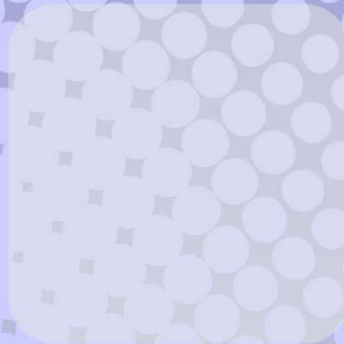


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DEVELOPMENT OF SUBURBANIZATION IN RELATION TO DISTANCE FROM A MAJOR CITY. CASE: NORTH-EAST FRINGE OF BRNO, MORAVIA

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Abstract

The paper poses the question of how suburbanization levels change in relation to the distance from a major city. The north-eastern surroundings of Brno were chosen as a case study area. Indicators like demographic development, unemployment, occupation in individual economic areas, and level of formal education were taken into account. The results show that differences in values of the indicators mentioned can be observed. Migration balance and construction of new flats are the most expressive indicators. Employment in productive and post-productive sectors and the level of education are also important, with unemployment playing no role. However, the results should be verified in other territories and stages of the post-productive transformation.

Key words: suburbanized countryside, ageing, education, employment, Brno, Moravia

INTRODUCTION

The current social and political systems of post-communist countries are in a stage of transition from a productive to a post-productive society as part of the general process of globalization. The society of production is changing to the society of consumption. This has far-reaching consequences including recent political changes in Eastern and Central Europe. Suburbanization can also be considered as one of the manifestations of the transition to the post-productive countryside. Living places are separated from working places. The suburbanized countryside is changing from a place of food production to a place of consumption, for housing, rest and leisure.

It is clear that the transition from a productive to a post-productive society does not run evenly in time nor in place. It depends primarily on the innovation level of individual countries and regions, and can be slightly modified by the national and regional politics of individual states. Differences between the urban and the rural seem to be one of the most significant

diversities at the innovation level. However, not even the countryside is uniform. One of the most important typological indicators can be found in the distance from regional metropolises. It is very well known that the countryside can be divided into three classes: suburban, intermediate and peripheral – or as Hedlund (2016) designates: within the urban shadow, out of the urban shadow, and in the periphery.

The Hägerstrand's theory developed by Rogers (1995) explains that innovation is diffused from sources (big cities) to their surroundings incrementally. It means that the territory close to the city adopts the innovation earlier than the more distanced territory. Is it also valid in the present situation when the internet facilitates the spread of information in real time evenly throughout the territory? Is it possible to relate this theory to the spread of the post-production?

Currently information is diffused without any limitations throughout Europe. It means that the application of innovations does not depend on information availability and its level of diffusion. Diffusion of innovations evenly across a territory has been a reality since radio and TV started to be commonly used. However, the internet enables an active search for information and data from any place. The problem consists rather in an ability to look for the relevant information.

Our main research question asks: Is there any evidence of decreasing post-productivity in relation to the distance from a regional metropolis? The city of Brno was chosen as a case study. The north-eastern segment of its surroundings was studied.

The post-productive transition

The productive (industrial, Fordist) countryside is usually related to intensive agricultural production, using heavy mechanization, chemicals and highly organized operations with a high productivity of labour. The post-productive (post-industrial, post-Fordist) countryside should then in theory be connected with lower intensity of production, paying more attention to environmental and social aspects of production. Rural landscape ceases to be mainly a source of production and starts to be a source of consumption (Cloke, 2006). The rural social system depends on the primary sector less and less.

This rural restructuring (Hoggart & Paniagua, 2001), which started in most developed countries in the 1970s (partly in a reaction to the oil crisis), was hampered by means of planning tools in the post-communist countries until the end of the 1980s. Ideologically, communist regimes originated as a feature connected with the productive capitalist society and lost their sense with the transition to the post-productive one. In the 1990s, the post-socialist countries,

freed of braking mechanisms, had to cope with a jump change which is sometimes called revolution instead of transition.

The post-productive transition of society and the economy has been driven by increasing productivity of work in productive industries. Services, especially individually focused ones, are not able to follow this trend. Additionally, environmentally demanding and workforce demanding productive industries are devolved from the most developed countries to developing parts of the World.

That is why in the sphere of employment, this transition means a significant reduction of jobs in productive industries (firstly in the primary sector, later also in the secondary one) and their shift to the tertiary or quaternary sectors. Some authors (Kasimis & Papadopoulos, 2017) speak about the de-agriculturalization of the countryside. Vaishar and Šťastná (2019) stated that only every other 16th economically active resident of the Czech countryside is a farmer, a forester or a fisherman. In the sphere of lifestyle, the transition means a shift from production as a sense of existence to consumption. The rural space is changing incrementally from an area of intensive agriculture to an area of multifunctional agriculture, tourism and dormitories of people often employed in cities. In the demographic sphere, the second demographic transition could be considered as a part of post-productive development.

Post-productive development in the countryside means a commodification of rural space (Woods, 2005). It is often related to tourism development and to a change of the rural landscape from a productive source to the milieu of leisure consumption and thus to its multifunctional use (Almsted et al., 2014), taking into account demands for amenities, ecological services and protection of the cultural landscape (McCarthy, 2005). Zasada (2011) sees the post-productive transition of the suburban countryside as a growing multi-functionality of agriculture, which meets changing consumer-oriented demands of the urban population for the rural space (tourism, second housing, specialized food). The consumption of the countryside is more often connected with urban tourists (e.g. Eusebio et al., 2017). However, not only urban but also rural societies themselves become more and more post-productive. Brouder, Karlsson and Lundmark (2015) suggest measuring post-productivity by means of hyper-production. Other authors also discuss post-productive changes in agriculture (e.g. Casadevall, 2016, Navrátil et al., 2019). Nevertheless, post-productive changes are not only found in the production but also in societal life.

