jelenti: a globális autokorrelációs teszt, valamint az általános és a térbeli jegyeket is tükröző regressziós modellek segítségével mutatjuk be Magyarország kistérségeinek főbb egészségügyenlétlenségeit.

Megállapítást nyert, hogy hangsúlyos térbeli determináció jellemzi az idő előtti halálokokat mindkét nem esetében, de különösen a férfiak tekintetében. A korai halálokok regressziós modelljei igazolták, hogy a társadalmi-gazdasági fejlettség, a településszerkezet, az életmód, a társadalmi tőke, az egészségügyi infrastruktúra, a kirekesztés kistérségi egyenlőtlenségei, valamint a szomszédsági relációk alapvetően

befolyásolják a területi halandósági állapotot a férfiak esetében. A női korai halandóság esetében is igazak ezek a megállapítások, egyetlen kivétellel: ez pedig a szomszédsági hasonulás. Kutatási eredményeink alapján fontos kiemelnünk, hogy a társadalmi-gazdasági és egyéb magyarázó faktorokon túl a térbeliség, a térséghez tartozás fontos magyarázó faktor az idő előtti halálozás kistérségi egyenlőtlenségében. Különösen a korábbi ipari bázist, Borsod-Abaúj-Zemplén megyét szükséges megemlíteni, amely igen szignifikáns komplex válsággócnak számít mindkét nem egészségi állapotában napjaink Magyarországon. A területi egészségi állapot javítása érdekében rövid távon az egészségmagatartás fejlesztését és a pszichoszociális stressz (civil szervezetek általi) oldását javasoljuk.

Kulcsszavak: egészségyenlőtlenségek, egészségparadoxon, területi autokorreláció, idő előtti halandóság, térbeli regresszió elemzés

INTRODUCTION

Nations on the eastern and western side of the Iron Curtain – created after World War II and viewed as the political metaphor of a divided Europe – established their own socio-economic systems. The line dividing the two blocks also led to the emergence of an epidemiological (Boncz-Sebestyén, 2006) (or healthcare) iron curtain (EC, 2008), the eastern side of which was characterised by a specific phenomenon i.e. the so-called health paradox. This paradox means that there is a strikingly high rate of premature mortality in the transforming societies and that this region shows a much worse general health status than the one that would be justified on the basis of economic indicators. (Kopp-Skrabski, 2001)

The features and characteristics of the health paradox can be summarised as follows:

- While life expectancy at birth was similar in the two blocks up until the 1960s, the socialist block has been struggling with stagnation and reduction since 1965.
- Different mortality trends can be seen even within the socialist block.
- This issue affects most of all the economically active age groups including, in particular, men.
- The main factor in the eastern epidemiological crisis is the “missed cardiovascular revolution”, though mortality attributable to cancer and “man-made” (external) causes of death is also high.
- This phenomenon emerged during peacetime in a period with no known cases of global/regional infection and famine or any natural disaster.
- Prior to the socio-economic changes, Hungary was among the countries with the worst mortality status and trends, though Russia, the Ukraine and the Baltic states were hit by a deeper crisis.
- The transformation (or adaptation) crisis further deteriorated the already ailing health situation.

- Stress (as the invisible hand) as well as psychiatric and behavioural factors also play a major role in premature death rates.
- Focusing on Hungary within the Central and Eastern European region, it can be stated that the country is still in a disadvantageous situation in terms of the main health parameters and that the high rate of premature mortality represents a serious public health problem both for men and women. (Cornia-Paniccia, 2000; Weidner–Cain, 2003; Daróczi, 2004; Meslé, 2004; Kopp et al., 2007)

OBJECTIVES AND METHODS

As the various sources of literature discussing the Eastern European health paradox deal with this issue mainly at national level, our study focuses on spatial inequalities and the inequalities of premature mortality. The socio-economic and spatial inequalities (of,) and the main correlations regarding, public health status in Hungary have already been described in many studies. (Klinger, 2006; Hablicsek-Kovács, 2007; Daróczi, 2004; Csité-Németh, 2007; Skrabski, 2003; Bálint, 2010; Uzzoli, 2008; Vitray, 2011; Szilágyi-Uzzoli, 2013.) At the level of micro-regions, allowing for more complex analyses, life expectancy at birth represents the main focus of study, whereas the number of research projects dealing with the various causes of death is not high in general. It is clear from the foregoing that premature mortality still represents a major public health issue in Hungary. Therefore, we have decided to utilise (at least partly) this niche and to analyse the phenomenon of (micro-)regional premature mortality. We have also decided to launch a complex study of the other niche area i.e. the causes of premature death in micro-regions. The paper wants to find answers to the following questions.

- *What spatial correlations can be discovered from the health status by gender?*
- *What are the impacts of micro-regional inequalities in issues like the level of socio-economic development, settlement structure, spatiality, health awareness, social capital, health infrastructure, segregation and social deprivation on the main causes of death and premature mortality?*
- *What are the correlations for the male and female population?*
- *How do contiguity relations influence the spatiality of the various causes of death?*

We have decided to use standardised mortality ratio (SMR) by gender and, in particular, its early (0-64 years) version.⁴² The analyses included – in addition to the SMR of all premature deaths – the main causes of premature death by gender: infectious and parasitic diseases, malignant neoplasms, mental and behavioural disorders, diseases of the respiratory system, diseases of the circulatory system, diseases of the digestive system, external causes of morbidity and mortality, preventable diseases, and diseases attributable to smoking. Furthermore, the values of life expectancy at birth by gender were also involved in the analyses.

Since ancient times numerous theories have been devised for the explanation of health inequalities. (Andorka, 2006; Whitehead, 1997; Mackenbach, 2006; Omran, 1971; Preston, 1975; Wilkinson-Marmot, 2003; WHO, 2008;; Kopp-Skrabski, 2001; Marmot, 2004; Black, 1980.) Most theories agree in the notion that social and economic inequalities act as direct and indirect harm to the health condition of individuals. (Villermé, n.d., Virchow, n.d. see Mackenbach, 2006) These findings have been confirmed also in terms of spatiality. (Queste et al., 2002; Groenewegen et al., 2003; Mackenbach et al., 1991; Mackenbach-Looman, 1994; Gutiérrez-Fisac, 2000; Leyland, 2004; Woods et al., 2005; Bálint, 2010; Uzzoli, 2013.)

This paper examines spatial inequalities on the basis of the relevant health inequalities literature and in view of the following factor groups and indicators.

- *Level of socio-economic development*: percentage of individuals with higher education qualifications (by gender), illiteracy rate (by gender), unemployment rate (by gender), percentage of taxpayers, Robin Hood index, percentage of car owners, personal income tax base per capita, percentage of aid beneficiaries.
- *Settlement structure and infrastructure*: population density, settlement density, urban/rural ratio, percentage of largest settlement inhabitants, cities with county rights.
- *Health awareness and health culture*: causes of death attributable to smoking (SMR), chronic liver diseases and cirrhosis SMR (as alcohol consumption proxy), difference between male and female life expectancy at birth, extent of hidden economy.
- *Social capital*: number of registered criminals per 10 000 persons, number of divorces per 100 marriages, number of non-profit organisations per 100 persons.
- *Healthcare infrastructure*: number of hospital beds per 1 000 persons, number of family doctors per 10 000 persons, infant mortality rate.

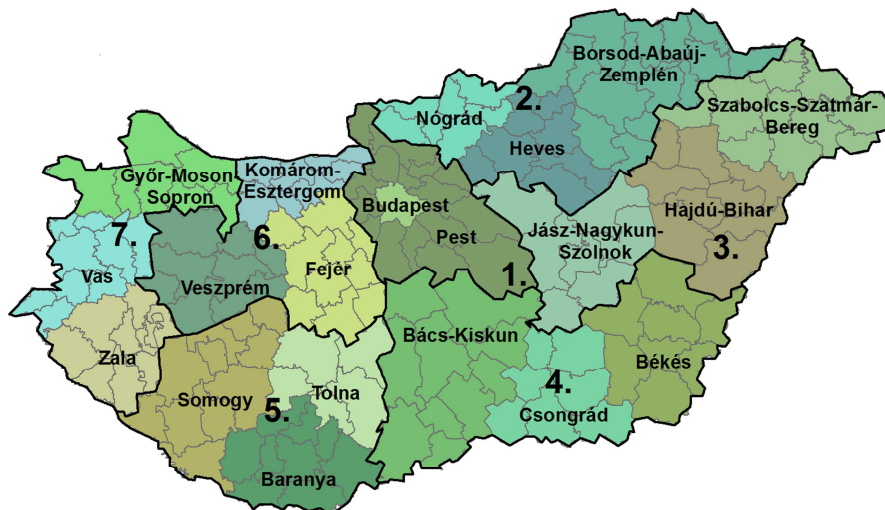
⁴² SMR refers to a mortality rate that could be observed in the study region if the composition of the population by age and gender would be the same as that of the standard population i.e. in this case the population of Hungary in 2005.

- *Segregation and social deprivation*: percentage of Roma population, percentage of endangered minors.
- *Spatiality, contiguity*: dummy variables for counties and regions, and spatial weights matrixes. (See below, regression models.)

Observation period: 2009–2011. The observation period was chosen to include the period of the national census (2011) given that many of the major indicators (e.g. information on the level of education or ethnic minorities) are assessed or reported only during this period.

Observation unit: micro-region (174).⁴³ As spatiality (belonging to a region) is considered as a relevant influencing factor, it is important to show not only the micro-regions but also the counties and regions of Hungary (Fig. 1).

Figure 1 The micro-regions, the counties and the NUTS 2 regions in Hungary



Key:

Heves - County (NUTS3)

1. – Central Hungary 2. – North Hungary 3. – North Great Plain 4. – South Great Plain 5. – South Transdanubia
6. – Middle Transdanubia 7. – West Transdanubia (NUTS2 regions)

Source: own computing and editing

Data sources: National Land Development and Land Management Information System (TeiR), Regional Database, Central Statistical Office (KSH), HCCI Institute for Economic

⁴³ As of 1 January 2013, micro-regions were replaced by districts, which are defined as administrative and spatial policy divisions at local (city and agglomeration) level. As our research work (including this study) covers a long period, we have chosen to use the level of micro-regions in order to benefit from the availability of the relevant statistical data.

and Enterprise Research (GVI), National Institute for Health Development (OEFI) online databases and publications.

The explanatory spatial data analysis (ESDA) was the data processing method used for finding the answers to the abovementioned questions. See Anselin (2005), Bálint (2010) for more details. GeoDa 1.6.0 was used to perform the analyses.

Global autocorrelation analysis with Moran's I was used to find the answer to the first study question. According to Tóth (2003), "Moran's I is an indicator showing the similarity or difference of the observed area compared to its neighbour." (Tóth, 2003, p. 42. See Anselin, 2005 for description of method.) Regression models were used to demonstrate the main spatial and socio-economic correlations of premature mortality. The main premature mortality indicators were used as dependent variables and the above indicators were treated as independent variables. Ordinary least squares method (OLS), and the maximum likelihood (ML) estimation of two regression models i.e. SLM (Spatial Lag Model) and SEM (Spatial Error Model) were used to find the answers to the questions. (Anselin, 2005; Nemes Nagy, 2009.) As the regression technique is fairly sensitive to multicollinearity, data compression was also carried out through a factor analysis with SPSS for Windows 20.0.

RESULTS

Spatial autocorrelation analyses

The first part of this chapter shows the mapping of the global spatial patterns of the various mortality rates and health variables by gender. Various spatial weights matrices were created in order to show the most favourable neighbourhood (autocorrelation) relations. The following neighbourhood matrices were used: queen, rook, 2, 4, 6, 8, 10, 12 and 15 nearest neighbours. Table 1 contains the global spatial autocorrelation index (Moran's I) completed with the corresponding spatial weights matrices.

The main causes of death appearing /involved in the study are characterised by positive spatial autocorrelation, with one exception. It means that it is possible to ignore the null hypothesis, according to which there is no neighbourhood assimilation regarding/in the case of the individual causes of death. Spatial homogeneity is highest for crude mortality rates and lowest in the case of infectious and parasitic SMR; these correlations are true for both genders. Furthermore, Table 1 shows that, sometimes, the best mortality spatial structure of each gender can be described with different neighbourhood relations e.g. the highest Moran's

I is given by the 2 nearest neighbours for men and by the 12 nearest neighbours for women in the SMR of mental and behavioural disorders.

Male mortality is coupled with higher spatial autocorrelation, mostly for life expectancy at birth and in terms of SMR for diseases of the circulatory system, diseases of the respiratory system and all premature deaths. Female premature mortality shows a regionalisation mostly along the diseases of the circulatory system, attributable to smoking, preventable and all deaths as well as life expectancy at birth. In general, however, there is not a very high level of neighbourhood assimilation (Moran's I for per capita income: 0.52); today's Hungary shows a substantial regionalisation along the causes of premature death and other health variables.

Table 2 Spatial autocorrelation of health variables with Moran's I (2009–2011)⁴⁴

Main health variables	Moran's I (men)	Moran's I (women)
<i>All premature deaths</i>	0.296 ⁽⁴ⁿ⁾	0.224 ⁽²ⁿ⁾
<i>Crude death rate</i>	0.435 ⁽²ⁿ⁾	0.402 ⁽²ⁿ⁾
<i>Life expectancy at birth</i>	0.356 ⁽²ⁿ⁾	0.258 ⁽²ⁿ⁾
<i>Difference in life expectancy at birth</i>	0.245 ⁽²ⁿ⁾	
<i>Infectious and parasitic diseases</i>	0.078 ⁽⁸ⁿ⁾	-0.018 ⁽¹⁵ⁿ⁾
<i>Malignant neoplasms</i>	0.246 ⁽²ⁿ⁾	0.121 ⁽²ⁿ⁾
<i>Mental and behavioural disorders</i>	0.285 ⁽²ⁿ⁾	0.021 ⁽¹²ⁿ⁾
<i>Diseases of the respiratory system</i>	0.313 ^(q)	0.156 ^(ro)
Chronic lower respiratory diseases	0.318 ⁽²ⁿ⁾	0.173 ⁽⁶ⁿ⁾
<i>Diseases of the circulatory system</i>	0.357 ^(ro)	0.256 ⁽²ⁿ⁾
<i>Diseases of the digestive system</i>	0.214 ⁽²ⁿ⁾	0.188 ⁽²ⁿ⁾
<i>Chronic liver diseases and cirrhosis</i>	0.259 ⁽²ⁿ⁾	0.216 ⁽²ⁿ⁾
<i>External causes of morbidity and mortality</i>	0.225 ⁽²ⁿ⁾	0.142 ⁽⁴ⁿ⁾
<i>Preventable</i>	0.268 ⁽²ⁿ⁾	0.237 ^(q)
<i>Attributable to smoking</i>	0.196 ⁽²ⁿ⁾	0.249 ⁽²ⁿ⁾
<i>Infant mortality</i>	0.167 ^(q)	

Source: own computing and editing

Regression results

This chapter describes the models that influence and explain the spatial inequalities of premature mortality and the main causes of death at the level of micro-regions.

Based on the processed volume of domestic and foreign studies, the following hypotheses are made:

- *Level of socio-economic development*: it is assumed that a better trained population is more productive and enjoys a better labour market and income position; therefore, it has better chances to avoid premature death.⁴⁵

⁴⁴ The abbreviation of the best weights matrix is put in brackets near Moran's I. "q" means queen, while "ro" means rook as a neighbour. "n" and the number before it mean the number of the nearest neighbours (e.g. "2n" means the two nearest neighbours).

- *Settlement structure and infrastructure*: it is assumed that the person living at a higher level of the settlement hierarchy (which can be measured only indirectly) and the regions with better infrastructure have better life chances.⁴⁶
- *Spatiality, contiguity*: on one hand, this assumption expresses the notion of “belonging to somewhere”. As seen before, certain causes of death are concentrated in space and, therefore, spatiality may be considered as an independent explanatory factor. The study aims at identifying the regions described as crisis areas in terms of mortality. In general, crisis areas and their components (symptoms and causes) form a complex stochastic system (Bakos, 2003). Therefore it is thought that these can be identified in the relevant space, even apart from the inequalities of the socio-economic environment. On the other hand, this paper wants to prove neighbourhood relations as well.
- *Health awareness and health culture*: the lower the number and extent of health-impairing behaviours at the level of micro-regions, or the lower the share of hidden economy, the better the life-chances.
- *Social capital*: premature mortality decreases when there is a rise in social activities and relations or a reduction in criminal rate in the relevant region.
- *Healthcare infrastructure*: better mortality rates can be expected in (or near) regions where adequate health services are available.
- *Segregation and social deprivation*: the higher the percentage of Roma population and endangered children, the higher the occurrence of premature deaths.

We are aware of the fact that the momentary values of the variables involved (even if they represent multiannual averages) cannot fully explain the micro-regional inequalities regarding health status and the main causes of death in the study period. On the one hand, e.g. the presence over long years or decades of a poor socio-economic situation and the related depression syndrome (Kopp-Skrabski, 2001) and stress may not be measured directly. (This is the reason for using dummy variables.) In addition/Furthermore, it should be noted that the relevant indicators have both direct impacts and indirect impacts (through several factors) on life expectancy. (Daróczi, 2004) On the other hand, the ecological analyses and the

⁴⁵ As stated above, the regression technique is fairly sensitive to multicollinearity. For this reason we applied factor analysis to compress the socio-economic indicators by gender. As a result, we obtained, for each gender, a development factor that contains all relevant indicators. Each factor meets the applicable statistical requirements (KMO: 0.896 and 0.901; eigenvalue: 5.806 and 6.127; retained variance: 64.5–68.1).

⁴⁶ Just like in the case of socio-economic factors, a so-called settlement structure factor has been created with the use of indicators described above. Retained variance: approx. 70%, eigenvalue: 3.332, KMO: 0.809.

consolidation of individual data may lead to disinformation, mostly if these are interpreted at different territorial levels. (Ecological fallacy, see the relevant health-specific results e.g. Borrel – Arias, 1995; Fiscella-Franks, 1997.)

The results of those models are shown here which provide the most reliable correlations.⁴⁷

Results for male models

As to all premature deaths of Hungarian men, the best matching model is obtained from the correlations among the level of development, settlement structure, smoking and the dummy variables of the crisis area (Borsod-Abaúj-Zemplén county, BAZ)⁴⁸. (Tab. 2, “general” column.) The indicators involved are shown with their respective signs in the model: factors like the increase in the level of development and settlement structure (i.e. urban lifestyle), while smoking and living in BAZ county decrease life chances. Settlement structure becomes a significant explanatory factor when the model is controlled with the spatial dummy. (This step is thought to filter most of the outstanding figures and to confirm the crisis area nature of the county also in terms of mortality.)

Although the first model seems to serve the purpose of explanatory power and diagnostics better, we have created a new lifestyle model. (Tab. 2, “lifestyle” column.) The new model shows an overlap for smoking (as lifestyle factor) and for the crisis area. In addition, hidden economy and negative social circumstances (percentage of criminals) emerge as explanatory factors for higher premature mortality. The estimated indicator of black/underground/informal economy acts against human health as a result of such disadvantages “that can be felt on a wide scale ranging from the level of private individuals to that of society” (e.g. poor workplace conditions and work safety, etc., see Lackó et al., 2011, p. 3). The availability of hospital beds helps to improve mortality rates. In other words, premature mortality is higher in those Hungarian micro-regions where death rates attributable to smoking, the extent of black economy and the percentage of criminals are higher and where the number of hospital

⁴⁷ Based on Anselin, 2005, the spatial regressions were checked with the W (Wald test) $>$ LR (Likelihood ratio test) $>$ LM (Lagrange multiplier) formula. This relationship holds true for each model. As to OLS regression, the Jarque-Berra test was applied to see the normality of error terms, the Breusch-Pagan test was used to check for homoscedasticity, and Moran’s I was taken to measure the spatial autocorrelation of the regression residuals. Multicollinearity was measured with MCN (Multicollinearity Condition Number). Information on the efficiency of the spatial models could be obtained by means of the pseudo R^2 (or, in the case of OLS, adjusted R^2), Akaike information criterion (AIC), log likelihood and Schwarz’s Bayesian information criterion. (Anselin, 2005) Information from Lagrange multiplier is also given for each regression (regarding, of course, the OLS version).

⁴⁸ Borsod-Abaúj-Zemplén county (former heavy industry base) in North Hungary is one of the most backward counties. As far as regional development benefits are concerned, 13 and 10 of its 15 micro-regions are classified as less favoured areas and most disadvantaged areas (LHH) to be developed through multi-faceted adjustment programmes, respectively. (KSH, 2007) The population of the most disadvantaged micro-regions accounts for some 40% of the county population, which is one of the highest levels in Hungary.

beds is lower. In fact, the micro-regions of BAZ county are above the average in terms of this latter indicator.

Table 3 shows the regression models of the main causes of death. In the premature mortality model of men attributable to diseases of the circulatory system (“circul”) the significant explanatory factors include hidden economy, excessive workload, social capital (percentage of criminals), health-impairing behaviour, health infrastructure and spatiality. According to the findings of Kopp et al. (2007), excessive workload has a particular impact on male mortality caused by diseases of the cardiovascular system, which is properly explained by this equation. Among the health-impairing behaviours only the proxy related to smoking is involved, while the one related to alcohol consumption is not. The micro-regional differences of male circulatory mortality are also increased by the spatial inequalities of the crime rate. The premature mortality of men exceeds the average level of the territorial units that are characterised by a substantial presence of the informal economy and by a high rate of social deviance and a low level of health awareness. The BAZ dummy, seen in all deaths, appears again: mortality caused by diseases of the cardiovascular system is more probable in the micro-regions of BAZ county. Basic healthcare and lifestyle show a striking correlation in the model: although the number of family doctors is proportionately higher, it is not enough to eliminate the negative impacts of smoking.

Table 3 Premature mortality models of men

	general	lifestyle		general	lifestyle
<i>constant</i>	41.454* (22.64)	26.329* (4.67)	<i>criminal</i>	-	0.041** (2.49)
<i>development factor</i>	-4.126* (-6.49)	-	<i>hospital bed</i>	-	-0.207** (-3.00)
<i>settlement structure</i>	-1.279** (-2.49)	-	<i>lambda</i>	0.318* (3.08)	0.251* (2.32)
<i>BAZ (dummy)</i>	5.886* (3.38)	7.582* (4.40)	pseudo R ²	0.747	0.711
<i>smoking</i>	0.934* (9.12)	1.136* (11.10)	AIC	1051.4	1075.6
<i>hidden economy</i>	-	32.759* (4.27)	Log likelihood	-520.7	-531.7
			SC	1067.2	1094.5
			LM lag (OLS)	0.21	1.21
			LM error (OLS)	3.95**	3.87**

* At a significance level of 0.01, ** at a significance level of 0.05.

See z-score values in brackets. The spatial weights matrix is based on rook neighbourhood.

Source: own computing and editing

Four factors influence the socio-economic inequalities of the premature mortality (“neopl”) caused by neoplasms in 2009–2011. The explanatory factors in this regression model include settlement structure, health-impairing behaviour (smoking), number of non-profit

organisations and difference between male and female life expectancy at birth. The negative sign of settlement structure indicates better mortality rates. Balatoni (2011) highlights the main correlations of higher health culture prevalent in more competitive urban regions and, among others, the beneficial health impacts of regional university centres. Dégi (2010) describes the correlations between psychosocial factors and age. The syndromes of depression, anxiety and despair become more pronounced with age. These are probably handled (directly and indirectly) in an efficient manner by non-profit organisations, and that is why their number can be a positive predictor in the model. Finally, the bigger the difference between male and female life expectancy at birth, the higher the SMR attributable to neoplasms. The indicator explains biological, lifestyle and social inequalities. Therefore it has a complex meaning here also: higher mortality attributable to neoplasms is caused by social differences and a lifestyle differing from that of women. Again, smoking plays a significant explanatory role.

Three factors are responsible for the spatial inequality of premature digestive system (“digest”) mortality in men. Created by means of factor analysis, the latent development indicator appears as a protective factor. At macro level this is also referred to by Kovács (2011)⁴⁹. (Then) the model contains the mortality rate for chronic liver diseases and cirrhosis (caused by alcohol consumption), for/in South Transdanubia⁵⁰. The former factor has positive signs (accounting for most of the digestive system mortality), while the latter spatial dummy indicates satisfactory conditions. The model is characterised by outstanding efficiency.

If the frequency of external causes of death (“external”) is accepted as an indicator of the social establishment and its intensity, then this latter is properly indicated by the correlations. Mortality is explained by the micro-regional inequalities in terms of hidden economy, alcohol consumption, settlement structure and civil organisations. The first two indicators significantly increase male mortality related to external causes of death, while the aggregate indicator of settlement structure and the presence of a non-profit organisation decrease such mortality. Most micro-regions with higher mortality rates are found within the backward (external and internal) peripheries of Eastern Hungary, where lagging has become (rather) stable. Again, the micro-regions of BAZ county excel as a crisis area.

As far as the preventable causes of death (“preven”) are concerned, mainly the micro-regional inequalities of lifestyle (smoking, male/female lifestyle difference) are evident.

⁴⁹ When discussing the epidemiological transition, the author refers to a WHO publication (2008) where mortality caused by diseases of the digestive system is closely correlated (also) with national income.

⁵⁰ South Transdanubia is one of the crisis areas in terms of less favoured micro-regions in Hungary, yet the NUTS2 region is shown here, rather paradoxically, in a favourable setting..

Hidden economy – as a proxy for socio-economic environment and lifestyle – increases mortality which could be prevented with adequate health awareness and health infrastructure. BAZ dummy is, again, a significant explanatory factor; the basic healthcare system needs further improvement in the micro-regions that show the highest values (Tokaji, Bodrogközi⁵¹) and particularly in the settlements with Roma population. In addition to lifestyle, this raises serious service supply problems in the preservation of health.

Table 4 Regression models of the main causes of death (male population, 2009–2011)

	circul	neopl	digest	external	preven	respir
<i>constant</i>	3.346** (2.16)	8.139* (3.54)	1.216* (5.91)	7.258* (7.01)	3.118* (2.73)	1.377* (3.24)
<i>smoking</i>	0.380* (7.24)	0.336* (6.52)	-	-	0.255* (6.26)	0.060* (2.64)
<i>criminal</i>	0.013*** (1.70)	-	-	-	-	-
<i>hidden economy</i>	13.242* (3.24)	-	-	4.340*** (1.68)	8.286* (3.19)	-
<i>doctors</i>	0.598** (2.30)	-	-	-	-	-
<i>alcohol consumption</i>	-	-	1.068* (31.06)	0.163*** (1.89)	-	-
<i>development factor</i>	-	-	-0.124*** (-1.87)	-	-	-0.403* (3.13)
<i>South Transdanubia (dummy)</i>	-	-	-0.490*** (-2.41)	-	-	-
<i>BAZ (dummy)</i>	1.780*** (1.73)	-	-	1.061** (1.845)	1.364** (2.03)	1.416* (3.19)
<i>settlement structure</i>	-	-0.735* (-3.56)	-	-0.411* (-2.46)	-	-
<i>nonprofit</i>	-	-2.021** (-2.01)	-	-2.238* (-2.96)	-	-
<i>diff_2010</i>	-	0.296*** (1.65)	-	-	0.480* (3.11)	-
<i>lambda</i>	0.476* (5.30)	-	0.278* (2.62)	0.211** (1.91)	0.282* (2.66)	0.515* (5.98)
<i>W</i>	-	0.199*** (2.26)	-	-	-	-
pseudo R ²	0.588	0.499	0.862	0.308	0.484	0.400
AIC	844.5	808.0	387.7	691.3	743.9	538.7
Log likelihood	-416.2	-398.0	-189.9	339.7	-366.9	-265.3
SC	863.5	826.9	400.4	710.3	759.7	551.3
LM lag (OLS)	15.52*	4.21**	0.00	6.45**	4.28**	15.09*
LM error (OLS)	17.50*	1.56	5.19**	3.03***	5.705**	23.05*

* At a significance level of 0.01, ** at a significance level of 0.05, *** at a significance level of 0.10.

See z-score values in brackets. The spatial weights matrix is based on rook neighbourhood.

Source: own computing and editing

⁵¹ Both are classified among the most disadvantaged areas to be developed through multi-faceted adjustment programmes.

As for the diseases of the respiratory system (“respir”), mortality has proved to follow the development gradient; the development factor works accordingly. Both the spatial inequality of smoking as a risk factor (KSH, 2009) and the crisis area (BAZ county) are significant predictors. The mortality rates in the micro-regions of Óriszentpéter, Szentgotthárd and Kőszeg near the western border are in the worst one-sixth, just like the mortality rates in the micro-regions of Bodrogek, Tokaj and Abaúj-Hegyköz⁵².

Although it has not been noted separately, spatiality plays a role – in addition to the BAZ county dummy and the South Transdanubia region dummy – in the explanation of the above causes of the death of men. Most models are SEM; however, SLM proved to be the right regression tool in the case of neoplasms.

Results for female models

Table 4 shows the regression estimation results. The regression of all premature mortality of Hungarian women (“all”) results in a rather mixed model in comparison with that of men. In general, premature mortality is high in micro-regions with high mortality related to smoking and with below the average levels of development and health infrastructure. Again, BAZ county alone is an explanatory factor. Most micro-regions here (e.g. Bodrogek, Tokaj and Mezőcsát⁵³) are outliers, which confirms the crisis area hypothesis also for women. The joint appearance of development and hospital beds represents additional information; it may indicate the spatial inequalities of female health awareness in this model, reducing premature mortality rates.

The differences in the cardiovascular mortality of women (“circul”) are attributable, at least in part, to the local features of poor health culture. Women living in more urbanised regions have higher chances to avoid premature mortality. Indirectly, this is the result of health infrastructure and health awareness. This is the first model to provide proof for ethnic and social segregation in the region: the cardiovascular mortality of women is higher where there is a high percentage of Roma people and endangered children. The BAZ dummy is, again, a significant explanatory factor, indicating that the region is hit by a complex spatial crisis.

The main contributors to the spatial differences of cancer-related mortality (“neopl”) include the inequalities of health-impairing behaviour (smoking), lifestyle and infant

⁵² The Abaúj-Hegyköz micro-region is (again) classified among the most disadvantaged areas to be developed through multi-faceted adjustment programmes in Borsod-Abaúj-Zemplén county.

⁵³ It's a most disadvantaged micro-region in Borsod-Abaúj-Zemplén county.

mortality. The negative sign in the difference between male and female life expectancy is the variable of female lifestyle: the higher this indicator, the better the cancer-related premature mortality in women. The positive sign of infant mortality means that cancer-related mortality moves together with the condition of backwardness and the unavailability of health infrastructure. Except for the Pécs micro-region, all other micro-regions of Baranya county⁵⁴ are considered a crisis area for neoplasms while Bács-Kiskun county⁵⁵ performs better in this regard/field.

Table 4 Regression models of premature mortality in women⁵⁶

	all	circul	neopl	digest	external	preven	respir
<i>constant</i>	18.071* (19.34)	0.560* (20.15)	9.174* (10.92)	2.098* (38.68)	1.05* (12.88)	10.842* (11.08)	1.865* (27.95)
<i>development factor</i>	-1.397* (-4.91)	-	-	-	-	-1.223* (-8.62)	-0.072* (-3.73)
<i>smoking</i>	1.402* (10.43)	0.029* (6.78)	0.598* (10.00)	-	-	0.271* (4.17)	0.043* (4.36)
<i>hospital bed</i>	-0.083** (3.20)	-	-	-	-	-	-
<i>settlement structure</i>	-	-0.030* (-3.65)	-	-	0.079*** (-1.74)	-	-
<i>Roma</i>	-	0.051** (2.10)	-	-	-	-	-
<i>endangered children</i>	-	0.003* (2.78)	-	-	-	-	-
<i>diff_2010</i>	-	-	-0.274* (-2.65)	-0.013** (-2.01)	-	-0.509* (-4.94)	-
<i>infant mortality</i>	-	-	0.077** (2.14)	-	-	-	-
<i>alcohol consumption</i>	-	-	-	0.186* (19.18)	-	-	-
<i>criminal</i>	-	-	-	0.004*** (1.86)	-	-	-
<i>suicide</i>	-	-	-	-	1.031* (11.82)	-	-
<i>BAZ (dummy)</i>	3.283* (3.35)	0.065** (2.13)	-	-	0.440* (2.69)	-	-
<i>Baranya (dummy)</i>	-	-	1.107* (2.08)	-	-	-	-
<i>Bács_Kiskun (dummy)</i>	-	-	-0.994** (-1.99)	-	-	-	-

⁵⁴ Baranya county makes part of the South Transdanubia region. The population of disadvantaged areas accounts for more than 50% of the county population; the county behaves accordingly in the regression equation.

⁵⁵ 70% of the micro-regions of this county located in the South Great Plain region are classified as less favoured areas, and the unfavourable socio-economic conditions affect some 50% of the county population. Nevertheless, the county's micro-regions are better positioned.

⁵⁶ In the models of circulatory, digestive and respiratory mortality we have used a logarithmic formula for the dependent variable in order to eliminate heteroscedasticity. Micro-regions with zero (0) SMR have been removed from the respiratory model.

Table 4 (continued)

	all	circul	neopl	digest	external	preven	respir
<i>Hajdu (dummy)</i>	-	-	-	-0.091* (-2.73)	-	-	-
<i>Fejer (dummy)</i>	-	-	-	-	-	-	-0.192* (-2.80)
<i>Veszprem (dummy)</i>	-	-	-	-	-	-	-0.196* (-2.69)
<i>Zala (dummy)</i>	-	-	-	-	-	-1.518* (-3.20)	-
MCN	9.56	10.04	19.89	19.53	3.46	21.12	8.79
adj. R ²	0.679	0.506	0.429	0.694	0.482	0.552	0.778
AIC	865.5	-306.0	640.0	-313.0	319.1	607.8	-46.92
Log likelihood	-427.68	159.0	-314.0	161.5	-155.5	-298.9	29.46
Breusch-Pagan test	13.33**	10.64**	1.63	24.18*	2.57	9.7*	17.31*
Jarque-Berra test	14.98*	4.89**	8.7**	26.9*	122.4*	2.11	1.49
LM lag	1.05	1.53	0.19	0.01	0.40	0.33	0.33
LM error	0.06	1.96	0.42	0.06	0.50	0.57	1.47
Moran I (residual)	0.012	0.06***	-0.03	0.01	-0.03	0.03	0.05

* At a significance level of 0.01, ** at a significance level of 0.05, *** at a significance level of 0.10.

See t-score values in brackets. The spatial weights matrix is based on rook neighbourhood.

Source: own computing and editing

The digestive system mortality of women (“digest”) is characterised mostly by spatial differences in lifestyle; it is evidenced by the indirect alcohol consumption indicator and by the difference in life expectancy. As the former one has positive sign, it can be stated – with reference to Józán (1997) – that excessive alcohol consumption is here also a problem. Again, women benefit from the difference in life expectancy because it is still a general protective factor despite the growing involvement of women in social and economic issues. The percentage of criminals (expression of social deviance) deteriorates the chances of preventing premature mortality due to this cause of death. The micro-regions with the lowest digestive system mortality rates are found in Hajdú-Bihar county, and this is why the county dummy is present also in the equation.

Again, the micro-region differences of the socio-economic gradient and smoking are prevalent for preventable (“preven”) and diseases of the respiratory system (“respir”). In the former case the difference in life expectancy also appears, indicating again the benefits of health awareness in women and, under the control of the remaining factors, the micro-regions of Zala county are shown as a better positioned continuous area. Furthermore, two counties

(Veszprém, Fejér⁵⁷) in the Central Transdanubia region are also better positioned in terms of mortality caused by diseases of the respiratory system.

Unlike in the case of men, spatiality is not present as an explanatory or influencing factor in the explanation of premature mortality in women. All regression models are based on the ordinary least squares method.

CONCLUSION

This paper focuses on the spatial and socio-economic aspects of premature mortality, which is known as one of the major public health problems in Hungary. First, we wanted to see whether premature mortality can be characterised by clear spatial features (neighbourhood assimilation) in the micro-regions of Hungary. Second, we studied how premature mortality by gender and its main causes correlate with the level of socio-economic development, settlement structure, health behaviour, social capital, health infrastructure, segregation and spatiality.

Our autocorrelation analyses have confirmed that there is a substantial (although not outstanding) level of neighbourhood assimilation and regionalisation in the case of both men and women. Spatial clustering is highest for the causes of crude mortality, whereas no neighbourhood assimilation findings were identified for the causes of infectious and parasitic diseases. These correlations are more marked for the causes of death in the case of men. These findings adequately justify the use of spatial regression analysis.

In our opinion, the above socio-economic, settlement structure, spatiality, health awareness, social capital, health infrastructure, segregation and social deprivation play a major role in both male and female premature mortality and in the micro-regional inequalities of the main causes of death. In fact, there are great similarities in the roles of the factors involved in the explanation of the differences in both male and female premature mortality, and there are only slight differences between male and female models. It should be noted that, although - for the majority causes of death - men continue to react more sensitively to socio-economic changes, women already show stronger regressions in several cases (external causes, preventable, respiratory system mortality). Nevertheless, neighbourhood relations are strictly gender-specific: contiguity is present in all male models but it is absent from all female models. It should be noted that, in addition to socio-economic and other explanatory

⁵⁷ It should be noted that there is no most disadvantaged micro-region in either of the two counties; in addition, the less favoured areas affect only a relatively small percentage of the county population. In fact, based on its per capita GDP, Middle Transdanubia is one of Hungary's most developed regions.

factors, spatiality is very important with regard to the spatial inequalities of the various causes of death. According to our analyses, Borsod-Abaúj-Zemplén county (former heavy industry base) and some of its “outlier” micro-regions seem to have become particularly complex crisis areas in terms of premature mortality for both genders.

As far as the improvement of micro-regional health status is concerned, there is a big unused potential related, among others, to health awareness; in particular, a reduction in the level of smoking would be a major contributor to a drop in premature mortality rates. The role played by civil organisations should also be emphasized. Their higher presence in the region is coupled with lower premature mortality, which is evident mostly in the case of men. Whether they are involved in the propagation of health culture or in any other activities, these organisations play an outstanding role in the mitigation of psychosocial stress (invisible hand in mortality) affecting the entire country. Hungary may be able to improve its national health status through the development of its civil sphere.

In our opinion, future research work should focus on analyses at settlement level as it may give an additional impetus both to science and to regional health policy initiatives.

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HEALTH TOURISM COMPETITIVENESS – A COMPLEX APPROACH

GYÓGY- ÉS TERMÁLTURISZTIKAI VERSENYKÉPESSÉG – EGY KOMPLEX MEGKÖZELÍTÉS

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Abstract

Health tourism plays an important role in regional development – mainly in settlement development plans. This paper offers a composite competitiveness index for settlements – an index elaborated on the basis of general competitiveness theories, but which also utilises relevant factors of tourism competitiveness. Our analysis is limited to settlements with medicinal and thermal baths from two Hungarian regions, West Transdanubia and South Transdanubia. The former is a central region from the perspective of tourist flows and the latter is a peripheral region - which entails more opportunities for analysis. After a short review of currently recognised theoretical models, a composite index was constructed. The study attempts to explain the methodology of index-construction and the figures analysed; we finally analyse the results at sub-index level. The focus of the article is to demonstrate relevant factors of tourism competitiveness and to show the first results – basically to prepare for further, deeper investigation. The study is published in accordance with OTKA-project No. 106283.

Keywords: medicinal and thermal tourism, tourism competitiveness, settlements with medicinal and thermal baths, cluster analysis, composite index

Kivonat

A gyógy- és termálturizmus jelentős szerepet játszik a regionális fejlődésben, különösképpen településfejlesztési tervekben. A tanulmány célja, hogy létrehozzon egy kompozit települési versenyképességi indexet, amely az általános települési versenyképesség megközelítéseiből indul ki, de nagyobb hangsúlyt fektet a turisztikai versenyképesség érvényesítésére. Az elemzés keretét két régió, Nyugat-Dunántúl és Dél-Dunántúl gyógy- és termálfürdővel rendelkező települései jelentik. Előbbi egy turista áramlás szempontjából centrális, utóbbi periférikus térség, ami további elemzési lehetőségeket rejt magában. Az elméleti modellek rövid áttekintését követően sor kerül a kompozit index megalkotására. A tanulmány részletesen kitér az indexképzés módszerére, a vizsgált mutatócsoportokra, s végül elemzi a kapott eredményeket alindexek szintjén. A cikk középpontjában a releváns tényezők és az első eredmények bemutatása áll, későbbi, mélyebb indikátorok szintjén végzett települési vizsgálatok előkészítése érdekében. A tanulmány a 106283. számú támogatott OTKA-projekt keretében jelenik meg.

Kulcsszavak: Gyógy- és termálturizmus, turisztikai versenyképesség, gyógy- és termálfürdővel rendelkező települések, klaszteranalízis, kompozit index

INTRODUCTION

Today, economic development plays an increasing role amid a constantly changing environment, and new opportunities are actively sought. For Hungary, amongst other activities, medicinal and thermal tourism has the required potential. Hungary is fortunate in having a large part of its surface area lying above easily accessible thermal water sources, and many of these have positive and recognised medicinal qualities. In consequence, numerous settlements have chosen this route as a future direction – that is, to develop health tourism locally – and this trend seems likely to continue. Thanks to the Széchenyi Plan, numerous settlements have been able to develop their baths and this has produced a slightly improved competitiveness position (Michalkó et al., 2009). However, following the establishment of a bath, continuous maintenance and development is required, and this may have further positive effects on the whole settlement, or even on the wider region, through regional spill-over effects.

The main aim of this study is to examine settlements which are operating medicinal and thermal baths, from the perspective of tourism competitiveness – by means of a *composite competitiveness index* and by using the results of an OTKA (Országos Tudományos Kutatási Alapprogramok, Hungarian Scientific Research Fund) project. The final aim of this project is to build a model specializing in the competitiveness of settlements involved in health tourism. The model constructed demonstrates which settlements have prospered as a result of their medicinal and thermal baths, although the most important aim of the research is to determine ‘*best practice*’. In this paper the most important, relevant factors will be shown – those which play a major role in sectoral competitiveness. In fact, medicinal and health tourism show a significant spatial concentration in Hungary (Ács and Laczkó, 2008), and we can study these in the sample of two Hungarian regions – one of which is central from the perspective of tourist flow (West Transdanubia, where we examine 24 settlements), whilst the other is peripheral (South Transdanubia, where we look at 17). The tourism-based competitiveness of these settlements can be defined in terms of *three groups of indicators* based on Fei Lee and King (2005) – the resources of the destination, the macro-environment and the state or level of advancement of settlement. All of these factors were taken into account in constructing the index.

As mentioned earlier, the aim of this paper is to define tourism competitiveness for such settlements, to give a short summary of tourism competitiveness models and then to draw

conclusions based on our own index. The hierarchy of settlements will be demonstrated as a single entity and also separately by means of sub-indices.

Touristic competitiveness

In this paper the terminology of touristic and settlement competitiveness is both relevant and important; both concepts are complex and cannot easily be described.

The efficient operation of a settlement can also be determined from the perspective of *its touristic competitiveness*. A settlement is efficient if it is able to satisfy the interests of tourists, inhabitants, local economic profit-oriented or non-profit organizations and can provide the maximum possible level of wellbeing (Piskóti et al., 2002).