This paper is focused not so much on post-productive changes in agricultural production or on multifunctionality but more on post-productive changes of rural populations which are to be seen in changes of employment, education, and demographic development. We are of the

opinion that the diffusion of the post-productive aspects of societal development could show similar characteristics as the classical diffusion of innovations.

THE TERRITORY UNDER STUDY AND METHODS OF RESEARCH

The territory north-east of Brno was investigated. The rural municipalities (Fig. 1) were divided into three groups according to their distance to the centre of Brno: 0 – 29 minutes (which is a distance considered generally suitable for commuting: Ochoz, Mokrý-Horákov, Kanice, Březina, Babice nad Svitavou, Olomučany, Křtiny, Habrůvka), 30 – 39 minutes (Jedovnice, Rudice, Petrovice, Krasová, Vilémovice) and 40 minutes and more (Holštejn, Lipovec, Ostrov u Macochy, Sloup, Vavřinec, Šošůvka, Žďár). The urban municipalities of Blansko and Adamov were excluded from the investigation.

The territory under study is situated in the rugged relief of Dražanská vrchovina highland, where accessibility (measured by the time distance) plays an important role. Moreover, it is a karst area with unsuitable natural conditions for intensive crop production. A large part of the territory is covered by forest. It is under large-scale protection as a Protected Landscape Area of Moravian Karst (Zapletalová et al, 2016).

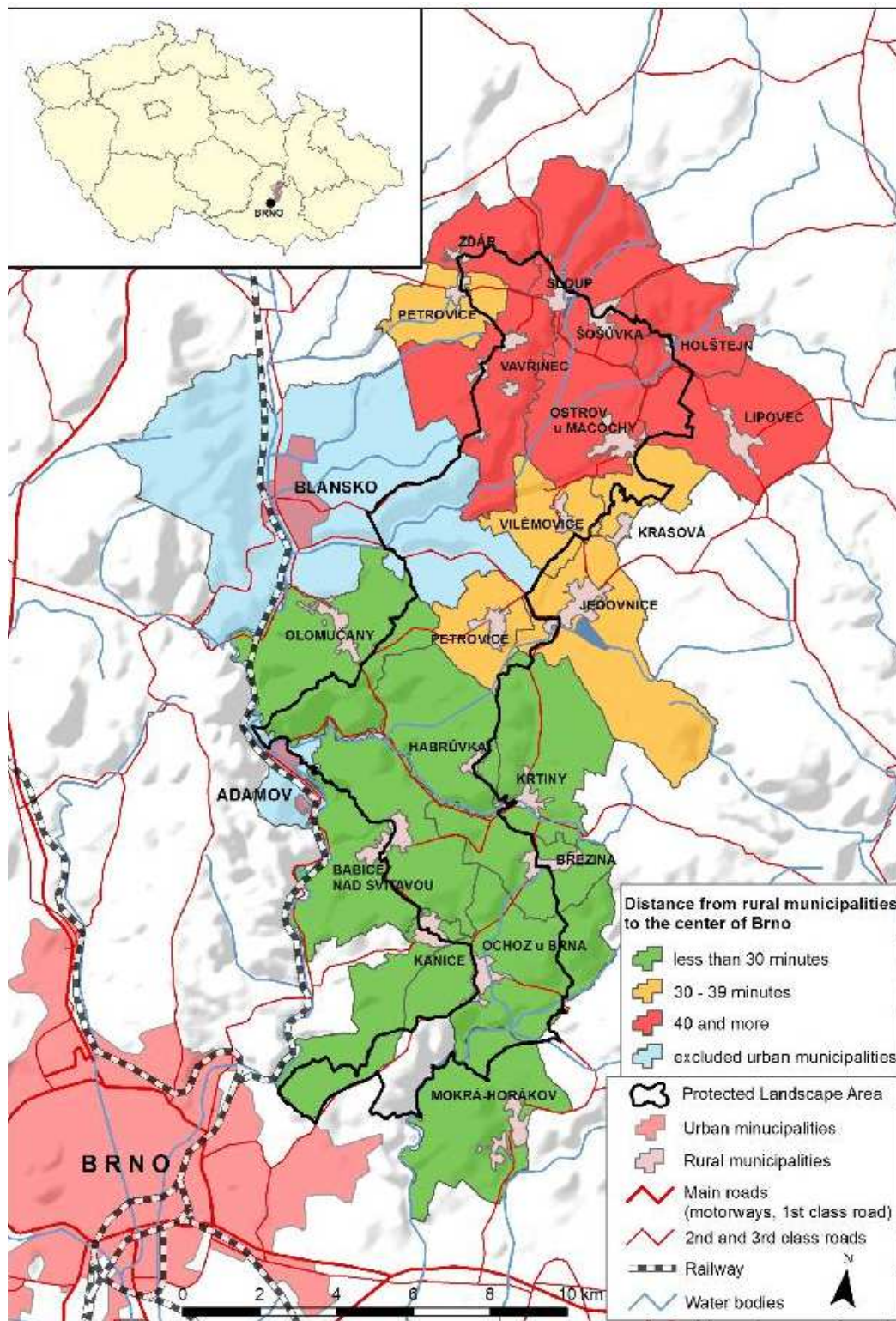
Commuting for work from rural municipalities to urban centres started a long time ago – originally into industrial plants in Brno, Blansko, Adamov, and Boskovice. Currently, tourism is developing – both as a leisure hinterland of Brno and as cultural tourism on a national and international scale. The area is situated away from major transport routes.

The settlement system consists mainly of large and middle-sized villages. Of 20 municipalities in total, only five have less than 500 inhabitants. Such a settlement structure allows rural settlements to be equipped with basic services. The public transport within the Integrated Transport System of the South-Moravian Region is frequent. Services of the state administration are to be found mostly in the district town Blansko, whereas Brno is the most important centre of the services of a higher order. There are no significant populations of ethnic minorities in the area.

The following indicators have been chosen in the analysis of the changes in relation to increasing distance from Brno: (1) the population balance review where it was presupposed that this indicator worsens with increasing distance from the regional centre, similarly as with the age structure; this indicator was completed with the number of recently built flats, (2) the level of formal education, where it was assumed that educational standards are decreasing with increasing distance from the regional centre, (3) proportions of the economically active

population employed in individual economic sectors, where it was assumed that the share of those employed in productive industries increases with the distance from the regional metropolis.

Figure 1 Geographical location of the area under study



Drawn by P. Dvořák

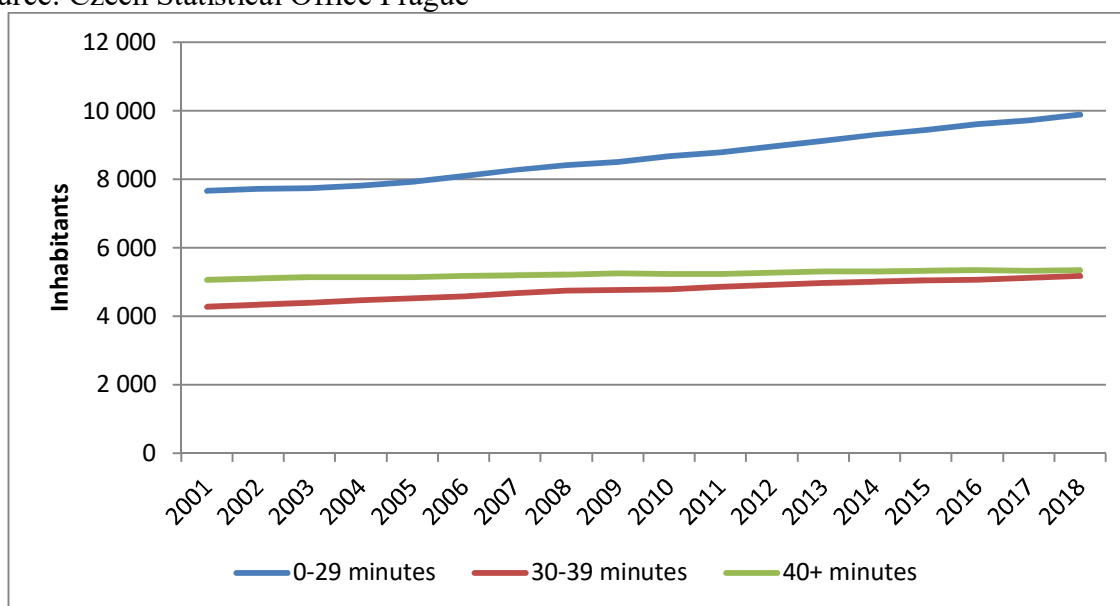
A public database of the Czech Statistical Office was used for the gathering of data, namely the population census of 2011 and population balance reviews from the period 2007 – 2017. The time distances for individual car transport were estimated by means of the mapy.cz server. The frequency of public transport was taken from the public materials of KORDIS, joint stock company (operator of the Integrated Transport System of South-Moravian Region). Data about unemployment were taken from the server of the Ministry of Labour and Social Affairs.

RESULTS

Population development of municipalities in the Moravian Karst in the decade from 2005 – 2017 (Fig. 2) shows a general population increase. A part of the most southerly situated rural settlements grew due to the suburbanization process, whereas others play a role of rural sub-centres with their own functions (e.g. Jedovnice). There were 417 new flats built in the area in the period from 2013 – 2017. Six villages reported fewer than 25 residents per one new flat: Březina, Krasová, Vilémovice, Kanice, Babice nad Svitavou, and Křtiny. These settlements can be considered to have been affected by the suburbanization process in the last decade.

Ageing of the population is indicated by the age index, defined as ratio of seniors (age 65+) to young people (age 0-14), which is 1.09 for the whole set of municipalities under study. However, some municipalities exhibit a progressive age structure. The age structure is better than the national average (1.18) – partly due to the suburbanized character of the southern part of the territory. In comparison the same index for Brno is 1.35, which suggests that the city ages more quickly. The dependency index is 0.54 (children + seniors / population of active age), which is worse than the national average (0.50). The population of Moravian Karst is economically active more than the national average.

In the Moravian Karst in 2011, 54% of the population had a lower than secondary education, 32% had secondary and 13% had higher education. The population of the Moravian Karst is ethnically homogenous. There are 0.8% of Slovaks and 0.2% of Ukrainians in the territory. Although many people did not declare any ethnicity in the last census (2011), experiences from the field do not indicate the substantial presence of foreigners.

Figure 2 Recent population development in the territory under study. Own elaboration. Data source: Czech Statistical Office Prague

The Moravian Karst is situated near the regional capital of Brno. Consequently, some villages are subjects of suburbanization. However, the population is also growing in remoter parts of the Moravian Karst, which are out of the suburbanization zone. They are parts of functional regions of the district town Blansko (population 20,000) and the small town of Boskovice (population 11,000). In fact, the spheres of influence of all three centres partly overlap. Villages in the Moravian Karst have been losing their rural character, and depending increasingly on commuting for jobs, education, services and hence on individual and public transport. The quantitative changes can turn into qualitative ones. When considering the limit of 1,000 inhabitants between mid-sized and large villages, two settlements in the Moravian Karst have exceeded this limit in the last decade.