Considering touristic competitiveness from a macroeconomic standpoint, the *natural, cultural, human and infrastructural resources and financial assets* which apply to a settlement should be mentioned (Ilbery and Saxena, 2009, Jancsik, 2007, Bakucz et al., 2010). The different theories on touristic competitiveness cannot easily be categorised, since research until now has not been broad enough. Most studies were written on the basis of the diamond-model (Porter, 1990), which utilises a number of significant pillars: *the structure of entrepreneurship, supplementary factors, demand conditions, the importance of connecting industries, the presence of competitors* (Balan et al., 2007). Also, within tourism competitiveness research, resource-based theories play a highly important role. According to this theory, the competitiveness of any company (or, as in our case, of any settlement) is defined by external conditions (Barney, 2001), which are the touristic attractions themselves.

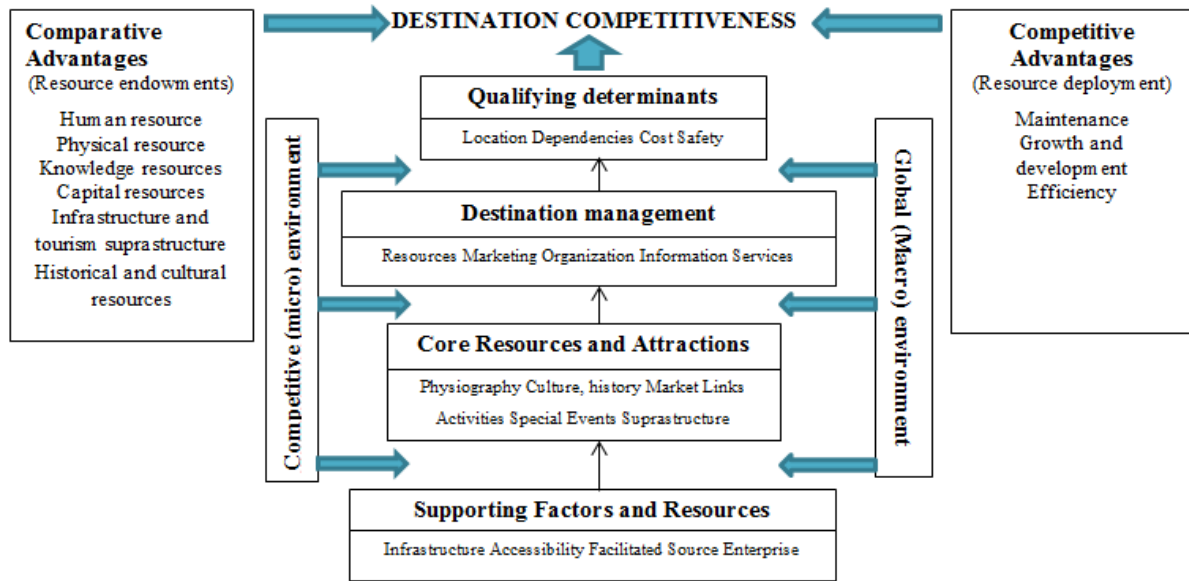
These touristic attractions are natural resources, but the great majority of resource-based theories identify with the rarity-value and substitutability of corporate competencies within the firm itself (Lóre, 2010). Research into tourism competitiveness can be grouped not only on the basis of different spatial levels, but otherwise also. To increase the competitiveness of a destination numerous authors mention sustainability in relation to the particular form of tourism (Ozturk and Eraydin, 2009; Williams and Ponsford; 2009, Michalkó and Rátz, 2011), while others (Wang and Krakover, 2008) assert that long-term competitiveness in a touristic destination is significantly influenced by the level of cooperation within the field and the balance of corporate competition. Further, the branding of a destination is a key factor in long-term competitiveness (Boo et al., 2009). Ejarque (2005) aimed in his study to clarify the basic definitions in a definite structure, and his article deals with specific items: geographical location, environmental and physical criteria, demography, tourism attraction, perceived

image (Szűcs, 2005, Royo-Vela, 2009) and touristic resources (natural, cultural activities, infrastructure and services).⁷

Tourism Destination Competitiveness Models

The competitiveness of touristic destinations is a very popular field and many authors have dealt with it in recent years. For this paper I have endeavoured to assemble the most appropriate theories – the models which are relevant – by constructing a settlement-based touristic competitiveness model. The specific attractions are *very small in terms of space* (in our case, settlements), but their spillover effect must be examined more closely since destinations have no fixed borders (Michalkó and Rátz, 2010). After reading and investigating other authors' models, we still cannot group theories, but we built models based on each other – so revealing many connections. **Poon** (1993) emphasises in his analysis the importance of environmental factors, that the private sector should be developed intensively and the fact that, in order to utilize local and regional spillover effects, *tourism must play a central role* in the territory. Poon dealt mainly with qualitative data and used questionnaires for his research. If we investigate more specifically the medicinal and thermal spa operating settlements of West and South Transdanubia, it is clear that tourism is not in itself a sufficient condition of settlement competitiveness (Bakucz et. al., 2013), and so tourism cannot be the most important sector in the development of settlements and their regions.

From the end of the '90s – and mainly from the beginning of the 2000s – still more researchers dealt with the competitiveness of tourism at different levels (countries, regions, micro-regions, settlements). In chronological order, the first model is **Crouch and Ritchie (1999) which is to date the most detailed touristic destination competitiveness model**. The following chart demonstrates their theory (Fig. 1):

Figure 1 Tourism destination competitiveness

Source: Own construction based on Crouch and Ritchie (1999)

Authors took into account, based on Porter's diamond model, those factors which could be ordered into a regression: they examined both national, industrial specific and company-based variables. These were all associated with factors of tourism competitiveness and the concept was defined by a summary of each (Enright and Newton, 2004). To increase destination competitiveness, an adequate environment is required, and this can be ensured by means of supplementary factors - for instance, transport. Supplementary factors are those, which have the potential to modify the competitiveness of other factors in either a positive or negative direction. As a result of this modifying role, these factors are limited to destinations in respect of attractiveness and hospitality capacity. In the model, sustainability plays an important role, although Crouch and Ritchie do not interpret this as an economic or ecological phenomenon, but, rather, from a social and cultural point of view. The key to competitiveness is *complex tourism destination management*, which involves all of those factors which enable tourists to enjoy the attractions of the area. The most important novelty in the Crouch-Ritchie model – apart from their detailed elaboration – is the fact that the policy which is responsible for image framing and for the popularization of a destination is not a separate pillar, but *was indirectly built into the calculated micro-factors*

The second model in chronological order is *Go and Govers's* (2000) theory. In their study we can differentiate seven factors, which are the main indicators of touristic competitiveness: *infrastructure, accessibility, range of services, climate and natural environment, general attractiveness, image and efficient operation*. These connections merit further consideration.

A given touristic destination can be comparable with others based on the factors mentioned above, but what happens when significantly more foreigners start to stay longer in the destination? When guests come from abroad, the role of the *exchange rate* becomes much more important. For example, a higher-quality Hungarian destination may be relatively cheap for a guest from Austria. By converting money, foreigners can enjoy advantages which will encourage their willingness to spend more (Dwyer et al., 2000). The presence of rich, foreign tourists is an important competitiveness factor, and it is no coincidence that the number of foreign guest-nights is recorded separately from the total. *The cost of services* should be adjusted to the potential guests, as *Craigwell* (2007) stated in his theory.

Based on Crouch and Ritchie's results, *Dwyer and Kim* (2003) constructed an integrated competitiveness model. Contrary to the Crouch model, this took into account demand conditions as a major factor in defining the competitiveness of a destination. The authors define the competitiveness of a destination by investigating three components: first, natural resources and general attractiveness, second, destination management's responsibilities (governmental and industrial cooperation opportunities, branding etc.) and third, the group of factors involved with actual and potential demand conditions.

The global economic crisis had a serious impact in many economic fields, including, of course, tourism. Nevertheless, there were, and especially in Hungary, some positive forecast effects of the crisis. The crisis opened new ways for general tourist flows and facilitated new trends. Environmental issues such as UV radiation and the natural environment reinforced these. Raffay (2010) opined in his study that Hungary could profit from the changes, since our baths are cheaper to run than those in the neighbouring region of Burgenland and that the quality of services provided in the most competitive Hungarian medicinal and thermal spas was excellent. Tourists have more limited funds for visiting spas, and so they stay for shorter periods or use cheaper accommodation. In this way they enjoy the services but reduce all other costs. Hence, post-crisis, more economical travel is the most important motivation and aim of people who visit Hungarian destinations.

Kayar and Kozak (2010) also built a model, but first used the results of previous authors. Their research follows resource-based theories: they examined the competitiveness of Turkey from a health tourism point of view ND, based on the WTTC⁵⁸ index (2007), they defined 13 significant factors which determine the touristic competitiveness of settlements. For instance, in their model, *political regulations, environmental regulations, safety, hygiene, human*

⁵⁸ World Travel and Tourism Council

resource management, national cultural attributes and natural resources play an important role. *Gooroochurn and Sugiyarto* (2005) in their model emphasized the importance of the social embeddedness of tourism.

Based on the above model, many studies were written in which authors tried to make use of similarities. It seems widely accepted that one of the best approaches is the study by *Armenski, Markovic, Davidovic and Jovanovic* (2011) who examined the competitiveness of Serbia in health tourism. Authors used a questionnaire based on the Dwyer-Kim model. Their paper differentiates two groups of factors: *natural and cultural resources, tourism related settlement infrastructure and their accessibility and quality*.

By way of a summary of tourism competitiveness models, the following table (Tab. 1) demonstrates the key elements of these models:

Table 1 The most important competitiveness indicators

Authors	Key of success
Poon (1993)	Central role of tourism
Crouch-Ritchie (1999)	Complex destination management
Dwyer-Forsith-Rao (2000)	Exchange rates
Go and Govers (2000)	The accessibility of establishment, efficiency
Dwyer-Kim (2003)	Natural resources and efficient destination management
Gooroochurn-Sugiyarto (2005)	Prices, social factors
Craigwell (2007)	Demand conditions
Raffay (2008)	Travel “economically”
Kayar-Kozak (2010)	Transport infrastructure
Armenski et al. (2011)	Touristic infrastructure

Source: Own construction

From the table it is clear that authors ascribe importance to different factors. The table only involves factors which are more important in one author’s models than in others or factors taken into account significantly more highly in calculating competitiveness index or position.

To determine the competitiveness position it is not enough to draw conclusions from the models; adequate methodology is necessary to engage the theoretical background. This is a huge challenge for researchers, since accessibility of the required data is extremely limited; there are also some factors which could not be numerical variables but must be taken into

account by calculating models (Simon, 2006). Complex destination management should individually evaluate different factors – an extremely difficult part of tourism activities.

Spa Settlement Touristic Competitiveness Index (SSTCI)

In the last chapter the most important tourism destination competitiveness models were shown, based on which we define our own competitiveness index (hereinafter SSTCI). For constructing the model in the study, the touristic destination is identified as a settlement. SSTCI has *six different sub-indices*:

- I. *Touristic ratios* of the given settlements (30 indicators)
- II. *Health touristic ratios* of the given settlements (9 indicators)
- III. Settlement *infrastructure* (25 indicators)
- IV. Settlement *economy* (13 indicators)
- V. *Social attributes* of the settlement (7 indicators)
- VI. Questionnaire results from the *medicinal and thermal baths* examined (5 indicators)

By building the model we took into account the structure of the TPI (Tourism Penetration Index), a *complex* ratio measuring *the effects of tourism* (McElroy and Albuquerque 1998). The aim of TPI index is to measure socio-economic development from the perspective of tourism and the role of touristic activities. Authors clearly define their expectations against an index: it must be operated by a simple normalising scheme to be able to interpret easily, to be sufficiently comprehensive to capture major dimensions and adequate for broader use. The methodology of the model is relatively simple and clear – and so it was useful for constructing our model. Each variable was calculated only in relation to its tourism-related factor, and so, for instance, the growing number of cars due to tourism. Authors used population density, crime figures, the number of motor-vehicles per 1,000 population, waste production and the annual rate of deforestation to measure the effects of tourism on the social and natural environment. For our model, the structure, the different levels (index, sub-indices, variables) was the key. Based on the logic of TPI and the literature for our topic, we calculated our own index with the help of the distance method with the following formula:

$$\mathbf{T} = \mathbf{X}/\mathbf{X}_{\max}$$

T = The final value of a given sub-index at a settlement

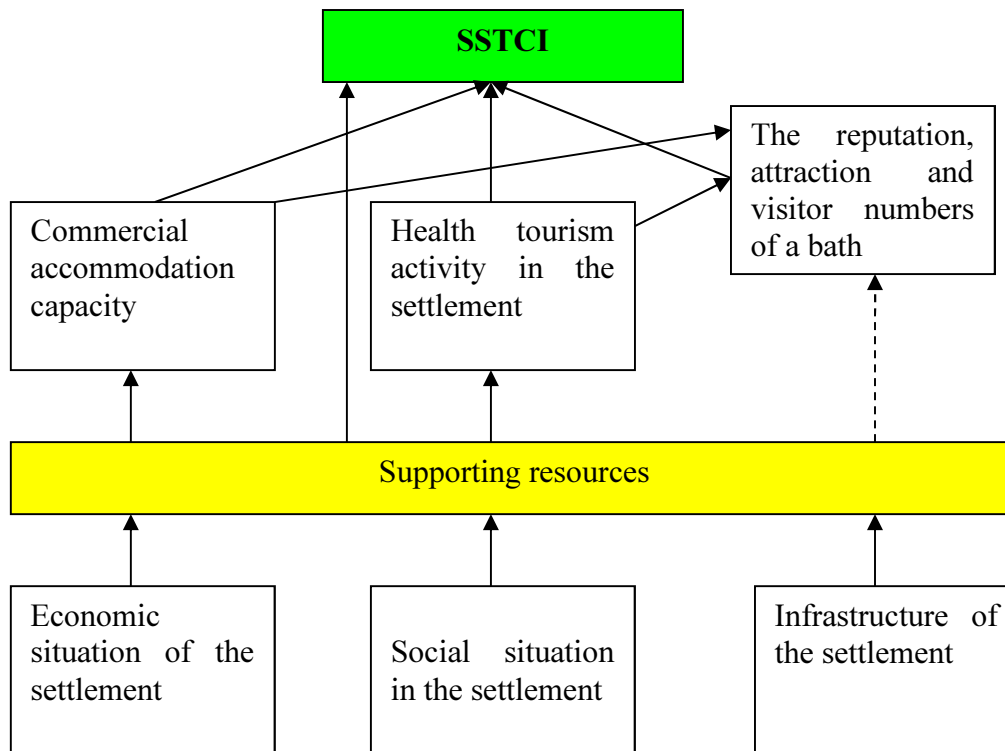
X = The original sub-index value at a given settlement

X_{max} = The maximum value of the sub-index between all of the settlements

Examining the logic of SSTCI the correspondence of sub-indices and indicators is most important, and so those settlements are the most competitive which are consistent from all of the points of view examined and not those with overhanging results. In order to vindicate the effects of all results, sub-indices had to be standardized. As a result, the values of the sub-indices were between 0 and 1. We had to take care, since some indicators had converse scales. For instance, for the unemployment rate, the lowest value was best, whilst for the number of tourist nights, the highest was so. We had to standardize the scales also. We calculated the value of each sub-index based on weights derived from our factor analysis. At first approach, only one factor was taken into account - that which had the highest R^2 value, since this seemed a perfect tool for decreasing the number of variables analysed. However, there were some variables, which are extremely important, especially for the touristic sub-index – for instance, the average length of stay – which were out of the model as a result of this selection process. This was totally contrary to theory and practice, and so we decided to exclude variables based on the literature. The other reason for changing the logic of this task was that, by factor analysis at social and tourism sub-indices, we lost more than 45% variance explained. Hence, after a re-evaluation of variables, a new factor analysis was run. Technical details will be discussed in the paper by featuring the sub-indices. SSTCI was calculated as the simple arithmetic average of the 6 sub-indices:

$$\text{SSTCI} = (\mathbf{T}_{\text{tour.}} + \mathbf{T}_{\text{healtht.}} + \mathbf{T}_{\text{infrastruc.}} + \mathbf{T}_{\text{eco}} + \mathbf{T}_{\text{soc.}} + \mathbf{T}_{\text{spa}}) / 6$$

By building up the model we thought that tourism could not determine the competitiveness of settlements, but that it could modify the economic and social infrastructure position of settlements. Health tourism is a special segment of tourism based on medicinal and thermal baths and so has a special role in the economic life of settlements. The following chart (*Chart 2*) demonstrates the main components of our model and the correspondence between them:

Figure 2 The structure of SSTCI

Source: Own construction

It is clear that the ratios can be grouped into two sections: on the one hand, the economic, social and infrastructural figures are decisive for calculating the general competitiveness of a settlement, whilst, on the other hand, health tourism is capable of changing its potential. By building up a competitiveness index, the first three factors must be considered as supporting resources, which provide an adequate environment for tourism. The touristic ratios of settlements (mainly the supply of commercial accommodation places and their bed occupancy), the health touristic supply and medicinal and thermal baths are the factors which can discriminate SSTCI from other settlement competitiveness models. We used data from 2011 and 2012 for the analysis.

Within each sub-index, the different variables were taken into account with different weights, and we calculated the weights with the help of factor analysis, choosing the highest value for each variable as the weight from the Rotated Component Matrix.

The first group of figures involves the touristic ratios of settlements. These relate to *tourist arrivals* (the number of arrivals, the number of guest nights, the average length of stay). Foreign tourist arrivals are differentiated. Other figures measure *commercial accommodation places*, bed occupancy, revenues etc. Factor analysis revealed 6 factors and the total variance

explained is 85.19 % (KMO-criteria⁵⁹: 0.453, Bartlett-test: 3276.34, p-value 0.00). Based on KMO criteria, this group is not proper from the methodology point of view, but on the significance of the Bartlett test we accepted the analysis. Furthermore, the communalities exceed 0.8.⁶⁰

The second sub-index examines a more specific dimension – the *health tourism potential* of settlements. The figures are the same as in the first sub-index, but restricted to *medical conditions*. These variables are the most specific elements of our model; they are not part of general settlement competitiveness, and operating a medical hotel is unique. These figures made the biggest differences among the settlements examined. Only one factor was constructed, which explained 89.82% of total variance. The applicable terms of factor analysis were fulfilled.

The third sub-index (which is strongly related to general settlement competitiveness) is the *infrastructural asset value of a settlement*, was based on a number of variables. Those figures which measure the *life quality(QoL) of inhabitants* play an important role in the analysis – for instance, the level of public works, the relative size of green areas, the transport network, the number of internet-using households. Three factors explained 83.53% of the total variance (KMO 0.739, Bartlett test 1922.44, p – value 0.00).

The next sub-index deals with the *economic performance* of settlements. In the first two chapters I demonstrated the most important models and relationships between the economic potential and the QoL of residents. In order to evaluate the economic performance of a settlement it is necessary to calculate the level of *locally generated income*. We examined local tax revenue, the number of *job seekers* and also the age distribution of inhabitants. These figures could be grouped into three factors (Total variance explained 76.69%, KMO 0.685, Bartlett test 613.48, p-value 0.00).

The level of *social care* was also examined and built into the model, as the fifth sub-index. The sub-index involves the level of potential social treatment at the settlements. Based on the logic of the TPI index, we also examined the *safety* of settlements. The variables are dissolved into two factors with the applicable terms of factor analysis fulfilled (KMO 0.705, Bartlett test: 217.75, p – value 0.00).

The sixth group contains five figures from our own questionnaire. Research was carried out between the 18th and 28th of February, 2013, with the help of telephone interviews

⁵⁹ “KMO-criterion is one of the most important index-numbers in deciding whether the examined variables are suitable for factor analysis or not.” (Sajtos and Mitev, 2006, 258.).

⁶⁰ ‘Communalities show the variance of original variables explained by the new, technical variables.’ (Sajtos and Mitev, 2006, 402.)

(CATI). The respondents were drawn from the adult population (over 18) and were selected by quota sampling, representative of the Hungarian population's age and gender distribution. Our examined sample comprised 1,000 Hungarians from the whole country. The aim of the questionnaire was to examine those factors most relevant to the destination-selecting decisions of tourists. The questionnaire has three different parts: the first deals with the frequency of visiting medicinal and thermal spas, the second with the factors themselves and the required services and the third with satisfaction measurement. For this index, variables were calculated from the first part of the questionnaire, whilst other parts are still under investigation, with their results to be published in the near future. We built into the composite index those figures from the questionnaire which dealt with *reputation and visitor numbers, together with the willingness to visit*, and so we can estimate the potential number of visitors and *monitor the trends* read in the literature. The results produced by the questionnaire could be built in two different factors, with the total explained variance being 76.97%, KMO 0.56, a Bartlett test 75.93, p – value 0.00.

The following table (Tab. 2) demonstrates the results:

Table 2 Settlement ranking by both composite and at sub-index level

Ranking	Settlement	Tourism	Healthtour.	Infrastruc.	Economic	Social	Bath
1	Zalakaros	1	1	25	17	13	3
2	Hévíz	1	1	23	8	37	1
3	Bük	3	3	26	10	25	1
4	Győr	15	41	1	1	17	13
5	Szombathely	25	41	5	1	15	35
6	Zalaegerszeg	28	41	1	3	16	9
7	Kaposvár	30	41	3	5	22	18
8	Sopron	11	41	4	4	35	17
9	Harkány	6	4	12	15	19	6
10	Sárvár	5	5	14	7	27	5
11	Kehidakustány	7	41	37	31	5	4
12	Lenti	19	41	19	21	3	16
13	Celldömök	26	41	13	12	7	15
14	Mosonmagyaróvár	12	41	6	6	34	24
15	Nagyatád	16	41	10	18	10	25
16	Bázakerettye	14	41	33	33	1	36
17	Vasvár	36	41	29	27	1	38
18	Kapuvár	17	41	15	19	9	26
19	Zalaszentgrót	27	41	24	26	8	10
20	Gelse	41	41	34	38	4	29
21	Marcali	22	41	17	14	11	23
22	Igal	18	41	27	29	12	7
23	Barcs	23	41	8	23	18	28

Table 2 (continued)

Ranking	Settlement	Tourism	Healthtour.	Infrastruc.	Economic	Social	Bath
24	Letenye	37	41	28	28	6	34
25	<i>Szigetvár</i>	<i>31</i>	<i>41</i>	7	<i>16</i>	<i>31</i>	<i>19</i>
26	Szentgotthárd	10	41	22	9	21	21
27	<i>Mohács</i>	<i>24</i>	<i>41</i>	9	<i>11</i>	<i>30</i>	<i>30</i>
28	<i>Dombóvár</i>	<i>21</i>	<i>41</i>	<i>11</i>	<i>13</i>	<i>32</i>	<i>12</i>
29	<i>Siklós</i>	<i>33</i>	<i>41</i>	<i>16</i>	<i>25</i>	<i>28</i>	<i>11</i>
30	Lipót	8	41	39	34	24	8
31	<i>Tamási</i>	<i>34</i>	<i>41</i>	<i>20</i>	<i>24</i>	<i>26</i>	<i>20</i>
32	Csorna	32	41	18	20	23	31
33	<i>Csokonyavisonta</i>	<i>13</i>	<i>41</i>	<i>30</i>	<i>36</i>	<i>20</i>	<i>32</i>
34	Hegykö	4	41	35	30	38	27
35	<i>Dunaföldvár</i>	<i>39</i>	<i>41</i>	<i>21</i>	<i>22</i>	<i>33</i>	<i>37</i>
36	Mesteri	35	41	40	40	29	33
37	<i>Szulok</i>	<i>38</i>	<i>41</i>	<i>38</i>	<i>41</i>	<i>14</i>	<i>40</i>
38	Borgáta	9	41	36	37	39	22
39	<i>Magyarhertelend</i>	<i>29</i>	<i>41</i>	<i>41</i>	<i>39</i>	<i>40</i>	<i>14</i>
40	<i>Babócsa</i>	<i>40</i>	<i>41</i>	<i>32</i>	<i>35</i>	<i>36</i>	<i>41</i>
41	<i>Buzsák</i>	<i>20</i>	<i>41</i>	<i>31</i>	<i>32</i>	<i>41</i>	<i>39</i>

Source: Own construction

The table above shows the ranking of all 41 settlements from the two selected Hungarian regions based on SSTCI. (*In italics are the settlements from the less developed region, South Transdanubia.*) The first column shows composite rankings and those following the names of settlements show rankings within each sub-index. It is clear that regional differences are significant. On the basis of the sub-indices, the correct handling of extreme values was most important. To fulfil this, we used 97.5% capping at sub-index level – necessitated mainly by the first two sub-indices, where Hévíz, Bük and Zalakaros had extremely high figures. 97.5% capping means that, for instance, in the first sub-index, Hévíz gained first position with an extremely high value, and so, targeting normal distribution, we decreased Hévíz's sub-index value to the level of the second settlement – Zalakaros – and did the same by each sub-index.

It is clear that, in the *state of development of the top 3 settlements, tourism plays an important role*, since tourism, health tourism and bath sub-indices have extremely high average values with a very unremarkable standard deviation. In the 100-point scale the top 3 settlements – Zalakaros, Hévíz and Bük – have in the tourism sub-index 97.42 points, but the *bath sub-index point* is even higher (99.67) - *almost maximum level*. The social sub-index level is moderate (in this sub-index Zalakaros has position 13, Bük 25 and Hévíz 37). Further, *the economic and infrastructural factors have very low values*. Our expectations for the future show that the *positive extern effects of tourism can be seen firstly in these settlements from our sample*, since, under Hungarian circumstances, these 3 settlements have significant

health touristic potential and tourism has a huge role in the local economy on a demand-pull basis (Poon, 1994). It is important to note that the ranking of the 3 settlements may at first be surprising. Zalakaros is much better in social figures and the advantage of Hévíz in touristic potential was eliminated with the capping.

The model is based on general settlement competitiveness also. The bigger towns of the two regions are between positions 4 and 8 as a result of their size, but their touristic indicators are low. They provide no specific health touristic services, and so the value of the second sub-index is 0. As a result of the size of these towns, the infrastructural and economic sub-indices have an extremely high value, and they occupy the top 5 positions. Social indicators are similar to those of the previous group. Visitor numbers and the reputation of the baths are relatively good, excluding Szombathely. This is interesting, since the touristic attractiveness of these towns is not only the medicinal and thermal spas; there are other, mainly cultural, touristic attractions in the towns.

In positions 9, 10 and 11 there are three settlements – Harkány, Sárvár, Kehidakustány - which have baths with very good reputations and visitor numbers. It is interesting to note that Igal is 7th in the bath sub-index. In respect of the other figures, Igal lags significantly behind the other three settlements.

Hegykő has an interesting position. *Hegykő* holds only position 34 in SSTCI, but the touristic sub-index of this village was 4th (!), immediately ~~behind~~ after Bük, Hévíz and Zalakaros. *Hegykő* has a wide range of commercial accommodation, particularly in relation to the size of the village; many foreign tourists visit the bath and so bed occupancy is very good also. SSTCI could not handle the unique situation of *Hegykő*, since in the bath sub-index the opinions of foreigners were not recorded. (To date this is the greatest problem in building the model). Moreover, the other sub-index values of *Hegykő*, such as the infrastructure and the local economy, are very weak.

CONCLUSION

The paper analyzed the competitiveness of settlements in general and specifically from the tourism point of view based on a sample of settlements from two Hungarian regions and which operate medicinal or thermal baths. With the help of a literature review, we could build up our own model SSTCI within the framework of the OTKA project No. 106283.

The main goal of the paper was fulfilled by constructing the model, which, whilst starting with general settlement competitiveness, then emphasises bath-related features due to the

research focus. The spillover effects of tourism are visible in those settlements which are on the top 3 positions, Zalakaros, Hévíz and Bük. In these, where the bath has a relatively good reputation and visitor numbers, a marketing-based development concept is suggested. For those settlements which have a limited infrastructure in relevant areas, such as an adequate supply of quality accommodation, ~~then~~ the lack of such specific development needs to be addressed. Settlements on the last 10 places – excluding Hegykő - have huge problems and it may be that their baths have no future and simply face closure.

To summarize the current state of touristic competitiveness of the investigated settlements, the **regional differences** in bath-related figures are clearly visible. This is also true of social, infrastructural and economical figures, but this was not the only focus of the study. Only 2 settlements are in the top 10 – Kaposvár (7th) and Harkány (9th) – from South Transdanubia. Moreover, Kaposvár is only in position 7 as a result of the economic and infrastructural potential. The size of settlement was a decisive factor. The model tries to avoid rankings based on settlement size by using a mixture of absolute figures and “per 1000 capita” variables, but the towns are significantly more competitive than villages.

Settlements are in a different situation - which can be examined as a further aim. In order to increase the competitiveness of a settlement, those indicators must be developed which belonging to the weakest sub-index.

Taking into account the sixth sub-index, the reputations of baths were not significantly different within the second half of the settlements, and, indeed, some spas have no personal face or image. In order to maximise the positive effects of tourism, baths should *elaborate more unique services, and specialization is necessary*. ‘Cooperation’ and ‘Competing together’ should be the slogans of future spa development, even though, unfortunately, today’s version of the entrepreneurial culture limits the willingness to cooperate.

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POTENTIALS OF LOCAL ECONOMIC DEVELOPMENT IN ASPECT OF TOURISM

A HELYI GAZDASÁGFEJLESZTÉS LEHETŐSÉGEI A TURIZMUS TÜKRÉBEN

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Abstract

The objective of the study is to introduce the potentials of local economic development in one of the least favoured micro regions, Tamási. The paper examines operating and planned activities at settlements of the micro region. The authors introduce local economic development activities that support tourism. The economic development planning in Tamási micro region has typically two directions. One of them is the utilisation of thermal water and the use of further potentials of the thermal bath (Ability), such as to achieve tourism destination function in Hungary. Secondly, the local government aims to sell its fruits and vegetables produced in the frame of public employment programme for local market and institutions. The supply of local population has got in focus because of current external opportunities (or force?) in the settlements being traditionally agricultural area. The objective is to join the local tourism attractions and destinations with other existing local developments, which is hold back by the owners of developments. The authors – by keeping in mind local conditions and endogenous resources – define recommendations for settlements to be able to create a well-organised framework of local economic development.

Keywords: local economic development, disadvantages micro region, micro region

Kivonat

A tanulmány célja a helyi gazdaságfejlesztés lehetőségeinek bemutatása a Tamási járásban, mely az ország egyik leghátrányosabb helyzetű kistérsége, vizsgálva egyrészt a már működő és a tervezett tevékenységeket települési szinten. A tanulmány a helyi gazdaságfejlesztés keretein belül megvalósuló, turizmust támogató tevékenységek bemutatására vállalkozik. A Tamási járás gazdaságfejlesztési elképzelései között többnyire két irány szerepel. Egyik a termásvíz hasznosítása, az erre épített termálfürdőben (Ability fürdő) rejlő további potenciál kiaknázása, turisztikai desztinációként való elhelyezése az ország térképén; valamint az önkormányzati tulajdonban lévő, közfoglalkoztatás keretében megművelt földterületen termelt gyümölcsök és zöldségek helyi piacon, helyi intézményekben való felhasználása. A tradicionálisan mezőgazdasági jellegű járás települései külső lehetőség (vagy kényszer?) hatására kezdtek ismételten a helyi lakosság ellátására berendezkedni. A helyben fellelhető, turistacsalogató desztinációk összekötése a cél a helyi gazdaságfejlesztés egyéb, meglévő fejlesztéseivel, melyet akadályoz az eltérő tulajdonosi kör. A szerzők – figyelembe véve a helyi adottságokat és az endogén forrásokat – javaslatokat fogalmaznak meg a gazdaságfejlesztés szervezett kereteinek megteremtése céljából.

Kulcsszavak: helyi gazdaságfejlesztés, hátrányos helyzetű kistérség, kistérség

INTRODUCTION – REGIONAL PROGRAMS WITH PARTICIPATION OF HIGHER EDUCATIONAL INSTITUTE

The authors like the former lecturers of Kaposvár University joined the programme of partnership of higher education and micro regions in Hungary being called by the former National Development Agency (NDA) and the Hungarian Tourism and Area Development Public Benefit Organisation (MITE). (Herczeg–Németh, 2010)

The research addressed the identification of internal resources of the most disadvantages micro regions, analysed the utilization of these resources and defined development needs. The potential breaking points of Tamási micro region's local development were analysed, and the necessities were defined. Further on, the local economic development activities and needs were researched in order to reveal the driver factors of implementation. In the course of the project, three different research camps were organised to carry out the researches in Tamási micro region (22-24. September 2011; 14-15. November 2011; 27-29. March 2012). During the research project, the planned and ongoing local economic development initiatives were collected; among them we defined those that have potential at settlement level or at micro regional level. The literature of local economic development defines five classic areas (local product, local money, development of SMEs, utilization of green energy, social economy) (Czene–Ricz, 2010), out of them all were found with the exception of local money. The current study focuses the effect of local development activities on tourism. In 2013, the researches revealed the implemented ideas as well as defined those that were modified or not been implemented in the economic development programme. The projects were followed in 2014-2015.

The main objective of the program was to transfer the knowledge generated at Kaposvár University to the actors of local development; as well as the academic staff gained knowledge and experience in the management of the life and economy of a region. In addition, the project also gave place to analyse the position of higher education institutions in knowledge generation and rural development.

Research area

The South-Transdanubian region surrounded by Lake Balaton and the rivers Danube and Drava, where Tamási micro region is situated has highly varying landscape. The region has a share of 15% of the total area of Hungary, with 14 169 km². It is the third most wooded area of the country. Out of 22 historic wine regions of Hungary 5 ones can be found here.

(Czuppon 2005) 7 out of the 33 most disadvantaged micro regions can be found in this region. These are the micro regions of Csurgó, Barcs, Szigetvár, Sásd, Tamási, Kadarkút, Lengyeltóti.

Definitions of local economic development

Now we are going to present you with the most important and determining points and ideas from a national aspect in the local economic development topic. We did not think it necessary to give an international overview, since we present you with an economic development, which was realized through a unique national example, and which cannot be compared with any international specialized literature known to the authors. Nonetheless we would like to note that having a thorough knowledge of international specialized literature is indispensable to every expert dealing with local economy, no matter which country they live.

The concept of local economic development (LED) indicates a very complex process. During the process the committed local assigns, adjusting to the endowment of the settlement choose from the possible development tools in order to make maximum use of opportunities in the region. It is not easy to define it because as many settlements, as many people, there are as many ways of developing, running, and operating local economies. According to Mezei local economy development is a conscious interference into the life of local economy, which makes use of inner / outer resources, and whose key initiators are local assigns, who appear either as initiators or as acceptors, supporters, and creators of outer development ideas. (Mezei, 2006.) Beyond all these Mrs. Szilágyi's definition mentions the occurrence of quality changes in the lives of residents, such as the extension of employment, solution to social problems among the aims to be achieved. (Szilágyiné, 2013.)

According to Mészáros's accurate and comprehensive definition local economy development is a process controlled by the community, which is initiated by local communities ready to reform, and which is based on local resources and provisions beyond them, and which keeps their outflow in proportion. It attracts outer resources to strengthen the inner ones, and it is based on the equal participation of different social groups, and it promotes the wellbeing of the community. The process does not bring spectacular results, but with the multiplication of activities it results in the decrease in unemployment and migration, in the increase of incomes, as well as in the strengthening of communal values, solidarity and identity. (Mészáros, 2013) Czene and his co-authors' definition – which was published in the Regional Development booklets, and which is the basis of local economy development – is a conscious local communal intervention into economic processes in order to maintain sustainable local development. Any intervention can be considered local economy

development, which – by the modification of any component of local economy or the whole of local economy, or/and by the inclusion of a formerly missing component, or/and by the revival of unexploited components – improves one or more characteristics of local economy (efficiency, profitability, quality of products/services, employment, sustainability of the system). The authors highlight that the development of local economy is not just local, but refers to any development, which takes local interests into consideration and intends to improve local markets, local enterprises, and local demands. (Czene and his co-authors, 2010)

As we interpret it the aim of local economy development is to develop and give swing to economies, which can be found locally, to create the frames of sustainable local development, to operate them preferably without outer/governmental support, to include wider social groups, who would be active participants. Among the aims local inner values, such as the protection of natural, cultural and economic values have to be included. The efficiency of local economy development does not depend only on the expansion of production and competitiveness but far more on the commitment of locals, their willingness to do something, and their ability to protect their values.

The range of participants in local economy development is very wide, including the local governmental sector, the business sphere, knowledge transfer institutions, development agencies. Lengyel's listing points out that local economy development is not only local people's duty, but more extensive and integrated ideas are necessary to achieve successful development. However, locals are left out from this listing, though these tasks are theirs. Furthermore, there are no knowledge transfer institutions in these places. Since the listing originates from a study, written in 2010, it includes development agencies and not county governments.

The five classic tools of local economy development are local products, local currency (Local Exchange Trading System), local alternative energy, autonomous small local communal energy supply, local development of micro-, small- and medium-sized enterprises, and social economy. (Czene and his co-authors, 2010). The strategic aim of local economy development is to embrace local products, to ensure the conditions of local processing and sales, to urge renewable energy production, to widen rural tourism, to keep artisan traditions, and to build social economy.

According to Czene and his co-authors the stimulation to produce local products serves the provision of the region's population, but the interferences can also aim at the development of marketable products and the increase of their quantity. In order to do so it is necessary to take

local facilities and traditions into consideration, as well as to explore local values, and also to make value cadastres and inventories. (Czene and co-authors, 2010)

Based on these ideas, a micro regional partnership program was launched, which included the exploration of regional values and also made an inventory of them.

OBJECTIVES AND METHODS:

LHH-Micro region partnership

In order to develop the 33 most disadvantaged regions the government of the time created a program, which was named “complex development program of the most disadvantaged micro regions”. During the planning and implementation process of the development program it became clear that the micro regions concerned can be supported significantly not only with a more flexible way of getting development funds but also with supporting the building of interconnections in connection with settlement- and regional-development. Within the LHH Program the large-scale migration of qualified experts cannot be stopped, it can only be decreased. According to the hypothesis of MITE Association and the LHH Development Program Office of NDA a program, whose aim is to build partnership between higher education institutions and disadvantaged regions might result in the strengthening of professional relations in connection with settlement- and regional development.

Between 2009 and 2011 the MITE Workshop contacted several Universities with the intention to integrate them in a partnership programme, which had been unprecedented in Hungary. The call was – on the one hand – for micro regions and institutions, enterprises running micro regions, and on the other hand for higher education institutions, faculties, and departments, who were ready to form a long-distance co-operation with any of the most disadvantaged regions.

Only a few Universities joined this programme, since they did not get any financial support, we could pay only for the expenses of the camp, such as accommodation and catering. The following partnerships developed:

1. Encs micro region – Corvinus University of Budapest;
2. Berettyóújfalu micro region – University of Debrecen;
3. Abaúj-Hegyköz micro region – Eszterházy Károly University of Applied Sciences;
4. Lengyeltóti micro region – ELTE Faculty of Science;
5. Csenger micro region – ELTE Faculty of Social Sciences;

6. Tamási micro region – Kaposvár University faculty of Pedagogy and Economic Science;
7. Szikszó micro region – University of Miskolc. (<http://mitemuhely.hu/lhh/a-program,34.html>)

In the course of the project supported by the former National Development Agency, the settlements of Tamási micro region were researched by students and lecturers from Kaposvár University. The research started with twenty-five students and 4-5 teachers partook in the three research camps. The students could get to know the settlements involved before the field exercise, since every participant had to prepare a presentation on a settlement based on a specified economic, social and environmental criteria. They made their presentations in front of the others, therefore each student was informed about each settlement. The sampling was based on the snowball method, since with the help of this method it was possible to search values, people and events, which had been unheard of. The inhabitants of the 29 settlements (out of 32) of the region were surveyed in 4 days by teams of 4-5 students with accompanying teacher each year; we carried out interviews with those, who have done something useful to their communities. The communities keep record of good farmers, good craftsmen, good tradesmen, and individuals, who are able to build strong communities. In each case, firstly the leaders of the settlement were interviewed (mayors and notaries), and they advised the first people to visit in the settlement. There were 12-15 interviews carried out with local people a day. The research covered enterprises and individuals involved in tourism, too. The researchers tried to reveal the potentials of LED programs, activities in local tourism.

We paid special attention to the professional materials and preliminary surveys carried out by the NDA in the topic of tourism in the most disadvantaged regions. The NDA introduces the tourism offers of the Program Office as follows: The content of the concept “fair-seeming tourism” is not widely known in the country, it can be defined as a consciously chosen type of travelling, during which visitors contribute to the economic growth of a disadvantaged region by paying for their accommodation, buying their meals and paying for their entrance fees there. *In the most disadvantaged regions of Hungary there is plenty to see, there are national parks, medieval castles, various natural phenomena, Árpád-era temples, historic wine regions and so on.*“ (http://palyazat.gov.hu/lhh_turizmus)

The idea was good but a few things were not given to realize it. First of all, initiatives coming from below lacked proper financial support, calling-off funds was not fluent, payments did not take place on time, project ideas were not realized, holding capacity of

locals was insufficient, there were no accommodation possibilities or restaurants – the program could not be continued because the LHH Program (The most disadvantaged region Program) turned to a political battlefield and had to be ceased.

It has been proved that rural tourism is a complementary activity of other jobs in most cases; it can be breaking point only in a small number of settlements. In the region, there are various forms of tourism catchable from spa to rural accommodation. Majority of the settlements is rich in natural values, such as beautiful and peaceful landscape, forests with wildlife, built historical relics from various ages. Among local or settlement level economic development plans, the development of tourism has always been rated high. Nevertheless, food and non-food produce of local economic development activities may ground effectively the development of tourism destination in a certain region.

PUBLIC JOBS – OPPORTUNITY OR FORCE?

One of the most important goals of research camps was to search and make an inventory of local products. These products function mostly through programs, which were realized due to governmental support. The results are presented below.

Vegetable and fruit has been produced in the settlements of Tamási micro region in the frame of the former “Sorsfordító-Sorsformáló” programme and Start Job Program started in October 2011; which is acknowledged by both the inhabitants and the leaders of the settlements. Public job program START included seven work programmes in 2012, such as agricultural work, inland excess water management, dirt road management, development of public roads, elimination of illegal waste deposits. Also the alternative heating program went on, generally it supported the setup of new alternative heating, while the necessary material to burn was provided by the settlement itself during the agricultural program. In 2013, the work program has an eighth, local specific program, which was assigned to define and plan the settlement’s fundamental development projects – these could be providing rural accommodations, building renovation, or other. The project must be cost effective and is supported if the economic aims are met. This program based on local needs is a brand-new element in the public job program, which has not been included earlier.

The local economic development of Tamási micro region is thus carried out within the frame of this program. The authors earlier studies (Csajka–Czuppon, 2013) revealed that the region is rich in local food and non-food produce as well as a number of services and non-material attraction is available here; although the classic local economic development model

has many lacks, because the local leaders and actors did not define such an activity, neither they think of their products or activities in this context. Nevertheless, the germs of LED can be obviously seen in the region, which were grounded by the former “Sorsfordító-Sorsformáló” programme, further on the START Job, and then the Public Job Program carried it, especially the agricultural work sub module. These programs provide excellent base to start LED, if the local actors recognise that their activity belong to LED and are able to do it in cooperation with each other, along harmonised principles, as well as they learn that on the long term, the partaking of the government is not sustainable. (Kovács 2007)

A so called Green Apple House (GAH) was planned to establish in Tamási, which serves as retail centre of not only the local production but the coming from other settlements in the micro region. The store opened on 18th December 2014 named Tamási Region Produce and was financed by EU programmes (39.9 million HUF). (The authors have been researched the implementation of development programmes in the region: Kovács–Czuppon, 2008). A retail chain based on GAH could support the demand and supply which is at this time only based on local production of inhabitants or the municipality (Tab. 1).