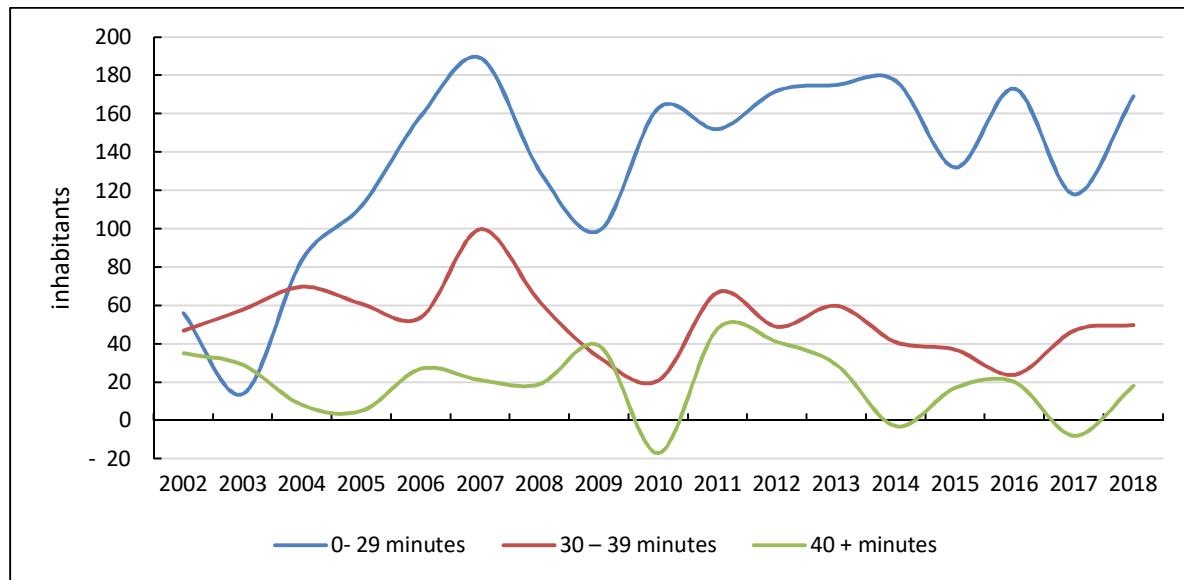
The situation of groups in relation to the distance from the regional capital is documented in Tab. 1 and Fig. 3.

Table 1 Population development in the respective zones according to time distance from Brno (2013-2017)

Group	births	deaths	immigrants	emigrants	average population number	Population balance [%]	Population number 31 Dec.2017
0- 29 min	559	424	1721	1081	9,436	+82.1	9,736
30 – 39 min	284	237	687	525	5,042	+41.5	5,117
40 min and more	225	265	603	508	5,315	+39.3	5,489

Data source: Czech Statistical Office Praha, Own elaboration

Figure 3 Population growth in the territory under study. Own elaboration. Data: Czech Statistical Office Prague

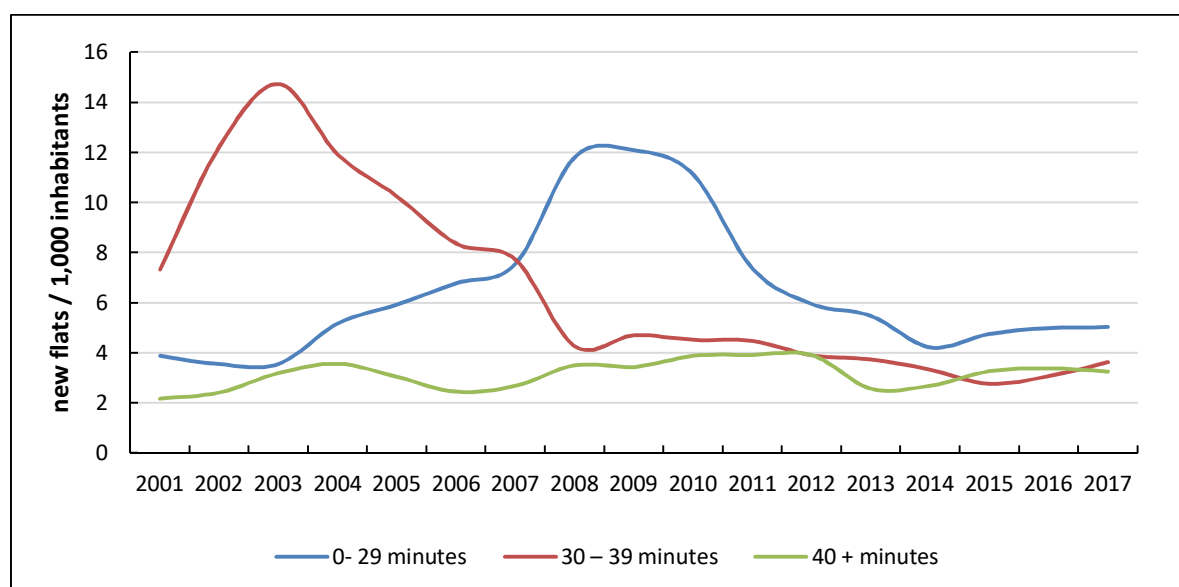


The following partial conclusions can be drawn from Table: [1] The population number increased in all three zones in the last period; [2] The population increase slows down with the time distance from the regional metropolis; [3] Whereas in the first two zones the population increases due to both natural and migrational reasons, in the third zone the population increase depends fully on migration, whereas the natural balance is negative there. Hypothetically, the 40-minute distance is a limit of classic suburbanization in the surroundings of Brno (in the northern direction). The population growth in the more distant zone can be connected with counter-urbanization or amenity migration rather than with suburbanization. It is possible that older people move into areas with cheaper and quieter living. The attractive landscape of the Moravian Karst, together with the frequent public transport support such a behaviour. To learn more about these processes, we will examine the population's age structure in the respective time zones.