Table 1 Products delivered to GAH by settlements

Settlement	Product delivered
<u>Bonyhád</u>	wafers, sweets
Dúzs	vine
<u>Fadd</u>	cooking oil, food seasoning, paleo products
Gyönk	vine
Hőgyész	vine, dry pastry
<u>Kaposvár</u>	vegetable, fruits
<u>Lengyel</u>	juice
Nagyszokoly Municipality	pickled vegetables, jam
Tamási	vegetable, ground red pepper, smoked meat products, cheese, cheese products, honey, jam, vine
Udvari Municipality	pickled vegetable, jam, canned fruit, vegetable
Varsád Municipality	lavender

Source: Own construction based on information from Tamási Regional Product store, 2015. (settlements not belonging to the micro region are underlined)

This store and the well managed retailing of local products enable to select in those local products which are most sellable, most demanded and offer higher profit – and these products can be considered as local branded product in the market. Branded products have better

market positions and can be sold at better price. Besides raw materials of food further products need to be considered within few years of the start of the store. Such products can be non-food produce of local people, which were researched in the course of field studies of research camps. Joining local food and non-food products with festivals other events could increase both the number of tourists and the days they spent.

As the above table shows, products are delivered by not only the actors of micro region. Small number of local producers can supply continuously their products at an even quality. In the course of the interview with the store manager it was found that more products would be available in the region if their producers were invoiceable. Ten percent of the suppliers offered their produce as early as they learned about the opening of the store but the majority was asked for by the store manager.

In the course of the interview with one of the biggest suppliers we learned that the store is a very good option for primary producers, and takes over the task of marketing. It is although a problem that the store and the primary producer are differently subject to VAT, therefore the local products will be more expensive in the store, and uncompetitive with supermarkets. According to him, the local store has no future and probably will also close as the store in Szekszárd. The reason besides uncompetitive prices is the consumers' behaviour, customs. The number of conscious consumers has not changed – despite the growing number of tourists. The tourists haven't even got information on the local produce available as they are not presented at either the shelves or the breakfast tables at the places of accommodation. According to the respondent a network of producers may contribute to the development of selling and marketing in the region as well as it could be a tourist attraction if connected with other local events. He also advised to introduce county days on the markets around the whole country. This can also promote local products and traditions.

Besides the products of public work we have found other products as well during the research camps, which are relevant for tourism. Several settlements of the region highlights tourism as a key area to be developed. Among the ideas we can find tourist attractions based on local products as well as attractions, which would be built around already existing natural, cultural, and economic values. Local products to be developed to attract tourists, and around which festivals and village days could be organised:

- striped sunflower seed (Iregszemcse);
- cifrakalács / brioche (Nagyszékely);
- pretzel-cake (Regöly);
- blue dying, wood carving (Gyönk);

- jams (pumpkin, red pepper), basket-making, rope-laying (Udvari);
- basket, goat cheese, wine, firewater (pálinka), walnut (Ozora);
- weaving (Pincehely);
- fruit, paprika (Belecska);
- manufacturing cartoon characters (Pári);
- oil extrusion, tobacco production (Dúzs);
- potcake, strudel (Mucsi),
- redcurrant (Nagyszokoly);
- home-made meat products (Simontornya).

Part of these settlements rely on travellers heading for Lake Balaton, however, most of them are avoided by the main roads, therefore they cannot expect any excess demand resulting from transit traffic.

The researchers and students created an inventory for each settlements covered by the research camps. The majority of the local values were not known even by the leaders of the settlements or organisers of local events. In the local value inventories the following were interesting for tourism; among them we highlighted the regional or national level relevant attractions.

Regional attractions:

- hunting on rich wildlife fields (Belecska, Diósberény, Kalaznó, Miszla Nagyszékely, Szakály, Tamási, Szárazd);
- Gyöng - Hőgyész Rally;
- tourist routes (Kalaznó, Kiszékely)
- hunting cottage (Keszőhidegkút, Kiszékely);
- Bio - apartments (Kiszékely);
- Baron Inkei Nándor Castle (Miszla - Art), Baron Inkei Nándor mansion (rural tourism accommodation) (Miszla);
- Tolna wine route (Nagyszékely, Nagyszokoly);
- castle museum, castle, programs (Ozora, Simontornya) – *national level*;
- Festival (Ozora) – *national/international level*;
- Golf Course (Pári);
- new-Scythian movement (Regöly);
- 4 * Hotel (Simontornya);
- rural tourism (Szakadát);
- brass band , internationally renowned (Tamasi) – *national/international level*;

- Ability spa, wellness services (Tamasi) – *national/international level*;
- Pacsmag fish ponds, rare birds (Regöly – Tamasi)

The attractive tourist products are displayed mostly on their own. At many settlements, one can find local products, which however are not available at regional level neither besides a touristic attraction (Molnár-Csajka, 2013).

DISCUSSION WITH LOCAL STAKEHOLDERS

Following the three research camps, we found it necessary to introduce the gathered results of the survey to local actors, too. The closing event of the project was held on 26th April 2012 in Tamási, where the teachers and the students introduced the results to invited mayors, notaries, and active stakeholders of the micro regions, who were all involved in the surveys. An important session of the event was the structured round table discussion, when the guests discussed their development ideas in the region with the help of a moderator. In the course of the round table discussion also challenges been identified were addressed by mayors, students and teachers. According to the answers given, one of the main results of the research camps was that the local people received a sort of X-ray picture on their region. It summarised that products, events and attractions are individually, isolated displayed. At the same time relevant human resource is needed in the work of connecting events and programs.

For all settlements, non-material values shall be kept in mind to use them as tourist attraction. Primarily we think of numerous non-tactile elements, such as traditions, public events, specific knowledge (weaving, plaiting or the series of training implemented in Tamási “Little folklore to everyone” sessions: Creating Traditional Costumes, egg painting, Woolwork, Making grillage, in Regöly, the leader of the new-Scythian movement, an amateur archaeologist Viktor Cziráki - who was granted the honour to be knight of the culture in 2015 -, handcraft market twice a year, tourist groups reception, maintenance of traditions, archery, yurt camp, zero-comfort lifestyle camp). The people interviewed did not consider non-material values as valuable products. Our inventory list brought also new ideas and generated further plans.

CONCLUSION

Thanks to a project contract between Kaposvár University and the National development Agency signed in 2011, we got an insight into the life of a disadvantaged region. The research

camps implemented resulted in inventories of hard and soft values, which were delivered to the leaders of the settlements involved in the surveys. The research teams also took part in local project development.

The aims of the research carried out, the results expected by the NDA and the MITE Workshop were to survey the inner resources of the micro region, to examine their expedience and the direction of development needs. We defined the potential breakthrough points of the micro region including tourism after significant changes and investments. Furthermore we defined that there is lack of human resources in the region and we made suggestions to offer trainings to the inhabitants of the region. We collected the local economy development ideas and possibilities. There were no suggestions only to one development tool out of the five. That is local currency. On the other four areas there are suggestions and initiatives, although they are in an early stage.

Further aims of the research are to make an inventory of the local products of the micro region, the relevant values for tourism, and all those possibilities which might contribute to the economic development of the region. The results revealed by us were sent to the regional assigns, who have already made use of our findings. The next step of utilization will be when possibilities, which are already in progress, appear in LEADER target areas. By utilizing these opportunities it will be possible to develop small settlements from a tourism aspect, to create and extend rural tourism, and to offer local products in catering and tourist receiving units.

Opportunities have been revealed which may contribute to the initiation of projects by local stakeholders. However, there are a number of various tourism attractions; the region does not have a flagship attraction. In order to create effective rural tourism, there is much to do in the field of cooperation and recognition of each other and specific human resources are needed.

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THE IMPACT OF DOMESTIC GASTRONOMIC FESTIVALS ON THE LOCAL ACCOMODATIONS

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Abstract

Food festivals are a mainstay of the festival sector and some surveys show that they currently account for 30 percent. Despite this, we know very little about this important part of event tourism, and its economic and social impacts. This study tries to show, by econometric methods, the impacts on the local economy made by food festivals – and, at the same time, the effects -of the multiplier and spillover factors.

This paper looks for some correlation between the local index-number of tourism and gastronomic festivals, using data from more than 200 events and festivals and 123 settlements. The first step in the survey was to determine two tourism factors, and this was followed by our methodological studies of these factors.

Although the summarized conclusions may not support the general opinion as can be found in the relevant literature – that is, a positive correlation between gastronomic festivals and local tourism, new research directions are revealed.

Keywords: tourism, festival-tourism, gastronomy, hospitality, econometrics, descriptive statistics

INTRODUCTION

The main objective of this study is to give some insight into the world of domestic food festivals and to understand their social and economic impacts. I would like to emphasize the importance of these special events and their role in the tourism industry, both at regional and national level. My (nearly seventeen years) experience and my studies in the field of culinary tourism, supported my conviction that gastronomy can define the competitiveness of tourism in a region or country. Areas, regions with an adequate, clearly identifiable culinary character, together, of course, with quality, differentiate themselves very effectively from their competitors.

The culinary brand, or "unique offer"⁶¹ formation, however, points much farther, because it generates results by statistical methods beyond the non-measurable soft⁶² factors.

⁶¹ Unique offer or USP. A unique sales offer to the customer, which is only available at the given place or only the given provider or producer can make available

The most effective way to present so-called 'local gastronomy' is by gastronomic festivals and events, since, for the duration of these events, the focus of the communication and all of the acts focusing on the culinary, and the statements, made in this time, are relatively exact way to demonstrate the various economic and social impacts.

The main purpose of this study to give an objective picture of the world of domestic culinary events and festivals, of their role in the tourism industry, of their multiplier⁶³ and spillover⁶⁴ effects on the economy. In this context my first and foremost task was to gather the Hungarian food festivals based on available databases, and to create a single database, which is representative, summarizes the domestic events, and contains information that may be suitable to explore the fundamental correlations related to gastronomic festivals. I aim to create a single, multi-year multi-panel database which is not only the foundation for my own research, but which can serve as a starting point for further work.

Today there is a lively international interest in understanding the impact of food and food and wine festivals on the region's economy, and on its development.

Several papers and surveys were undertaken which examined the phenomenon and the importance of the gastronomic festivals (Duarte and Yi, 2011; Erdős, 2004.; Ottenbacher and Harrington, 2011; Lee and Arcodia, 2011; Lakićević and Žarevac and Pantić, 2010.). These works basically highlight the novelty of the festival, a kind of lack of substitutes role and impact on the region's economy and society.

However, in the past few years here were fundamentally changes in the role of gastronomy in tourism. The 'self-serving sector' role is replaced gradually by destination value and attraction; also the positive image and educational impact of gastronomic festivals which can influence the long-term life of a brand is generated by agriculture. When I started to create the database to compile my work I immediately faced the problem that, in many cases, there is no single concept of such festivals in the literature.

However there are many interpretation of the concept of festivals, eg Häusserman 1993. In: Kundi (2012), Harris and Howard (1996), Vrettos (2009), all of these authors agreeing more or less, that it is essential that there are marked boundaries to the "festival", preventing the

⁶² In my paper and during my work I refer to factors as 'soft' if they are not necessarily based on explicitly discernible facts, but rather on experiences and intuition.

⁶³ 'Touristic multiplier' means the relationship of how much total income a unit of spending in tourism generates in the economy. This is a spiralling effect with a final consequence of greater economic activity. The income multiplier can essentially be captured within direct spending by the salaries paid to employees and their spending, but there are other multipliers as well among which production stands out, which is the stimulating effect of a unit of spending in tourism to the rate of economic production." (Michalkó 2004: 209)

⁶⁴ Spillover is not a market transaction, so there is no contractual relationship between the sending and receiving entity; the phenomenon itself arises as an externality. (Meyer, 2004)

devaluation of the word 'festival' (Kundi, 2012). This is all the more important, because data can be collected, and empirical studies can be conducted on this basis.

Currently, the most important objective was to make the largest possible number of samples, and so I used the wider interpretation of the concept - hence the 'multi-day' and 'regular' were not a concern. I consider it appropriate to analyse the "one-day" events as well - whether designation - because they have also culinary purposes, are also periodic events, and as additional program elements can impact on tourism of the region. Based on this interpretation I consider all festival or event as a „gastronomic festival”, where the focus is on a kind of agricultural crop (eg. pumpkin, cherry, apple...), on a kind of food (eg. fish soup, aspic, dödölle – special potato dish...), on a kind of food product (eg. ham, sausage, cheese, wine, palinka...), or on special traditional food producer craft (eg. pigsticker, baker...). In general, these groups are the main types of the gastronomic festival.

Summarizing all the information and data in one definition, culinary festival can be considered every one or multi-day events, that is organized regularly time to time, its main objective of the local gastronomy and agricultural raw materials and crops presentation. It has four different types, depending on what its main focus is.

FESTIVALS BASED ON GASTRONOMY

Economic multiplier

When examining the economic, multiplier and external effects related to festivals, it seemed sensible to review the effects of the whole, including tourism and the entire industry. What I read and experienced helped me a great deal in gaining a more accurate picture of the direct results and consequences of festivals.

However, all authors were in agreement that it is a "highly complex issue..." (Michalkó, 2012; Kundi, 2012; Bolgár, Saayman and Rossouw, 2010; Hunyadi et al., 2006; Puczkó, 1999), and cannot be measured simply on the basis of direct economic figures, approaching it from one direction (ticket income, multiplying the amount of money sent in by each person on average – established using questionnaire survey – with the number of visitors) (Saayman and Rossouw, 2010). Their impact, just as that of tourism, is much more complex, starting from the effect they have on the current balance of payments, GDP, rate of employment (Michalkó, 2012) and tax payments (Saayman and Rossouw, 2010) through socio-cultural externals

(Kundi 2012) and effects on nature (Putzkó,1999) which all have values that can be defined indirectly in money terms⁶⁵.

If you simply try to specify the direct costs of festivals, then you can easily draw the conclusion that the cost side is relatively easy to define; infrastructural conditions, performers, organisers, security, medical duty... – "As opposed to a cost side relatively easy to overview, translating income into numbers is, as you can see from the above list, is much more difficult." (Hunyadi et al., 2006), which approach however would show a quite one-sided picture, since it would not take into account the negative external effects paid by the community. If you translate both factors into numbers, and compare them with the direct economic results of festivals, i.e. ticket sales, then the conclusion is that "many festivals are loss-generating, and this is why such events need public funding..." (Smith, 2009; Hunyadi et al., 2006). A loss-generating operation however can often be traced back to great number of festival organisers who do not take into consideration other sources, e.g. rents, income from commerce, etc. (Hunyadi et al., 2006).

Kundi as well draws attention to the high costs and indirect returns of festivals by saying that "Festivals (and related events) cost a lot and are rarely organised to gain direct economic benefits from them. The majority of these festivals are loss-generating "at an operational level", thus require large amounts of typically "public funding". However, he immediately adds that "It is obvious however that festivals directly or indirectly contribute a lot to the stimulation of the economy in an extremely wide scale." (Hunyadi et al 2006, p. 27).

The biggest problem with measuring economic effects within the country is that KSH (Central Statistical Office) does not collect data regarding festivals, since this activity was not classified into TEÁOR 08 independently; thus the extent of the employment of organisers (which could be measured in each industry and for each activity) cannot be seen. (Kundi, 2012)

In parallel with the increase in the number and gravity of festivals, attempts to measure economic, multiplier and spillover effects also become more frequent:

- the role of the employment multiplier
- based on enjoyment economy⁶⁶ (Kundi, 2012)
- Presenting positive and negative externals (Puczkó, 1999),
- Measuring socio-cultural effects (Kundi, 2006.).

⁶⁵ A good example of this is the payment obligation defined by the British economist Pigou, which is essentially an environmental tax serving as a counter-balance to negative social impacts of certain activities

⁶⁶ Enjoyment economy can be summed up in the following: In the place of an approach accumulating financial assets, a new enjoyment-centred philosophy of life has come into existence.

In addition, Kundi mentions several other methods in his work: Small – Edwards – Sheridan's "Retrospective Method (2005); Tourism Satellite Account System; Social Effect Assessment; Social Effect Analysis (referring to studies by Small and Edward and Sheridan, 2005); Touristic effect attitude scale (Kundi, 2012).

Besides direct and indirect economic benefit, the employment multiplier is mentioned most often by researchers, although, many of them also point out the seasonality (Michalkó, 2012, Hunyadi et al. 2006). However, they all agree that employment is the most important factor behind the section of economic and socio-cultural effects of festival tourism. "In tourism terms direct employment effect means the employees, who get into personal contact with visitors (hotels, airlines, restaurants, entertainment industry, etc.), while induced employment includes the employees, who do not have personal contact with visitors, but are indirectly connected to tourism (industrial providers, governmental bodies, producers of capital and export assets used also in tourism)" (Tourism Office 2004). There is another method for calculating job creation , which, in addition to employees employed directly or indirectly, calculates the "festival benefit" in jobs. Accordingly, how much the direct and indirect expenses of the festival increased the total annual employment figures of the region (Hunyadi et al., 2006).

In addition to the direct and indirect effects of festivals, other impacts must also be considered: improving popularity, creating jobs, educating and training local residents, infrastructural development, increase in investments... that is, positive and negative externals and spillovers.

Spillover effects

When the externals of festivals and gastronomic events are examined, it is practical to take into account the "spillover effects" arising in connection with tourism, then to assess them and re-interpret them, if necessary, in relation to festivals.

External, natural or built environmental, socio-cultural effects can be classified from various perspectives. They can be examined from that of their general effect, positive vs. negative, or their explicit measurability, can be measured in money terms (change in profit) or cannot be presented monetarily (change in the level of wellness) or their effect on society or the individual. These were compiled and systematised by numerous authors from various perspectives of interpretation by grouping (Mathieson and Wall (1982), Krippendorf (1987), Allen (1988), Crompton and Sanderson (1990), Urry (1991), Harrison (1992), McKercher (1993), Pearce (1989) et al.). In consideration of the ultimate goal of my study, I chose

monetary measurability as the main perspective of categorisation by assessing its two values, positive or negative (Tab. 1).

Table 1 External effects

	Can be translated into money	Cannot be translated into money
Positive externals	<ul style="list-style-type: none"> • At a lower and medium level the development of tourism is financial by nature • Infrastructural improvements, whose benefits are enjoyed by the local population also. • Increasing the popularity of the region, consequently the competitiveness of products of the local small-scale industry improves (e.g. Békéscsaba sausage). • Improvement in exports from the region. • Strengthening of local small-scale industry. • Real estate prices rise as a result of touristic investments. Maintaining, restoring and developing investments in the built and natural environment. • Increasing tax income. • Stimulation of retail processes. 	<ul style="list-style-type: none"> • The flexibility of the touristic employment structure erodes gender segregation. • There are more opportunities in tourism for women, enabling their economic independence. • Tourism offers new opportunities and examines social changes. • It promotes more aware public thinking in order to preserve our values and environment. • Declining migration. • New recreational opportunities. • Demand for a healthier life-style and higher qualification. • Residents' knowledge of the world improves. • Understanding other cultures helps in accepting them.

Table 1 (continued)

Negative externals	<ul style="list-style-type: none"> • Investments are rather profit-oriented (swimming pool) than cost-focused (sewage cleaning plant) • The rise in prices as a result of higher touristic popularity. • Erosion of the natural and built environment, pollution of the environment. • More costly maintenance of existing and over-sized infrastructure. • Decline in real estate value. • Lack of goods. • Decaying public services. • Increase in imports. 	<ul style="list-style-type: none"> • It changes the inner structure of the community: those in connection with tourism and the ground getting in contact with tourists and tourism. • Tourism may have colonising features depriving the local population of the ability to make decisions independently. • Certain environmental effects, such as noise and dust pollution, damage to natural assets (flora and fauna). • Large numbers of foreign words integrating into the language, disappearance of old expressions. • Increase in crime rates. • Increase in the crowdedness of the region, the recreation of the locals becomes impossible. • Antipathy towards peoples, cultures or religious groups due to strange customs. • The spread of global culture to the detriment of local values. • Negative behavioural patterns for the next generations
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Source: The author's own construction

Among the externals shown in the table with relation to tourism in general, many can be observed or considered notable in case of numerous festivals. Out of effects that are positive and can be translated into money, perhaps the most accepted is the increase in tax income, improvement in brand popularity (Békéscsaba's sausage, Baja's fish soup, Miskolc's jellied pork ...), rise in real estate prices within the region and the strengthening of local small-scale industry (distillation of spirits, viticulture, production of cheese and other food...). Others that can be explicitly measured are the stimulation of retail business and the increase in the income of local shops.

However, among positive externals that can hardly be captured financially, it is obvious that festivals provide new opportunities for the local population, facilitates the employment of women (commerce and production), makes people more aware of the importance of natural and cultural assets, provides new recreational options for locals and widens the knowledge of the population on the world, hence promoting the acceptance of other people.

Of the negative factors which can be captured financially, the obvious profit-orientation of investments, the rise in prices (for at least the duration of the festival), the erosion of the

natural and built environment, the overuse and faster erosion (decay in public services) of existing infrastructure, devaluation of real estate due to the overuse of the environment, sometimes the lack of goods at retailers, come to mind.

In addition, festivals induce a sharp increase in the number of crimes (theft and robbery), crowdedness and decay in the recreational opportunities of locals.

The above examples show that gastronomic festivals exert an influence on their own environment in numerous areas regardless of whether they are related to the specific factor or character.

OBJECTIVES AND METHODS

Database and hypotheses

Since in the course of my research I have not found a single publication that would have consolidated these events, I started my own search, which was mainly based on the works of Magyar Tourmix Kft. who are primarily engaged in processing data related to tourism.⁶⁷ To my surprise, they had more data and information than the official sources, KSH, Magyar Turizmus ZRt., or national organisations, Hungarian Festival Association and the Hungarian National Gastronomic Association.

The research conducted so far and the literature itself verified the fact - otherwise already recorded in Hungarian papers - that festivals have an ever greater importance, and have grown exponentially in the last one and a half decade. There are hundreds of festivals even in Hungary practically making them the megatrend of cultural tourism. (Sulyok and Sziva, 2009).

If we look closer, gastronomic festivals have a prominent place constituting about 30% of all festivals; their importance was pointed out in Kalkstein-Silkers, 2007. The study of Turizmus ZRT. conducted between early January 2009 and the end of February 2010 also concluded that, within festivals in Hungary, gastronomic events have had the largest number of visitors. Out of 741 persons in the survey, 30.8% took part in gastronomic events. (Sulyok, 2010 In: Sándor, 2012).

Magyar Tourmix Kft. keeps a record of events in a breakdown of settlements, to my advantage, which was quite useful later, at the time of analysing the data. When the data were being sorted, the fact specified in many places immediately became visible - namely that the festival market has an automated nature, in that there are a large number of regional and local

⁶⁷ <http://www.programturizmus.hu/tdcategory-fesztival-esemeny-rendezyeny-magyarorszag.html>

events attracting fewer visitors outside the realm of international and national festivals with a great number of guests and visitors (Erdős, 2004, In: Kundi, 2012).

Considering that, beyond their direct economic impacts, festivals might have a quite strong image-building role (Hunyadi et al., 2006.), which is, in my opinion, their most important role. When gathering data, as a first step I wanted to see the regional distribution (NUTS 1-2-3,) of festivals that constituted the foundation of future analyses.

The database developed by myself contains 213 specifically gastronomic events in 122 settlements with the exception of 2013. After looking at the table I found that, in Hungary, gastronomic events show a normal distribution from virtually all perspectives (number, venues, settlements) at the level of NUTS1 - that is, there is no significant difference in this between developed and less-developed areas of the country. However, there are considerable differences at county level. Not only in Budapest, where the difference can be attributed to its economic, cultural and political dominance, but also, for instance Veszprém, Borsod and Békés are considered the "great powers" of gastrofestivals, and the reason is not so simple as with the capital.

In the beginning of my study, this short table confirmed my conviction that many in Hungary know or at least "feel" the image-building role of festivals (Picard and Robinson, 2006), and its significance and effect in tourism and economy – competitiveness, capital attraction and profit generation (Harsányi, 1997, Enyedi, 2002).

Based on the above we could safely say that the impacts of gastronomic festivals on the local economy can be captured directly and with methodological tools. However, is this effect so trivial?

The literature (Jandala, 1992, Puczkó and Rátz, 2001), as well as my research, verify that in examining the effect of gastronomic festivals, dataa presenting the effect of tourism on economy in general are used as a starting point.

Among these, perhaps the most practical factor that can be captured at settlement level is the number of guest nights spent in individual settlements. The examination of their development and the implementation of gastronomic festivals could give an answer to our question.

On the basis of the above, I laid down the following hypotheses:

H1: There is positive correlation between gastronomic festivals and indicators measuring the performance of local tourism.

H2: The effects of gastronomic festivals can be clearly seen in accommodation which was not primarily offered for simple touristic reasons, but which is regularly used for such purposes to satisfy an increased touristic demand.

Tourism factors

As a first step, data relating to the tourism industry and the settlement were gathered at county level, and then at settlement level. Data collection was based on the page of the KSH's official website representing local statistics.

In the course of processing the data, I was faced with the fact that, in a statistical sense, the most up-to-date and relatively reliable data are only from 2011, with a limited pool of information on recent years in relation to festivals - and I often had to presume that the event had already existed in 2011. In the first steps, I had data relating to 102 variables, but many of these were not available for a large proportion of settlements or were irrelevant based on my first assumptions. Occasionally, the use of aggregates seemed more reasonable. After pruning the independent variables, the following were used:

- the area of the settlement (km²),
- the number of permanent residents (persons),
- the number of hospitality places (places),
- number of beds at pensions (beds),
- number of guest nights at commercial accommodation (guest nights),
- number of guest nights spent by foreigners at commercial accommodation (guest nights),
- the number of beds at all commercial accommodation (beds),
- number of guest nights at pensions (guest nights),
- the number of foreigner guests at pensions (guests),
- the total number of hosts at other (until 2009 private) accommodation,
- the total number of beds at other (until 2009 private) accommodation,
- the number of foreigner guests at other (until 2009 private) accommodation,
- the number of guest nights spent by foreign guests at other (until 2009 private) accommodation,
- the number of guest nights at other (until 2009 private) accommodation,
- number of registered job-seekers

In selecting the above independent variables their logical and technical connection to the feasibility and implementation of gastronomic festivals was fundamental. The number of

various types of accommodation, the number of hospitality units and changing types of guest night seemed adequate both in the analysis of the entire tourism industry and in our case. Selection by size of settlement seemed at first to be good, as it is general experience that larger settlements basically have better and more extensive infrastructural capabilities than smaller ones, and the "stress-bearing ability" of towns with larger capacities is also higher, meaning that they can better respond to rapidly changing needs arising in relation to festivals. Selection by population is important due to the number of visitors or crowdedness, since, as mentioned earlier, an individual festival is not necessarily a destination asset; it does not encourage anyone to start a journey but is an alternative programme which may prompt potential visitors go for a trip. It is, therefore, important that we take into account the costs of travelling (travelling time, cost of means of transport...), or there is already a critical number of potential visitors in the area. It is not by chance that, by settlement, Budapest has the most events by far in the country. Finally, among the independent variables the number of job-seekers could give indications regarding the available free workforce and consumer numbers. However, since I would have to treat a vast amount of data even after narrowing them down, it seemed sensible to me to reduce the number of variables using factor analysis and create indicators that might give relevant answers to my hypotheses.

As a first step, all variables were compared to population numbers - to filter out distorting effects arising from the sheer size of the population.

After this, empirical analysis was performed using the IBM SPSS statistical software. The primary objective was to create indicators that might lead to conclusions on the effects of festivals. Since the demands which festivals generate do not appear evenly, but "abruptly" in the tourist industry of a region, their effect can be captured more easily rather in respect of "alternative infrastructure" (in my own definition this term covers material and service conditions that are not created for satisfying specific needs, but whose free capacities enable extended demand to be satisfied). As a result, I strove to create factors that reflect this. On the basis of preliminary analyses and the literature referred to above, the following indicators were chosen for factor analysis.

In addition to guest nights, the numbers of beds are also important parts of the analysis, since this is exactly what highlights basic touristic capacities - that is, how far tourism can be developed with minor increases in costs. In the absence of that, it would be easy to draw false conclusions in respect of actual capacity, encouraging unnecessary or excessive investment.

As a first step the analysis is performed by assuming one factor, based on the fact that 91.691% of the information content of original variables is explained by the linearly

independent group of variables created by factor analysis. After the inspection of the information content of certain factors and own values (eigenvalues) carrying this, the creation of the two factors is supported. Accordingly, further analyses were run assuming the existence of two factors.

In the matrix obtained in this way and with items significantly weighted in terms of particular factors, the first factor was assigned to tourist traffic received by 'other accommodation', whilst the second was identified as tourist traffic received by 'commercial accommodation'.

This is an important result for me, as I can now differentiate in terms of traditional (commercial) and "alternative" (other) accommodation using these two factors, intensifying the regional impacts of festivals. I expect that their effect will be significant in the case of the latter factor.

Factors will now be referred to as follows: First factor: "tourism other accommodation", Second factor: "tourism commercial accommodation".

In order to verify or refuse my first hypothesis, perhaps the most often applied method of econometrics, namely the method of the smallest squares, was used (Sipos and Kehl, 2010). I also examined the correlation between the first factor (dependent variable) obtained primarily at multiple-day festivals (explaining variables) and my model was run on this. Differentiating in case of multiple-day festivals seemed necessary since it was assumed that multiple-day festivals have a larger effect on the most important tourism indicator available to me, guest nights. Accordingly, a multiple-day festival organised in a region or settlement will encourage the visitors to stay for more than one day. Difference was made between one-day and multiple-day festivals using variables "0" and "1" in cluster analysis within the database by assigning value "1" to multiple-day and value "0" to one-day festivals. A similar grouping was applied for the types of settlement, where "1" was assigned to settlements classified as town and "2" was applied to other settlements, making up the parameterisation of a total of 213 settlements.

RESULTS

Analysis of the correlation between gastronomic festivals and indicators measuring the performance of local tourism

When running the first model, the type of settlement, population and area control were represented as variables. The level of explanation which the table obtained at the first running of the model was not so high ($r^2 = 0.163$), but the assessment also shed some light on the fact

that it is marginally significant ($F = 2.345$; $p=0.052$). That is, the model, even though it only explains 16.3% of the dispersion of the result variable, is relevant.

In the following I assessed whether all independent variables are needed in the model or their correlation leads to distortion in the result. On the basis of the VIF indicator (*Variance Inflated Factor*), the number of festivals and the population show a strong correlation with each other ($VIF = 21.339$ and $VIF = 22.741$), meaning that it is recommended to remove either indication from the model. Further, owing to their low t-test value and high related significance value, the variables representing the type of settlement ($p = 0.950$) and the multiple day nature of festivals was removed ($p = 0.555$).

The data obtained after rerunning the model showed that the explanatory power of the model is not very high ($r^2 = 0.128$), and not even significant ($F = 4.611$, $p = 0.014$).

Even though it shows positive correlation ($Beta = 0.151$) between the number of festivals and a certain amount of tourism factors, but its significance level is too high ($sig = 0.278$) - hence the connection is not verified.

In the following a similar examination was made using the second tourism factor (*tourism commercial accommodation*). The explanatory power of the model is not very high ($r^2 = 0.049$), and not even marginally significant ($F = 0.613$; $p=0.690$).

On this basis the model could be abandoned, but the correlation of independent variables was examined to verify results.

Here, I obtained a similar correlation to that of the first factor - that is, the two variables are strongly correlated (VIF number of festivals = 21.339; VIF population = 22.741); Hence I could narrow my model and run the analysis repeatedly - due to their exceedingly high empirical significance level, the variables representing the type of settlement ($p = 0.667$) and the multiple day nature of festivals ($p = 0.506$) - and then rerun the model.

The result is not significantly different from the first factor if the model is narrowed down in this way. **Based on this, the model does not show significant ($F = 0,871$, $p = 0,424$) explanatory power, hence it is irrelevant as a whole.** Using the Beta version ($Beta = 0.050$), however, we can assume some positive connection between festivals and the second tourism factor, but the effect is quite weak and statistically not significant.

Overall, it was found that there is no detectable connection between gastronomic festivals and local tourism indicators. It is therefore likely that festivals, in the case of the factor containing commercial accommodation, do not represent a size that would lead to a significant connection. Otherwise, this is logical, since festivals essentially generate abrupt,

rapid and simultaneous needs often exceeding local basic capacity, to be satisfied only by using the capacities provided by alternative infrastructure.

However, the factors used in the model are artificial, complex variables and bear the effect of numerous other factors that did not result in a significant and interpretable connection. Consequently, the first hypothesis must be totally rejected, and to show the effects of gastronomic festivals on direct tourism requires further examination. Chronological analyses might be practical in the future, although these would require the extension of the existing database.

In the continuation of the study, the distinguished conceptual indicator of tourism, the number of guest nights becomes the core of the analysis.

The effects of gastronomic festivals can be clearly seen in accommodation which was not primarily offered for simple touristic reasons, but which is regularly used for such purposes to satisfy an increased touristic demand

My second hypothesis is set to find answer for a previous statement, namely that the effect of gastronomic festivals can be explicitly measured in the alternative touristic infrastructure. To verify this, a *new dependant variable* was chosen to be included in the regressional model, which directly contains the number of domestic guest nights. Since my previous studies and research showed that festivals represent a self-contained destination value predominantly in domestic tourism, that is, their direct effect can be measured here.

On the basis of the study however this model has not shown a significant ($F = 1.607$, $p = 0.167$) explanatory power, and so there is no measurable difference in terms of commercial accommodation between one and multiple-day festivals. **This could possibly be so due to the small weight which guest-nights generated by festivals have in the volume of commercial accommodation.**

The effects of gastronomic festivals can be clearly seen in accommodation which was not primarily offered for simple touristic reasons, but which is regularly used for such purposes to satisfy an increased touristic demand if domestic 'other accommodation' is examined.

Here, it becomes obvious in creating the first model **that there is a connection between multiple-day festivals and guest nights spent at other accommodation, as the model shows ($F = 5.345$, $p = 0.000$). However, its explanatory power is not high (0.229)**. Also, we can see that the connection between the multi-day nature of festivals and the domestic tourism received at other (non-commercial) accommodation is positive ($Beta = 0.838$).

SUMMARY AND CONCLUSIONS

H1: There is a positive correlation between gastronomic festivals and indicators measuring local tourism.

Not verified

T1: Neither of the two touristic indicators created verified any existing or positive correlation with the number of festivals. Accordingly, further studies are needed aimed at filtering out the component that caused the lack of correlation between factors and festivals from the indicator group measuring local tourism.

H2: We can demonstrate difference between the impact "multiple-day" festivals and "one-day" events have on domestic guest nights.

Partially verified

T2: In this case by separating domestic accommodation into two parts, similarly to the two touristic factors created previously, it was established that gastronomic festivals only have a positive effect in relation to smaller 'other' accommodation.

Two regressions would be more favourable: commercial and 'other' guest nights

Overall, the greatest product of the study has been that a database was developed which summarises gastronomic events, contains statistical data which might support other studies or the running of new regressions relating to commercial and 'other' accommodation.

The study also pointed to the fact that capturing the effects of gastronomic festivals is not a simple task and requires further research in the literature and empirical research. To do this, however, a much more complex and a chronological set of data would be needed.

It is obvious to me that, beyond a basic tourism infrastructure, festivals rely on alternative solutions, and hence this could be one factor in, at least, the partial understanding of the economic multiplier and spillover effects. For this, however, I would need to find variables which allow me to come close to these effects. Moreover, mapping the relationship of gastronomic festivals and their relationship with agriculture - as well as a cluster analysis of settlements currently organising festivals are my priorities.

For further comparative analyses an examination of settlements without gastronomic festivals might be interesting.

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WOMEN’S CAREER PATHS IN HUNGARIAN HIGHER EDUCATION IN THE LIGHT OF THE BOLOGNA PROCESS

NŐI KARRIER-UTAK A MAGYAR FELSŐOKTATÁSBAN A BOLOGNA FOLYAMAT TÜKRÉBEN

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Abstract

In our research we investigate the Hungarian higher education, which has undergone some significant transformation over the past decades. The Bologna process has fundamentally transformed our higher education: most of the previous single and undivided trainings were transformed into a two or three-stepped ones.

After the previous regime the way opened for the founding of private colleges and their accreditation, which generated, again, a number of changes: the financing side showed novelties. This can be interpreted as a response to the state’s strategy that it intends to withdraw from the financing of higher education.

As a result, those young people are also included in the form of fee-paying system, who did not have access to higher education because of the narrow academic admissions. At the same time, since the nineties, women became over represented in higher education on the student side.

However, to date there are few women in higher education on the management side.

Keywords: Higher education, women’s career, learning motivations, Bologna process, leader

Kivonat

Kutatásunkban az elmúlt évek, évtizedek alatt számos átalakuláson átesett felsőoktatást vizsgáltuk. A Bologna folyamat alapjaiban alakította át felsőoktatásunkat: kettő, illetve háromlépcsőssé alakult az addigi egységes, osztatlan képzések többsége. A rendszerváltás után megnyílt az út a magánfőiskolák alapítása, valamint akkreditációja előtt is, mely ismételtlen számos változást generált: a finanszírozás oldaláról újdonságok mutatkoztak. Ezt válaszreakcióként is értelmezhetjük azon állami magatartásra, mely szerint a mindenkori állam egyre inkább kivonul a felsőoktatás finanszírozásából, támogatásából. Ennek eredményeképp olyan fiatalok is “bekerültek a rendszerbe” költségtérítéssel formában, akik eddig az állami intézmények szűk keretlétszámai miatt nem fértek volna be. Ezzel egyidejűleg a kilencvenes évektől fogva a nők felülreprezentáltakká váltak a felsőoktatásban a hallgatói oldalon. Azonban a mai napig arányaiban kevés nőt találunk a felsőoktatásban vezetői oldalon.

Kulcsszavak: Felsőoktatás, női karrier, tanulási motivációk, Bologna folyamat, vezető

INTRODUCTION

Several studies have already reported on higher education's expansion following the transformation of regime, which we can examine in several dimensions.

First, we need to talk about the drastic increase in the number of students - as between 1990 and 2004; the 20-24 aged group (potentially involved in receiving academic education) age ratio grew from 15.5 to 45% from the total population. (*Szemerszki 2004, p. 56.*)

On the other hand, an explosive change had happened in the number of higher education institutions. Private higher educational institutions appeared in the form of private colleges and universities.

In the present study, we do not differentiate institutions established by the church or privately; all institutions are defined as private which are not public. It is not relevant to our topic to look beyond the operation of state-managed institutions.

OBJECTIVES AND METHODS

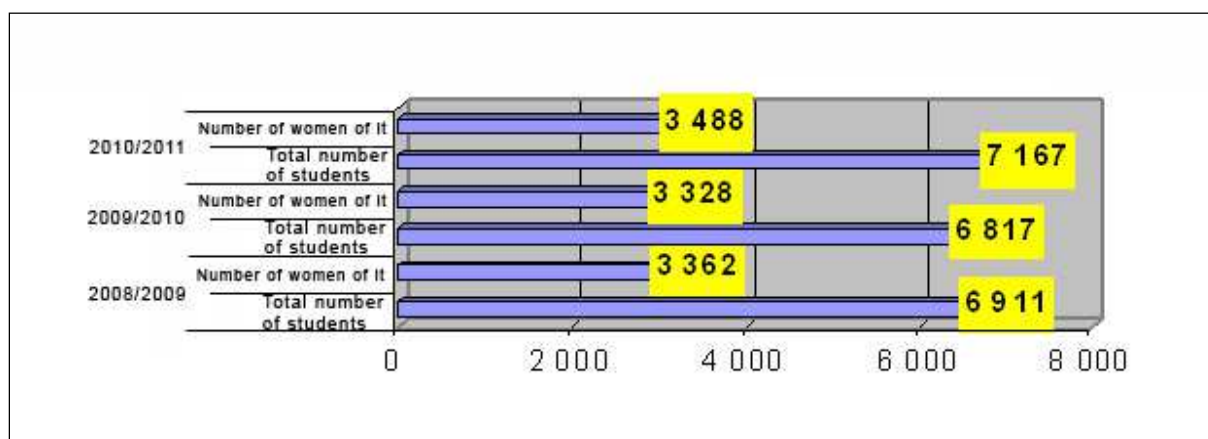
Our aim is to clarify the potential aspects of some of these trends. In this part we investigate the potential gender gap between men and women in leading positions. For this we use interviews with ladies in a leading position in higher education (Head of Department, Head of Department, Rector, Vice-Rector) and online questionnaire with current students. Our online questionnaires will be processed using the SPSS software package. We also had a look at the rate of women in the newly introduced chancellor system in the Hungarian higher education.

RESULTS

Students – Professors ratio

Since the academic career today is hard to imagine without scientific grade, we should first turn to consider that what changes have taken place - in terms of male, female ratios - among the students. We know from the 1990s that women are over-represented in higher education, at the student's side. (www.felvi.hu)

However it is worth to make additional researches as we go forward through the different levels of higher education. Unfortunately, there is still cannot be found newer statement than this one below, that shows the data only until 2011, but in our opinion, we could not observe relevant differences in the analysis of the data later.

Figure 1 The number of students taking a part in a doctoral (PhD, DLA) training, 2008-2011

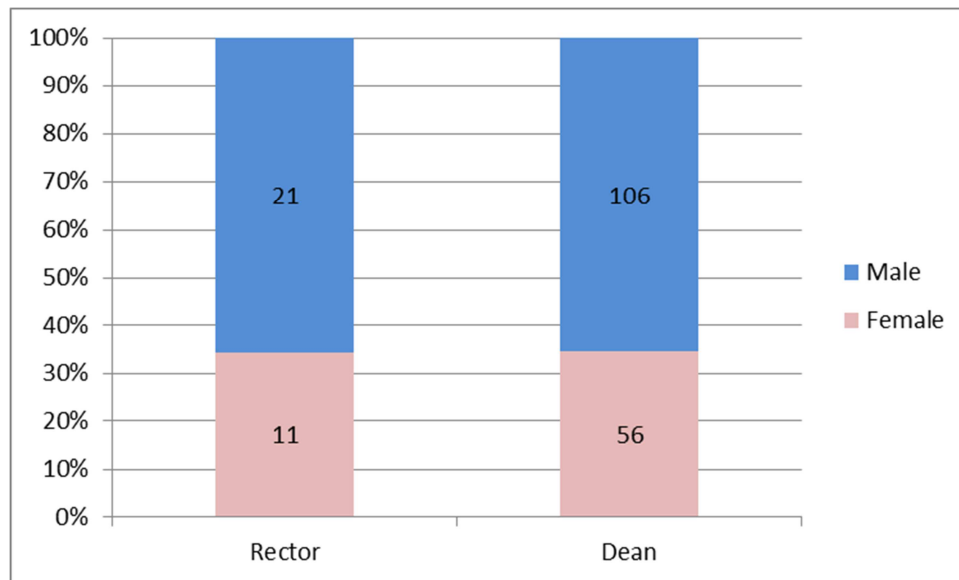
Source: Statisztikai Tájékoztató-Felsőoktatás (KSH, 2011.)

As you can see in the graph above, at the beginning of the 21st century a significant increase happened in the proportion of women among doctoral students; practically we can say that half of the doctoral program participants are women. In our opinion this could be a promising fact considering the future, because the gender gap cannot be seen at this side. However, as we move forward on the scientific careers ladder, the proportion of women is deteriorating more and more. In other words, fewer and fewer women can be seen as an associate professor, professor or as a member of the Hungarian Academy of Sciences, so at these areas we could feel male dominance. (Riba, 2011)

Of course, it would be worth examining the higher educational career and the researcher, academic career separately. However, it is not separated from each other in the everyday life, because academic research institutions expect their “employees” to carry out major teaching activity also. Not to mention the fact that professors can be found among the academic members and in various committees and academics. This imposes a “bigger burden” to women again (compared to their man companions), because of the already mentioned “double burden” (work and family) is combined here with research and teaching activities. “A survey in the United States exemplifies the inequality also. (Davies, Holloway 2004, p.16.) Researchers work an average of 53.5 hours a week, from this the administrative work takes 17-18 hours, and most of the research work take place in the evening or on weekends. Women work more at all levels than men, and do more administrative work. An average female university professor’s working hours are 64.5, while a man university teacher’s working hours are only 58.6 hours per week.” (Papp, 2007, p.35.)

The so-called "career gap" is widening. Examining all of the higher educational institutions in Hungary nowadays we find that we have 11 female and 21 male rectors, and 56 female deans to the 106 male deans.

Figure 2 Rector - Dean's positions and distribution in Hungary - by gender



Source: Own edition based on www.mrk.hu, 2014

The chancellery system, which was been introduced this year, has not made “revolutionary changes” in the ratio of man and female leaders. From the currently elected 24 chancellors only 3 are women. (http://eduline.hu/felsooktatas/2014/10/31/teljes_kancellari_nevsor_5R8MO8)

Experiences of the previous interviews

The interviewees were at least senior lecturer women, but we could also have interviews with women rectors.

For us, it was shocking that even though they have a beautiful bright career of their own, when we asked about what advise would they give to their young women colleges to earn similar success, or what they think of the change in women leaders’ under-representation in the near future, surprisingly pessimistic responses were given. Some of them said that this is a very slow process (because of the social stereotypes, the traditional approach); she sees in 20-30 years perspective a few percentage of growth. Almost all of the respondents pointed out, that the discipline is very decisive, because, while in the humanities or social sciences we

could see a lot of ladies, in the world of natural and technical sciences their occurrence is rare. (Noszkay-Borsos, 2014)

The abovementioned seem to be true on the EU level as well: “Only 33% of European researchers, 20% of European university professors and 15% of the heads of institutions of higher education are women. In 2010, female students (55%) and a graduate of the proportion (59%) were higher than the proportion of male students, but among doctoral and doctoral degree holders’ men were represented at a higher rate (the proportion of women was 49% and 46%). In regard to the academic career ladder, women who earned a doctorate degree are 44% in the first level of academic career researchers, but the portion of women researchers working in the uppermost however, is only 20%. The low number of women in science and engineering fields is even more striking.” (http://europa.eu/rapid/press-release_IP-13-303_hu.htm)

It was also surprising to us that the responders almost always emphasized the special domestic "adverse selective" practices which they faced several times during their careers: the fact that male counterparts are usually addressed by their rank, or position in each case, (Prof. Mr. Dean, Mr. Rector), but they often had 'only' first names.

Results of the research

As we saw earlier, women are underrepresented in Hungarian higher education management layer. We believe that the “roots” should be examined in order to gain a more nuanced picture of the situation of women in higher education (either leaders or student status). It means an examination of the motivations, which are chosen on the basis of further education for young people in higher education. That is why we think it is important to ask the question: why do students learn? Our topic is relevant to the question, because the leaders of future are the students of today.

In our study, we asked students in higher education institutions. This study is considered only as a preliminary test, so we chose one of the simplest ways to reach students: the social network. The questionnaire, in the form of self-filled forms, was available electronically.

113 people filled out our questionnaire. From the people who filled it 21 were male and 92 were female. The mean age was 25-year-olds (born in 1989). The age difference between genders was only two years.

Table 1 What type of town you live in currently

							Total
	Village	Capital	Municipality	Foreign capital	City with county rights	City	
Gender Men	2	6	2	0	4	7	21
Women	2	49	7	1	7	26	92
Total	4	55	9	1	11	33	113

Source: Own edition, 2014

Table 1 shows that the majority of those filling live in the capital. The people living in cities and towns and the cities with county rights follow this. More than half of women live in the capital, while majority of men are urban residents.

Word clouds in Annex 1 and 2 show the institutions of the interviewed students. It is unequivocal that most interviewed men and women are from the Szent István University. In case of women we see more institutions than in the case of men. This may be a result of the different ratio of the respondents.

Table 2 Type of education

						Total
	BSc	MSc	Undivided education	PhD	Postgraduate specialist training course	
Gender Men	9	7	4	1	0	21
Women	40	38	6	7	1	92
Total	49	45	10	8	1	113

Source: Own edition, 2014

We can see that the most students are in BSc. the question is that if the group of BSc students were the most numerous, what could have caused the "high" mean age? Perhaps the answer is found in the form of education.

Table 3 Form of education

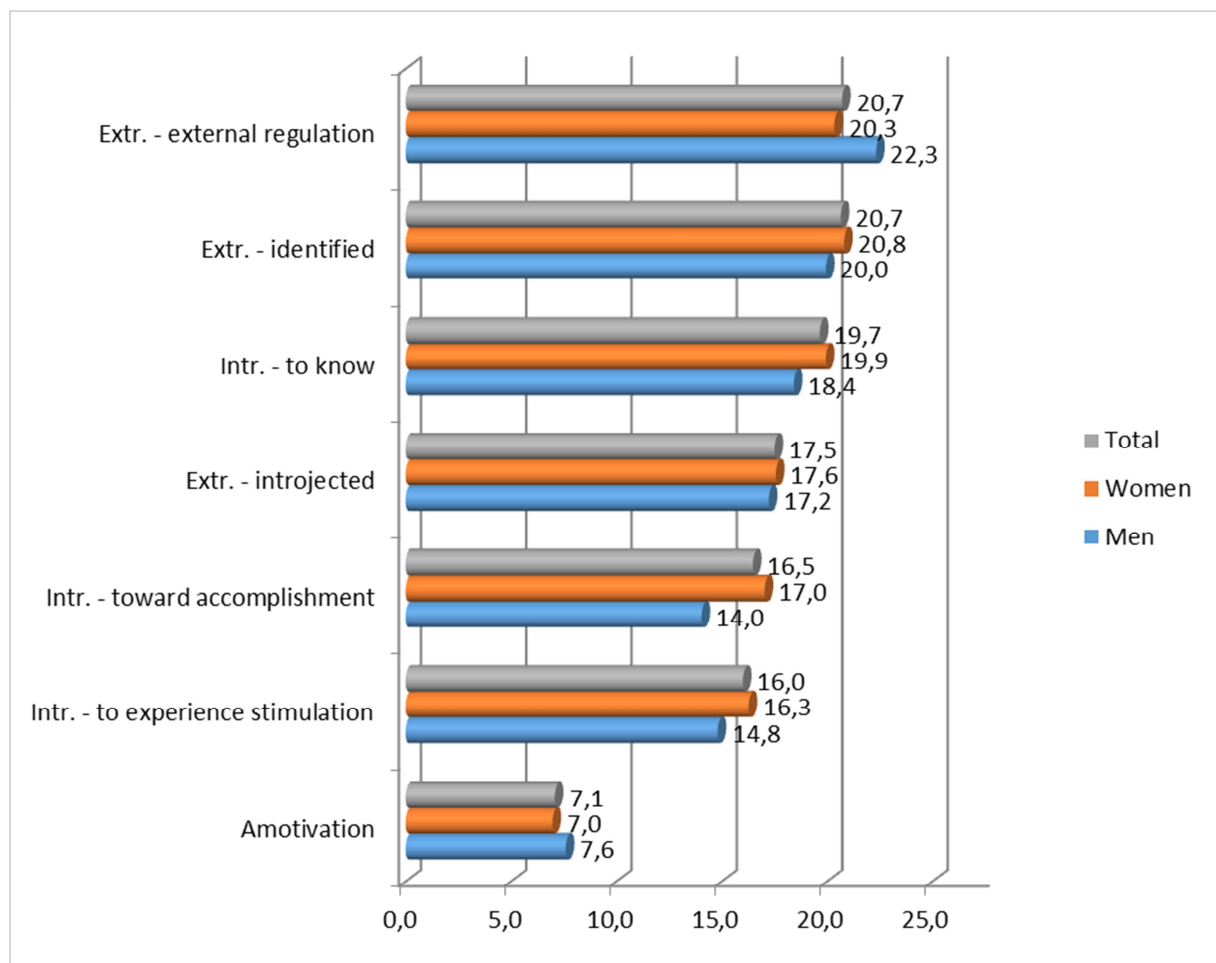
	Correspondence	Full-time	Total
	course	course	
Gender Men	3	18	21
Women	19	73	92
Total	22	91	113

Source: Own edition, 2014

Analysis of the results revealed that most of the interviewed students were involved in full-time course. Therefore, further clarification is needed to find out the reason behind the results.

Results of the questionnaire survey

Figure 3 Motivation scale of college studies (n= 113)

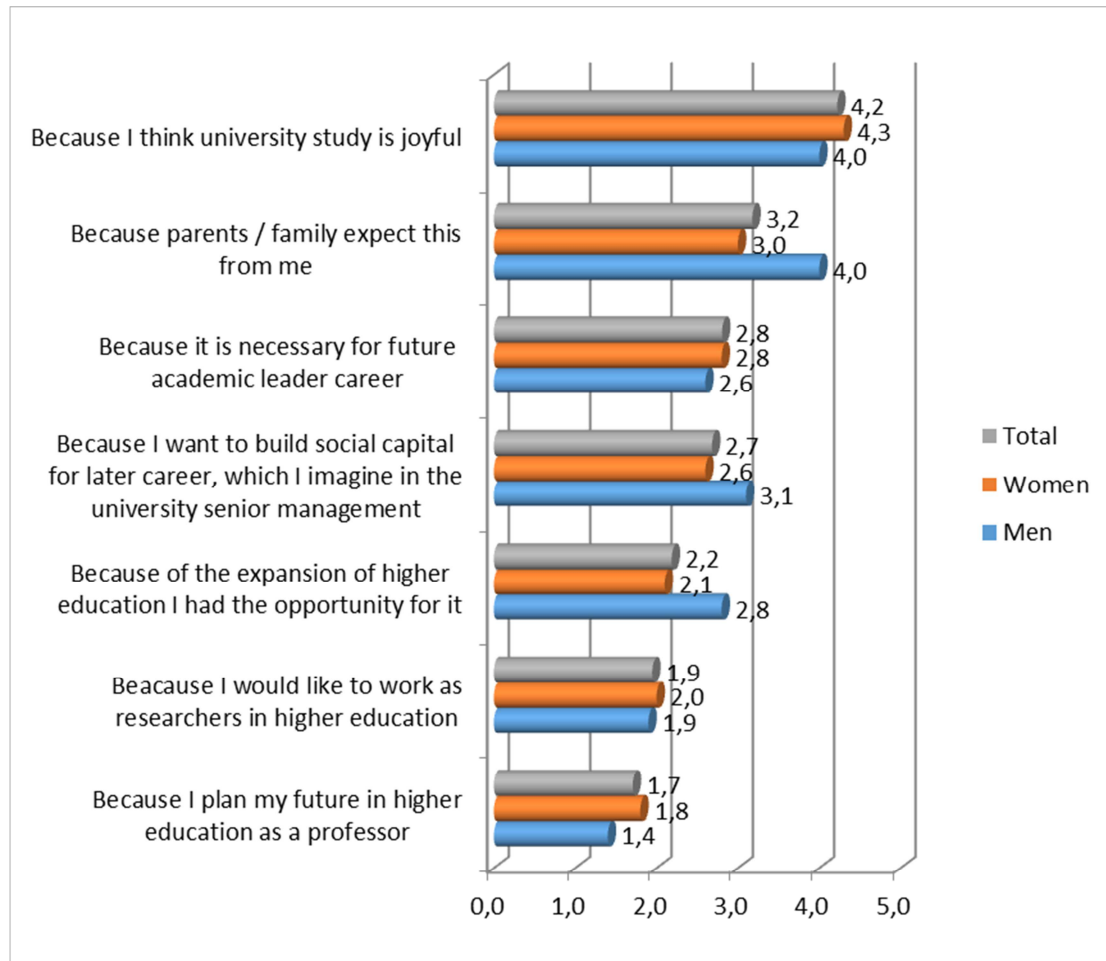


Source: Own edition, 2014

Figure 3 shows the results of the motivational questionnaire. We can see that the primary motivation for learning is usually some external factor. For men, we can see that the average

value is higher in the primary motivator. In the second we can find an extrinsic motivator also. From the internists none could get higher than the third place, only one (“to know”). As we can see we do not find large differences between the genders. Men and women selecting the motivational factors in the same proportion, despite the fact that the number of women was in the majority.

Figure 4 Other learning motivations (n=113)



Source: Own edition, 2014

In our questionnaire we asked other motivational factors in addition to the motivators offered by AMS. At the first place the students think university studies are joyful. However, this response raises more questions (Why is it joyful? What can be a source of joy? etc.), which are the subjects of further investigation. In the second place we find the parents as "incentive" factors. Based on this, we can conclude that the parents are in the background of the previously seen primary learning motivation (external regulation).

In the last place there are those questions that are related to academic careers. We can see that the respondents did not envision a career in higher education journey.

In this study, we tried to look for correlations between responses.

Table 4 Correlations (men)

	Because I would like to work as a researcher in higher education	Because of the expansion of higher education I had the opportunity to do it
Because I would like to work as a researcher in higher education	Pearson Correlation Sig. (2-tailed) N	1 ,607** ,004 21
Because of the expansion of higher education I had the opportunity to do it	Pearson Correlation Sig. (2-tailed) N	,607** ,004 21

** . Correlation is significant at the 0.01 level (2-tailed).

Source: Own edition, 2014

The correlation table shows that the respondent men who imagine the future career in the higher education believe they have an opportunity because the expansion of higher education. For women the same issue was examined as well.

Table 5 Correlations (women)

	Because I would like to work as a researcher in higher education	Because of the expansion of higher education I had the opportunity to do it
Because I would like to work as a researcher in higher education	Pearson Correlation Sig. (2-tailed) N	1 ,425** ,000 92
Because of the expansion of higher education I had the opportunity to do it	Pearson Correlation Sig. (2-tailed) N	,425** ,000 92

** . Correlation is significant at the 0.01 level (2-tailed).

Source: Own edition, 2014

In the case of women we could not find a strong correlation between the answers, and this relation is not even significant, as seen in the case of males.

Table 6 Correlations (women)

	Because of the expansion of higher education I had the opportunity to do it	Because I want to build social capital for later career, which I imagine in the university senior management
Because of the expansion of higher education I had the opportunity to do it	Pearson Correlation Sig. (2-tailed) N	1 ,344** ,001 92
Because I want to build social capital for later career, which I imagine in the university senior management	Pearson Correlation Sig. (2-tailed) N	,344** ,001 92

** . Correlation is significant at the 0.01 level (2-tailed).

Source: Own edition, 2014

In case of women we have discovered another significant relation (even if it is only moderate), which is the relation between the expansion of higher education and the social capital acquisition.

DISCUSSION

Higher education panorama

We found the most appropriate definition in the PhD dissertation of Szemerszki Marianna to definite the concept of private higher education, which reads as follows: “The most common definition of education of any type is, which was founded only by individuals or associations, and operates within the scope of private education.” (Szemerszky, 2003, p. 9.)

The expansion brought to life a particular competition also, where not only the students are those who are competing to get to a prestige higher education institution, but a sort of rivalry started between the institutions for students as well. A quite new color was brought into, until then closed, traditional higher education segment with the private institutions’ elasticity and impetus.

However, the question arises whether is it a competitive situation, or perhaps it is more of specific market segmentation? In our point of view, although approximately the same age groups appears as potential future for students, these institutions seem to have become more of a complement of each other. Considering that they satisfy the needs of different market

segments, – they segmentate their students, contemplating them as potential consumers, as well. Due to their size, their management point of view and their new institutional structure, private institutions are able to respond to the market demands, the labor market challenges and the diverse needs of the students.

However there is a trend of higher education expansion, which we cannot disregard. This is the state of the qualified professors. The increasingly stringent accreditation criteria changes in legislation and institutional growth brought to life a particular competition, which is about the right number of qualified professors. This affects and affected private and state institutions equally.

Last but not least, the introduction of the Bologna system, at the beginning of the last decade fundamentally changed the previous higher education system. By the transformation a new three-tier structure of training was introduced (basic - master - PhD, and vocational training specializations, see e.g. MBA) instead of the previous single, undivided trainings, or in some majors (e.g., doctor or lawyer specialization), as additions.

The Academic Motivation Scale (Vallerand et al., 1992)

In accordance with the determination of McClelland (1985), the motivation is observed as the cause of the behavior. Therefore, in the study of school motivation he asks the responder who tries to find the answer to the question: "Why do you attend high school/college?" The items must be placed on a seven-point Likert scale.

The writers apply the trichotomy of intrinsic motivations. In the education research literature the intrinsic motivation to know, to acknowledge and to understand is a well-established phenomenon. This factor can be determined in relation to educational aspirations, such as to engage in an activity for the purpose of learning, discovery or understanding something new for the joy of experience. The example of Vallerand et al (1992) is like reading a book for the joy when you can learn something new.

The intrinsic motivation toward accomplishment, achieving something, is the second type of intrinsic motivations. The person takes part in the activity for the joy and satisfaction when trying to achieve something or create something. In this case, the focus is not primarily the result, but the access to the process.

The third type of intrinsic motivation is to experience stimulation. In this type of intrinsic motivation, the person is involved in the activities for the stimulating experiences (e.g.: sensual pleasure, aesthetic experience, as well as joy and excitement) gained by personal actions.

The extrinsic motivation is divided into three subscales by the authors, these are: external regulation, identified and introjected motivation.

In case of external regulation people do things to avoid the punishment, and to gain rewards. Vallerand has an example for this motivation: the person who had learned during the night before the exam, because his/her parents forced him/her to do so.

In the case of introjected motivation the former external compliances are internalized and concerned. An example is a student who is studying the night before the exam, because "the people should do it."

In case of the extrinsic motivation-identification, the person consciously evaluates the importance of the action. An example of this is when a student studies during the whole evening before the exam, because he/she feels that it is important to him/her.

In addition, the questionnaire also includes the examination of amotivation. Amotivation occurs when the behavior is neither extrinsic, neither intrinsic. It is associated with the sense of incompetence and the feeling of uncontrollableness. The people are disappointed in this case, they begin to question why they are involved in education, which can ultimately lead to drop-out.

CONCLUSION

Summary, future plans

In conclusion, we can say that our survey is only a rudimentary exploratory research but still resulted a number of new information, which encourages us to continue the research.

In the following, we want to expand our questionnaire survey and conduct interviews because of a larger and more accurate sampling. The future results would be representative in regard to the Hungarian higher education. Our goal is to continue our activities with in-depth researches in the subject, and the expansion of the questionnaires to specific institutions.

ANNEX

Annex 1. Institutions (men)



Annex 2. Institutions (women)



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CONNECTION BETWEEN CIVIL SERVICE AND PERSONAL DEVELOPMENT

A KÖZSZOLGÁLAT ÉS A SZEMÉLYISÉGFEJLESZTÉS KAPCSOLATA

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Abstract

The public administration of the modern age and the significant changes taking place in the public administration in these days gave rise to the lecture. After a brief review of the historical antecedents a multi-stage process of reforms is mentioned as a result of which the so called closed system of public administration of Hungary became loose in a sense and the stiff margins which hindered the realization of the human resource management functions and presented a parting line between the establishments of the civil service and the competitive sector have been altered in a certain way. The present study deals with the direction towards which the present system proceeds and also with some management functions (e.g. performance evaluation) the importance of which is stressed greatly in the past few years. Finally a new field of research is dealt with which examines the efficiency of the personal development trainings as a special segment of these changes.

Keywords: civil service system, human resource, personal development training, public administration, self-awareness, Social-therapeutic roll play

Kivonat

A modern kori közigazgatás, és a közigazgatásban napjainkban is zajló jelentős méretű változások teremtik meg azt az alapot, melyre az előadás felépül. A történelmi előzmények vázlatos ismertetése után az a több lépcsős reformfolyamat kerül említésre, mely odáig vezetett, hogy a Magyarországon alkalmazott ún. zárt közigazgatási rendszer bizonyos értelemben fellazuljon, és azok a merev határok, melyek az emberi erőforrás menedzsment funkciók megvalósításában választóvonalat húztak a közszolgalat és a versenyszféra intézményei közé, bizonyos módon átalakuljanak. Jelen tanulmányban szó lesz arról az irányvonalról, mely felé a jelenlegi rendszer elmozdult, valamint érintőlegesen egyes menedzsment funkciókról (pl. teljesítményértékelés), melynek használatára az elmúlt években egyre nagyobb hangsúly helyeződik. Végül szóba kerül egy új kutatási terület, mely e változások egy speciális szeletének, a képzéseknek, azon belül a személyiséget fejlesztő tréningeknek a hatását/eredményességét igyekszik vizsgálni a jövőben.

Kulcsszavak: emberi erőforrás, közigazgatás, közszolgalat, személyiségfejlesztés, önismeret, Szociálterápiás Szerepjáték

INTRODUCTION

The concept of the civil service

Who can be considered as civil servants and how can the system they belong to be defined? These are unavoidable questions.

There are various answers depending on the different historical ages and different places. The present article uses the definition of György Gajduschek (Gajduschek, 2008, p. 8) as a starting point. According to this civil service contains three fields:

- people working in the public sector (*civil servants*);
- the specific way of people's employment, that is, the *system of employees* (human resource management); and
- the system ensuring the public services.

In the following the conceptual sphere of the first two fields is dealt with. To make these concepts more exact the effective legal regulation of Hungary is used. Accordingly, civil servant is a person who falls within the law of CXCV 2011. (Kttv.) and public service is a system which is referred to by this law.

Next, the history of development of the public administration is taken into consideration. It will be examined how today's public service systems obtained their present form.

Brief history of public administration

When did public administration start? According to the scientific literature listed in the bibliography very simple directing, governing functions can already be detected at ancient communities/societies.

The first significant administrative actions could already be experienced in the ancient empires (China, Egypt, Roman Empire). In spite of the remarkable organization of these empires, the modern public administration has its roots in the organizational, administrative functions of the Roman Catholic Church. The example of the church influenced the secular life too. The use of written records, territoriality and hierarchical structure were present at the royal courts where the public (state) sector and the private (royal) sector were not separated from each other.

The germs of the public administration as it is interpreted today appeared in Europe in the time of the absolute monarchies. The state became centralized: government offices or ministries and regular army were established, central taxation was introduced. The system of

central power was organized and the foundation stone of the modern public administration was laid. (Lőrincz, 1999)

From the beginning of the 19th century it became generally accepted that serving of the public interest is the task of the ruler or the state. Differentiation between the public (state) sector and the private (royal) sector started. Functions were assigned to officials by the ruler so that they took part in preparing decisions and shaping general politics.

At this time the public administration was a closed system, it firmly followed the methods used in the army. However, till the end of the century this similarity faded and a system of public administration came into being in which the selection of manpower was an objective process during which the required skills/qualifications are taken into consideration and advancement was bound to rules. The system was calculable and stable. Advantages (e.g. higher salary, favourable employment regulations, right to pension) were offered to people working in the public sector which made this sort of career attractive. (Gajduschek, 2008, pp. 35-37 and Csizmadia, 1976, p. 448)

If the horizon of our research is widened or its focus is moved from Europe to America, it can be seen that the course of development in the United States of America and the English-speaking world is different from the traditional European model. In Europe a rather closed bureaucratic system controlled by the state was established, while in America an open, so called spoils system⁶⁸ came into being which originally was built from below and based on customary rights (Balázs, 2014 p. 5). However, by the middle of the 20th century it changed significantly. Nowadays a closed system is used in the United States of America, too.

But let us turn back to Europe. The development of public administration was naturally affected by World Wars I and II. In Europe the function of public administration became more and more important after the Second World War. Moreover, international and over-nation bureaucracy also showed up. (Lőrincz, 1999)

In the 1970s and 1980s a new tendency appeared which followed the directives of the neoclassic economics. Its basic idea is shown in the following table:

⁶⁸ It was called spoils system because the civil servants were selected for serving the given political system and they could take advantage of it till that particular political party ruled. This system had anomalies. When it was realized, the National Civil Service Reform League was established in 1881 and development of the system of the civil service based on careers started. Naturally, the changes in the legal regulation took place decades after that.

Table 1

Private	State
Effective	Wasteful
Produces	Spends
Takes care of his consumers	Users of the public services are at the mercy of the state

Source: Gajduschek, 2008 – edited by the author

Simply it can be said that whatever is “private” is good, whatever is “state” is bad.

The New Public Management (NPM)⁶⁹ is based on this policy (Bordás, 2014, p. 4) which considers the “market” as the ideal model. A requirement of this policy is that the closed, rigid, centrally controlled system should be replaced by a system of the competitive sector which system is more flexible and its renewal is permanently forced. (Gajduschek, 2008, pp. 42-52)

Public administration in Hungary in our days

In Hungary after the Second World War, during the socialism a development different from the European tendency could be experienced. The communist party basically used the open spoils system.

The civil servants served the actual political system. A typical ideology of the system was that people working as civil servants are not different from the other working people of the society. Peasants and labourers could work as civil servants. A consequence of this system was that the officials were ill-qualified and corrupt. Consolidation started in the middle of the 1970s. In 1978 the College of Public Administration was founded and necessity of introducing the closed system has been revealed in the scientific literature since 1980. (Gajduschek, 2008, pp.42-52)

After the so-called political transformation in 1989 a multi- stage reform process started in Hungary. The aim of the transformation of the public administration was to reorganize the public sector according to a civil conception. (Balázs, 2011) A significant stage in this changing process – after the political transformation – was the birth of the Act XXIII of 1992 on the Legal Status of Civil Servants (Ktv.) which laid down the basis of a new, democratic system of public administration⁷⁰. (Gajduschek, 2007)

⁶⁹ New Public Management: the methods of organization, management and administration used successfully in the private sector are enforced for use in the practice of the public management. (Balázs, 2011)

⁷⁰ At the time of the political transformation the two large subsystems of the public administration: the state management and the local government were differently weighted. After a wide-ranging professional preparation

This Act and its subsequent modifications show efforts to make the career of the civil servants attractive and vocational and to clearly separate from legal relations of other employees.

Different from the practice used in the times before the political transformation the new system was a strongly controlled, bureaucratic, so called closed system. The legal regulation controls the legal relations circumstantially in every aspect starting from the recruitment⁷¹. (Gajduschek, 2008, pp. 42-52)

This closed system was continuously affected by the previously mentioned New Public Management campaign which gained a larger and larger ground in our country too⁷². A slow transformation started in the focus of which the reform concerning the staff of the public administration has been taken since 2006.

After the change of government in 2010 new intensive changes occurred on the basis of the Magyary Program for Public Service. The Magyary Programme is not merely a plan but it is a program which “determines the objectives, the fields of intervention and the forthcoming measures.” (Magyary program, 2011)

The new rules which were put into force during realization of the program resulted in further intensive changes in the organization and the staff of the public administration⁷³.

In which direction the Hungarian public administration proceeds is difficult to predict since these changing processes has not been finished yet (some of them are still in progress). Objective evaluation cannot yet be done as the subject matter is very close in time. (cp.:Hazafi, 2014) The main direction of planning is a centrally regulated public administration which also uses the manager tools of the competitive sector. Seniority and at the same time the personal attitude, talent as well as skills must be considered, and it is important for the civil servants to improve their professional knowledge continuously. (Poór, Karoliny, 2014)

An example to this is the introduction of the new system of the efficiency evaluation (2013) which on the one hand builds upon the sphere of activity and the tasks of the civil

the government decision 1100/1996 (X.2) was accepted the aim of which was a middle-distance complex reform process to be carried out. (Balázs, 2011)

⁷¹ The system of competition, the admission, making the contract (the assignment), the promotion, the payment (salary) the system of compulsory trainings (basic and higher level examinations as well as examination in administration) were determined. An early type of efficiency measurement, the assessment also appears.

⁷² The requirements which were raised during the integration process in Europe and during joining to the Union were determinant in the conception of developing the New Public Management in Hungary. (Balázs, 2011)

⁷³ In the past four years the uniform integrated system of customer service, the government administrators' windows, the district offices have been established, the integration of the government offices has come into being, regulations for the career of the civil servants and some new rules for proceedings have appeared.

servants on the other hand upon the personal ability, skills and competence of the person performing the task. The aim of the efficiency evaluation (in addition to performance enhancement resulting from financial advantages/disadvantages bound to the measurement) is to map the weakness of the civil servants performing the task and to train them in the field they most need help in⁷⁴.

This system is based on the fact – which in the competitive sector has been known for a long time – that an organization can be successful indeed if it can use the manpower effectively⁷⁵.

At this point we must stop for a moment. Human resource has several special properties. One of these properties is that it is able to be renewed but it might as well get entirely unserviceable, burnt out. It is like the battery of an automobile which during operation – under suitable conditions – is able to be charged up, but if it used unsuitably it may run down and recharging of it needs the use of great energy.

That is why “it is very important to bring the people performing their work (both the leaders and the personnel) into the focus of the operating processes and ensure attractive working conditions for them and keep them in the system for a long time as they represent the most important resource of the public service, they create new value and they are able to develop permanently and capable of introducing new ideas.”(Bokodi, Szakács, 2014)

A new field of research, trainings including the effect of the personality development

“It is not easy to decide in which direction is worth to start if development is required even if we know that other states in the European Union also search for solutions in order to realize a more effective public administration and a satisfactory career in this profession.” (Krauss, Petro, 2014)

Nevertheless, I would like to mark out a possible direction of research – within the scope of the system of the public administration as it is required to be implemented – and present it to the readers who are interested in it.

The starting point of the research

The changes occurring in the civil service in the last one and a half decade as described earlier make people doubtful even if the aim is clear and logical. There is a continuous change in the

⁷⁴ See: Kttv. 130.§, 133§ and 154§ as well as Government decision 10/2013. (I.21.) about the efficiency evaluation of employees in the public management.

⁷⁵ Management of the human resource within public services on the one hand must be adjusted to steady changes, shifts in direction and stress. On the other hand it must meet the challenges proactively. (Bokodi, Szakács, 2014)

system and in the task to be performed. In the last few years stability and calculability of the civil service have become insecure. Stress is often experienced within the system and fluctuation is more and more common. Besides this, events happening independent of the system of the public management also make their influence felt.

Changes in the society, the aftermath of the economic crisis in 2008 generated difficult conditions in the personal life of number of people. Many of them had to or still have to face existential problems which affect their performance. There is no doubt that oppressive troubles may distract attention from work, increase the number of mistakes resulting in reduced performance however “the attitude, the working behaviour, the loyalty, the commitment and professionalism of the person performing the job and also the quantity and quality of his daily performance is of no minor importance.” (Bokodi, Szakács, 2014 p. 136)

Based on the above we can state that the efficiency of the people working in public administration is influenced by several factors and it is important how these people react to these life situations and naturally, the reaction of the system or the official machinery is also important⁷⁶ because the long-term success of the given organizations – in the domain of both the competitive field and the public sector – depends more and more on “the attitude, commitment and willingness of the staff members.” The man became the central, determinant figure of the world of work. (Szakács, 2014, p.88)

The man as a special resource

Civil servants just like other people are resources who take not only their working ability but their individual history of life along with them to their workplace. Their attitude to work, their suitability and volition is influenced by their life history and these factors determine their efficiency to a great extent. (Huber, Schild, 2007) Realizing this fact, trainings for developing competency and skills became more and more important besides the traditional trainings giving theoretical knowledge. (Linder, 2014, p. 40)

Our life story, attitude to performance, willingness to meet the requirements, ability to develop and many more of our skills necessary for work take root in our babyhood⁷⁷, but they can be influenced by personal experiences. It often happens that unprocessed traumatic memories keep us back from being objective or prevent us from acting properly. Sometimes we face problems which seem unsolvable. What is more, the time we spend with work uses

⁷⁶ Solutions and methods which are profitable for the public management and the civil servants must be admitted and must be made segments of the system. (Bokodi, Szakács, 2014)

⁷⁷ The scientific literature emphasises the importance of the family as primary group of socialization in shaping the careers of individuals. (Huber, Schild, 2007, p. 62)

up a significant amount of our energy which may reduce our motivation and enthusiasm. (Marok, Martos, 2006)

The employees who handle people (e.g. receive clients) are subjected to increased burden. They have to cope with such a large quantity of problems of different quality which would put even the most competent person to the test.

In my opinion developing self-awareness through which another type of problem handling and proper way of acting can be learnt is very important. In this field support should be given to employees in order to “help them form their own system of acting, to make them realize, consider and possibly change their method.”⁷⁸ (Huber, Schild, 2007, p. 67)

As a result of the development in the last decades knowledge management including competence management⁷⁹ have become fashionable methods in the world of the different economical organizations. “Today appreciation of knowledge... taking different connecting fields into focus is perhaps natural to everyone” (Bencsik, Marosi, Dőry, 2012) in the competitive sector. But how do organizations which are not profit oriented approach this question? Is maintenance of people as “means of production” important for them? If yes, what can they do to realize this aim?

Protection and regeneration of human resource

One of the basic pillars of the reform process which started in the 1990s is that public administration should be made stable and conditions for high level quality service should be established. However, the well-defined regulations and the reliably operating system in itself do not guarantee efficiency and quality. (Balázs, 2011) Selecting, developing and training of the members of the staff are important tasks in professional point of view. (Verebélyi, 1998, Kttv., 273/2012 (IX.28) Korm.r.)

These two functions of the human management (selection and training/development) are connected to each other in a certain manner and both are important in view of the result (i.e. public management providing a quality service). In respect of the present theme the importance of trainings especially the ones which aim to develop self-awareness and personality based on team work is stressed.

According to the representatives of the humanistic psychologists (including Abraham Maslow, Carl Rogers, Routh Cohn) personal development is a natural ambition of the

⁷⁸ In the Hungarian translation the word method is used, however, its meaning in the context is rather “their actions, treatment and attitude to others”.

⁷⁹ Competence management is a “complex means in the process of the human resource management which is used for ensuring performance at a required level by developing the competence of the employees”. (Linder, 2014 p. 41)

individuals. (Huber, Schild, 1996) People's success in life can be promoted by catalysing the starting process of development thereby helping to form their positive self-image. A tool to this catalysing process is to keep trainings to develop self-awareness/personality.⁸⁰

When personality development trainings are held in small groups the members of the group can share their problems with each other according to predetermined rules. On the basis of the reflections of the members of the group it will be clear for them that others also had similar experiences, they are not the only ones who have difficulties. From these shared experiences they can get ideas how to solve those problems in the future which they were not able to solve or only could solve partially earlier. People taking part in the group work can try out new alternative behaviour in a safe environment and can get immediate feedback which helps them choose and practise the most proper behaviour. Finding the proper behaviour will help them perform their task in a higher level. (HR Portál, 2014)

The group method makes it possible for the participants to enlarge their problem solving repertory, and they will be able to make use of the experiences gained during the training not only in their work but in their private life too. (cp.: Eisenbarth, 2004)

OBJECTIVES AND METHODS

A possible new field of research

This is the field I would like to examine more closely during my research in the forthcoming times, namely the outcomes of the self-awareness trainings and their effect on the employees and the organization. According to my presumptions – as I have written about it before – it is imperative to know what kind of self-knowledge the workforce has, what kind of behaviour techniques and acting schemes he or she has acquired in life and how they apply these techniques during their work. I am to prove the fact that the higher the level of self-knowledge they have, the more effectively they can apply their adaptability skills in new situations. With better stress-resistability and improved problem-solving skills they will carry out their task more fruitfully.

Though it is true that civil servants do not contribute to the industrial output directly, but they give the operational background, so they have an important role. As I noted before, due to the changes both in the economy and the political and social arena, it is harder and harder to find a committed employee who is fit for working in the public sector. Also it is more and

⁸⁰ “The starting point for organizing groups of self-awareness is the effort made in order to help people live a better, more valuable, more satisfactory life”. (Huber, Schild 2007 p. 97)

more difficult to keep the ones who have already been working in the field. The recruit, the selection and the training of new workforce is very costly and time-consuming task for the organizations. In my opinion – and I am about to prove it to the best of my knowledge – as a result of personality-developing sessions:

- the situation awareness and problem solving skills of the public servants improve
- they acquire better solving skills for situations that seem to be humanly problematic⁸¹
- a net formed among the public servants aids them to be more loyal and more motivated
- ultimately their satisfaction at the workplace strengthens
- the rate of changing workplace decreases

The decreasing fluctuation brings economic benefits to the administrative organ (more precisely it yields decreasing costs as for the selection, the hiring and the training of the new workforce). This present research is a stepping stone in a process of which the ultimate goal is to examine whether the personality-development session for the public servants is an economically remunerative investment⁸².

It is important to state that the value of the training sessions held in the administrative field has been increased. The system of further training for public servants and the methodology of these trainings have been fundamentally changed. We can witness a shift in paradigm in which training and learning methods customized for the public servants are applied. We have some experience in the efficiency of the new system but this special domain of the training system (the effect of the personality-developing trainings) to my knowledge has not been examined yet.

The research is conducted according to the following logic. Advantageously, a long-term (twelve-month long) examination is proposed and directed to two groups (one attending the self-awareness trainings and a so called control group not receiving trainings). There will be three samplings, one before the training, one immediately after the training and one at the end of the follow-up period. The participants are selected from voluntary people so that each unit of the examined organization is represented. The group method to be used during self-

⁸¹ For example the administrators deal with customers more patiently, tolerably. They handle internal stress (that distract their attention from the work done effectively) better, and settle their conflicts in a reassuring way etc.

⁸² I find the demonstration of the above mentioned statements important because the tax paid by the citizens can be spent rightfully on personality-trainings by the government only if they are proved to bring positive results – for example: they bring justifiable economic benefits or fall of costs.

awareness trainings is the so called Social-therapeutic roll play (evolved in Germany in the 1970s as Sozialtherapeutischen Rollenspiel) which has been used in Hungary for about twenty years. (Stein, 2009)

CONCLUSION

The study introduces the use of human resource management and its relevance to the public administration. The personality development can be an important tool for more efficient work, it is more adequate to deal with problems in this field.

The study has a brief introduction to the historical development of public administration with the Hungarian elements and also notes why it is important for the personal development in public administration. The study actually is an idea of research that I tried to justify. I submitted the appropriate methods and tools of the investigation that are still looked for.

During my investigation I would like to find the answer to the following questions: Exactly in which areas and how can the change caused by development be experienced? Can the effects of it be experienced directly or only indirectly? My aim is to make the effects of the personal development trainings measurable and examine how the changes can be experienced (or can they be experienced at all) during one's job. I will examine how the connections of people within the target group and the control group change and also how the connections between the members of the two groups change. I will collect information about the motivation, loyalty and contentment of the civil servants and about the changes which may come about. At present I am looking for the suitable methods and tools to be used during my investigation.

The research focuses on a delicate field which is very difficult to measure. It is not by chance that the literature dealing with this theme especially with the results of the practical experiences is restricted. Relatively few attempts have been made to measure the unmeasurable. Still, I will make the attempt.

I hope I will succeed.

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SOCIAL WELL-BEING IN THE HUNGARIAN METROPOLITAN REGIONS: AN EMPIRICAL APPLICATION OF THE STIGLITZ REPORT

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Abstract

Based on a representative sociological survey with a sample size of 5.000 respondents carried out in 2014, this study investigates the social well-being of people living in the nine largest Hungarian cities and their metropolitan regions, in comparison with survey results from 2005. In the analysis, particular attention has been paid to the Stiglitz Report's recommendations, to the multi-dimensional nature of social well-being, as well as to the simultaneous consideration of its objective and subjective factors. In the case of the Hungarian metropolitan regions, the eight dimensions of social well-being identified in the Stiglitz Report are explored: (1) material living standards (income, consumption and wealth), (2) health, (3) education, (4) personal activities including work, (5) political voice and governance, (6) social connections and relationships, (7) environment (present and future conditions), and (8) insecurity (of an economic as well as a physical nature). The empirical analysis revealed that the former core-periphery downward slope of metropolitan regions has clearly changed over the past ten years; whereas city centres are still in a favourable position, and the urban outskirts are getting more and more fragmented, suburban zones have undergone significant restructuring. As a result, developed and underdeveloped suburbs have seen an equalisation in terms of social well-being since 2005.

Keywords: social well-being, Stiglitz Report, Hungary, metropolitan regions, inequalities

INTRODUCTION

The 2009 report of the renowned Stiglitz–Sen–Fitoussi Commission (*Stiglitz et al., 2009*) represents a major milestone in the recent research on social well-being, fundamentally changing the entire scientific discourse on the related topics. Based on wide-ranging scientific studies and initiatives, the authors of the report identified eight dimensions of social well-being: (1) material living standards (income, consumption and wealth), (2) health, (3) education, (4) personal activities including work, (5) political voice and governance, (6) social connections and relationships, (7) environment (both its present and future condition), and

finally, (8) insecurity (of an economic as well as a physical nature). The Commission recommends considering these dimensions *simultaneously* in studies (*Stiglitz et al., 2009, pp. 14–15.*).

Although a growing body of scholarly work deals with the recommendations of the report (*see for example Easterlin, 2010; Oswald, 2010; Noll, 2011; Rojas, 2011; White et al., 2012; Madonia et al., 2013*), its empirical applications have mostly been carried out on national scale to date, comparing well-being levels across different groups of countries. This scope, however, created a significant research gap on the geographical scales ‘below’ the national one, i.e. empirical studies on regional, as well as on urban and intra-urban levels. For the relatively rare exceptions of local-scale well-being research, see the works of e.g. *Marks et al. (2004)*, *Steuer–Marks (2008)*, *Mguni–Bacon (2010)*, whereas in the Hungarian case, the limits and the first experiences of the sub-regional level measurement of well-being are demonstrated by *Gébert et al. (2012)* and *Nagy–Koós (2014)*.

In order to gain a deeper understanding of these local-scale specificities, this study investigates the social well-being of people living in the nine largest Hungarian cities and their metropolitan regions, based on a representative sociological survey with a sample size of 5.000 respondents. In the analysis, particular attention has been paid to the Stiglitz Report’s recommendations, to the *multi-dimensional* nature of social well-being, as well as to the simultaneous consideration of its *objective* and *subjective* factors (*in detail, see in Stiglitz et al., 2009, pp. 11–16.*).