The age structure was characterized as a ratio of young people (age 0-14) to seniors (65+). This ratio was 1.06 in the time zone up to 30 minutes (youngsters prevail over seniors); in the second zone (31-40 minutes), it was 0.89, and 0.84 in the most distant time zone. It shows that whereas the age structure in the 30-minute zone is progressive, beyond this commuting zone, seniors prevail over children and this prevalence increases with the increasing distance from the regional metropolis.

The rate of the construction of flats shows a clear relation to the distance from Brno: in the first zone, 23 flats per 1,000 inhabitants were built (2013-2017) while in the second zone the number of new flats was 17, and the most distant zone recorded 14 newly built flats per thousand residents. According to dwelling construction development (Fig. 4), suburbanization take place even in this part of Brno metropolitan area.

Figure 4 Housing construction (3-year moving average) per 1,000 inhabitants in the territory under study. Own elaboration. Data: Czech Statistical Office Prague



Business activities are not so much differentiated: the number of business per 1,000 inhabitants recorded in the first, second and third zone by 31 December 2017 were 124, 115 and 109. As for tourism, the closest zone shows the least number of overnight stays, which is logical because visitors probably use hotels and other accommodation facilities in Brno.

As shown in Table 2, the structure of employment in the respective sectors changes with the distance from the metropolis. The ratios of productive sectors (agriculture and industries) increase significantly with increasing distance from Brno. However, the share of people engaged in the primary sector barely exceeds 4%. It indicates that dependence of the Moravian Karst's social system on agriculture is low – also taking into account that forestry is highly developed in the area. At the same time, it shows that the job market in this rural area depends mostly on industry.

Table 2 Shares of economically active population [%] by individual sectors in March 2011 (the last population census).

Sector/Zone	up to 30 min.	30-40 min.	40 min. and more
Agriculture, forestry, fishery	2.9	3.7	4.6
Industry and construction activities	35.5	40.1	45.4
Retail, transport, communication	15.4	13.0	12.2
Accommodation and gastronomy	2.7	3.3	2.3
Finance, IT services, real estate etc.	15.9	11.2	7.2
Education, health and social care	18.1	19.2	15.6

Source: Population census 2011. Czech Statistical Office Prague. Own elaboration

The ratio of employees in retail, transport, and communications decreases with increasing distance from the city as well as the ratios of persons engaged in private high-level services (finance, IT, real estate). Employment in services focused on tourism is lower than in the primary sector. It follows that despite the significant tourist character of the region, services in accommodation and gastronomy can hardly balance the decline of jobs in agriculture. The number of employees in social services (education, health, and social care) occupies second place in employment in all three zones. Taking into account that the data from the last population census are seven years old, a further movement of employees to services could be expected.

The number of people (aged 15+) with complete secondary and higher education decreases with increasing distance from Brno, the nearest zone, middle zone and the most distant zone reporting 46.4%, 43.6% and 36.6% of people with higher qualifications. The percentage of commuters for work in the nearest zone, middle zone and the most distant zone amounts to 49.4%, 50.1% and only 40.1%. (2011).

Unemployment slightly decreases with increasing distance from the metropolis and amounts to 2.4%, 2.0% and 1.9% in the nearest zone, middle zone and the most distant zone. (August 2018). It is possible that people employed in a large city behave more freely and change their jobs more frequently than people in the periphery, who have to rely on a lower number of employers and tend to keep their jobs. It is very difficult to come to any conclusions with such a low unemployment rate which at that time in Brno was 4.6%.

In spite of the much longer time spent on the road, commuting is pre-conditioned by frequent public transport among other things. As an example we can choose the village of Křtiny in the first zone (up to 30 minutes). There are 121 connections by public transport on working days and 47 connections on weekends. The village is directly connected with the regional capital of Brno (37/19 connections per day: working days/weekends), with the closest railway station in Adamov (11/3), with the closest large village of Jedovnice (27/16), with the neighbouring district town of Vyškov (8/3) and with the neighbouring villages of Habrůvka and Bukovinka (28/6).

The connection in the second zone (30-40 min.) is much worse, e.g. from Rudice there are 48/17 connections to the district town of Blansko and to the sub-central village of Jedovnice. The third zone is represented by the village of Sloup. It has 64/26 bus connections daily to Blansko, Boskovice (the second largest town in the district), to the closest railway station in Rájec-Jestřebí and to neighbouring villages. The most distant commune of Lipovec has 20

connections to Jedovnice and Blansko (9 connections on weekends) and 17(9) connections to the neighbouring village of Studnice.

It is clear that in the closest vicinity to Brno, public transport is very frequent, which was expected. However, in the zone of 40 minutes and more, the frequency is still sufficient (buses departing on average every 15 min.). A more important fact is that the space is interlaced with a dense network of public transport lines connecting individual villages not only with the main centre but also with small towns and rural nodes, railway stations and even other villages of the same size level in the vicinity. The situation provides a wide range of possibilities to choose jobs and services at alternative places and to connect families and friends across the rural micro-regions. McArthur et al. (2016) found that depending on distance, commuting could be a substitute for migration.

Of course, many commuters prefer a car. The intensity of transport between 2010 and 2016 increased¹. The biggest increase (by 40-50%) has been recorded in the most overloaded sections, meaning in the vicinity of the regional metropolis Brno and the district town Blansko. The shortcomings of public transport are frequently mentioned as a barrier to rural development both in the Czech Republic and abroad. Moreover, the possibility of alternative transport (individual or public) increases the attractiveness of rural settlements. In fact, the possibility of using public transport is important for those who are not able to drive or do not own a car. Additionally, car drivers are more stressed (Gatersleben & Uzzell, 2007), often lose much time looking for parking, are not allowed to consume alcohol or drugs. A well-developed public transport network can also successfully prevent social exclusion in rural areas (Marada & Květoň, 2016). Moreover, public transport is very cheap for seniors, children, students and people who use season tickets, the discounts reaching up to 75% of usual fares.

DISCUSSION

The gained knowledge depends on time and location. It is necessary to take into account that the period under investigation was characterized by a minimal unemployment rate (then nationally under 3%). The economic crisis of 2007 was already over. It is possible that in a less favourable economic situation, the results would be slightly different (Anthropoulou et al., 2017). In the period affected by the COVID 19 pandemic (August 2020), unemployment rates are 2.6% for the nearest zone, 2.1% for the middle zone, and 2.4% for the outermost zone.

¹ Road Transport Census 2010, Road Transport Census 2016. Prague: Headquarters of roads and motorways of the Czech Republic.

Unemployment in Brno was 5.1% at the same time. The demographic situation was also specific to the time of the research because the “baby boomers” of the 1970s were contributing to the population growth.

Not only the spread of the post-productive lifestyle, but also economic and environmental factors play a role in the process of spreading suburbanization. In a situation where it is almost impossible for the middle class to get an apartment in big cities, their attention turns to the suburban zone. Similarly, seniors are looking for cheaper housing outside the big city. The prices of flats and land are developing in response to this. People also prefer to live in more attractive, natural locations. These aspects also need to be taken into account.

It is also necessary to understand geographical specifics of the territory under study – namely the karst, an area unsuitable for intensive agriculture, with a relatively rugged relief without any high-speed communication. It is possible that the situation could be different in a more easily accessible area. Geographical patterns can, however, be better discerned in a diverse territory.

The validity of the data presents another obstacle. The hard statistical data are usually based on the permanent residences of inhabitants. As it is, the place of residence may not always correspond to the actual place of peoples’ activities. However, the differences are probably not influenced by the distance from the regional metropolis.

CONCLUSIONS: DIFFUSION OF THE SMART COUNTRYSIDE

It can be concluded that the relationship between the level of suburbanization and the distance from a regional metropolis was confirmed for the chosen case. Although modern information and communication technologies provide information in any place in real time, the diffusion of innovation is still spreading from centres to their hinterlands. It is probably not the information itself, but an ability to accept and elaborate the information and to reach conclusions. Amongst others, it depends on the educational structure. As well as digital information, physical contacts in relation to physical distance play a role.

The question is whether such a conclusion is valid in general. The results should be checked in different cases (countries, cities), in different times (taking into account the onset of post-productive change), in different types of countryside. A future comparison of the same micro-region would be a very useful opportunity for observing development.

It seems that the diffusion of innovation depends not so much on the information availability but rather on the ability to identify the relevant information, to elaborate it, to draw conclusions from it and to apply them. It is probably not a function of physical distance but rather a

consequence of the quality of human capital – formal and informal education, which is lower in rural areas and which decreases with the distance from regional metropolises incrementally (Vaishar & Šťastná, 2019b). It would be appropriate to focus further research in that direction. Diffusion of a smart countryside would be a new research question.

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HOW SATISFIED ARE THE INHABITANTS OF THE BALATON REGION WITH THEIR SETTLEMENT?

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Abstract

The subject of the study is the satisfaction of the inhabitants of the Lake Balaton tourism development area (Hungary) with the settlement factors, compared to their importance. The research aims to answer the following two research questions. 1) Which settlement factors is the local population most dissatisfied with? 2) How strong is the relationship between the importance and satisfaction with the municipal factors, and the overall satisfaction of the locals with their settlement? The latter may also influence whether locals recommend their settlement or not as a place of residence or a destination for their acquaintances. The data used to answer the research questions are derived from a primary questionnaire survey collected during the years 2018-2019 (the sample element number is 1201 persons). Descriptive statistics and relationship analyses were applied as the method of research. From the differences between the importance of settlement factors and the satisfaction with these factors, decision-makers can infer the use of development resources if they wish to improve the well-being and quality of life of the local population.

Keywords: Balaton region, settlement factors, importance, satisfaction, quantitative analysis

INTRODUCTION

The subject of the research is the population living, working, studying, or having a second home or holiday home in the settlements of the Balaton priority tourism development area (GOV 2016) – hereinafter: The Balaton region – in Hungary. The study aims to determine which local (municipal) factors should be developed in the settlements of the Balaton region to increase the satisfaction of the population. The examined 27 local (municipal) factors can be classified into the following categories: municipal services, economic characteristics, factors related to leisure and tourism, demographic factors, settlement conditions.

The significance of the research is given by the fact that, to the best of our knowledge, the above research questions have not been examined for the Balaton region so far. However, the importance of individual municipal factors and satisfaction with them may guide decision-

makers in directing regional and settlement development decisions and development resources towards improving the well-being and the quality of life of the population of the Balaton region.

The settlements provide the space for the functioning of the society (Vaszócsik & Vajdovich-Visy, 2017), and there is a clear correlation between sticking to the settlement and the intention to stay in place (Tóth-Kaszás, 2018). The opinion of the population about their settlement has an impact upon the attractiveness of the settlement, immigration and emigration, tourism there, and indirectly on its competitiveness. Dissatisfaction with residential factors is in a weak, positive relationship with the willingness to migrate, that is, the intention to move (Piskóti, Nagy, Molnár, & Marien, 2012).

The further part of the study is composed of six chapters, the first of which summarises the literature on measuring the importance of and satisfaction with municipal factors, and the second describes the data used, the research model and the research method. The following chapters present the results, the discussion, conclusions, and, finally, the findings are summarised.