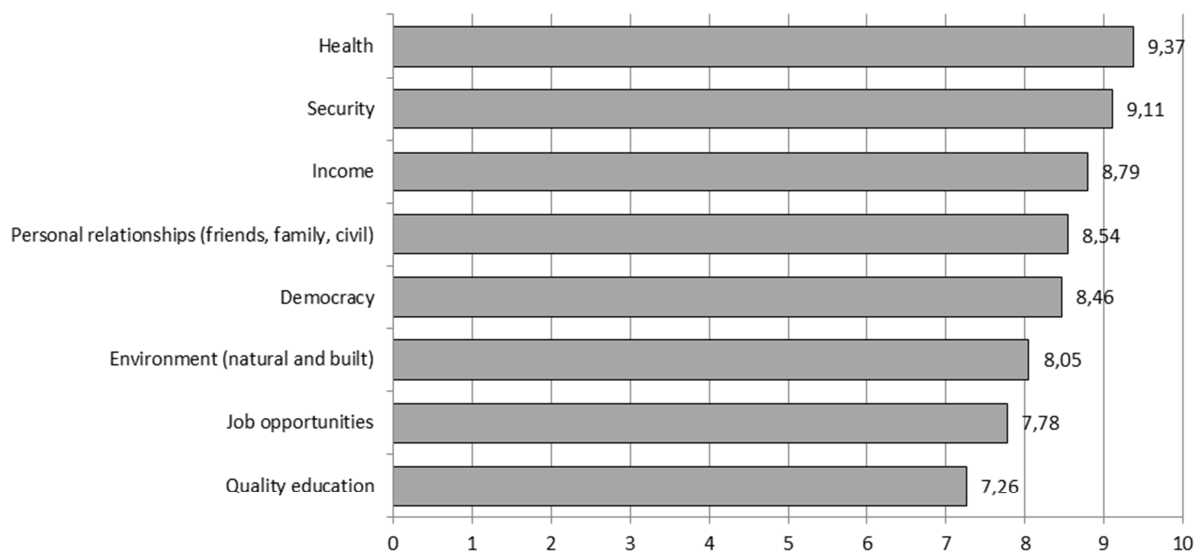
METHODOLOGY OF THE RESEARCH

Besides relevant secondary data obtained from international databases, the research is primarily based on a representative sociological survey conducted in the nine largest metropolitan regions of Hungary (Budapest, Debrecen, Szeged, Miskolc, Pécs, Győr, Nyíregyháza, Kecskemét, and Székesfehérvár), carried out between 9th January 2014 and 17th March 2014. The collection of survey data was performed by TÁRKI Social Research Institute. (For further methodological concerns and the detailed description of the sample, see *Ferencz, 2015a.*) The selection of the territories had been motivated by another very important factor: the possibility of comparing the data with the results of a previous research which was conducted in 2005 in the same metropolitan regions (summarised in *Szirmai, 2009*), also having a sample size of 5.000 respondents. (Throughout the paper, references are made to the 2005 survey.)

The main objective of the 2014 survey was to explore the socio-spatial characteristics of the well-being of people living in the different zones of Hungarian metropolitan regions; as an important (initial) part of the questionnaire, participants had to mark the *importance* of various factors in their own lives that represent the dimensions of social well-being identified in the Stiglitz Report (Fig. 1). On the one hand, these opinions might be interpreted as the well-being preferences of the residents of Hungarian metropolitan regions, however, they also show the relative ‘weight’ of dimensions compared to each other. It can be clearly seen that they rated health, security, and income as the most important ones. Besides these, personal relationships, democracy, the (natural and built) environment, opportunities to work and high-quality education were also considered crucial, although to a lesser degree.

DIMENSIONS OF SOCIAL WELL-BEING IN THE STIGLITZ REPORT (2009)	THE RELATED QUESTION IN THE TÁMOP-QUESTIONNAIRE (2014)
Material living standards (income, consumption, wealth)	Income
Health	Health
Education	Quality education
Personal activities including work	Job opportunities
Political voice and governance	Democracy
Social connections and relationships	Personal relationships (friends, family, civil)
Environment (present and future conditions)	Environment (natural and built)
Insecurity (of an economic as well as a physical nature)	Security

Figure 1 Subjective importance of well-being dimensions among respondents (0 = not considered important, 10 = considered very important)



Data source: TÁMOP-research (2014)

Hereinafter, the most important characteristics of the eight dimensions of social well-being will be presented in the case of the Hungarian metropolitan regions, with a particular focus on socio-spatial inequalities and their underlying mechanisms.

THE DIMENSIONS OF SOCIAL WELL-BEING IN HUNGARIAN METROPOLITAN REGIONS

Material living standards (income, consumption and wealth)

According to the Stiglitz Report, when measuring material well-being, emphasis must not only be placed on production but on *income*, *consumption* and *wealth* as well (*Stiglitz et al., 2009, pp. 12–13.*). The reason behind simultaneously considering these three factors is that income affects the structure and intensity of consumption, while pre-existing wealth is an important basis for sustainable consumption. While individual or household income might change over time, wealth is more stable, furthermore, as such, can provide more balanced consumption. Moreover, an important improvement is taking the *scale of households* into account which might help eliminating positive and negative changes that affect individuals (like in the case of changes to tax laws).

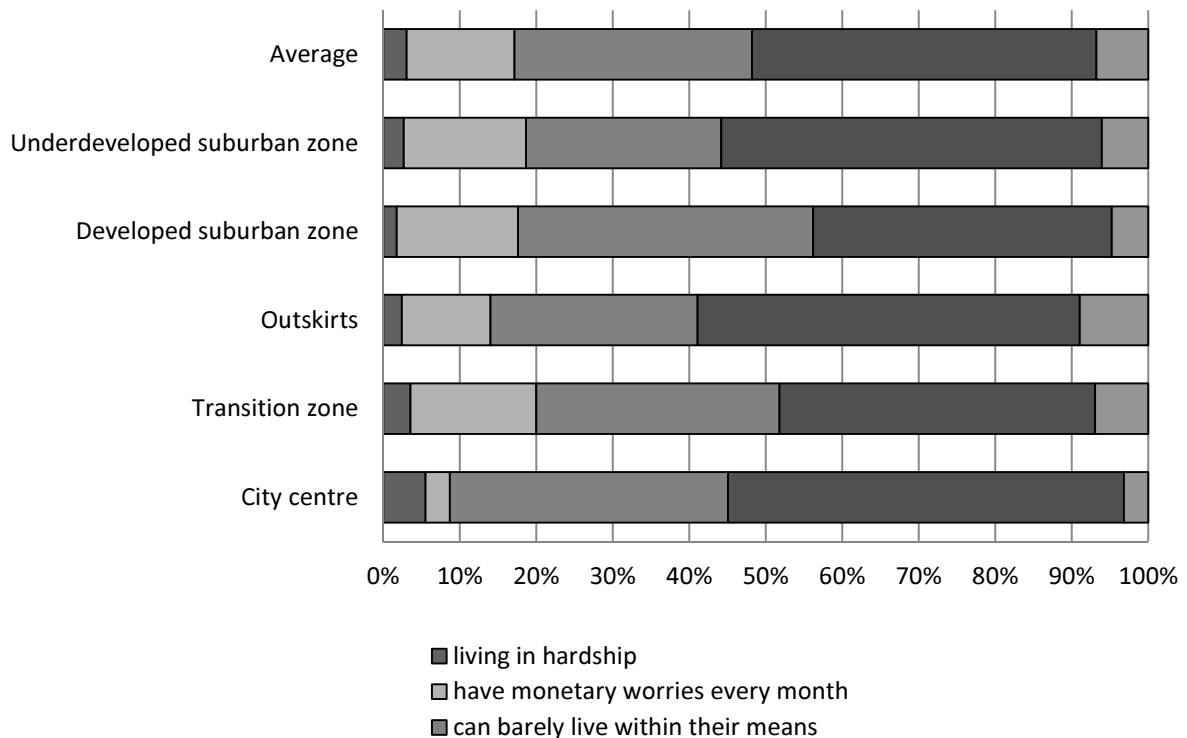
As stated by a comparative study on domestic income inequalities among countries (*World Bank, 2014*), Hungary features characteristics typical of former Eastern Bloc countries. It is, however, not considered poor on a European or global scale, since neighbouring countries and even some other EU member states have greater income inequality levels. (For instance, in Austria the incomes of the highest 10% of earners is 6.8 times that of the lowest 10%, while the same value is 5.5 times for Finland and 7.5 for Romania – see *World Bank, 2014; Central Intelligence Agency, 2014.*) Nevertheless, the gap between the purchasing power of people living in the wealthiest and poorest regions of Hungary is getting wider and wider: inhabitants of the richest municipalities have 166.4% of the Hungarian average at their disposal, compared to 29% of the average in the most underdeveloped municipalities (*GfK, 2014*).

Among the Hungarian metropolitan regions' inhabitants, health and safety are rated as the two most important factors, followed by income. Half of the respondents consider themselves to be middle-income earners, along with a large percentage of inhabitants that judge themselves as having a higher social status. Relatively few people (2–3%) can be found at the bottom and top of this subjective ladder, meaning that middle-income population's strong marginalisation and descent into lower statuses is less reflected in the opinions of metropolitan region respondents. In the 2005 study of the same metropolitan regions, more than 60% of the urban population considered themselves as middle-income earners, and large

groups were present in lower income tiers, however, much fewer respondents placed themselves into the highest or lowest deciles (*see Szirmai, 2009*). Consequently, in 2014 the polarisation between the ends of the income ladder is increasing in the societies of metropolitan regions. Also, the middle classes have seen an increase in their wealth, with a significant portion being able to move towards higher income tiers.

When examining the spatiality of the subjective evaluation of income and wealth inequalities, it can be observed that the majority of people living in city centres believe that they belong to the middle and upper-middle income categories, while the percentage of people who consider themselves the poorest is negligible. Cities' transition zones show a more varied landscape, with most of the population being unqualified and poor, often living in segregated, dilapidated residential areas. Besides them, the presence of middle and higher income groups is also significant. The percentage of respondents classifying themselves as high and highest-income is the largest in suburbs. Yet, polarisation in suburban settlements is much higher than in cities because the middle income tier is thinner there, while people classified as poor make up a larger percentage. Developed suburban zones have more people who consider themselves mid-income earners and a narrower range of people who define themselves as low-income earners (Fig. 2).

Figure 2 Subjective material well-being in Hungarian metropolitan regions



Data source: TÁMOP-research (2014)

Regarding *material security*, the first remark to be made is the population's difficulty in accumulating wealth. Although three quarters of respondents – especially highly educated people – can manage with their current income (at worst with conscious planning), few of them have the privilege of a worry-free material well-being. The percentage of people living in financial hardship and from paycheck to paycheck is almost 20%. Active members of the workforce and students mostly manage well with planning. Many pensioners can barely make ends meet, while the unemployed, inactive group's situation is especially critical. People above the age of 60 are characterised by a high degree of material uncertainty, while middle-aged and young adults are less so.

The poorest households are concentrated in the transition zones of cities and in developed suburban zones, whereas their number is much lower in city centres. The distribution of the middle income category is more balanced, making up to half of the suburban zone's population, while those belonging to higher household income categories are mainly concentrated in underdeveloped suburban zones, city centres and outskirts districts. Income inequality is the highest among households in the transitional zone and suburbs, whereas the relationship between developed and underdeveloped suburban settlements has shifted towards the advantage of the latter since 2005. There, the proportion of wealthy households is more visible, while settlements with a developed economy are experiencing a rise in lower-status groups.

Health

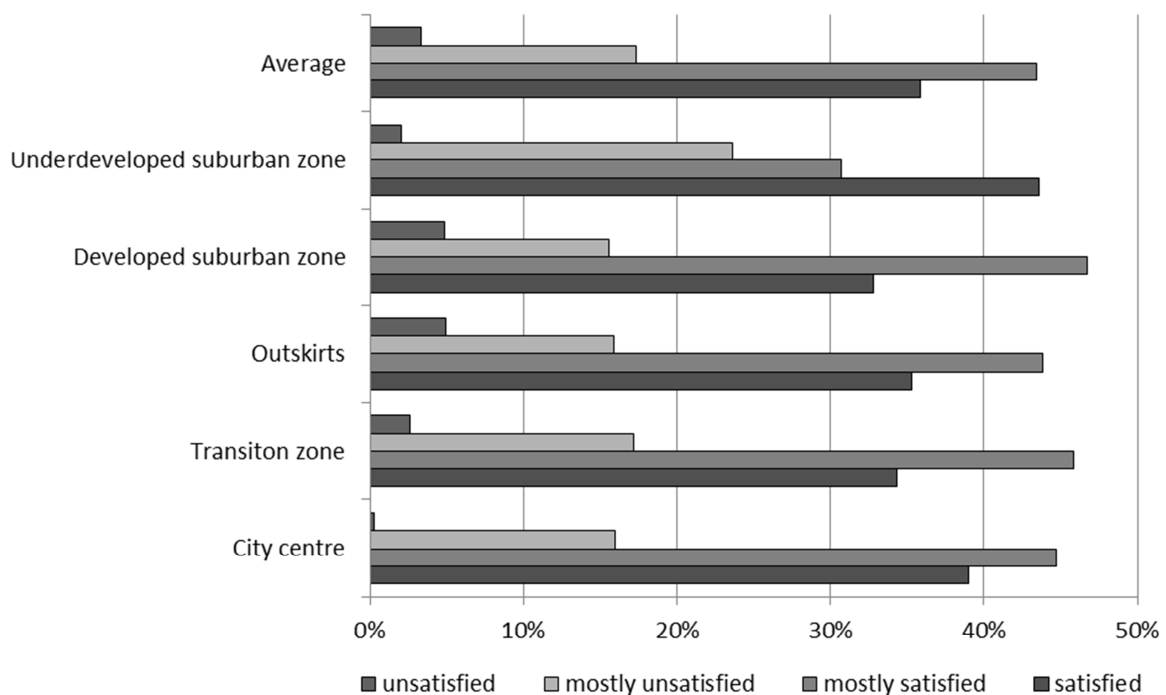
Health undoubtedly has a major influence on the quality of life. WHO defines health as a state of mental, physical and social well-being which is not limited to the lack of infections and weakness, and is not static but a dynamically changing process. The Stiglitz Report places particular emphasis on the effects of health on objective and subjective well-being; out of the eight dimensions, it considers health as one of the most important determining factors. The report calls for the establishment of a complex method for health measurement that combines mortality and morbidity, the satisfaction with somatic and psychological well-being, and eliminates measurement differences in different countries (*Stiglitz et al., 2009, p. 45.*). According to *Molnár–Kapitány (2013)*, the most decisive factor for Hungarians' subjective well-being is their state of health. The majority opinion of metropolitan area inhabitants also supports this, as their most important criterion for well-being is health (see Fig. 1).

In accordance with international health statistics, the Hungarian population's state of health is one of the worst in a European context. With a life expectancy of 71.6 years, Hungary falls

at the end of the European ranking, among the likes of Slovakia, Romania and Bulgaria. Over the last 10 years, the average life expectancy has risen by 3.5 years. However, this change is still relatively lagging behind positive changes in Europe (Eurostat, 2014a). Hungary was placed 107th out of 178 countries in the 2006 “Satisfaction with Life Index”, 103rd in the 2012 “Happy Planet Index”, and 43rd in the 2014 “Human Development Index”. According to OECD’s ranking, Hungary has the 10th highest per capita alcohol consumption. It also ranks 7th in WHO’s suicide index. The percentage of Hungary’s population diagnosed with malignant tumours is among the highest in the European Union (Eurostat, 2014b). Looking at the number of years spent in health paints a somewhat more favourable picture, with the 2012 data being 61.9 years for women and 61.3 years in the case of men, qualifying Hungary as mid-range in this aspect.

Since the 1990s, there have been three salient developments: first, mortality and life expectancy indicators have improved; second, education levels have improved along with labour market position, leading to a more favourable level of healthcare culture; and third, the health gap between high- and low-status populations has apparently widened (Uzzoli, 2013). During the economic crisis, however, these developments stopped due to decreasing healthcare expenses, cutbacks on disease prevention and health preservation activities, and a loss in health insurance incomes (Makara, 2010).

Figure 3 Respondents’ satisfaction with their state of health



Data source: TÁMOP-research (2014)

In the light of these, it is surprising to see the metropolitan regions' societies being satisfied with their state of health (Fig. 3). 80% of respondents find it mostly or completely satisfactory, with the most satisfied being the young, the highly-qualified, and those who are active, while pensioners are the most unsatisfied. Concerning problems, only a negligible number of respondents indicated chronic psychosomatic ones, while acute, sudden health complaints are more characteristic. Most complaints were received from physical workers, unemployed people, and executives.

Likewise, most respondents are rather satisfied with healthcare and the local social care system; this is also remarkable, especially in the light of the negative processes associated with the current national healthcare infrastructure. The highest degree of satisfaction is expressed by pensioners and students, whereas the most disillusioned are the unemployed. As for the respondents' educational attainment, vocational and technical school graduates tend to be more pessimistic, while grammar school, college and university graduates are mostly optimistic about the healthcare system.

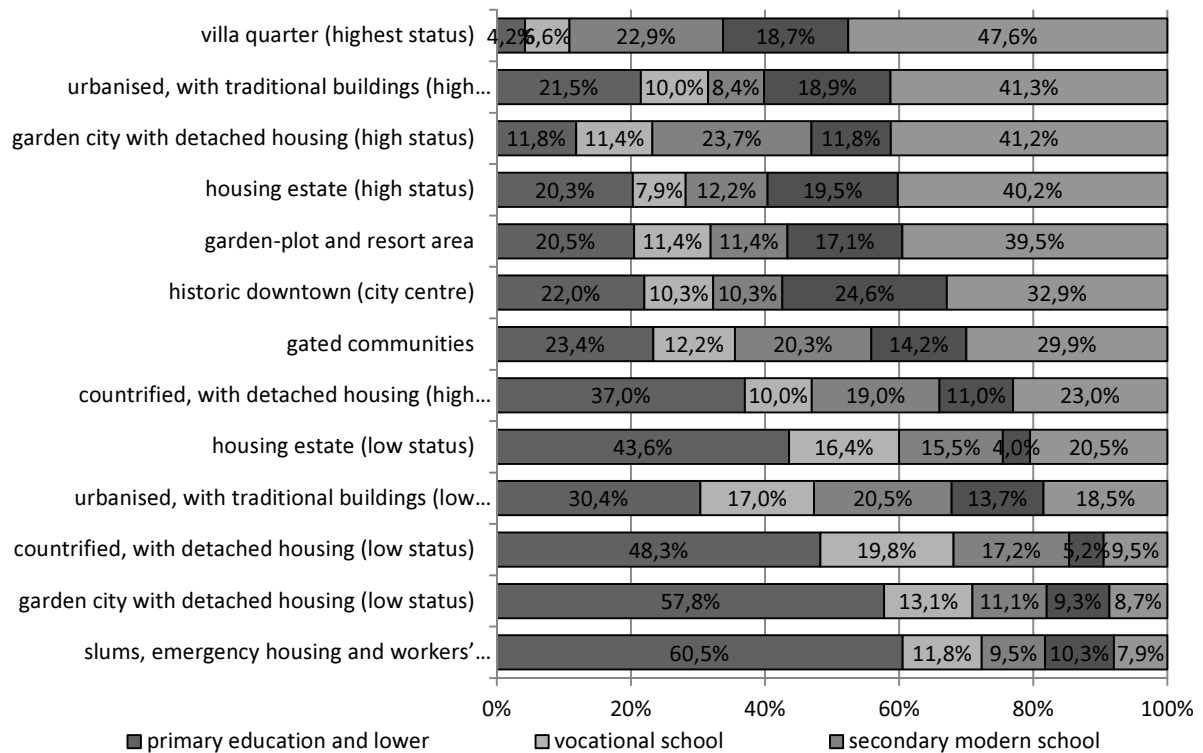
Satisfaction is greater in the Budapest metropolitan region than in the eight other Hungarian metropolitan regions. Concerning spatial disparities, city centres' inhabitants report the greatest satisfaction. This is less surprising as healthcare facilities are mostly situated in central locations, and their accessibility is also most favourable from city centres. People living in the metropolitan regions' underdeveloped settlements are the most disillusioned, since these are settlements that mostly develop in an extensive manner. Here, the development of the local infrastructure does not always keep pace with the population's rapid expansion. The accessibility of the central city might be difficult from these settlements due to gridlocks and to a sometimes low quality road network. Similarly, healthcare system development does not always follow population growth either. A strong reason for dissatisfaction with one's state of health might be the poor accessibility of healthcare establishments (*Molnár–Kapitány, 2013*).

Education

The authors of the Stiglitz Report highlight that little research is focused on the effects of education on the quality of life (*Stiglitz et al., 2009, p. 46.*). Although the population of metropolitan regions does not rate education as the important part of their everyday lives (Fig. 1), its study is definitely important because education is strongly correlated with other dimensions of well-being.

Firstly, the spatial patterns of the respondents' educational attainment have been examined. Previously, in 2005 (*as revealed in Szirmai, 2009*), there was a definite downward slope in the level of educational attainment from the core towards the periphery (with a decrease in college and university graduates and an increase in people who at most completed elementary education). By 2014, this has somewhat started to be equalised. In terms of educational attainment, we attempted to reveal more detailed intra-urban patterns than in the previous “city centre – transition zone – outskirts – developed suburban zone – underdeveloped suburban zone” subdivision of metropolitan regions.

Figure 4 Respondents' educational attainment by urban districts (excluding developed and underdeveloped suburban zones, n = 3.678)



Data source: TÁMOP-research (2014)

Distributions shown on Fig. 4 completely correspond to preconceptions and spatial stereotypes: while zones ranked in the upper third are without exception high-status ones, the lower third is exclusively composed of low-status areas. The two extreme categories are villa quarters (graduates: 47.6%, primary education and lower: 4.2%) and slums (graduates: 7.9%, primary education and lower: 60.5%). These distributions also reveal further features, such as the great “distance” between high and low status housing estates (which was confirmed by

sociological and real estate market research as well, see for example *Csizmady, 2000*) and the remarkable differences between high and low status urbanised areas of city centres.

Concerning the educational attainment of metropolitan regions' population by activity categories, 39.4% of the active population has a college or university degree, compared to 18.3% for pensioners and only 8.5% for the unemployed. (According to the 2011 census, 19% of people over 25 have a college or university diploma. In our sample, it is 25.9%, making metropolitan regions overrepresented in this aspect compared to rural regions.) As for the other end, the activity rate is 13.9% among those who only completed primary education.

According to a 2012 Eurobarometer study, only 35% of the Hungarian population speaks at least one *foreign language*, which placed it last in the EU. Immediately ahead of Hungary are Italy (38%), and the UK and Portugal (both 39%) (*European Commission, 2012*). The results of that study were confirmed by our research, which found 37.7% of people speaking at least one foreign language. Their percentage rises from the core towards the periphery (with 33.6% in the city centre, 38.9% in the transition zone, and 41.4% in outskirts districts), probably owing to the changing age structure of these zones. The clear hierarchy in 2005 previously described is, however, still visible in suburban zones: while 36.9% of the population of developed settlements speak at least one foreign language, this percentage is only 29.8% in underdeveloped settlements. In the case of the more detailed breakdown of urban zones, spatial determinations almost entirely correlate with educational attainment. Villa quarters have the highest share of people speaking at least one foreign language (69.7%) and slums the lowest (only 19.2%). Most people who speak foreign languages belong to younger age groups, and they are people of high educational attainment.

Concerning the respondents' satisfaction with *educational institutions*, city centre residents are the most satisfied, while inhabitants of underdeveloped suburban zones are the least. Interestingly, people in developed suburban zones, transitional zones, and suburbs are about equally satisfied. Moreover, there is no noticeable change in this regard in the entire sample's satisfaction, and in the two sub-samples (i.e. in the Budapest metropolitan region and in the 8 other cities' metropolitan regions). In the case of city centres (placed first) and underdeveloped suburban zones (placed last), however, the two sub-samples are very different. While city centre residents in the Budapest metropolitan region are less satisfied with their educational institutions than those living in the other 8 metropolitan regions, the opposite holds true for underdeveloped suburban zones. Here, also surprisingly, those living in the capital city's region report greater satisfaction than those living in other urban regions. Finally, by examining these opinions only in the central cities, it might be seen that the divide

between eastern and western parts of the country – commonly revealed in Hungarian spatial disparity research – appears only partially in the rankings of the 9 large cities. People in Győr, Szeged and Budapest are the most satisfied with their city's educational institutions, while the least satisfied are residents of Székesfehérvár, Miskolc and Nyíregyháza.

Personal activities including work

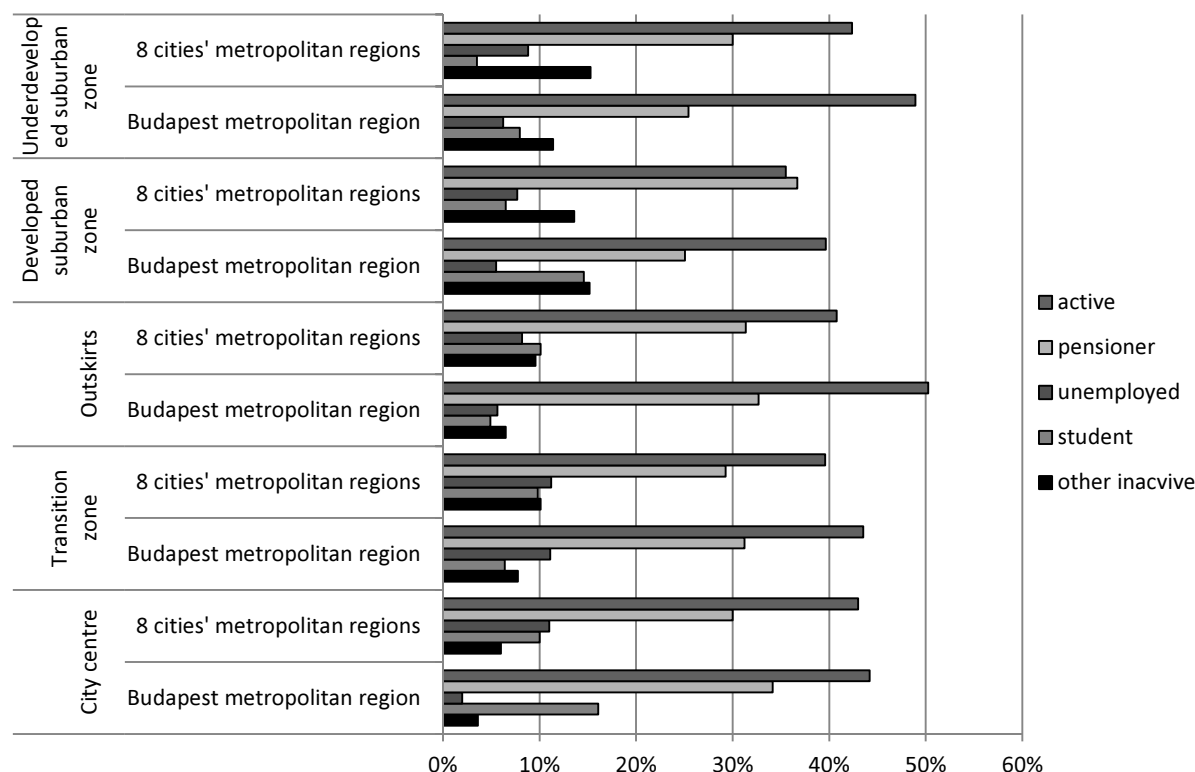
According to *Stiglitz et al. (2009, p. 49.)*, work greatly affects the level of subjective well-being. Although opportunities to work are an important factor in the well-being of the population of Hungarian metropolitan regions, they cannot compete with the need for health and the feeling of safety. While *leisure time* is also greatly emphasised in the Stiglitz Report, it is largely undervalued by respondents as well, with only one third of them stating that leisure time makes up a very important part of their lives.

Due to a number of factors, the Hungarian employment rate is one of the lowest among OECD countries. These include slowed economic growth, an obsolete economic structure, a large share of the black and grey labour market, frequent tax avoidance, and a high rate of inactivity among the low-qualified. Among EU member states, Hungary's 55.6% employment rate (in 2011) was only underperformed by Greece and Croatia (*Eurostat, 2012*). Hungary's employment statistics are mainly characterised by the spatial variability of the inactivity rate and its long-standing, extreme difference among various social groups (*Fazekas, 2005*), further exacerbated by the increasing number of so-called "hidden job-seekers" and unemployed people bereft of hope in both rural and urban regions (*Köllő, 2004*).

Hungarian metropolitan regions are important centres of employment, with outstanding levels of activity compared to the national average. Based on our results, activity does not conform to the general core-periphery model; inside large cities, there is a relative balance, with the highest activity of suburbs (Fig. 5). Here, underdeveloped urban regions have the highest activity rate because these settlements have recently become targets of widespread suburbanisation. The ones involved are generally younger, more qualified, and belong to the middle- or high-income bracket, moving in both from city centres and farther parts of the country. Likewise, suburban settlements also have significant inactive population: the settlements' young demographic structure is due to the great number of students. Activity rates in the Budapest metropolitan region are better than in other Hungarian urban regions. While the number of pensioners is not considerably different, the percentage of unemployment is. Unemployment in rural areas is clearly more severe, however, with

different patterns: unlike in the national average, most unemployed people there reside in city centres.

Figure 5 The population's activity in metropolitan regions



Data source: TÁMOP-research (2014)

The largest group among the unemployed are pensioners; they make up almost one third of the total population. They are predominantly concentrated in large cities (especially their centres), while their numbers are lower in the suburban belt which features a much younger demographical structure. The large percentage of students in city centres might be explained by their important functions in terms of education, and by city centre regeneration projects, having been intensified over the past years. These strengthen gentrification, offering new spaces for young adults in their 20s and 30s (mostly without children) to settle down.

Opinions on *job prospects* suggest worsening: almost two third of the metropolitan regions' residents rate their prospects as declining, while 30% indicate stagnation (and therefore a lack of improvement), and only 6.5% indicate improvement. Decline is prevalent in opinions from the Budapest metropolitan region, while opinions from other metropolitan regions mostly indicate no change. The most significant duality might be observed in the socially very varied transition zones, as both satisfaction and a critical level of dissatisfaction are the highest there. It seems that the classical dichotomy between developed and

underdeveloped suburban zones is reversing in this aspect as well, since the inhabitants of settlements with an underdeveloped economy are the least disillusioned regarding their job prospects, while negative outlooks are more common in developed settlements. The investigation of population by age groups led to an interesting result: in spite of the statistics about freshly graduated inactive and unemployed people all over Europe (*OOK, 2012*), in our study almost a quarter of people aged 18–29 see an improvement in their employment prospects, whereas the majority perceives these as unchanged. On the other hand, people between 40 and 50 seem to be the most disillusioned.

The 1990s was a transformation period marked by structural unemployment, after which the labour market's situation started steadily improving (to the point where, in 2001, the national unemployment level fell to 5.7%). This stopped at the beginning of the economic crisis which led to severe conjunctural unemployment. The first half of 2010 saw an 11.2% unemployment rate; this was close to the absolute peak during the politico-economic transition (12%), which was caused by a rapid breakdown and rearrangement of the labour market (*KSH, 2010, p. 11.*). Since 2010, statistics show a more rapidly adapting labour market and a steadily improving unemployment rate. Hungary's current 8.1% rate is on par with unemployment in Sweden, Finland and the Netherlands.

In accordance with the metropolitan regions' general socio-economic structure, differences in the number of job-seekers steadily increase from the city centre to suburban settlements. Although developed and underdeveloped suburban zones had clearly different qualities back in 2005 (*see Szirmai, 2009*), the positive rating of developed settlements and the negative rating of underdeveloped ones is apparently reversing: recently there are much fewer job-seekers in underdeveloped settlements, whereas 10 years ago their numbers were higher in every age bracket. This decrease is partly caused by a growing inactivity rate and is also due to the fact that young people are spending an increasingly longer time in (higher) education.

Political voice and governance

Political *voice* and social *participation* mean the ability to participate as citizens, being part of policy-making, the free expression of ideas, and the freedom of speech. It is also a substantial part of one's quality of life. These tools help in improving policies, ensuring transparency in state and municipal institutions, contributing to the articulation of the most important human needs, and focusing attention on the most deprived groups. They might simultaneously reduce the possibility of conflicts and possibly strengthen the consensus-building skills of individuals (*Stiglitz et al., 2009, p. 50.*).

Concerning the dimension of political voice and governance in the Hungarian metropolitan regions, it is important to highlight that the levels of the respondents' *knowledge* of various forms of social participation and governance, and their *actual participation* in these forms are very different (see Fig. 6 and 7). The most widely known and practiced forms are the election of mayors and local representatives, referendum, and residential forums. In the light of the Hungarian society's political (in)activity (*Szabó, 2011*), however, it is not surprising that the share of people actually participating in any forms is significantly lower than the share of those who know about these, in the case of all categories. Moreover, it is also alarming that only a very small proportion (less than 6%) of people take part in almost half of the categories. In addition, it is also important to note that *actual participation* is not equal to *actually participating*, since these techniques provide only low level of participation, instead of actual freedom to influence, or to be heard (see for example *Sen, 1999* or *Bajmócy–Gébert, 2014*).

Figure 6 The respondents' knowledge of various forms of social and political participation (top), and their actual participation in these forms (bottom)

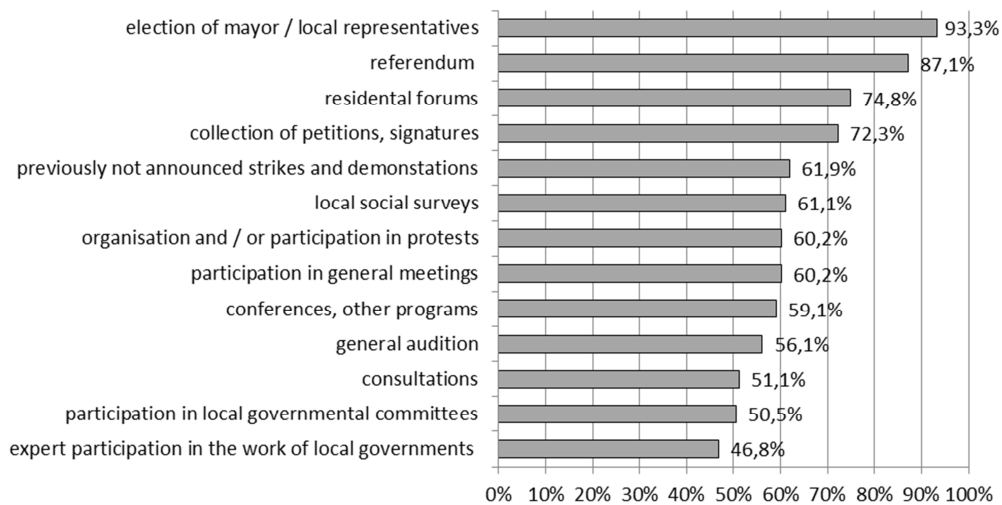
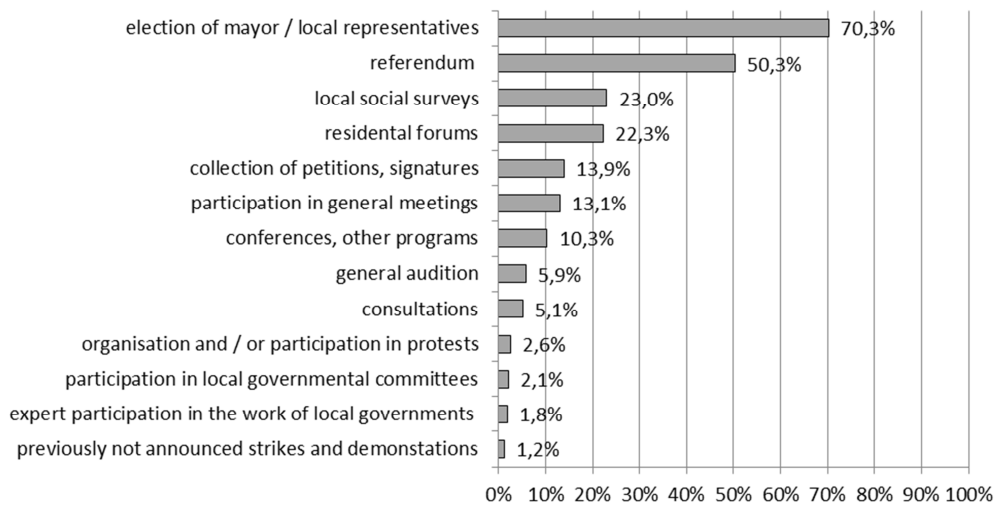


Figure 7 The respondents' actual participation in various forms of social and political involvement



Data source: TÁMOP-research (2014)

Using factor analysis on the same metropolitan region sample, *Ferencz (2015b)* created a tripartite typology of the forms usually practiced together: (1) “typical activity” (referendum, election of mayors and local representatives, local social surveys), (2) “oppositional behaviour” (collection of petitions and signatures, organisation and/or participation in protests and previously not announced demonstrations), (3) “expert interest” (general auditions, participation in local governmental committees, visiting conferences and other programmes, consultations). “Typical activity” is most characteristic to people living in underdeveloped suburban zones, aged 40–49, and being trained in vocational school, “opposition behaviour” is typical among those living in developed suburban zones with lower income levels, whereas “expert interest” is most typical among residents of underdeveloped suburban zones, aged 50–59, with university or college degree.

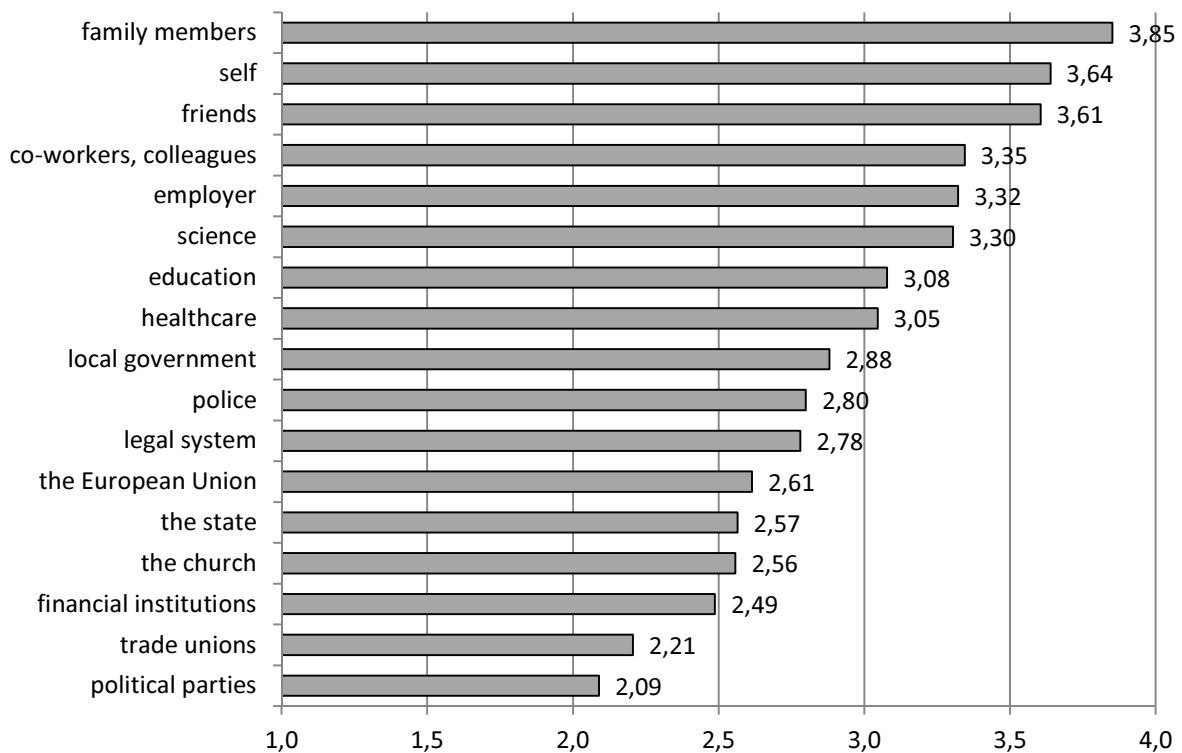
Besides forms of participation and people’s activity, the most important sources of *receiving information* have also been studied, since these are the channels through which one might get involved in political issues and governance. The majority of respondents (66.9%) is getting informed from local media (press, TV, radio), and via their personal connections (58.7%), while the share of online forums (9.3%) and blogs (8.4%) as information sources is the lowest. Here, interconnected groups of sources could also be recognised: (1) “traditional tools” (flyers, brochures, municipal bulletin boards), (2) “networked communication” (blogs, online forums, websites), (3) “local comprehensive tools” (local media, personal connections). People most likely reached via “traditional tools” are those living in underdeveloped suburban zones, aged above 60 (pensioners), with basic educational

qualification and income level below the average. In contrast, getting informed via “networked communication” is typical among residents of the central cities (especially the outskirts), aged 18–29, with higher qualifications and income levels, whereas “local comprehensive tools” typically serve as information sources of people living in central cities, aged 40–49 (actives), having university or college degrees, as well as the highest levels of income (Ferencz, 2015b).

Social connections and relationships

Social connections might affect individuals’ quality of life in diverse ways, for example by feeling more secure in one’s residential area, feeling more appreciated, or by providing a greater chance to find a better (or more suitable) job. Besides these positive effects, however, social capital can also cause negative externalities, e.g. a higher degree of criminality if one belongs to certain groups. When measuring the dimension of social connections, the Stiglitz Report suggests focusing on *trust* in various actors, as well as on the causes and consequences of the *marginalisation* of socially isolated groups (Stiglitz et al., 2009, p. 52.).

Figure 8 Levels of trust in Hungarian metropolitan areas (1 = weakly trusts, 4 = strongly trusts)



Data source: TÁMOP-research (2014)

In accordance with these guidelines, first the issue of trust has been studied (Fig. 8). Respondents mostly trust their family, themselves and their friends, then co-workers and employers (surprisingly about equally). These are followed by more abstract categories like science, education, or healthcare. Trust below the median is only observable for three categories: financial institutions (probably due to the credit crunch), trade unions (due to the constantly weakening employee advocacy in Hungary), and political parties. In the light of the growing level of Euro-scepticism in Hungary (*Martin, 2013*), it is notable that respondents show more trust towards the EU than towards the state or church. A breakdown by zones shows that city centre residents are the most trusting, followed by the underdeveloped suburban zone, the transition zone and the outskirts, whereas the trust level of developed suburban zones is, quite surprisingly, the lowest.

Besides trust and cohesion, the dimension of social and personal connections can also be measured by the lack of these (in the case of Hungary, see *Tóth, 2009*). According to a study based on a sample of 2.000 respondents, conflicts that gain the most visibility in Hungary tend to arise (1) between the rich and the poor, (2) between Hungarians and people of other ethnicities, and (3) between urban and rural populations (*Tóth, 2014*). In our metropolitan study, we attempted to reveal social fault-lines such as these when examining the causes of *discrimination*. Results show that relatively few respondents were – at least admittedly – discriminated against. Those who received negative discrimination were due to their age (5.9%), ethnic minority status (5.3%), or their gender (4.0%).

Out of them, we further investigated those who were negatively discriminated due to their national or ethnic minority status, based on their place of residence. Through a detailed breakdown of urban areas, a quarter of these people live in slums or emergency housing, while one sixth live in low status residential areas and low status garden city detached-house zones. On the other (positive) end of the hierarchy we find, without exception, only high status residential areas. These findings draw attention to the strong geographical boundedness of a still urgent social problem in Hungary (*Bernát et al., 2012*).