THEORETICAL BACKGROUND

The examined Balaton region has special characteristics. The biggest lake of Hungary, and, at the same time, of Central-Europe, is located here, so, as a significant tourist destination, it plays an important role in the economic life of the country. This region deserves attention from an international point of view because it is the most visited region by foreign tourists after the capital (Budapest) from June to September (HCSO, 2020). The region includes 174 settlements, 42 of which are located along the shores of Lake Balaton. As the extent of the Balaton region is defined by a government decree (GOV 2016), only a few of the classical spatial organizational characteristics (unified spatial structural unit, natural characteristics, socioeconomic characteristics, cultural identity, territorial administration functions (Nemes Nagy, 1998, 2016)) prevail. The landscape and natural homogeneity of the region is rather a characteristic only of the coastal settlements, as well as the similarity of the socio-economic characteristics, mainly due to the tourism there. The Balaton region defined by the above government decree has an administrative function, and it can be considered as “a scene for the solution of common territorial development, tourism, economic development, and environmental protection problems” (Oláh, 2013).

In the next two subsections, the literature on measuring importance is summarised first, and then that of measuring satisfaction.

Measuring the importance of municipal factors

This chapter reviews surveys in which locals were asked only about the importance of settlement factors, but did not assess how satisfied they were with them. In summarizing the relevant literature, we aimed to answer the following two questions. What settlement factors are usually listed in the research relevant to the region examined by us (Hungary)? This served as a guide for compiling our questionnaire. What were the results of this research (what is the ranking of settlement factors according to their importance)? This ensures that our results will be comparable with previous Hungarian results.

Whereas our topic deals with a region and its municipalities, we must also mention the concept of regional competitiveness, which has a wide literature, since regions compete with each other (Vaszócsik & Vajdovich-Visy, 2017), moreover, the regional dimension of the competition has intensified (Koltai, 2017). Regional science emphasizes the spatial dimension of structures and processes in an interdisciplinary approach (Rechnitzer, 2016). The competitiveness of localities, regions, and cities is becoming increasingly important for the economy (Pike et al, 2006). Camagni (2008) found that each region has a unique territorial capital, so the return on investment also differs at different points in the space. The competitiveness of regions and towns is more than the productivity of inputs, it means economic growth that can be achieved by high employment, and improves the average standard of living (Lengyel, 2000, 2016; Begg, 1999). Porter (1990) concluded (as a result of his analysis of corporate and industry competition strategies) that competitive advantages are rooted in the regional base. Social competitiveness (e.g., effective government, education) is a fundamental dimension of territorial competitiveness (Camagni, 2002; Gardiner, Martin & Tyler, 2004). Political considerations also play a major role in the competitiveness of regions (Cheshire & Gordon, 1996; Scott, 1998; Leitner & Sheppard, 1998). According to Florida (2002), the key to economic success is that a region or city attracts the creative class.

It is important to know what would increase the satisfaction of the population of a region – in our case, the Balaton region – about their settlement, and thus their standard of living. It is also essential to assess how important each municipal factor is to the residents because settlements have limited resources and are often unable to meet all requirements (Marien, 2012).

Most of the models developed to measure the competitiveness of geographical areas (countries, regions, municipalities) are based on so-called “hard” indicators that can be extracted from statistical databases. These analyses, based on past statistical data, are well complemented by questionnaire surveys for the present and the future, as they can measure the

“soft” indicators that can also examine the underlying socio-economic processes. Nevertheless, questionnaire surveys are less frequently used, during which the most engaged, locals are asked what they think about the advantages and disadvantages of their settlements (Koltai, 2005).

Koltai’s research conducted in 2004-2005 (Koltai, 2005) sought to answer the question of which criteria the Hungarian population preferred when choosing the place of residence, and which settlements they considered competitive. In the course of his questionnaire survey, he formed the following variable groups: 1) services: health care, education, municipal infrastructure, urban roles, transport connections; 2) existence: employment conditions, leisure opportunities, housing stock; 3) environment: living environment, natural conditions; 4) human factors: history and traditions, demography. Koltai (2015, 2016) repeated the 2004-2005 research in 2012-2013, in which some new variables were also included. The category of infrastructure, assessed as the most important one in the previous study, was divided into four elements – gas supply, drainage and sewerage, Internet access and mobile networks, and road network. In this latter survey, the existence of administrative possibilities and the development of the commercial network appeared among urban roles. The ethnic composition of the population and the safety of the settlement were included as independent categories, and the previous educational conditions were supplemented by the existence of pre-school and primary education factor. In Koltai’s research results, the order of importance of municipal factors (starting from the most important one) in 2004-2005 was as follows: infrastructure, transportation, employment, health care, living environment, education, urban roles, leisure time, natural conditions, housing stock, demography, history; while in the 2012-2013 research: public safety, infrastructure provision, living environment, health care, employment, primary education, transportation, administrative possibilities, ethnic composition, commercial network, natural conditions, leisure opportunities, overall educational infrastructure, characteristics of housing stock, age composition, and traditions. The division of municipal infrastructure into four parts did not result in significant differences.