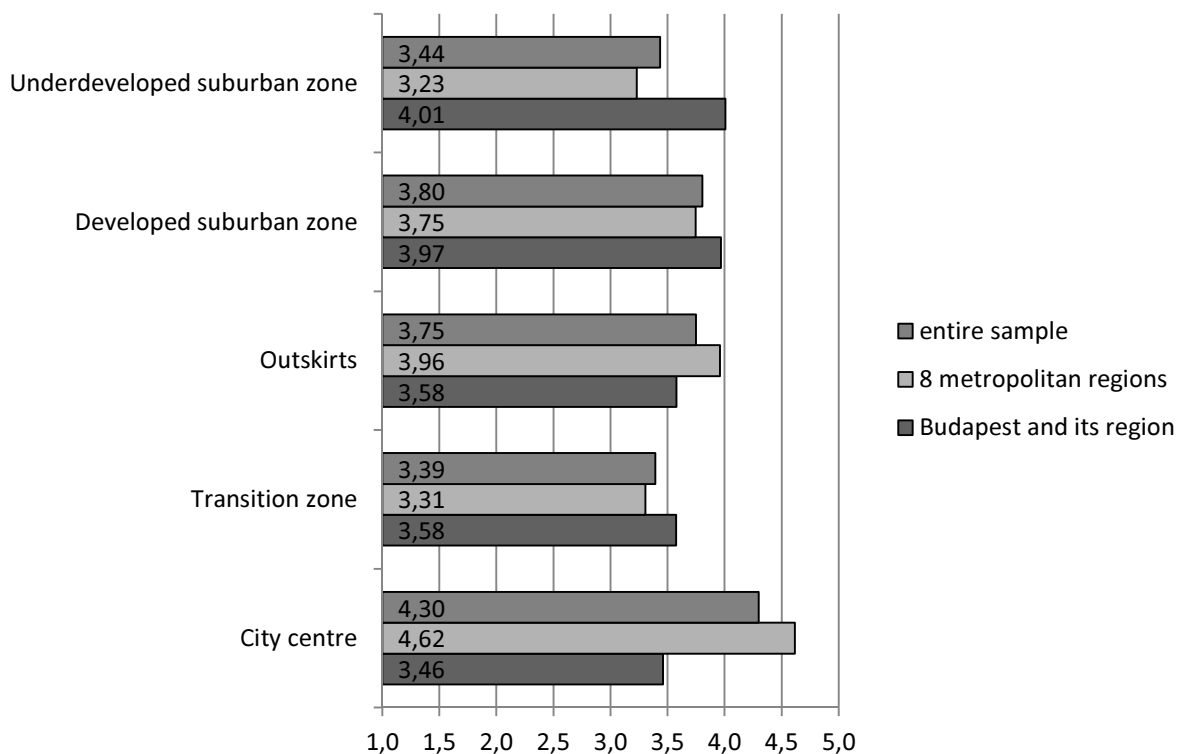
Environment

The state of the environment is not only a high priority in sustainability (being one of the key elements of the Stiglitz Report) but it is also a highly important factor that affects people's quality of life. It affects human health *directly*, for example through air and water pollution, soil contamination and noise, and *indirectly*, through climate change, the decreasing biodiversity and increasing number of natural disasters. Taking this into account, the report

also points out that the effects of the environment on social well-being are hard to measure. In the case of public surveys, this dimension is probably the hardest to capture using objective indicators. According to *Stiglitz et al. (2009, p. 52.)*, studies should rather measure people's *satisfaction* with the state of the environment, as well as their personal feelings related to it because any change to the environment tends to affect each social group in different ways and to various degrees.

Figure 9 Satisfaction with the state of natural environment

(1 = completely unsatisfied, 5 = very satisfied)



Data source: TÁMOP-research (2014)

Concerning the respondents' satisfaction with their natural environment on the entire sample and in the two sub-samples (Budapest's metropolitan region and 8 other cities' regions), the transition zone's population is the least satisfied (Fig. 9), since most of the polluting industrial facilities are located in this zone. However, it is surprising that city centres ranked first in terms of satisfaction. This rating is due to the positive opinions measured in the 8 metropolitan regions' city centres; since Budapest's city centre has very few green areas, the sample here is fairly different. In the case of the capital city's metropolitan region, the suburban zones – the first target areas of suburbanisation in Hungary – ranked at the top. When looking at the entire sample, an “expected” pattern might be found, with the following

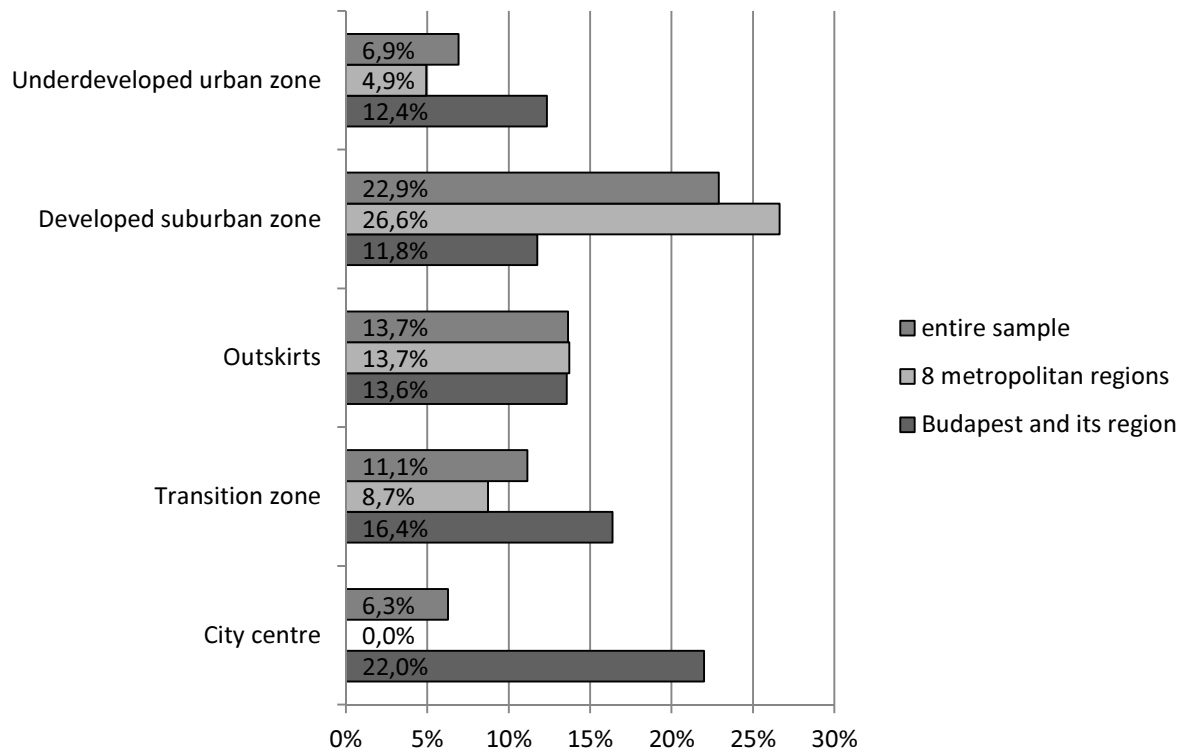
ranking: developed suburban zones, outskirts (which are also liveable by their extensive green areas), underdeveloped suburban zones, and finally, the transition zone. (It can also be observed that residents of the 8 major Hungarian cities' metropolitan regions are a little more satisfied than those living in Budapest and its immediate vicinity.) In the satisfaction data of the 9 cities, there is a divide between east and west, as found in several studies: the most satisfied with the state of the natural environment are citizens of Pécs, Győr and Szeged, while the most dissatisfied are people in Debrecen, Miskolc and Nyíregyháza. (Nevertheless, all cities are above the median, meaning that their population is rather satisfied.)

According to the respondents, the most severe problems are the increasing amounts of litter, droughts and heat waves, and increasing pollution due to the growing number of cars. The environmental problems they identified as the least severe were the pollution caused by factories, floods, and storms. In a breakdown by metropolitan area zones, with all types of problems considered (on a scale ranging from 1 to 5), the transition zone is the most "problematic" (3.03), followed by outskirt districts (2.98), developed suburban zone (2.69), underdeveloped suburban zone (2.37), and finally, the city centre (2.07).

Insecurity

The well-being dimension of insecurity is inseparable from criminality, the latter having an extensive literature (for example, see the comprehensive work by *Deflem ed., 2006*). Concerning this issue, we first investigated whether the respondents – or anyone in their households – have ever been the victim of *burglary or physical assault*. The most "vulnerable" groups tend to be the unemployed and pensioners, whereas students are less affected. It is the developed suburban zones that are affected the most by criminality; they are followed by outskirt districts and transitions zones, while underdeveloped suburban zones and city centres are the safest (Fig. 10). It is remarkable that the samples of the 8 metropolitan regions and Budapest's region are fairly different: the safest zone in Budapest's agglomeration is the developed suburban zone, whereas the city centre is the least safe, yet as an extreme counter-example, no single respondent in the other 8 major cities considered the latter unsafe. In general, Budapest's agglomeration is more affected by criminality than the regions of other major Hungarian cities. We can also see that, in this regard, the factor of spatiality is more important in differentiation than social structural characteristics.

Figure 10 “Have you or any member of your household ever been a victim of burglary or physical assault?”



Data source: TÁMOP-research (2014)

Asking respondents what precautions they take against burglary (“*Do you have a security alarm system in your household?*”), the results are in line with preconceptions. Villa quarters are in the first place (with [admittedly] 40% having security alarms in their households), followed by gated communities, high-status garden city zones with detached housing, resort areas, and high-status urbanised, traditionally-built residential areas. The other end of the list also goes as expected, with only 2.8% of households in slums having an alarm system. Low-status housing estates, low-status countrified areas with detached housing, and low-status garden city zones with detached housing all have levels below 10%. Only the historic city centre’s value is lower than expected; this is probably due to the fact that city centres are otherwise better monitored (via surveillance systems, more apparent police presence etc.).

A core element of the Stiglitz Report’s insecurity dimension is people’s *sense of fear*, since the number of people whose lives are affected by fear is many times more than those that are actually suffering from criminal activities (*Stiglitz et al. 2009, p. 53.*). We therefore considered it important to also know respondents’ subjective opinions about (in)security (“*How safe do you feel it is to walk alone at night where you live?*” [*1 = not safe at all, 4 = very safe*]). Results show a spatial configuration that is similar to actual criminality data in

some zones and differ in others; subjective opinions hold slums as the least safe (2.21), and the other three zones with values below the median are also low-status zones. On the other end, the zones considered the safest are (surprisingly) high-status housing estates (3.14).

Finally, it is important to emphasise that crime is not a monolithic category (although often thought of and treated as such); in fact, different forms of crime have different characteristics and spatial patterns. To reveal these, we asked respondents about which crime-related problems they perceived as the most serious in their own neighbourhoods. Answers show that various types of criminal activities occur at different intensities in different zones (and thus, also in the perceptions of their residents); for instance, people residing in villa quarters consider organised crime and economic crimes to be the most serious ones, well above burglary, robbery and violent crimes against life. (Somewhat similarly, people living in gated communities also see economic crimes as the biggest problem along burglary and robbery.) Therefore, neither residential (in)security nor its perception in major Hungarian cities can be conceptualised as being spatially homogeneous. Whereas factual data show a more or less predictable spatial hierarchy (with higher-status zones less and lower-status zones more affected by criminality), questions aimed at personal perceptions show that urban security and insecurity often have different spatial patterns in people's mental maps.

CONCLUSIONS

In our study, the characteristics of social well-being dimensions identified in the Stiglitz Report were examined in the case of the major Hungarian cities' metropolitan regions. In addition, the relevance and applicability of the model in the Hungarian context was also indirectly tested.

Based on the results of the in-depth analysis of the eight dimensions of social well-being, the most significant changes since 2005 are the improvement of the population's education and qualification levels, the improvement in their financial situation (and thus a reduction in the polarisation of income and wealth), and the strengthening of the middle and upper classes. The processes behind these include – among others – the transformation of metropolitan regions' societies, gentrification, and spatial exclusion. As a result, the social downward slope formerly articulated in the core-periphery model of metropolitan regions (*Szirmai, 2009*) has clearly changed; on the one hand, the most highly developed zones of metropolitan regions are still city centres, however, outskirt districts are also “competing” for their first place. Since 2005, rapid social development has taken place in these zones, their residents have seen

a considerable increase in their material wealth, quality of education, and activity level. The presence of high and middle-status people is the highest here (along with city centres) but the population's health, educational attainment and activity lag behind those of the city centres' residents. The most important feature of transition zones is their increasing fragmentation. Here, one can find low-status segregated residential areas and slums where the urban poor are concentrated right next to the most highly developed zones of urban regions. This place is home to the most severe environmental problems, to worrying levels of criminality, and to a population with a low financial well-being. This spatial fragmentation is much stronger in Budapest than in other major cities.

Finally, while in 2005 the infrastructural and economic development of suburban settlements reflected the general level of social development (*Szirmai, 2009*), this is no longer valid in 2014. Over the last 10 years, there has been a significant restructuring; as a result, developed and underdeveloped suburban zones have seen an equalisation in terms of social well-being. In many cases both the objective and subjective social well-being of the population of underdeveloped settlements changed favourably, especially in the case of material well-being, subjective health, activity, decreasing unemployment, satisfaction with the environment, as well as in terms of security.

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THE LACK OF SOCIAL WELL-BEING IN TWO DISADVANTAGED HUNGARIAN MICRO-REGIONS

A TÁRSADALMI JÓL-LÉT HIÁNYA KÉT MAGYARORSZÁGI HÁTRÁNYOS HELYZETŰ KISTÉRSÉGBEN

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Abstract

The main objective of this paper is to reveal the crucial economic and social factors determining the lack of social well-being in two disadvantaged micro-regions of different geographical locations in Hungary, and to summarize the similarities and differences between them. The study also compares the two analysed cases in terms of subjective well-being, as well as indicators of micro-regions and urban areas located in the same county in order to demonstrate the inter- and intraregional differences. According to the hypothesis, basically the east-west determined spatial inequalities of objective social well-being emerge also in connection with subjective well-being issues. The results are based on an empirical research using qualitative and quantitative methods conducted in 2014.

Key words: social well-being, disadvantaged micro-regions, inner and outer peripheries

Absztrakt

A tanulmány célja, hogy megvizsgálja a társadalmi jól-lét hiányát okozó gazdasági és társadalmi tényezőket két eltérő földrajzi elhelyezkedésű hátrányos helyzetű kistérségben, s hogy összegezze a közöttük meglévő hasonlóságokat, különbségeket. A tanulmány összeveti a kistérségek vizsgált folyamatait egyfelől egymással, másfelől pedig az azonos megyében lévő vidéki nagyváros-térségek hasonló mutatóival, s feltárja a társadalmi szubjektív jól-lét inter- és intraregionális különbségeit. A tanulmány feltevése az, hogy az objektív társadalmi jól-lét alapvetően nyugat-kelet meghatározottságú területi különbségei a szubjektív jól-lét tekintetében is megnyilvánulnak. Az eredmények egy 2014-ben lebonyolított, kvalitatív és kvantitatív módszereket is alkalmazó empirikus kutatáson alapulnak.

Kulcsszavak: társadalmi jól-lét, halmozottan hátrányos kistérségek, belső és külső perifériák

INTRODUCTION

Social well-being is a new paradigm. In 2008 the former French president Nicholas Sarkozy invited the Nobel prized economist Joseph E. Stiglitz and his outstanding colleagues to reconsider the role of the GDP (Gross Domestic Product) within the confines of competitiveness. The scientific committee lead by professor Stiglitz published the famous

paper "Report by the commission on the Measurement of Economic Performance and Social Progress" in 2009. The report stated that one of the major causes of the current global economic crisis is the following: the GDP that an indicator to be used for measuring social and economic processes is unable to measure social development. That is why it would be necessary to introduce certain innovative measurement tools. These tools are taking into account the aspects of sustainable development, its main pillars, the economic, environmental and social contexts, including the social well-being as well (Szirmai, 2015, 11). The term of social well-being comprises eight factors: the material living conditions (such as income, consumption and wealth indicators) the aspects of health, education, personal activities (including work) as well as the indicators of political representation and governance i.e. the indicators of political advocacy, the contexts of social and personal relationships, the aspect of present and future environmental conditions and finally the dimensions of economic and physical uncertainties (Stiglitz – Sen – Fitoussi, 2009).

The analysis of social well-being is particularly important not only for the formation of regional competitiveness, also for the management of contemporary social-spatial inequalities, which are gradually increasing (Pittau – Zelli – Gelman, 2010). As a consequence of the global economic crisis, job insecurity is also growingly present in the European countries. Based on several research results, the deteriorating social disparities hinder the economic performance as well, accordingly the primary aim of governments should be to mitigate these inequalities (Rodriguez-Pose, 1998).

The resistance against the crisis was more successful in those European regions which have strong economic and social infrastructural bases, and in those which were able to form the possibilities to connect into the global economic processes. However, the negative impacts of the great recession affected more seriously the less developed regions. Regional inequalities and social polarization have been increased for example in Hungary, especially during the transition period due to the historic effects and the impacts of globalization. In addition, the various effects were appeared in large differentiations, resulted the 'winners' and 'losers' regions. (Dusek et al. 2014; Enyedi, 1996; Enyedi 2009; Horváth, 2014). The global economy generally prefers those regions where the qualified labour force concentrated and where the good accessibility, infrastructure and appropriate milieu for economic development are present. It is possible to mention certain examples in the Hungarian context: the western regions and the large urban areas, especially the Budapest Metropolitan Area are among the positive examples. The eastern – in particular rural – regions are mostly among the losers. These areas have unfavourable locations due to peripheric geographical situation and the lack

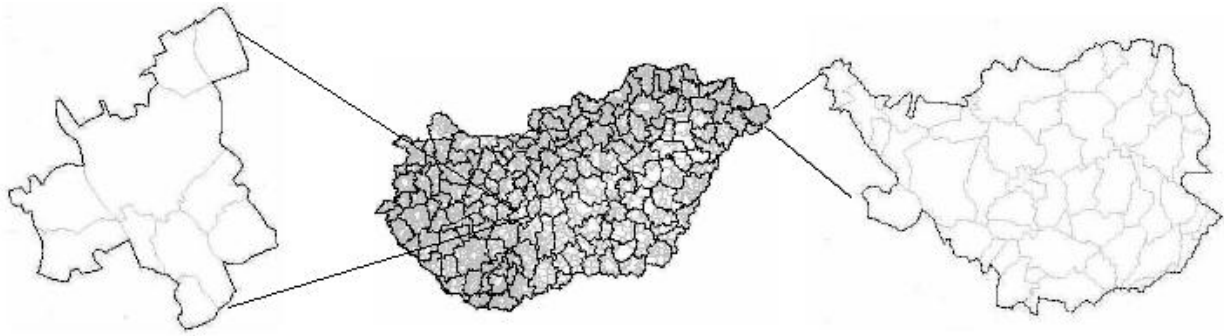
of the good accessibility included the higher concentration of disadvantaged social groups. The results of social exclusion are apparent also throughout the disadvantaged rural areas: the urban poor are increasingly moving out to the rural areas because of the higher urban real estate prices (*Kovács – Timár – Váradi, 2015*).

The main objective of this paper is to reveal the main economic and social factors determining the lack of social well-being in two disadvantaged micro-regions of different geographical position in Hungary and to summarize the similarities and differences between them. The study also compares the two analysed cases in terms of subjective well-being, as well as indicators of micro-regions and urban areas located in the same county in order to demonstrate the inter- and intraregional differences. According to our hypothesis, the basically east-west determined spatial inequalities of objective social well-being emerge also in terms of subjective well-being issues.

The micro-regions of Fehérgyarmat and Sárbogárd were chosen as disadvantaged areas based on their weak social and economic indicators. The Fehérgyarmat micro-region is located in one of the least developed regions of the country bordering Ukraine and Romania. The accessibility of the Fehérgyarmat micro-region is extremely bad, because of the lack of good and fast transport connections (there is no motorway nearby). The distance from the capital city, Budapest, is 200 km. The nearest large city is the county seat Nyíregyháza with 110,000 inhabitants.

The second examined micro-region, the Sárbogárd micro-region is also a socio-economically disadvantaged area located in the southern part of Fejér county. The micro-region is made up of ten settlements, a small town (Sárbogárd), one large (Cece) and eight small villages (Alap, Alsószentiván, Hantos, Igar, Mezőszilas, Nagylók, Sáregres, Vajta). In 2011 25 198 person lived in the micro-region altogether, which is almost six percent of the county's population. The nearest large city is the county-seat Székesfehérvár with 100,000 inhabitants (see Fig. 1).

Figure 1 The location of the micro-regions of Fehérgyarmat and Sárbogárd in Hungary



Edited by Baranyai, N. 2015

The results presented below are based on an empirical research using qualitative and quantitative methods. As a qualitative segment of analysis we conducted 30 in-depth interviews with prominent local persons in each micro-regions. In order to reveal the social well-being of people living in nine Hungarian urban areas⁸³ and micro-regions⁸⁴, two empirical surveys were conducted in 2014. The research in urban areas was based on a representative sample of 5000 people, while in micro-regions 1600 questionnaire were collected (400 in each micro-regions). Beyond general demographic questions surveys contained blocks concerning issues of employment, migration, satisfaction, confidence, happiness, success, health and household supply.

The lower level of social well-being in the north-eastern border in Hungary

The multiple disadvantaged position of the micro-region of Fehérgyarmat is explained by many reasons based on the relevant researches.

1. Firstly historical reasons: the north-eastern part of Hungary, especially Szabolcs-Szatmár-Bereg County near the Ukrainian border is a historically underdeveloped region. Local economy was primarily based on agriculture and limited food production. During the period of state socialism most of the agro products (fruit, vegetables) served and depended on Soviet market. But after the 1990's the collapse of the soviet markets made the local economy very vulnerable.
2. Secondly, the *lack of significant foreign investments*. Since 1990 the trend has been that most multinational companies concentrated in the capital city and its region (Budapest

⁸³ Hungarian urban areas are cities with the population over 100,000 (Budapest, Debrecen, Győr, Kecskemét, Miskolc, Nyíregyháza, Pécs, Szeged, Székesfehérvár) and their agglomeration zones.

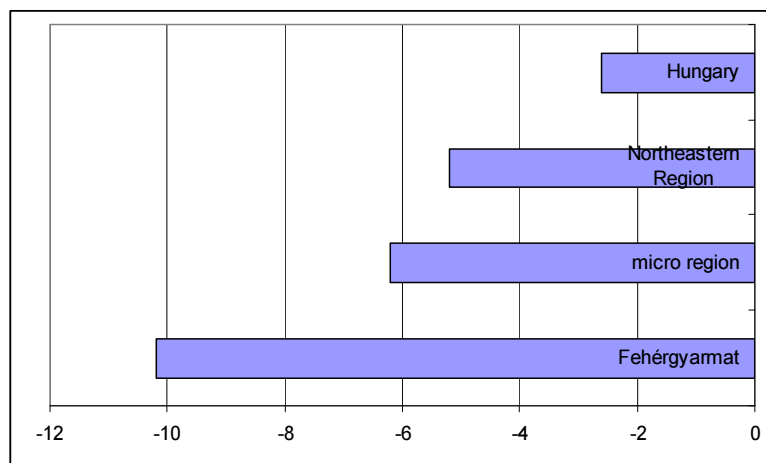
⁸⁴ The research was carried out in four disadvantaged micro-regions, two areas near to the eastern border (Fehérgyarmat and Sarkad micro-region) and another two regions representing the internal periphery located in Transdanubia (Sárbogárd and Sásd micro-region).

Metropolitan Region) or the Transdanubian and western part of the country. The multinational capital avoided the north-eastern part of Hungary especially the regions without good transport connections and qualified workforce.

3. Thirdly, higher *proportion of disadvantaged social groups*. The concentration of the most vulnerable social groups is common especially in the north-eastern region in small villages beside the border.

The social and economic difficulties of this micro-region exacerbated by the negative demographic situation as well. The population has been decreasing for years, because of high mortality and massive scale migration from this region. The population of Hungary has also been decreasing for decades, but not as fast as in this multiple disadvantaged micro-region (see Fig. 2 and Fig. 3).

Figure 2 Changes of the population in the country, the region and the micro-region between 2001 and 2011, %



Source: Hungarian Central Statistical Office edited by Julia Schuchmann

The most important cause of the population loss is the out-migration due to the lack of job opportunities in the city and its region as well. Because of the outmigration of young active people ageing is a crucial problem as well. The average proportion of elderly people is 23%, while the country average is 17%.

The economic performance of this micro-region is hindered not only by the bad demographic situation (out-migration of young and educated people, ageing population) but also by the higher proportions of low educated people. In the micro-region of Fehérgyarmat the average proportion of highly educated people is only 9,2% in contrast to the country average of 19% in 2011. As far as the multiple disadvantaged social groups are concerned: the average proportion of the roma minority in this regions is four times higher (12%) than the

country average which is 3%. The Romany minorities are the most vulnerable social groups in terms of their accessibility to the health care system, or to education and to healthy life.

As far as concern the employment situation in the micro-region, the results are very unfavourable. During the last two decades most of the former socialist companies collapsed. The former so called „kolhoz” or collective farms collapsed as well. Actually the biggest employer is the local hospital with 400 employees, and the municipality of Fehérgyarmat with 120 employees. As mentioned already in the introduction the multinational capital is not really interested to invest in this region, because of the unfavourable geographical and social characteristics of the micro-region. The employment situation is the worst in the small villages right beside the Ukrainian border. The proportion of employees among the active population in the Fehérgyarmat micro-region is 51,2% while in the urban areas of Nyíregyháza is 80% (see Tab. 1). After the introduction of the public work program (2013) practically this is the only possibilities to work for many people. The public work program was introduced in 2013 and it has become practically the only job opportunity for many people. The public work program is criticized very sharply in Hungary because of many reasons (it contributes to the social tensions between the mayors and local citizens, the public work program does not offer valuable job opportunities, it contributes to the exclusion from the labour market). It is now clear that public work programs cannot solve the problem of heavy unemployment in these unfavourable micro-regions they are only temporarily solution.

The local government intends to invite a Chinese investor to Fehérgyarmat. They are planning to set up an assembly factory with 300 employees. They started to negotiate, but until today without any real results.

Based on the interviews with local policy and local decision makers we can highlight four social and economic factors which hinder the development of the micro-region.

The first one is the extremely fast out-migration of the young and educated people from the micro-region. If this process continues without any changes in the future, the chances that any new industry or services will invest here. The competition between the cities (the Romanian border is near, and the city of Satu Mare with 100, 000 inhabitants is too close) in the region for prospective investors is big, and Fehérgyarmat is losing in this competition.

The second structural problem is the higher proportion of uneducated or low skilled people in the micro-region. The training programs of the local vocational school do not meet the current requirements of the global and local economy either. They train especially catering specialists, but the majority of the young people who complete the courses do not find any job opportunities in the micro-region. The development in tourism is quite moderate, there are

only few restaurants. In the city there is only one accommodation possibility. At the same time the local small and medium sized enterprises cannot find available skilled workers.

The third problem is the lack of any long term development strategy which suits the real social and economic conditions of the micro-region. Local government prefers to invite multinational companies to settle down in the micro-region but without having available local skilled workers.

The fourth problem is the generally low motivation of local people to change their negative attitudes. The problem is that most of the local people feel as a victims of the transition period, and many of them are waiting passively for help (from the EU, the central government, the municipality, etc.) to get a job or to have a better life.

These four negative factors reinforce each other and create a “vicious circle” and hinder the well- being of local inhabitants. So the biggest challenge for the decision makers is to help the micro-region to gradually get out of this negative spiral.

Inner periphery: the micro-region of Sárbogárd

The determinant factors of the region's disadvantaged position

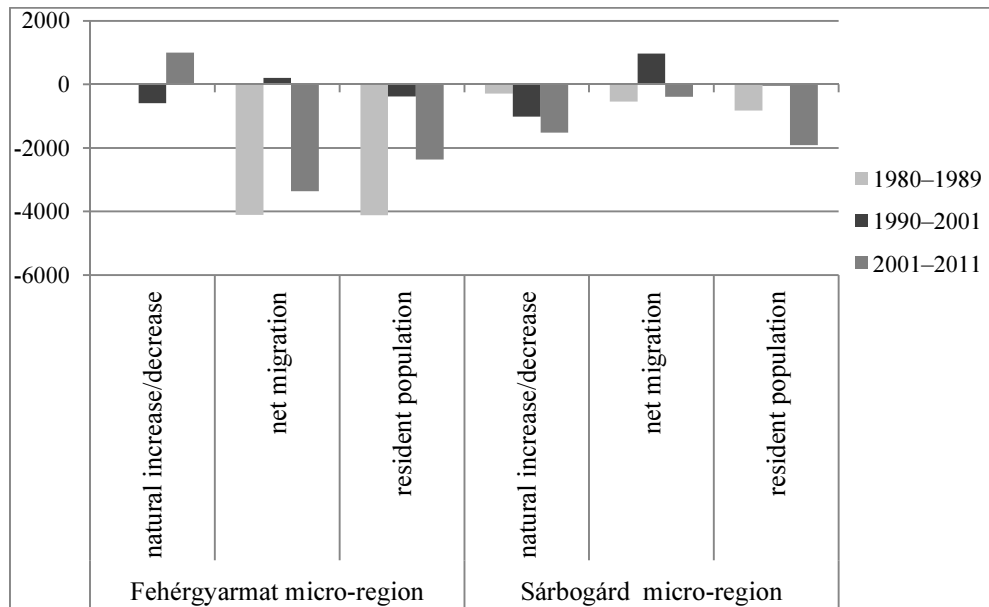
The territory of the micro-region belongs to a good quality agricultural land called Mezőföld, hence crop growing and stock-raising became typical activities in the area. Light and heavy industry firms in regional and surrounding towns offered another possibility for employment. After the transition collective farms split up, but surrounding firms were still able to absorb labour force. Soon these firms also started to decline resulting in significant unemployment in the micro-region. The withdrawal of foreign investments also affected the micro-region, when Mannesmann relocated its manufacturing unit from Sárbogárd to China in 2000. In the same year local troops of the Hungarian Army were eliminated. Subsequently the last major employers left the area leaving behind a significant number of supplier enterprises without work and future. Afterwards only the settled transnational companies in economic centres (Székesfehérvár, Dunaújváros) and a few smaller firms offered jobs for the area's working-age population, which notably altered the direction, the intensity and the duration of commuting. Nowadays agriculture is characterised by large-scale farming, accordingly, due to mechanization, living labour became in general redundant. The manufacturing sector remained weak, the firms turn out products of low added value. Due to the infrastructural developments of recent years the micro-region's transport network is eligible, even so the area is not attractive for investors. Although the micro-region is rich in natural values, the additional costs of environmental protection that burden the prospective investors hinder

economic development. On the other hand, tourism has a significant, albeit unexploited potential. Based on these characteristics, as well as the related statistical indicators, the micro-region – together with the neighbouring Enying micro-region – constitutes the county's socially and economically disadvantaged inner periphery, and also in terms of employment and infrastructure. The micro-region has decreasing and ageing population, partly caused by low birth rates, which are not able to equalize deaths, partly by the migration of young, qualified or job seeking lower qualified people (see Fig. 3). The majority of the population, especially the former agricultural workers, are unskilled, which inhibits employment, and causes long-term unemployment in the micro-region. Additionally, due to the fragmented structure of the settlement, Sárbogárd is a wide, rustic town with a lack of urban, therefore subregional functions (employment, education).

Processes and problems in terms of well-being dimensions

As we have already mentioned above, the *employment* opportunities are quite limited in the micro-region. Due to the lack of large and medium sized enterprises labour market is very narrow in the centre of the micro-region, accordingly the majority of working-age population can find jobs neither in Sárbogárd, nor in the nearby small towns (Simontornya, Enying). However, they have the chance to find employment at transnational companies in economic centres (mainly in Székesfehérvár or Dunaújváros) and in distant cities (Paks, Szekszárd), where they work mostly in three or continuous shifts. Workers are by necessity daily commuters; fortunately most of the companies still ensure transport between the habitation and workplace by contractual bus services. We mentioned 'still', because as a result of global financial and economic crisis, companies primarily dismissed employees who live far from their workplace, and reduced delivery zone to 40 kilometres. Currently it is ***rumoured that these zones will be further narrowed, which can lead to a*** subsequent high unemployment in the micro-region's southern small villages.

Figure 3 Vital statistics in the Fehérgyarmat and Sárbogárd micro-regions, 1980 – 2011, (person)



Source: Hungarian Central Statistical Office

At the level of settlements local governments or mayor’s offices became the largest employers by occupying civil and public servants in local institutions, as well as masses of public workers in recent years. Considering the labour needs of regional companies, the distribution of job status is not surprising. Most of the employed are semi-skilled workers (46%) or skilled workers (19.5%) in the micro-region (the average proportion is 26.7% and 24% in micro-regions; 20.1% and 26.1% in the industrialized Székesfehérvár urban area), while white-collar positions are almost non-existent (*KJU 2014, HAS CERS 2014*). Employment characteristics naturally leave marks on the population’s *living conditions*. The level of infrastructural facilities and public utilities of households remain well below the county values. The proportion of dwellings with full comfort is more than 20% lower than the county average (67.1%) and the ratio of low comfort level houses (semi-comfort, without comfort) is 17.5% (7% in the county). There are also deficiencies in communal supply, especially in the field of public sewerage network. The proportion of dwellings connected to sewerage network is only 43.8% in the micro-region (77.6% in the county), but we must note, that significant intra-micro-regional differences can be observed: in seven settlements the network is entirely absent (*KSH 2011*).

In the field of *health services* the future of the general practitioners service seems to be uncertain. The signs of future problems are visible right now, as physicians are ageing and some of the positions are already unfilled (in such cases replacement from neighbouring settlements is a common practice). This problem is basically caused by the low financing of

practices⁸⁵ and the low income of general practitioners. The institutional network is sufficient due to specialist's consultations and outpatient services in Sárbogárd, Enying and to the hospital in Székesfehérvár. There are more serious problems with the level of supply (emigration of physicians, waiting lists etc.), however, it is rather a national than a regional, micro-regional issue. Due to the low number of children there is no need or reason to maintain primary schools in every village, albeit local governments generally stand upon to preserve them (or at least the first four grades) in order to ensure attachment to the settlements. However, local governments heaved a sigh of relief when *educational institutions* were moved under state maintenance in 2013, although in many cases they do not agree with the operation and spirit of the Klebelsberg Institution Management Centre (KLIK). Due to the lack of some special education teachers, professionals dealing with children with special educational needs are overburdened. Governmental intervention is needed in this area, because the number of disadvantaged and SEN-children (special educational needs) is still growing. The only secondary school in Sárbogárd is a grammar school with 4 and 8 grades⁸⁶, thus there is a complete lack of vocational institutions. Accordingly, young people must also commute to Székesfehérvár, Dunaújváros, Simontornya, Szekszárd, if they want to learn a trade. Political and civic activity is definitely low in the micro-region. The *participation* of the inhabitants in parliamentary, local and EU elections was significantly lower in the last decade than in the county (*OVB 2009, 2010, 2014*), however, based on our empirical data the main political events (i.e. elections) are almost completely known, contrary to the alternative participation opportunities (for example referendum, public forum, demonstration). Due to the small number of civil or non-governmental organizations and their dependency on local governments, real civil activity is weak in the micro-region. Successful *community* building depends on several factors, inter alia on the structure and the size of the settlement, the existence and quality of public spaces, and – mainly – on the personality of the facilitator (mayor, cultural manager etc.). *Environmental and security issues* are both related to traffic. Based on the settlements' transport-geographical positions, significant internal differences can be observed in the micro-region. In the southern, underdeveloped part of the area high level of traffic (in many cases trucks) causes problems in the fields of air and noise pollution, safety, which make the inhabitants' quality of life worse. In terms of safety the advanced transport-geographical position appears rather as a disadvantage, since the easy access and lots of

⁸⁵ From January 2015 all the practices got monthly 130 thousand forints more governmental support in order to raise the level of service and to make the profession attractive.

⁸⁶ Previously it was a grammar and vocational school, and adapted the vocational structure to the needs of local companies.

escape directions are favourable for transit crime. Accordingly, in the northern part of the micro-region, particularly in the isolated settlements crimes are rarer.

Reviewing the micro-region's problems along well-being factors, economic and social deficits are unequivocal. Interestingly, these problems have been well known for decades, as it emerges from assessments and development plans. Development aims slightly changed, suggesting that programs died away or were not sufficiently developed and financed in order to stimulate the micro-region.

The spatial differences of objective well-being indicators

Notwithstanding that the two micro-regions have different past and started from different position after the transition, the experienced trends in social and economic processes are rather similar. Although migration processes and employment opportunities are undoubtedly better in the Sárbogárd micro-region, it does not provide a long-term vision for the area. The investment promotion policy of local governments in the last decades can be evaluated as a defeat. The failure cannot be explained by only the structural and functional deficiencies of micro-regions. As it is widely known, companies prefer to settle down in larger cities, hence there are suitable conditions for production (infrastructure, labour, tax relief). The small and medium-sized enterprises – suffering from lack of capital and resources – could and cannot solve the employment problems alone in the micro-regions. What is the way forward? For the basically agricultural micro-regions the change in agricultural priorities can be a possible (and partial) solution. Changeover to more labour-demanding smaller investments can lead to wider employment in this economic sector.

Table 1 Labour market position of working-age population, 2014 (%)

Regions	Employed	Public worker	Unemployed
Fehérgyarmat micro-region	51,2	32,5	15,9
Sárbogárd micro-region	62,6	9,8	27,7
<i>average of micro-regions</i>	<i>51,9</i>	<i>21,8</i>	<i>26,5</i>
Nyíregyháza urban area	80,2	3,5	16,4
Székesfehérvár urban area	84,3	2,5	13,2
<i>average of urban areas</i>	<i>80,2</i>	<i>3,5</i>	<i>16,4</i>

Source: KJU and HAS CERS

The other way of expanding employment is the public work program initiated and supported by the central government. Local governments welcomed the increased headcount and resources within the framework of the program, as they can purchase assets, equipment,

and manage the settlement's operational tasks, renewals etc. On the level of individuals public work is an obligate solution, particularly in the case of non-skilled people. Contrary to governmental goals, in these micro-regions public work is not a transitory station between inactivity and employment in the labour market, it rather seems to be a stable position, and *'will provide job opportunities for most people also in the future'*. In several cases the needy and eligible mass is wider than the number of public work positions. In these cases local governments/mayors have to decide who to employ, which can lead to conflicts or abuses. However, occasionally public work is just a 30-day program, with the only aim to become eligible for social support in the following year.

The labour market position of the working-age population in the Sárbogárd micro-region is more favourable comparing to the other examined micro-regions (see Tab. 2). Most of them is employed full or part-time, although unemployment is a bit higher than the average, with narrower strata of public workers. If we consider the data of the nearest urban area, the employment gap is unequivocal. Székesfehérvár concentrates a lot of job opportunities, the rate of employment is much higher than in the micro-region (moreover, higher than the average of urban areas) with a smaller number of unemployed people and public workers.

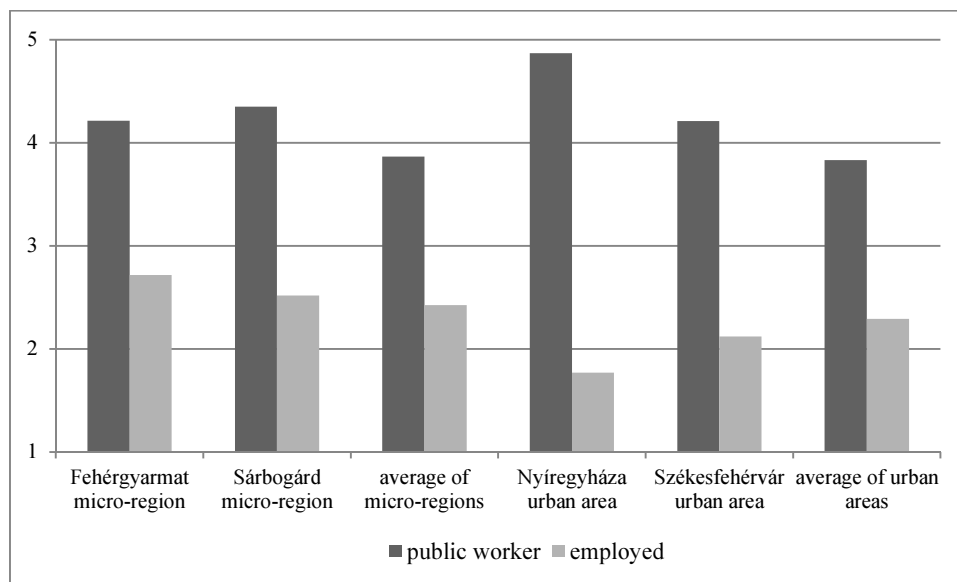
As an indicator of living standard we analysed payment problems related to households' fix expenditures (maintenance of dwellings, i.e. electricity, gas). Due to the higher employment rate and related incomes the Sárbogárd micro-region's population has fewer problems with payment than the residents of the Fehérgyarmat area and the average (see Tab. 3). Moreover, while on a par 7.8% of the population **were excluded from some public utilities** due to arrears of pay in the micro-regions, this ratio in the Sárbogárd area is only 1.6%. The financial situation of the respondents is a good indicator of social problems in the analysed disadvantaged micro-regions. The majority of the population in the Fehérgyarmat micro-region lives on the edge of the poverty line, and they only earn the minimum wage. It means 30,2% of the respondents have monthly problems to pay the overhead expenses. This average in the urban area of Nyíregyháza is only 6,5%. Surprisingly, the population of the Székesfehérvár urban area has more serious problems with the payment than the others, moreover, among them the monthly troubles are more often than in the Sárbogárd micro-region.

Table 2 Payment problems related to households' fix expenditures, 2014 (%)

The costs of maintenance	Fehérgyarmat micro-region	Sárbogárd micro-region	Average of micro-regions	Nyíregyháza urban area	Székesfehérvár urban area	Average of urban areas
Causes no problem	35,1	55,8	42,7	76,3	60,9	55,7
Sometimes problem	31,8	29,4	30,4	16,1	23,8	27,1
Problem month by month	30,2	11,8	24,0	6,5	15,3	14,4
Already unable to pay	2,7	3,0	2,8	0,4	0,0	1,2
Do not have such cost	0,0	0,0	0,1	0,0	0,0	0,0
Do not know	0,0	0,0	0,1	0,0	0,0	1,6

Source: KJU and HAS CERS

The insecurity of jobs is a crucial problem in the analysed disadvantaged micro-regions. The level of fear of becoming unemployed is significantly higher among public workers, which seem to confirm the insecurity of this employment type and the defencelessness of people. The employed persons feel themselves relatively in safe, however, in micro-regions the fear from unemployment is unequivocally stronger, which can be explained with fewer alternative employment opportunities in these areas (see Fig. 4).

Figure 4 The fear of becoming unemployed, 2014 (average value)

Source: KJU and HAS CERS

Note: values may vary from 1 to 5 (1 = not afraid at all, 5 = very afraid)

Consequently, considering the social problems of the inhabitants, local governments need to build a strong social safety net, and to organize several services in order to facilitate the lives of the increasingly aging local communities (e.g. travel, shopping, medical attendance).

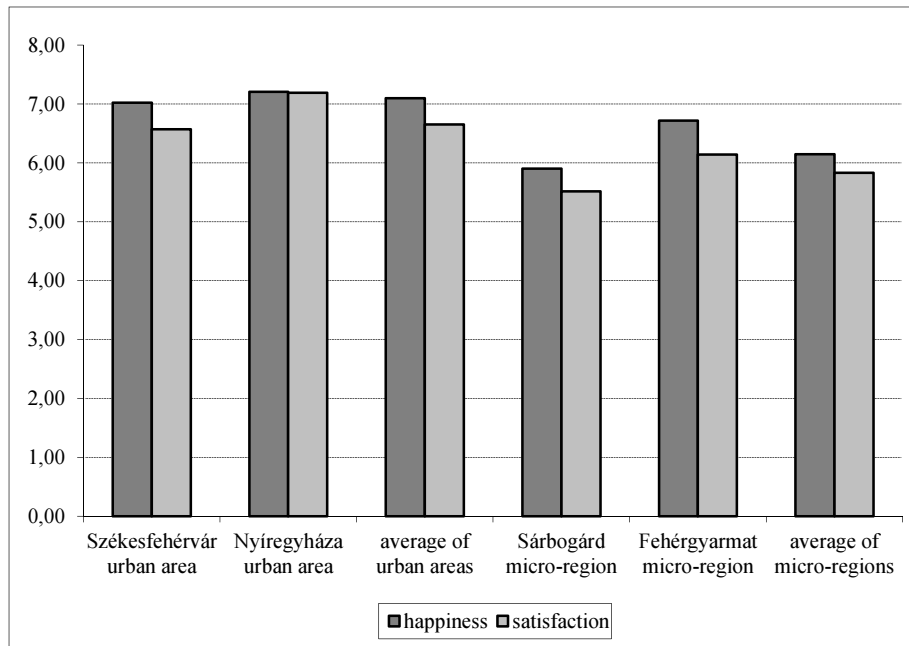
These expenditures largely encumber local budgets⁸⁷, and necessarily postpone other renewals and developments (infrastructure, services, *built environment*). On the other hand, unfavourable economic situation also has an effect on the individuals' mentality and their level of subjective well-being. Disappointment, mistrust, lack of motivation can be experienced in the communities, "*unfortunately, we also have a growing number of...I do not know, how science might classify them...resigned people*". These people do not want to become public workers; *they are content with receiving social benefits or relief. Accordingly*, in such cases the creation of jobs cannot be a solution in itself, but should be supplemented with social *psychotherapy programs*.

To avoid the further social and economic decline of the two analysed disadvantaged micro-regions, both local governments has to define a long term development strategy for the micro-regions, which includes the strategy to develop local economic and social conditions. Based on the experiences of the last decades waiting for multinational capital was quite uncertain in the case of the Sárbogárd micro-region or even unsuccessful in the case of Fehérgyarmat micro-region. They have to find a new way of development probably by more efficient utilization of the local endowments and capabilities.

The subjective well-being in the micro-regions

Above we analysed the inequalities of objective well-being issues of the Sárbogárd and Fehérgyarmat micro-regions. Based on the survey results we can also interpret the subjective well-being indicators, the happiness and life satisfaction of the inhabitants in our sample areas. Do the above stated inequalities, objective deficits appear in the individual's mind and opinion? As it can be seen in Figure 5, differences of well-being between urban areas and micro-regions are perceived, inhabitants of micro-regions feel unhappier and less satisfied than in the urban areas of the respective county. Interestingly, the happiness and satisfaction level of inhabitants in the western, more developed Fejér county is demonstrably lower than in the traditionally underdeveloped Szabolcs-Szatmár-Bereg county. As a reason for this contradictory phenomenon we assume, that the disadvantageous processes of the last few years (due to the economic crisis) had direct and deep effects on individuals' lives in developed areas (for example loss of jobs), while the eastern local societies were not affected to such an extent by the crisis, and they are already accustomed to worse circumstances.

⁸⁷ Although the system of social benefits changed from 1st March 2015, as districts took over several competences from local governments.

Figure 5 Happiness and life satisfaction, 2014 (average value)

Source: KJU and HAS CERS

Note: values may vary from 0 to 10 (0 = very unhappy, 10 = very happy)

CONCLUSIONS

The aims of this study were to analyse certain disadvantaged micro-regions, and examine the well-being issues. As well as to compare two micro regions which have different regional, social and economic position to reveal the similarities and differences between them. Based on the results of our analysis we can conclude the following:

1. The more developed micro-region has better geographical position in terms of job opportunities, and access to work. Despite the limited job possibilities in the Sárbogárd micro-region, local people can commute to the nearest large urban centres (Székesfehérvár or Dunaújváros). The distance is manageable, and these urban centres have quite strong economy. Many companies from the surrounding areas still ensure transport between the habitation and workplace of their employees by contractual bus services. The better geographical position of the Sárbogárd micro-region is reflected in the level of well-being in terms of objective well-being indicators, which are a little better than those in the Fehérgyarmat micro-region.
2. The less developed Fehérgyarmat micro-region has a very unfavourable geographical position. There are only a few job possibilities not only in the micro-region but in the surrounding areas as well. The local workers have no real means to commute; they are literally stuck in the micro-region. Contrary to the Sárbogárd micro-region, in the

Fehérgyarmat micro-region there are no companies and enterprises that employ significant workforce. The high costs of commuting are place too much financial burden on for the majority of the local people.

3. On the other hand, the two micro regions have similar characteristics in terms of their local economic development concepts. Both analysed micro-regions based their local development on multinational companies. But this strategy seemed to be quite uncertain, and strengthened their economic dependence on external conditions. In the case of Sárbogárd this strategy proved to be quite unsuccessful when Mannesmann relocated their production to China. In the case of the Fehérgyarmat micro-region there are no multinational companies that showed serious interest in settling down.
4. Both micro-regions have strong historical, agricultural endowment and knowledge, but they have been unexploited for decades. For the future they should define new ways of local economic development which will be better suited to the local endowments and possibilities.
5. Based on the empirical analyses, the basic statements of the study were confirmed in the following aspects: firstly, the objective well-being indicators were basically higher in the urban areas than in the rural areas. Secondly, the objective well-being indicators – the labour market position and the general living standards – were better in the Sárbogárd micro-region than in the other rural areas. But, contrary to our hypothesis, the indicators of subjective well-being were more developed in Fehérgyarmat micro-region, because of the greater satisfaction of inhabitants. According to the facts, in the underdeveloped Fehérgyarmat micro-region people were more satisfied with their life conditions, they were happier than in the economically more developed Sárbogárd micro-region. To summarise these statements: the objective and the subjective well-being indicators manifested in the certain regions are not necessarily related to each other.

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THE CHANGES OF THE HUMAN DEVELOPMENT ON MICRO-REGIONAL AND SETTLEMENT LEVELS

A HUMÁN FEJLETTSÉG VÁLTOZÁSA KISTÉRSÉGI ÉS TELEPÜLÉSI SZINTEN

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Abstract

The purpose of this paper is to define and estimate the human potential of the settlements in South-Cserehát, Hungary. The human development index in the classical view can be estimated at microregional level with only hard distortions, to which the list of starting indicators differ from the usual indicators, such as GDP and GNI, the life expectancy at birth and the portion of taking part in education. However, the estimating calculations made for defining the human potential in a settlement level should be handled with hard restrictions, at the same time it perfectly shows the formation of the human factor in the region. As a research question the following was defined: In what range has the human potential changed on the basis of the census data and what kind of configuration changes have happened in the South-Cserehát? The aim of the study to attempt to estimate the HDI on settlement level.

Keywords: human development index, regional disparities

Kivonat

A tanulmány célja a Dél-csereháti települések humán potenciáljának a meghatározása és becslése. A klasszikus értelemben vett HDI (humán fejlettségi index) már kistérségi szinten is csak erős torzításokkal becsülhető, amelyhez a kiinduló indikátorok listája is eltér a jól megszokott indikátoroktól (úgy, mint a GDP vagy GNI, a születéskor várható átlagos élettartam és az oktatásban részt vevők aránya). A települési szintű humán potenciál meghatározására készített becslésszámítások erős fenntartásokkal kezelendők, ugyanakkor a térség emberi tényezőjének az alakulását jól mutatják. Kutatási kérdésként az alábbi került meghatározásra: A Dél-Csereháton milyen mértékben változott a humán potenciál az egyes népszámlálási adatok tükrében és milyen térszerkezeti változások történtek? A tanulmány célja kísérletet tenni a települési szintű HDI becslésére.

Kulcsszavak: human fejlettségi index, regionális diszparitások

INTRODUCTION

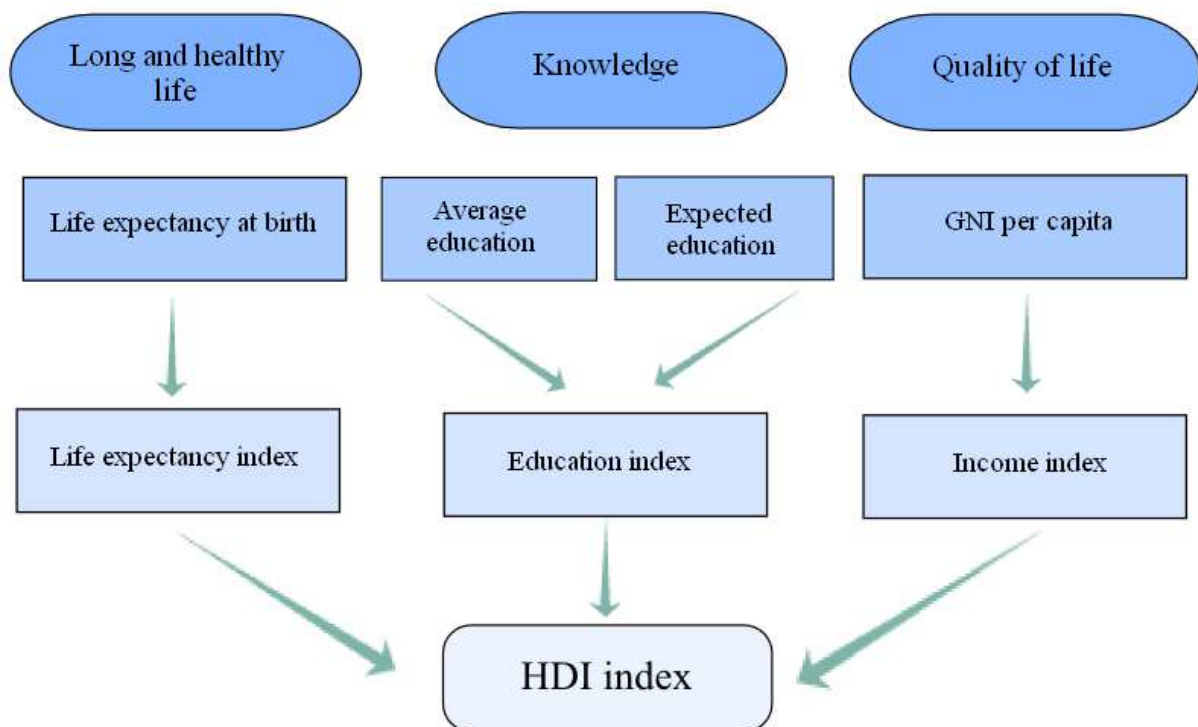
“The precise definition of the human resources, a concept heard so often that it now almost seems a common place, is not an easy task. What is the point? It is that the human resources, the institutions contributing to their development, and the total of the social conditions and

endowments together constitute those assets that a spatial unit disposes of.” (Rechnitzer-Smahó 2006:8). Human development is measured in a lot of ways by many people, depending on the territorial unit and the statistical data. The highly debated HDI is used international level (NUTS 0. territorial level), regional level (NUTS 2. territorial level) created by international methodology with a good responsibility.

The HDI index consists of three major parts (Fig. 1). They can explain the complexity and purpose of the index.

- the average lifetime which can be estimated for at the time of the birth is the index of long and healthy life
- the knowledge obtained in education shows the knowledge level of a person
- the GNI per person shows the income and standard of living.

Figure 1 The parts of Human Development Index



Source: Own compilation

“The Human Development Index (HDI), first introduced in the 1990 Human Development Report (UNDP: 1990), was in response to the need for a measure that could better represent human achievements in several basic capabilities (what people can do and be) than income based indices of growth and development and could provide a credible alternative to them.” (Kovacevic 2010:1)

To calculate the HDI in a classical view, an average formula is used, that can be applicable for all of the parts of HDI as a self-reliant index (mutual methodology international level

created by UNDP). To compare the relationship between indicators, terms and territorial units, we have to perform a normalization with the help of the indicators' fixed minimum and maximum values. (Kristóf 2003:1091)

The formula is the following:

$$I_i = \frac{X_i - X_{\min}}{X_{\max} - X_{\min}} \quad (1)$$

where X_i is the actual value of variable,

X_{\max} is the fixed maximum value of the variable,

X_{\min} is the fixed minimum value of the variable.

During the calculation the minimum and maximum values were fixed by the international values in the following way (HDR 2014):

- the average lifetime which can be estimated for at the time of the birth: 20 and 85 years
- education index: expected years of schooling: 0 % and 18 %; mean years of schooling: 0 % and 15 %
- the GNI per person (purchasing power-parity) 100 US \$ and 75.000 US \$.

The HDI index is calculated in the following way:

1. Firstly, we calculate the index of the average lifetime.
2. Then we calculate the average education, after determining the expected education. The education index is calculated with the values of the first step indicators in the following way:

$$I_2 = \frac{\sqrt{a \times b} - X_{\min}}{X_{\max} - X_{\min}} \quad (2)$$

3. In the next step, we calculate the modified GNI index. In the case of GNI, the natural base logarithmic transformation holds the differences in the magnitudes that are used (calculation of logarithmic serves to show the index of the decreasing increment of the income growth, and it cuts down the differences on the basis of absolute values of GNI per person), which has the following formula (Bhatnager 2002):

$$I_3 = \frac{\ln(X_i) - \ln(X_{\min})}{\ln(X_{\max}) - \ln(X_{\min})} \quad (3)$$

4. As the final step, we determine the HDI:

$$HDI = \sqrt[3]{I_1 \times I_2 \times I_3} \quad (4)$$

The methodological of HDI calculation has changed considerably during the last two decades. The last methodological change was more significant when the former applied GDP was substituted to GNI.

THE METHODOLOGY OF THE MODIFIED HUMAN DEVELOPMENT INDEX AND THE SETTLEMENT LEVEL HUMAN POTENTIAL

For the HDI related territorial units that are smaller than the country level during calculation of the human potential, the indicators are modified and we apply the relevant indicators to the territorial units. In territorial units smaller than the regions, we can calculate (counties: NUTS 3. level, micro regions: LAU 2. level) only the modified human development index (MHDI). (Husz 2001, Kristóf 2003, Obádovics-Kulcsár 2003, Csité-Németh 2007, Farkas 2012). In my former research I have also performed regional (Lipták 2013), and micro regional (Lipták 2009) HDI calculations as well.

Table 1 Indicator set for calculation of HDI in the case of different territorial level

Territorial level	Name of the index	Indicators
country	Human development index (HDI)	life expectancy at birth (year) average education (year) expected education (year) GNI per person (US\$/ person)
region	modified human development index (MHDI)	life expectancy at birth (year) student participation all level of the education compared to the full population (per cent) household available net incomes (EUR/ person)
county	modified human development index (MHDI)	life expectancy at birth (year) rate of the liberate older than 6 years within the population (per cent) number of the class done more than 6 years in population (number of the class) domestic income per person (HUF/ person)
micro region	micro regional human development index (HDI)	the rate of the liberate older than 6 years within the population (per cent) the number of the class done more than 6 years in population (number of the class) domestic income per person (HUF/person) life expectancy at birth (year)
settlement	settlement human potential (THP)	average school class number in the population more than 7 years old (number of the class) the number of 0-14 years to 100 person over 60 years (person) domestic income per person (HUF/person) number of dependents for 100 employed people (person)

Source: Own compilation

For the calculations in settlement level, I used the population data from the last three censuses (Population Census 2011). I have created the development of the human factor in settlement level with the help of the following indicators:

- Average school class number over 7 years within population (school class number), that gives information about the education standard of the given settlement living people – education index.
- The number of 0-14 years (person) and over 60 years on the base of 100 people, that shows the settlement aging similar to the aging ratio. Due to the lack of information, I applied this instead of the average lifetime which can be estimated for at the time of the birth – aging index.
- The whole domestic income per person (HUF/person) that shows the income level of the settlement – income index (the income was not deflated).
- The number of dependents for 100 people (person) (for the calculation I used the reciprocal data because the highest value reflects unfavourable processes and it can be misleading) that gives information about the level of incapacity for work – dependent index.

I didn't change the formula when creating sub-index, so it is the same as used at the country level (see Formula 1).

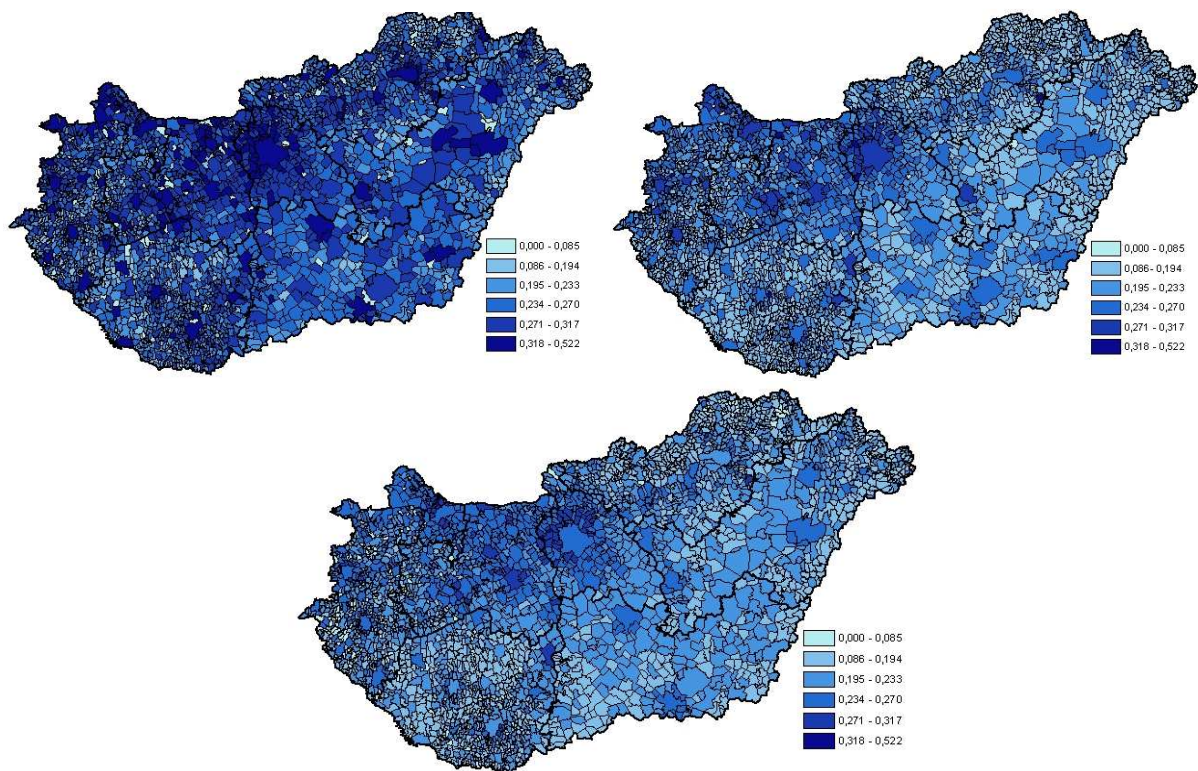
The applied minimum and maximum values data are highly debated, but I decided to base my thesis on all-time minimum and maximum values of the whole database. After having calculated the sub-indexes, the values of the final settlement human potential according to the UNDP, similar to the geometric mean, the product of sub-indexes is put to the fourth root.

$$THP = \sqrt[4]{I_1 \times I_2 \times I_3 \times I_4} \quad (5)$$

After the calculations I found the human development values of Hungarian settlements (Fig. 2). In order to obtain a better comparison, I have set up the equal interval class values of the years 1990, 2001 and 2011. The human potential values show a substantial decrease from 1990 to 2001 that is distorted with the fixed class interval values. The change is more visible from 2001 to 2011. The specific development axes in the configuration (Budapest– Győr– Sopron line and the region of Balaton) intensified by 2011. From the configuration models, which Gorzelak (1996) called “Middle-Europe-Boomerang formation from Gdansk to Budapest, Poznan, Wroclaw, Prague, Brno and consist the Wien–Pozsony–Budapest triangle” (Kincses-Nagy-Tóth 2012) we can see the Hungarian covered territory of Middle- Europe-Boomerang high potential values. This developing axis and its strong potential can be referenced not only for the economic performance but for the human development, as well.

Surprising, that in Northern Hungary and Northern Great Plain regions we can see low potential values also. Explaining, that the number of dependents is growing continuously. The number of youngsters calculated to 100 people over 60 years is continuously decreasing and the education data showed improvement in the past 20 years. The income data improved as well. In 1990 Tiszaújváros had the highest human potential value (Tiszaújváros micro region), followed by Taszár (Kaposvár micro region) and Záhony (Záhony micro region). In 2001 the highest values were visible in Csapi (Nagykanizsa micro region), Vasszilvág (Szombathely micro region), Gilvánfa (Sellye micro region). In 2011 Csapi (Nagykanizsa micro region), Telki (Budaörs micro region) and Rinyabesenyő (Nagyatád micro region) had the highest values. During the last 20 years its human potential values have decreased nearly by half, according to my calculations.

Figure 2 The human potential values of the Hungarian settlements (1990, 2001, 2011)

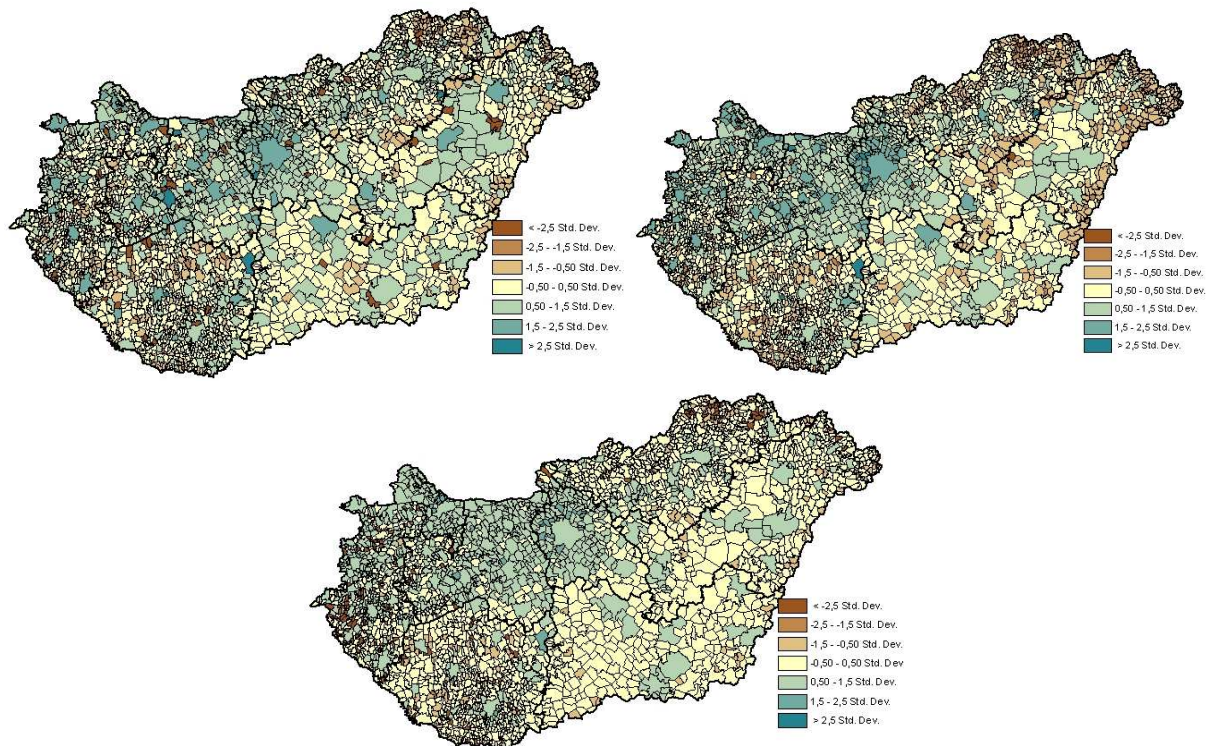


Source: Own compilation based on own calculation

With the help of the ArcGIS map editing software, I have compared the human potential values taking a basis of an average years' human potential value of a given year. Figure 3 illustrates the trend and range of the derogation from the national average. In 1990 there was a significant difference between the human development values of settlements compared to the national average. Specifically there were high numbers in those settlements where the

derogation from the average shows a double or double and a half lower potential. By 2011 the settlement configuration was more balanced compared to the national average on the basis of human development. In 2011 the numbers were lower in those settlements where significant derogations were observable in a negative way. At the same time, the number of those settlements decreased where the human development values were double of the national average. The HDI was more balanced by 2011 or rather the regional disparities were moderated in the case of human potential.

Figure 3 The trend and range of the derogation from the average (1990, 2001, 2011)



Source: Own compilation based on own calculation

SOME ADDITIONAL INFORMATION ABOUT THE CSEREHÁT

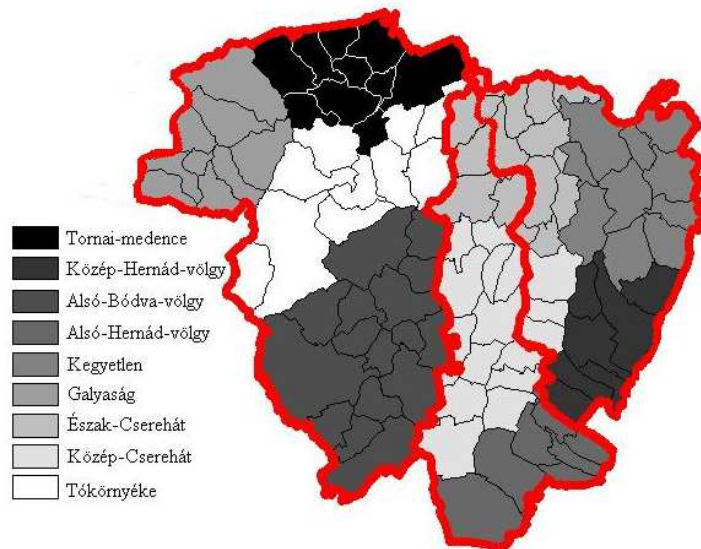
“The area bordered by the Cserehát, the Hernád and the Bódva rivers, by the southern borders of the Encs and Szikszó micro-regions and by the Slovak national border that includes the Encs micro-region (excluding the 11 villages of Zemplén county around Gönc), as well as most of the Edelény and Szikszó micro-regions, some 100 settlements. The population is nearly 91 000.” (Fig. 4) (The Cserehát Programme)

G. Fekete (2015) identified 7 main problem areas in Cserehát:

1. Inadequate macro-policy, degradable institutions
2. The demographic imbalance

3. The own resources for livelihood are inability, dependence
4. Limited to meet needs of deprivation, poverty
5. Transport and informational isolation
6. Risk of environmental resources, undermining the ecological balance
7. The lack or weakness of network connections

Figure 4 Cserehát region and their micro-regions



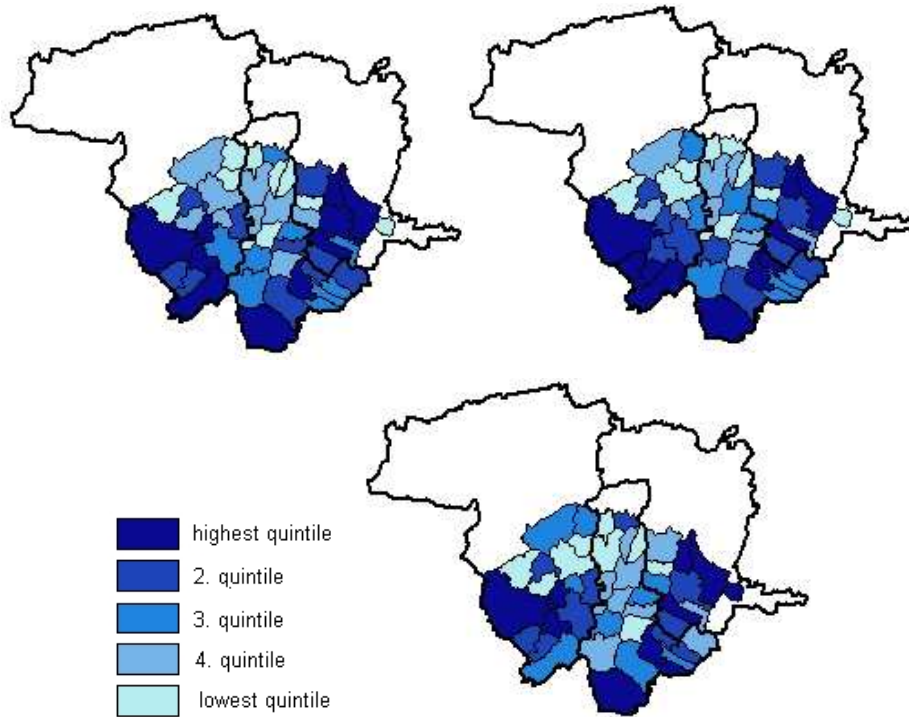
Source: G.Fekete (2015:5)

Cserehát has bad conditions on social side. Small villages with aging and fast-declining populations that are struggling with social exclusion are typical in the region. A significant part of the population struggling with social exclusion is Roma. One of the major features of the area is the bad condition of public roads. The deteriorated road quality and the seemingly irrational road network provide unfavorable conditions for possible investors. (The Cserehát Programme)

On the basis of above illustrated methodology, I have calculated the THP values for the settlements of South-Cserehát region. In the interest of comparing better results, I have analyzed the values and differences between settlements as a sub-index. In the maps, I represented the quintile, not the values, between the given years in order achieve to a better comparison (Fig. 5). The values of the education index grew dynamically in the three base years (the average in 1990 0,424, in 2001 4,453 and in 2011 0,520.) In 1990 and in 2001 were the highest value in Encs, in 2011 was in Fancsal. I divided the settlements into 5 equal parts on the basis of education index. According to the census years, the moving of the settlements between classes can be illustrated, as well. From 1990 to 2001 a significant derogation isn't

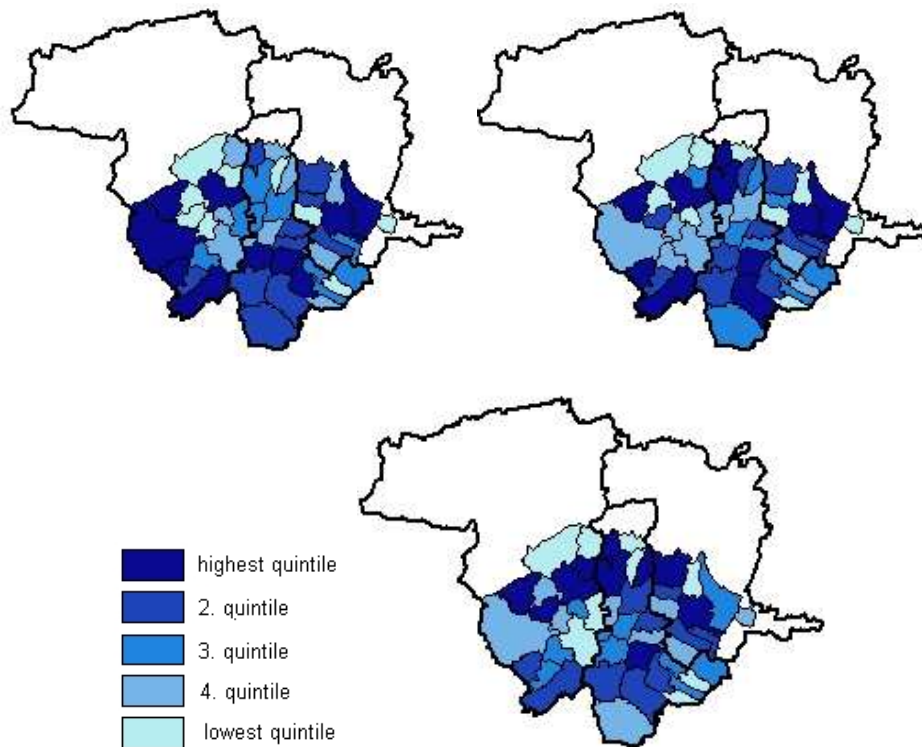
observable, but by 2011 more settlements dropped to a lower value class from a higher quintile group, such as Felsővadász, Forró, Homrogd, Kázsmárk, Léh. At the same time improvement was observable in some settlements like: Abod, Abaújlak, Gibárt.

Figure 5 The education quintile of the settlements in South – Cserehát (1990., 2001., 2011 year)



Source: Own compilation based on own calculation

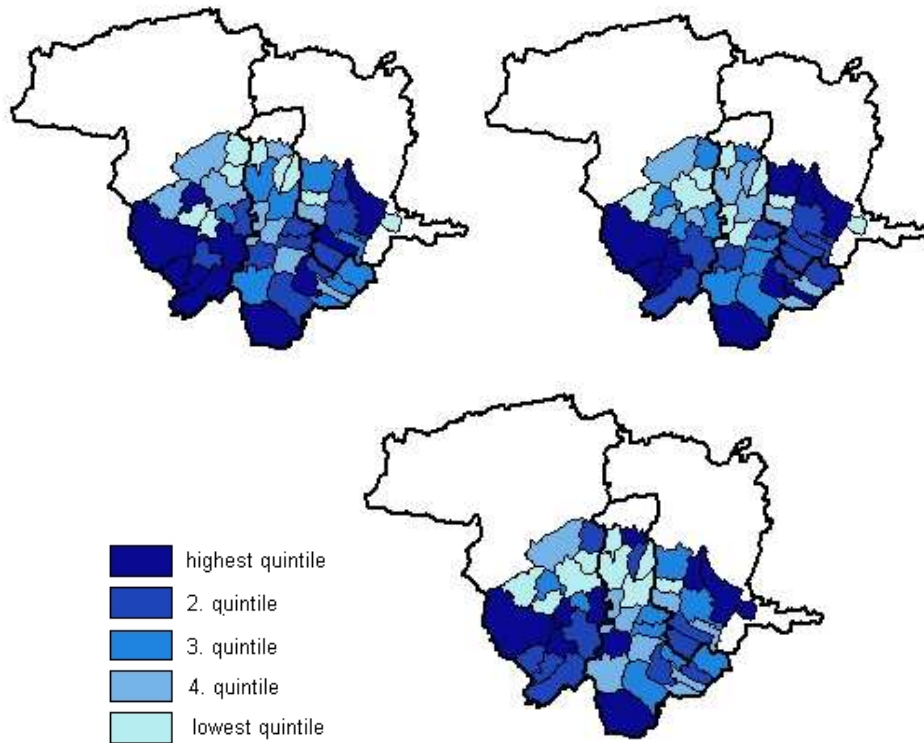
Movement of settlements between the different quintiles was more significant in the case of the ageing index (Fig. 6). All in all, this sub-index shows the most significant decrease. In the case of Szikszó, the index value declined continuously or rather the number of elderly people were getting higher and higher and the number of 0-14 years were getting lower.

Figure 6 The aging index quintile of settlements in South- Cserehát (1990, 2001, 2011 year)

Source: Own compilation based on own calculation

The aging index values declined in Edelény, Damak, Hangács, Homrogd, Szikszó by 2001, compared to the year of 1990. The values in Nyésta, Hegymeg, Tomor, Encs, Aszaló declined from 2001 to 2011. In the case of Szakácsi, Abaújszolnok and Gibárt, the aging data of the population improved by 2011. The changes in the data of the settlements prevent us from observing the regularity and create clusters. The highest aging index was in Abaújszolnok, in 2011 with its 0,300 value.

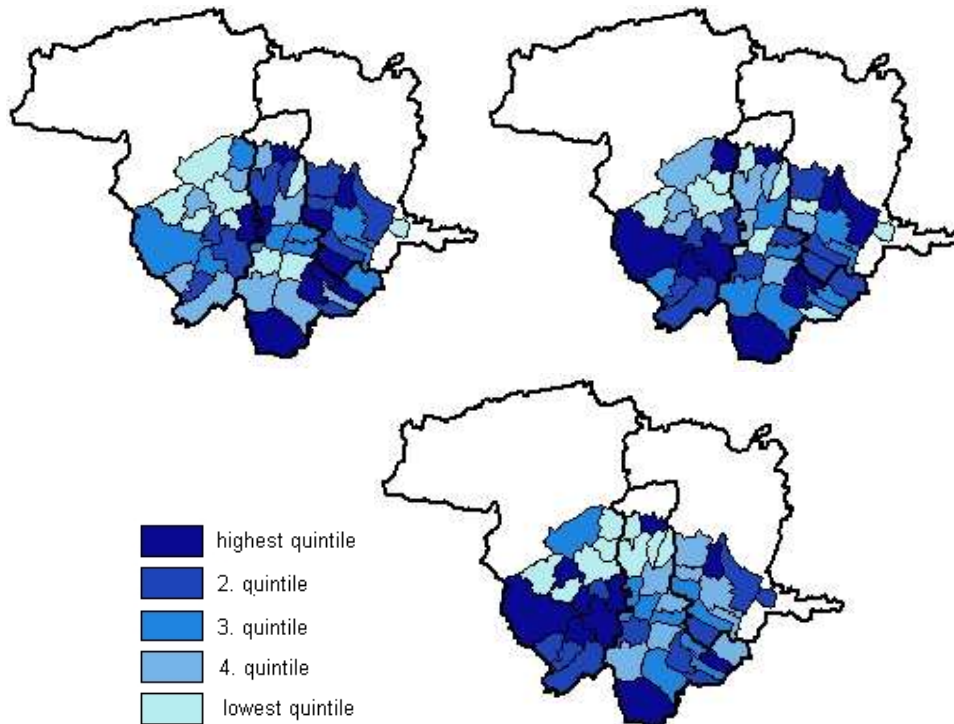
Figure 7 The income index quintile of the settlement in South-Cserehát (1990, 2001, 2011 year)



Source: Own compilation based on own calculation

Only a small range of derogation can be observed in the values of the sub-index related to the income relation (Fig. 7). By 2011 Alsóvadász, Felsővadász, Forró, Hernádszentandrás, Csobád settlements fell to a much lower quintile, so the income relations became unfavourable. In the case of Gibárt and Abaújlak, the income relations improved by 2011. The income index data of the settlements in South-Cserehát were an average of 0,162 in 1990, in 2001 it was 0,227 and increased to 0,234 by 2011, so the average of the income values within the region were strengthened. The most developed settlement was Abaújlak in 2011 where the index value was merely 0,569. Through the dependent index quintile we can observe the highest derogation (Fig. 8).

Figure 8 The dependent index quintile of settlements in South-Cserehát (1990, 2001, 2011. year)



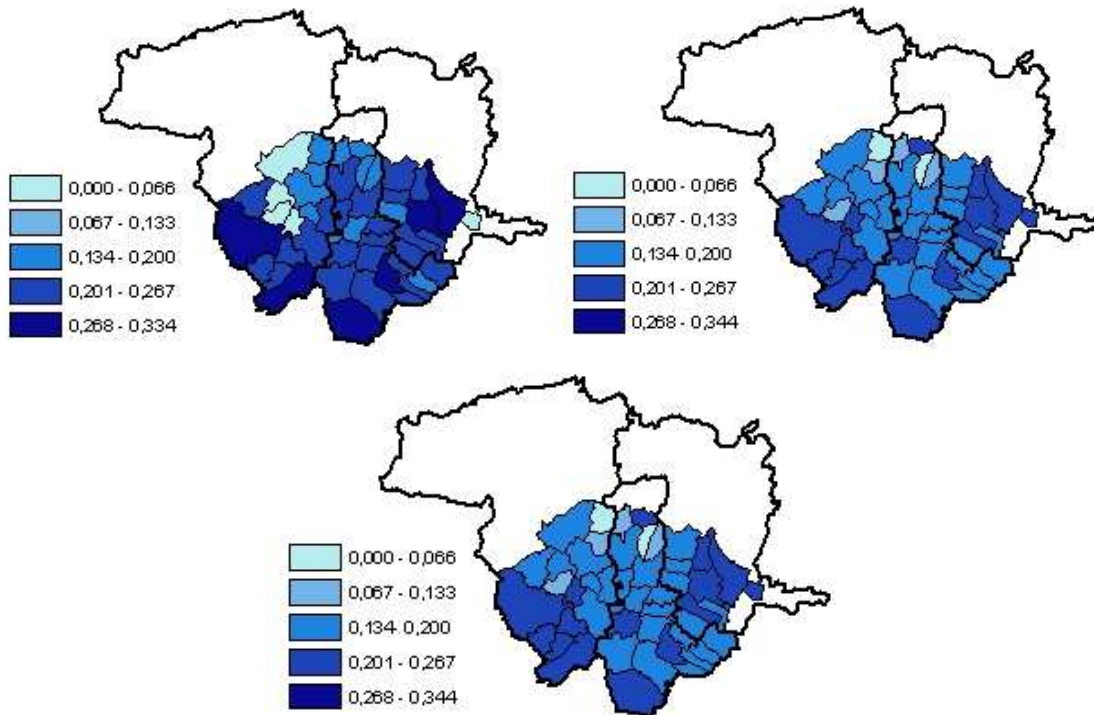
Source: Own compilation based on own calculation

The moving of the settlements between the groups was significant in both of the two periods. The average value in 1990 was 0,161, in 2001 was 0,065 and in 2011 was 0,114. The increment happened in 2011 due to unfavourable region processes. From the configuration point of view, change is occurred at this index. In 1990, we can draw a circle around Abod, Szendrőlád, Lak, Ládbesenyő, Balajt, because the rate of the dependents were the highest in these settlements. They have created a closed settlement – circle in the South- Cserehát - but this configuration structure came apart totally by 2001 and the income relations were improved slightly. The index of this indicator started by looking at how many people out of 100 were unable to work. This change can be explained by the working opportunities that were opened in these settlements. There were not necessarily big investments or a lot of new workplaces. Rather improvement can be explained with the parent of public employment with the increasing number of people working in the public interest. By 2011 another type of configuration had shaped. Edelény reached the highest value group, so here the relation is significantly higher compared to the other settlements of the region in the field of working opportunities and income relations. In 2011 was the most unfavourable situation in the north peripheral territories of South-Cserehát (Irota, Lak, Szakácsi, Gadna, Felsővadász, Nyésta, Abaújszolnok, Szendrőlád és Balajt). By 2011 the spatial structure became double poles, so

created a settlement circle with high dependent rates and another settlement circle with significantly low dependent rates.

I have also controlled the human development of the settlements in South-Cserehát and I have showed the data moving in a separate map (Fig. 9). I took as a basis the class interval data in 1990 and every following year to be able to ensure the comparability.

Figure 9 The human potential values of South-Cserehát (1990, 2001, 2011 year)



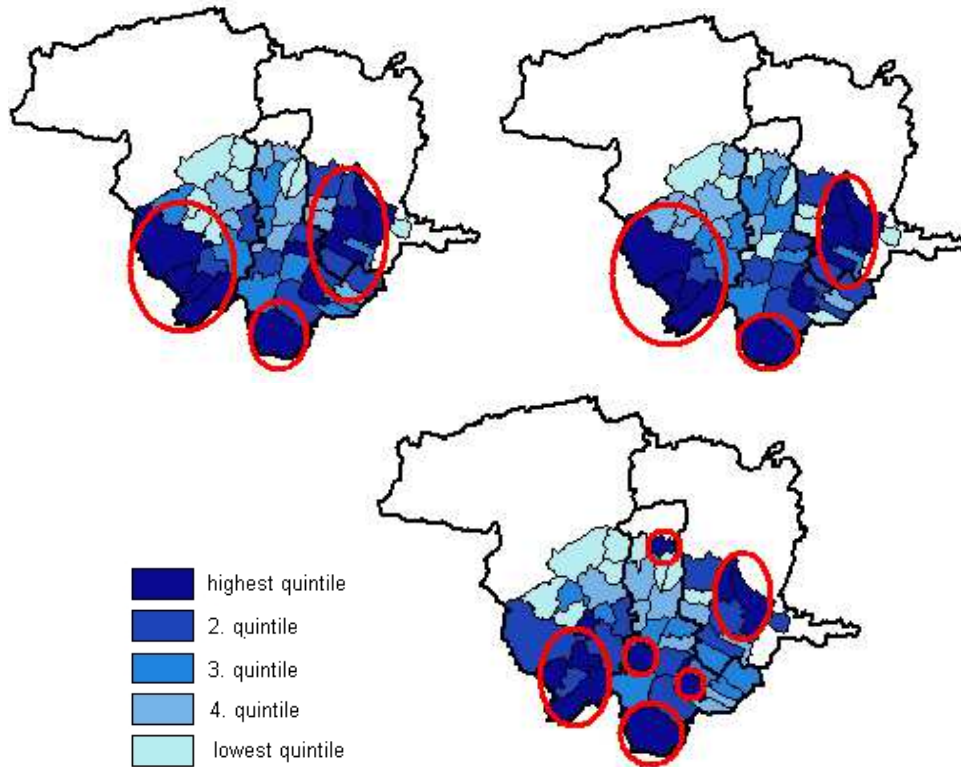
Source: Own compilation based on own calculation

In the settlements connected to Edelény, the human potential was far lower than the settlements connected to Encsi and Szikszó. By 2001 a significant decrease was observable in most of the settlements, whereas by 2011 the measurable human potential value was getting lower and lower. As far as the potential values are concerned, the most significant decreases were observable in Balajt, Ládbesenyő, Damak, Gadna from 1990 to 2001. The values were derogated in Gibárt, Abaújszolnok, Abaújlak and Gadna by 2011 from 2001. In the values we could observe a small range of derogation in Edelény, Encs and Hangács. In light of the human potential, South- Cserehát shows a nearly uniform picture, without any breaking derogation. In most of the three micro regions there are stronger human development settlements that drop off the regional average (0,151), but it is not very significant.

I have represented the settlements of South-Cserehát with the actual human potential values in the examined three census years (see Appendix 1.).

The grouping was represented according to the quintile in the settlements of South-Cserehát (Fig. 10). The groups of human potential values in a settlement level show interesting configuration changes.

Figure 10 The human potential quintile of South-Cserehát (THP) (1990., 2001., 2011. year)



Source: Own compilation based on own calculation

In 1990 three settlement circles with fairly strong regional potential can be observed in the map: first is Edelény, Borsodszirák, Ziliz and Boldva circle, the next one is Szikszó settlement and the third circle Fancsal, Encs and Hernádszentandrás. This situation changed a little by 2001, but the former triple configuration was retained. But by 2011 an absolute multipolar configuration has formed in regard to human development. Borsodszirák, Boldva, Damak and Hegymeg made a group, Szikszó, Homrogd, Halmaj and Abaújlak transformed to four single power-centres and Fancsal, Encs made another big grouping. In the changes of 2011, the income increasing values had a hard affective power. The strengthening of Abaújlak is surprising but can be explained by the closeness of Szanticska and its income increasing power from tourism. Recruitment of Homrogd and Halmaj isn't surprising because their size makes them significant settlements of the region, except for the cities. Stunning and depressing, the city of Edelény has dropped out the circle of the strongs by 2011. That can be explained by the increasing rate of the aging index.

SUMMARY

The following can be said to the question formulated in the introduction: the human potential values in the two-third settlements of South-Cserehát has decreased by 40 per cent in under 20 years, whereas a smaller decrease was observed in the other settlements. (Stagnation of the values wasn't significantly revealing.) Within the South-Cserehát, the range of decreasing was more dynamic from 1990 to 2001 (total: 2,072 percentage point), than from 2001 by 2011, when only a slight improvement was observable (total. 0,917 percentage point). The development of human potential in South-Cserehát region doesn't show a significant miss compared to the national average. At the same time, the numerical results of the estimation must be handled with hesitation. They can be made perfect with a minimum and maximum optimized variant used in the sub-index calculations. For myself, the given results are eligible for the thesis of configuration and they can adjust to the territorial changes proved by other researchers.

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The Cserehát Programme UNDP

<http://www.undp.org/content/undp/en/home/search.html?q=csereh%C3%A1t>

Appendix 1 The human potential values of the settlements in South-Cserehát

Settlement	1990	2001	2011		Settlement	1990	2001	2011
Abaújlak	0,187	0,124	0,241		Hernádkércs	0,184	0,142	0,188
Abaújszolnok	0,142	0,086	0,111		Hernádszentandrás	0,217	0,168	0,155
Abod	0,000	0,105	0,143		Homrogd	0,239	0,187	0,218
Alsóvadász	0,226	0,166	0,185		Ináncs	0,259	0,190	0,210
Aszaló	0,244	0,179	0,197		Irota	0,153	0,141	0,000
Baktakék	0,235	0,182	0,197		Kázsmárk	0,218	0,175	0,190
Balajt	0,000	0,130	0,130		Kiskinizs	0,235	0,182	0,176
Beret	0,205	0,104	0,148		Kupa	0,218	0,126	0,164
Boldva	0,271	0,202	0,214		Ládbesenyő	0,000	0,139	0,189
Borsodszirák	0,266	0,200	0,220		Lak	0,197	0,132	0,164
Csobád	0,227	0,176	0,186		Léh	0,247	0,166	0,169
Damak	0,000	0,151	0,227		Monaj	0,168	0,100	0,184
Detek	0,164	0,123	0,157		Nagykinizs	0,208	0,172	0,169
Edelény	0,291	0,205	0,212		Nyésta	0,151	0,143	0,000
Encs	0,335	0,239	0,219		Nyomár	0,235	0,184	0,226
Fancsal	0,242	0,193	0,218		Rásonysápberencs	0,231	0,177	0,184
Felsődobsza	0,229	0,184	0,182		Selyeb	0,204	0,151	0,155
Felsővadász	0,216	0,149	0,153		Szakácsi	0,145	0,090	0,088
Forró	0,280	0,199	0,206		Szendrőlád	0,220	0,139	0,136
Gadna	0,169	0,099	0,093		Szentistvánbaksa	0,211	0,100	0,164
Gibárt	0,000	0,000	0,203		Szikszó	0,289	0,219	0,215
Halmaaj	0,286	0,208	0,219		Tomor	0,232	0,150	0,192
Hangács	0,225	0,168	0,191		Ziliz	0,255	0,194	0,211
Hegymeg	0,186	0,128	0,187					

Source: Own compilation

EXPLANATORY FACTORS OF THE EXPANSION OF RECREATION FUNCTION ON THE BANK OF DANUBE RIVER IN BUDAPEST

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Abstract

In a city's development a river and riverbank played important role, however in recent decades the functions of them have changed, transformed, especially in major cities in the more developed countries, so the city administration was faced with a new phenomenon and geographical space: the changing riverbanks, and the utilization, development, revitalization of them has become a key issue. The various real processes showed the direction that these areas should be provided to the people, and the recreation service will be important for the local residents and tourists. Overall, the urban waterfront development is an increasingly important researched topic and policy. The question is: can we realize it in Budapest also nowadays? In recent years, those processes took place in Budapest, which resulted in an increasing utilization of the Danube and its banks for recreational functions. On the one hand, local social and economic processes have led to the waterfront sites released, on the other hand the needs of the residential population and tourists using the river and the riverside for recreational purposes have increased, and thirdly, the new city administration decided to renew the banks of the Danube, mainly to create new recreational areas. In this paper, we analyze these three factors, focusing on a past short period, because there is an exceptional cohesion between the processes, the needs and the new development goals. Two case studies are in the paper also: the Margaret Island as the oldest traditional recreational area in Budapest, and the Kopaszi-dam, as the newest and successful recreational area of Budapest. The analysis of the processes is based on data and literature, the analysis of the needs is based on a survey, and the analysis of the goals is based on the different development documents.

Keywords: recreation function, urban waterfront development, Budapest

INTRODUCTION

"The direct relationship between river and man interrupted in the course of urban development, therefore, there is a need a more closely integration, between the man and the water, and between the river and the city. The Danube with islands and banks should be to take the special and integral part of everyday life, and to increase and strengthen the community use is important in the strategy." These sentences can be found in the development concept of Budapest city (2014). In recent years, those processes took place in Budapest, which resulted in an increasing utilization of the Danube and its banks for recreational functions. In our study we analyse this situation.

A river, a lake has always been an important factor in the development of a city, both local (drinking water, fisheries, energy sources, transport, irrigation, industrial water etc.) as well as potential "energy" (crossing, protection etc.) (Mendöl, 1963). It is a special factor in the life and the development of a city (Malone, 1996). However, over time, the role of water in the life of a city changes, some functions of the river and its bank are weakened, or cease to exist, and new ones can be formed. In the past few years these processes in a number of large city life appeared, thus a lot of city governing bodies faced a special type of geographic area, the metropolitan waterfront ("bluefield") and its development issues; it is called urban waterfront development (see eg. Craig-Smith, 1995). The large cities try to redefine their relationship with the water and develop now defunct harbour sites and other brownfields into new, high-quality urban districts (Klopf, 2008), and designers and planners tried to turn waterfronts into places in which people want to live, work and play (Butunel 2006). It is generally observed that the classic features of water and banks have decreased, and more experts see that the revival is connected to the tourism and recreation (eg. Craig-Smith, 1995). (However, this is a complex phenomenon, since the various functions are different in scale (national, regional or local importance), and the use of the river and its immediate surroundings so different interests and conflicts may occur, but in our paper this aspect is not analysed, we focus on the factors of recreation function.)

Waterfront areas are undergoing rapid transformation in many post-socialist cities (Machala, 2014). While in the more developed cities there should be more financial options of the waterfront development, in the less developed cities there are fewer tools to develop the "bluefield". But in all cities the administration had to respond to the new needs, mainly the needs of local population for the increasing recreational land use. These may be illustrated by the capital cities of Danube. In the case of Vienna the "waterside areas include very diverse parts - Danube, Danube Canal and Old Danube represent different aspects of the Viennese waterfront. Large scale projects like the Danube Island, the hydroelectric power plant Freudenu and the DonauCity have accelerated the dynamic of urban development alongside the main river bed and created new infrastructure for recreation" (Klopf, 2008). In the case of Bratislava, the main goal is to develop the city centre on both sides of the river, and the river plays an important role in the topic of the sport and leisure, and there are targets to create new areas for the recreation (Balasova, 2013, Machala, 2014). In the case of Belgrade they think the Belgrade Waterfront takes urban renewal to new heights - a smart city for a future that combines commerce, culture and community. There are plans for the recreation area, for

example the Belgrade Park will be the green lungs of the development, as well as providing a place to relax, unwind and enjoy (<http://www.belgradewaterfront.com>).

These issues are important in Budapest also, where the Danube was and will be dominant in the life of the city. The characteristics of the Danube are varied in the capital: the Danube is 30 km long, 4-6 meters deep, 270-570 meters wide, and has high average rate of discharge ($2266 \text{ m}^3/\text{s}$) in Budapest. The river splits into several branches, and has some islands, bays on the area of Budapest. The long riverside and the bays, branches gave possibilities to the emergence of different functions. The banks have been used by the local population long ago (and a wide variety of recreational features were presented), but in the last years a lot of functions have changed, transformed in Budapest (Beluszky, 1992, Izsák, 2003 etc.), and some of them had an impact on the river and the land utilization of the banks. We can analyse three factors: on the one hand, local social and economic processes led to the waterfront sites released, on the other hand the needs of the residential population and tourists using the river and the riverside for recreational purposes have increased, and thirdly, the new city administration decided to renew the banks of the Danube, mainly to create new recreational areas. Our questions were: what are in the background of the changes? Which factors can strengthen the recreation function, and which ones can weaken?

METHODS

The utilization of the Danube and its riverside was analysed by three methods. First, the local social and economic processes which affect the utilization were analysed; it was based on the literature and various statistical data. Second, we explored the needs of the residential population, which was based on the analysis of a questionnaire survey. Thirdly, we examined the development goals of the city government which was based on the analysis of the related development documents.

1. Different and changing functions

First, we give a brief overview of the changing functions of the Danube and the banks in Budapest, highlighting for the possibilities and restrictions of the land use.

In recent years the quantity of the drinking water which are coming from the Danube (from bank-filtered wells) has declined continuously (the amount of water supplied to households was 119 M m^3 in 2000 and 85 M m^3 in 2012; www.ksh.hu), but the areas of the banks are closed for securing the water base, and it will remain in the future also. The fishery has

disappeared a long time ago, but in the last decades the urban fishing has become significant (see below). Between the city conditions the agricultural production and irrigation is negligible nowadays. The energy of flowing water was benefit, mostly through the riverside and floating water mills, but this function has disappeared.

In the XIXth century the manufacturing industry has increased in the capital and it resulted the growing demand for industrial water use. In the XXth century it still existed, even in the time of socialism some new plants were build on the riverside which used the water of the Danube. After the transition in the life of the capital the services took over the lead role, and many industrial plants were closed (Barta, 2002). This resulted in a continuous decline of the use of industrial water (annual production of industrial water was in 2009: 2.761 M m³ and 2012: 2.25 M m³ ; <http://vizmuvek.hu>) and a demand has been made to reuse of the old industrial waterfront areas (brownfield) (whether to give them new economic function, for example: Graphisoft Park with modern R&D units (<http://www.graphisoftpark.hu>)).

There are some functions that are not closely tied to the riverside, but used to be the utilization of free area, and recently the view of the river as an attractive factor motivated to build residential buildings, institutions, office buildings in the bank of the Danube. Nowadays there are investments also (e.g. Marina Gated (<http://marinapart.hu/>), Lágymányosi Infopark (<http://www.infopark.hu>)), although it is not justified by a lack of area in Budapest, even the number of the metropolitan population is decreasing (1989: 2.1 M and 2011: 1.73 M; www.ksh.hu), and the number of metropolitan enterprises is stagnating (2002: 188 434 and 2010: 189 882; www.ksh.hu), and a number of new non-waterfront office buildings, residential parks are half-empty in Budapest. From the point of view of the recreation the problem is that the creation of waterfront private areas precludes the most of the residents from the use of the Danube riverside (see below).

A special feature may be to maintain, protect the natural environmental conditions of the riverbank, which are wetlands. This is an important aspect only a few decades, so today there are only some little original natural areas in the metropolitan riverside. Four types of green areas exist in the capital: the rarest is the original protected habitats (excluding the population, e.g. Háros island), and there are some partly converted habitat area (e.g. Római riverside, Margit island) and some artificially designed natural environment (manicured lawn, planted trees etc., for example Kopaszi dam), and there are some neglected, but polluted areas in the northern and southern part of Budapest. From the side of the expansion of recreational functions the latter three are appropriate.

That is important in 2000s the brownfields and unused green area along the main branch of Danube occupied nearly half of the total length of the coast (Izsák-Probáld 2007).

Finally, we can analyse the transport function, which is a complex issue. The shipping was important element of the development of Budapest (Hardi 2012). In the capital the freight water transport on the Danube is average in European level water transport, and the transit is important. In Budapest there is only one international port (in Csepel), whose turnover has decreased in recent decades (in 1978: 1230 ships, in 1993: 424 ships; <http://www.ulicska.iweb.hu>, Szalkai 2013). This function has weakened in the life of Budapest. There are different forms of the passenger water transport in the capital. On the one hand there is public water transport: there is scheduled boat service on the Danube, but the volume of passenger traffic has decreased in recent years (in 2000: nearly 2 M, in 2010: nearly 0,25 M; www.bbk.hu), and it is only 0.3% of public transport (Development Study Plan of Budapest, 2013). But the tourist boating service in Budapest is successful, many private firms operate ships.

In Budapest there are 12 road and 2 railway bridges on the Danube (and two subway lines are under the river), and the across the river is extremely important function in the life of the capital. (Some experts suggest to built new bridges, while others think the capacity is available.) The main problem is the transport along the Danube. On the banks of the river there are traffic routes: there are roads and lines of tram, suburban railway, which pass through the capital, and link the northern and southern part of the city, and there is a transit traffic also (because the ring road is not fully completed around the city). These routes lie directly along the river, which results conflicts: the roads and lines use the riverside, and separate the people from the Danube and its banks. The city management is looking for solutions to the problem a long time ago, but so far without success. (Some experts suggest to foreclose the road transport, which in turn would increase the traffic of the city, while others suggest to introduce the traffic to a tunnel, or incorporate into the top of the roads, which in turn would require a very substantial financial investment.) There are international examples to change this utilization of riverside (Soós 2013).

Finally recreational functions are viewed which are the subject of our study. According to the statistical data the free time of Hungarian population increased to the 2000s, and has decreased slightly in recent years (1986/87: 230 minutes/day, 1999/2000: 280, 2009/2010: 266; <http://www.ksh.hu>). Within this time the recreation is presented in different forms, and it is difficult to separate the categories to indoor and outdoor activities (e.g. stationary bike and mobile internet), and there are only some activities in the categories of the system of the

Central Statistical Office, which can not be carried out on the Danube riverside; but the weather can limit the activities. It can be assumed that the population recreational activity has increased, partly related to the river and riverside.

The increasing demand arises from the tourists also. Number of nights spent in commercial accommodation in Budapest increased from nearly 5 million (2000) to 8 million (2013), with smaller fluctuations (<http://www.ksh.hu>). It is known that in Budapest the Danube riverside is a World Cultural Heritage Site, with numerous famous buildings (Buda Castle, Parliament, the Danube Promenade etc.), and these are featured destination for the tourists. Thus, we can assume an increasing demand for recreation areas from the tourists.

The Danube area offers many recreational possibilities, which are related to the river or to the riverside. Long time ago it was possible to swim in the Danube (grid-bottomed wooden swimming pools were on the river), but this option disappeared due to poor water quality, and nowadays the regulation prohibits swimming. Returning this function due to the clearing water of Danube raised nowadays. The water sports are popular in a long time (for example the long Római bank is one main centre of it in the northern Budapest since XIXth century (Izsák-Probáld 2007)), a lot of water sports associations are in the capital, and operate boat houses, small ports (e.g. 50% of the Hungarian rowing clubs are in Budapest (<http://www.hunrowing.hu/klubok>)). Typically, however, that more of the smaller branches of the river and the bays are preferred, but the use of motorboats are becoming popular on the Danube. There are a lot of tourist boats also, with increasing number of passengers. On the metropolitan riverside the number of anglers are growing (street/urban fishing) (<http://www.mohosz.hu>). Former vessels and other structures anchor on the Danube, which are used for recreational purposes: restaurants, clubs, museums (e.g. Kossuth museum and restaurant (<http://www.venhajo-etterem.com>); A38 club (<http://www.a38.hu>)). In the last years a new function is appeared: large river cruise ships dock in the capital for several days.

The banks of the Danube functions as a recreation area a long time ago. The riverside walking, relaxation coupled with the view of the river is a major feature. This is served on many places by different service units (restaurants etc.) which settled here. The other main recreational function is the sport: running, cycling, roller skating etc., and the demand for this type of area has increased in recent times due to the population working towards a sportier, healthier life. A number of events linked to the Danube and its banks in Budapest, such as the firework of National Day (August 20), occasionally water and air parades, as well as the famous international Sziget Festival. Other forms of recreation (not related to the water) appeared also in the riverside: the new National Theatre and the Palace of the Arts were built

on the eastern bank, and recently the Várbazár (castle garden) is under renovation on the western bank of the Danube. Some hotels were built on the riverside for the tourists. Overall, it can be said that in many places the banks of the Danube function as a recreational area, and there is demand for new areas.

At the end of the chapter it can be mentioned that the local social and economic processes resulted the transformation of the functions of the banks of Danube, and there are new areas to the potential territorial expansion of the recreation, and in some places there is need to change the functions in the riverside.

2. Needs of the local residents

In August 2014 at eight locations on the bank of Danube we carried out a survey (Fig. 1.) among people living in Budapest (n=1035; male: 44,3%, female: 55,7%; age: <30: 42,8%, 30-60: 42,1%, 60<: 15,1% (answer=987)). We focused on their relation to the river Danube, their usage of the riverbank (and the Danube itself), and their knowledge and assessment about the future plans.

Our presumption is that inhabitants of Budapest have been actively using the bank of the Danube as a place for their free-time activities so the existence of areas with these special functions are not new, and due to the growing demand their number have increased. Our survey was carried out at eight different places on the bank of the river with the aim of focusing on the usage and the judgement of them by the people. Beyond that, we made special attention to and detailed research on two areas: the Margaret Island (Margit-sziget) with long-standing recreational function, and the recently opened Kopaszi-dam (Kopaszi-gát) with the Lágymányosi Bay (the oldest and the newest recreation area) (Fig. 1)

2.1. Recreation function on the bank

One question of our survey referred to the main usage function of the Danube river(bank). Most of the people asked signed walking (792), relaxation, sitting and sunbathing (704). Cycling (322), running (321) and going to a public catering place (282) were marked by many as well, and they were followed by rowing (116), fishing (70) and bathing (57), which are directly attached to the river itself.

According to the answers we ascertain that the riverbank plays greater role in spending the free-time of the population: the first five marked activity is connected to the bank. However its worth noting, that while the abovementioned functions are popular in the inner city as well;

in the case of the Danube (and its riverbank) the aesthetic experience is one of the most important factor. Furthermore, this latter place with its long and straight stretch and without level differences is more comfortable for cycling or for walking. There's another key point in relation to the activities connected to the river, namely, that because of the bad water quality, most people kept off from the Danube as a place for recreation or for leisure time. But it could be changed by better water quality, and as moving away from the city core, the northern and southern parts of the riverside could have greater opportunities for recreation in the future.

Another question was connected to the judgement of the different developing plans of the Danube and its bank (very important (3), important (2) or less important (1)). In connection with the objectives, the preservation of the natural parts of the Danube got the largest number of positive marks (2.59). This was followed by the aims for creating more places for walk and cycling (2.28), and later by the enhancement of public usage of the riverside (2.23). Through „big city life” most of the asked see the riverside as a recreational green area, rather than a pleasure ground, while the publicity of its places and their easy accessibility retained its significance. To sum it up, there's a need for grand green places with relaxation and mental recreation functions.

2.2. The oldest recreation area - margit island

Our first case study covers the Margaret Island, which has a long-standing recreation function. It was covered by landscape parks in the era of Árpád-dynasty, but for the mass became available only in the 19th century. Thanks to its richness of mineral water (which was found in the late 19th century) medical baths, hotels, villas and many restaurants were established, but this time the island was only accessible by boat. In 1900 this latter problem was solved by a link from the Margaret Bridge to the island. Several new establishments were built during the first half of the 20th century as well, e.g. Palatinus (first outdoor beach in Budapest) in 1919, the Hajós Alfréd National Sports Pool in 1930, or an outdoor stage in 1938–39. After the World War II the Margaret Bridge was detonated, but rebuilt in 1947–48, and from 1950 it became accessible from the North by the construction of Árpád bridge (<http://hu.wikipedia.org/wiki/Margit-sziget>). The island previously was addressing by the XIII. district, but from July 20, 2013 came under the direct administration of the metropolitan municipality.

The whole island could be considered as a big green area with only some buildings. For tourists and residents several opportunities exist for relaxing: walking ways, benches, catering places hotels, and sport establishments (athletic centre, pool etc.) and jogging tracks are

located in the island. In addition one can find here many cultural sights as well: the Japanese Garden with a mildly thermal fish pond, the „Music Well” which is a small pavilion originally built for open-air concerts, the “Music Fountain” where music is played and light shows are performed in summer, the Water Tower with its octagonal form, which today is functioning as a lookout tower, or the Saint Michael chapel and the ruins of a Dominican nun cloister. The island is accessible from two directions by foot or bicycle, and on the island bicycle, electric scooter, etc. can be borrowed. In recent years there were some investments on the island (renovation of fountain, swimming pool etc.) supported by city government, the government of Hungary and EU funds.

The main results of our survey carried out in the island are the following (n=214). Among the asked people the most popular free-time programs were walking (161), relaxing, sitting (130), and as a sport function, the running (68). Many marked the importance of catering places (43) and opportunities for cycling (49), while rowing, bathing and fishing were regarded as less important functions. From these answers the recreational character of the island stands out: for the inhabitants the island functions as a green area, where one can relax, or get some exercise, rather than a place for doing sports in connection to the Danube.

From other answers we emphasize that most people are satisfied with the opportunities of the island (1-very bad, 2-bad, 3-average, 4-good, 5-very good): its attendance (4.3), accessibility (3.9), the neat riverside (3.5) and the exploitation (3.4) were rated up to the average; possibilities for shipping were marked as average (3.2), but the water quality (2.6), the prices (2.5) and the opportunities for bathing (1.9) and were judged negatively.

One question connected to the development plans of the island (very important (3), important (2) or less important (1)). Results show, that the objectives for improvement of the green area (2.4), and for sport recreation are (2.2) the most important in the view of the inhabitants, while the tourism development is only important (2).

From these result it seems, that the island contents the demands of people functioning mostly as a recreational area, so there is no need for other functions on the island. The improving and development of the local infrastructure of the recreation function is important, because the answers show some negative facts: the need for the reconstruction and widening of the running tracks, or the establishing separate places for dogs, the small number of public toilets and their prices are key points for the inhabitants. Other necessary things, such as cycle path, taps, playground reconstruction, more dumpsters were played an important role in the eyes of asked people. It would be crucial, whether the island in its present form are able to function irrespectively of the Danube, because as we’ve seen most of its characteristics are

not related to the river. Beside, the congestion would be another problem, which can be solved by opening new recreational areas on the banks of Danube.

2.3. The newest recreation area - kopaszi dam

Our second case study represents the recently opened recreation area, the Kopaszi Dam (and the Lágymányosi Bay) located in the southern part of Buda. The half island was built up after the flood in 1838 in order to protect against flood for the nearby industrial buildings and factories. The place in the early 20th century had been popular amongst people as a fishing, bathing and sporting area, but its condition later started to deteriorate. In the 1980s and 1990s it was rarely visited, and only some houses and small restaurants and a port were located in it. In 2007 the Öböl XI. Kft. started to adjust the 56 ha area. In 10 hectare a recreational park was constructed with different service establishments (playground, restaurants, boathouse) ([http:// http://www.obol.hu](http://www.obol.hu)). The bay is opened in the southern part of the Kopaszi Dam. Its rights situation is complex: formally it's a private area opened for public objectives, with restricted public usage, financed by private capital.

The plans for the future are twofold: on the one hand there will be a recreational objective, while there's a need for building offices, hotels and dwellings on the other. In the plans one can find water park, wellness hotel, ice hall, restaurants, cultural and art places, sport camps, a water stage, yacht dock and a walking bridge as well, therefore some parts of the area would be opened for the mass, while the other only for the workers and residents.

In our survey we asked more than 100 persons (n=109). The main motivation to come there for them is walking (83) and relaxing (83), but cycling (58), running (36) and going to a catering place (58) were also emphasized. Fishing, bathing and rowing were less important. It's interesting, that the Kopaszi Dam was created on the bank of Danube, but it functions as a normal recreation area (like a landlocked park). The reason for this is that the bathing and fishing are forbidden, and there is no possibilities to rent a boat.

To the questions related to the condition of the riverside and the Danube we got the following results (1-very bad, 2-bad, 3-average, 4-good, 5-very good). Neatness (4.3), huge number of visitors (4.0) and accessibility (3.9) were marked as a positive phenomena, such as free-time activities (3.8) and catering place density (3.6). In the opposite, the shipping (2.3), water quality (2.3) and possibilities for bathing (1.9) were considered negatively. The reason for the problem with the shipping is that there is no stop for the public water transport and harbor for the private boats. The results show, that in the view of the asked, the Kopaszi Dam is a nice, green place with appropriate service functions.

What about the deficiencies and the problems? The results made clear, that the Dam can be divided into two parts: the eastern part with catering places (on the dam), and the western grassy and woody part (on the bank), and the bay separates them. As in the case of Margaret Island, the lack of enough public toilets is a common problem for many (on the bank), and they also marked the need for a walking bridge which would connect the two sides (the dam and the bank). The people asked also need more free sport opportunities, but it could easily be a main point of conflict, because the investor is closed for more non-profit investments. The lack of more playgrounds is also a little problem. Another problem relates to the transport situation of the area, because there's only one bus line with which the Kopaszi Dam is accessible, and the ship port is not operating. The lack of party places (which operation is forbidden) is also a crucial point especially amongst young people. The answers show the users of the recreation area are varied, therefore there are different demands.

Answers to the questions related to development plans of the wider area (the whole riverside of Southern Buda; very important (3), important (2) or less important (1)) show us, that constructing of new free-time places (2.6) and development of the „green economy” (2.1) are favored most, while the construction of the “urban riverside” (1.5) and science, education parks (2.1) the least. So the need for more green areas is evident, but its in contrast with the plans (hotels, wellness, offices etc.) of the firm who manages the Kopaszi Dam.

To sum it up, the Kopaszi Dam is a well-functioning new recreation area is, but it is not related to the river actually. The other important feature is that it is a privately owned area, therefore there are different limitations. Its recreation function, and the preservation of its condition play an important role in the view of the people, which are in opposite with the new ideas of the investors. However it's a fact, that the Kopaszi Dam was built by private capital, so the firm wants profit from the new development. It is a way of creation of new recreations areas, if there is no enough money of the city for it, but it results loss of area.

The main question is (seeing the social and economic processes and the demands of residents), that what the city government wants to do (development plans, programs) and what it can do with the reconstruction of the Danube riverside in different places of Budapest.

3. New development strategies for the banks in Budapest

The urban development in Budapest is divided: after the transition, since 1990 there is the metropolitan municipality and there are 23 district municipalities, and they had own development strategies. Since 2010 there is a new mayor of Budapest, who is supported by

the party of new government (since 2010), and there is an aspiration to simplify the operating and development of the city, and it results a stronger metropolitan municipality. That is important element in the waterfront development in Budapest, the Danube River as seen from the administration and planning, the Capital Municipality and 12 district municipalities (from 23) are affected. Therefore, it was a great importance when the 2012 CXC. law put the metropolitan municipality for the manager of the property (buildings, berths and port infrastructure) along the river (which was previously in the hand of the districts and state), because it established implementation of an uniform development plan for the banks of the Danube.

If we look at the waterfront development in the past shortly, we could emphasise that the protecting defense and regulating the river was always important, and nowadays these goals are also important. (In the XIXth century after the river regulation and the buildings of quays the banks have incorporated.) In the past the recreation function was important in the life of Budapest, there were plans and investments (e.g. Margit Island, see below). In the socialism there was not much attention to the Danube zone, and due to the increasing volume of traffic this function has occupied the banks, so the area of recreation function reduced. After the transition, in 1990s and 2000s, Izsák-Probáld (2007) state the municipalities of the capital and districts have not been able to give that directions for the development of the banks which are appropriate for the public interest; the plans of the utilization, functions etc. were flexible, and the private investors' interests prevailed often. The investors were interested in the economic functions, not the recreation, and the budget of the city was low, so there were only some plans for the recreation area. In 2010 Budapest got a new mayor and the waterfront development, including to create new recreation areas has become more important.

In recent years due to the complex Hungarian regulations and the administrative status of the capital and the new strategies of the new city government, as well as preparing for the new EU budget period, more official development documents prepared for Budapest. In January 2015 the following documents are available:

- Budapest 2030 - Long-term urban development concept (2013)
- Regional Development Concept of Budapest (2014)
- Integrated City Development Strategy (2014)
- Integrated Regional Programme and sectoral developments of Budapest 2014-2020 - I. and II. (2014)

The priority of the development of the Danube riverside reflects that in these documents there are separate chapters about riverside, even a specific analytical working paper prepared:

"Development Study Plan of Danube area of Budapest" (2013), and based on this document a strategic document also prepared: "Coordinated development areas along the Danube - thematic development programs" (2014). In the following, we examine this key role in the documents, especially the development issues of the Danube River related the recreational functions.

The Development Study Plan of Danube area of Budapest is based on the situation report and concept of the capital (2011, updated in the summer of 2012), and this document focuses on one key element of the target system of the city, adopted by the Municipal Assembly: "city lives with the Danube". It appears in the target system of concept (2012) in such a way there is a need for a balanced urban spatial structure, including restructuring, renewal of the impassable, neglected areas, expanding of green areas, maintaining open urban areas on the one hand, and on the other hand in order to create the symbiosis of the city and the Danube there is a need for maintaining and development of the natural environment, the regionally differentiated land use and the availability of the riverside, and there is need to fill banks with public functions and to expand the functions.

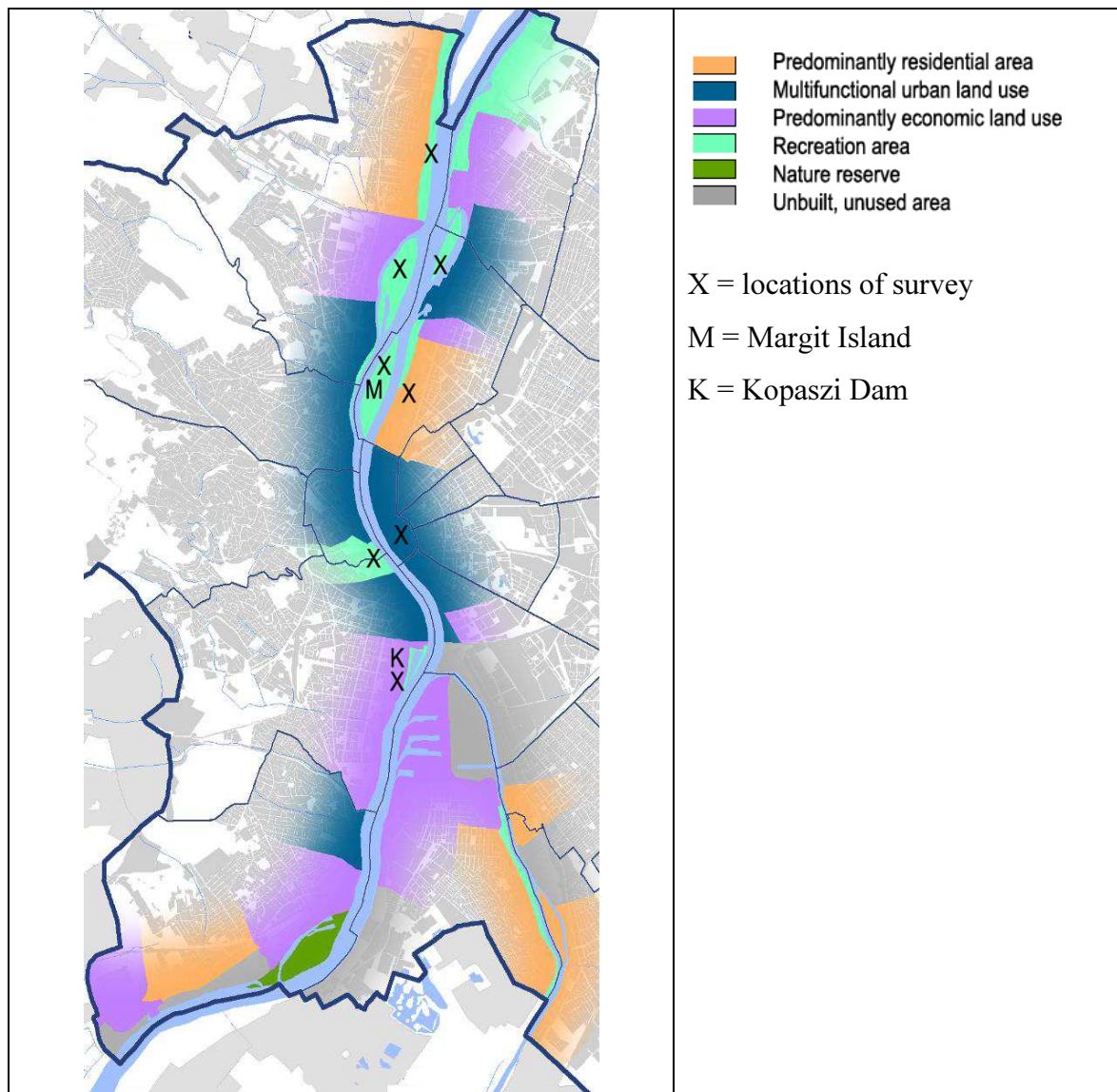
The document refers to that the spatial plan of the capital (2005) gives special attention to the Danube and the riverside. According to the plan the primary task is to open the riverside from the residential areas, and to provide opportunities for recreation features. According to the document there is a need to develop the Danube zone - together with islands - to a characteristic element of the urban structure, focusing primarily on the recreation and tourism, and new green area can be created on the site of the current industrial and underutilized areas (6 p.).

The Development Study Plan of Budapest based on these targets states that we have to make the Danube with islands and riverside for an integral part of our life, and increasing and strengthening the community use of it has strategic importance (59 p.). This, however, can and should be done differentially, because of the land use of the riverbank is mixed, and there are explicitly recreation areas, but there are some areas where this function is unrealistic now and in the future also (Fig. 1).

In the long-term urban development concept a separate chapter deals with the riverside. Here we can read again the main objectives (described above), and eight themed tasks were formulated, from which some tasks serve the recreation: expanding functions on the riverside, including recreation (for example on the site of brown fields); in the framework of utilization of natural endowments they emphasise that the islands would be recreation areas (excluding Csepel), respected to the natural protection, and there would be some new recreation areas on

the banks; in the framework of public use they state that the riverside must be accessible, and on the unused areas must be created the possibilities for the recreation, sport (for example rowing), and bathing (if the water quality improves later); in the objective of development of the recreation areas in the riverside the growing of the length of visited bank must be achieved, and to promote the riverside is important. In addition, the improvement of the pedestrian and bicycle traffic on the riverside is also planned. The regional development conception of Budapest includes these targets also.

Figure 1 Different land use in the riverside of Danube in Budapest



Source: The Development Study Plan of Budapest (2013)

In the "coordinated development of the areas along the Danube - thematic development" program there are eight medium term targets also, but these are partly different from the previous targets. From these targets the exploiting of the potential of recreation and tourism is

related to our topic, but to ensure the pedestrian accessibility of the banks, and the development of brownfield sites is also connected. The main objective might include a wide range of interventions: utilization of under-utilized areas, creating new recreational functions, making up for the lack of playgrounds, parks etc. To develop the watersports, to protect the priority parts of the riverside from the disturbing boat traffic, to develop the water tourism (ports, infrastructure), to improve the quality of water are very important also. The more items are to make connections between the isolated recreation areas, to present the architectural heritage, and to renewal and develop spas. To the eight objectives project proposals were prepared, most of them concentrated to the improvement of accessibility of the riverside and the exploiting of the potential of recreation and tourism.

To the implementation of the plans the integrated urban development strategy and later the integrated regional programme was prepared. The previous document states these development objectives for the Danube area: to ensure the accessibility of the riverside for the pedestrians, to develop recreational and green areas, to strengthen the attractions, and to make a package of tourism products (related to the Danube).

The integrated program specifies further the development objectives: six ITP packages were created, of which the first is the "Coordinated development of the areas along the Danube". The problem is that, however, only some projects can connect to the EU 2020 policy (to the No. 4 objective: supporting the transition to low-carbon-emission economy in all sectors, and No. 9 objective: promote social cooperations and the fight against poverty and social co-discrimination), and more projects are not related to them. To the package 53 project proposals were received from participants of the planning process. All of these previously 70.6 billion HUF demand for support have been calculated, and from the bulk of which should support to improve accessibility of the recreational areas, as well as renovation of old recreational areas and establishing new ones, and developing different facilities, improve or develop various recreational features. According to the plans the projects may be financed by VEKOP (Operational Programmes of Central Hungary), or two other Operational Programmes, and by the budget of the capital and budget of the government, and there are some projects on the list where is not a named source.

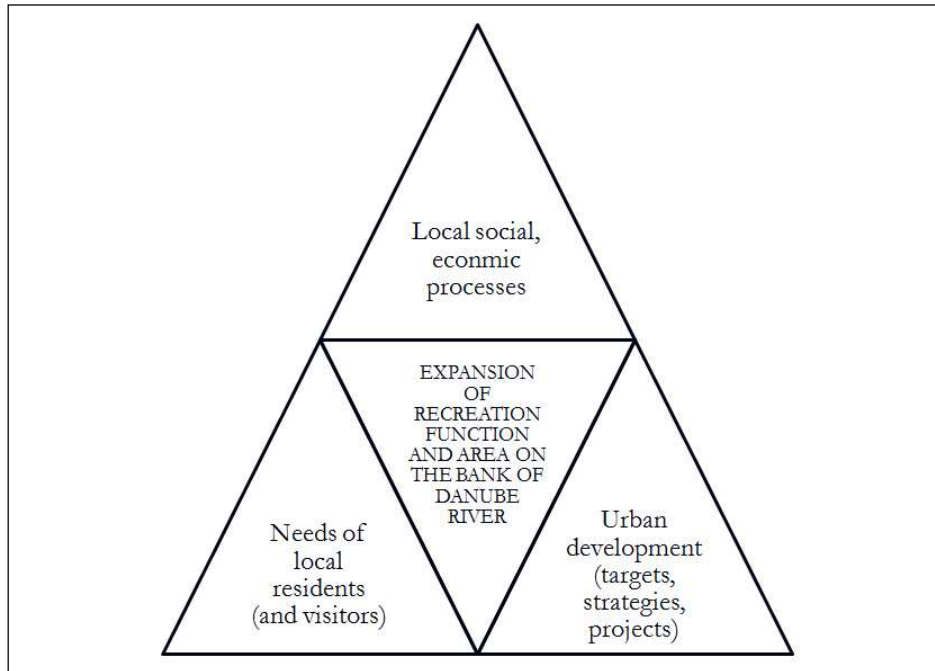
In summary, the city administration has been committed to expand the recreational area, enhance the recreational functions on the riverside of the capital, and all of these beyond the development objectives, strategies, specific projects are planned for the next EU-cycle. The question is that, which goals will be realized, because the budget of the city is unable to finance the investments, therefore there is a need for the support of EU and the government,

and there is always a chance for the change of planning, because there are a lot of important participants in this issue (government, municipalities, companies etc.).

CONCLUSION

In the past decades in a lot of large cities the waterfront areas have changed or are changing nowadays, and the revival is often connected to the tourism and recreation because of the changing functions of the cities. One important geographical result is the changing land use of the banks of river. In Budapest these are also observed, and the results of our analysis show that in 2010s in the city the local social and economic processes, the need of residents (and visitors), as well as the development goals of the municipality point in one direction in the case of the Danube riverside: to increase the recreational land use, to protect the existing recreation areas, and to expand the recreational functions (Fig. 2.). That is important the achievement of these goals are prepared in the development documents, and specific project proposals have been created. The problem may be the financing possibility, because of the lack of money, but there are different ways to achieve the goals: there is a chance to get money from the EU funds and from the government, and the private capital is interested in the utilization of the riversides how the case of Kopaszi Dam presents it. The problem is that the plans and investments depend on the actual political and financial situation, and in the utilization of banks are important not only for the residents.

Figure 2 The harmony of local processes, needs and targets in the case of the recreation area on the bank of Danube in Budapest



Source: Author's own construction

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