The research group of the University of Miskolc also dealt with factors characterizing settlements, settlement marketing and identification with territorial identity (Marien, 2012; Piskóti, Nagy, Molnár & Marien, 2012; Piskóti, Nagy, Dankó, Molnár, & Marien, 2013). In the course of their research, 36 factors were examined concerning the Hungarian population, and 7 factors were defined. In order of importance of strengthening identification these are:

- essentials (6): job opportunities, public education facilities, health care and services, public security, economic development, place tidiness

- atmosphere (3): natural characteristics, geographical location and accessibility, history and traditions
- environment (4): quality of the environment and surroundings, standard of infrastructure, demographic features of the population, real estate features
- services (9): entertainment facilities, leisure sports facilities, public transport and parking facilities, shopping facilities, restaurants and hospitality, place picture and architecture attraction, public institutions, tourist attractions, residents' friendliness
- place management (6): work of major's office, environmentally conscious place development, health-conscious place development, work of municipality, liveliness and democracy of local public life, local rules and regulations
- price (2): property prices, plenty of residents
- plus (6): cultural and art life, the success of competition sports, presence and standard of higher education, fairness and activity of the local media, famous people of the place, development and operation of the civil sphere.

Tab. 1 summarizes the main data and results concerning the Hungarian municipal factors of the above-described research on importance.

Table 1 Population questionnaires on the importance of municipal factors and their main results, Hungary

	Years of the research	Sample size (persons)	The number of variables examined	The three	
				most	least
				important municipal indicators	
Koltai, 2005	2004-5	1300	12	<ul style="list-style-type: none"> • infrastructure • transportation • employment 	<ul style="list-style-type: none"> • housing stock • demography • history
Koltai, 2015, 2016	2012-3	1000	20	<ul style="list-style-type: none"> • public safety • infrastructure provision • transport connection 	<ul style="list-style-type: none"> • history • traditions • age and ethnic composition of the population
Piskóti et al., 2012; Marien, 2012; Piskóti et al, 2013	2011	1603	36 (classified into 7 factors)	Within the „essentials” factor: <ul style="list-style-type: none"> • public security • place tidiness • job opportunities 	Within the „plus” factor: <ul style="list-style-type: none"> • development and operation of the civil sphere • the success of competition sports • famous people of the place

Source: Authors' summary based on the mentioned literature.

After 2016, no survey was conducted in which only the importance of Hungarian settlement factors was assessed because these surveys are being replaced by those that (also) assess how satisfied people are with these.

So far, the literature studying the importance of municipal factors has been examined, and in the next subsection, we will move on to those that measured the satisfaction with them as well as their importance.

Measuring the importance and satisfaction of municipal factors

The analysis of the difference between importance and satisfaction was widespread primarily in marketing, but it is now a methodology used in several fields of science: tourism research (Boley, McGehee, & Hammett, 2017), destination competitiveness analysis (Dwyer, Dragičević, Armenski, Mihalič, & Knežević Cvelbar, 2016), assessment of the services provided by tourist attractions (Pasaribu, Waryono, & Saputra, 2016), evaluation of franchise systems in travel agencies (Ramirez-Hurtado, 2017). It has also proven to be a useful tool in other fields of science, such as in the analysis of service quality and client satisfaction in banks (Nyarku & Oduro, 2017), or in the analysis of the quality of urban public transport (Hernandez, Monzon, & de Oña, 2016).

Insch and Florek (2010) found that most aspects of urban life are in a positive correlation with the overall satisfaction of the residents with their settlements. Factors they examined were: work/life balance; personal and public safety; natural environment; the city's community assets (parks, gardens, historic buildings, museum, university); cultural, arts and creative scene; city's vibrancy and energy; the openness of residents; sports grounds and facilities; accessibility; efficient public transport.

The Kano model, which also appeared first in marketing science, can also be used in the analysis of satisfaction with municipal factors (Horton & Goers, 2019; Marien, 2013). The starting point of the model is that the population does not evaluate each factor equally, they do not equally contribute to their general satisfaction. This corresponds with the usefulness, harmfulness, or neutrality of public goods known from microeconomics. The Kano model defines five quality elements:

1. One-dimension: useful goods, the more the better.
2. Attractive: also useful goods, but their absence is insignificant.
3. Must-be: also useful goods, the absence of which causes great dissatisfaction.
4. Indifferent: neutral goods, they do not have an impact on satisfaction.
5. Reverse: so-called bad goods, the less the better.

The so-called „gap” models (examining the „gap” between importance and satisfaction) based on measuring satisfaction generally focus on development priorities on areas of low consumer satisfaction. However, selecting areas for development solely on the basis of low satisfaction

indicators is not necessarily the best method. Areas of high importance and low satisfaction should be developed the most (Chen, Yang, Lin, & Yeh, 2007). Therefore, if the actual satisfaction is to be improved, importance and satisfaction should be conducted in parallel. At the same time, areas of less importance but high performance should be treated with caution, as there may be basic attributes whose presence does not cause satisfaction, but their disappearance can cause dissatisfaction (Boley, McGehee, & Hammett, 2017).

Marien (2015) found that competitive settlements are those that can retain their residents and may be able to attract further residents as well. Satisfaction with the most important factors increases general satisfaction, which has a population-retaining power. In the research on the Northern Hungary region, the most critical importance-satisfaction gaps appeared in the areas of employment opportunities, health care and public safety.

Simultaneous evaluation of importance and satisfaction may tend respondents to rate the importance of variables higher than performance. For instance, in a research on Serbia, respondents rated importance higher than satisfaction for all variables (Dwyer et al., 2016).

It has already been mentioned in the introduction that the present study aims to determine which municipal factors should be developed in the settlements of the Balaton region to increase the satisfaction of the population.

The study examined the following two research questions (Q).

Q1. Which are the local (municipal) factors that residents of the Balaton region want to develop the most? This is the main research question. In the course of our research, we are seeking to answer which factors related to the Balaton region make residents consider their settlements attractive, which are the factors that are considered important for their quality of life, and how satisfied they are with the quality of these factor in their settlements. These factors can be mapped in the form of a questionnaire survey. Just as Lengyel (2003) highlighted the importance of regional specialization, we also took into account that the Balaton region – although it includes not only the coastal areas – is a highly tourism-specific area, so we tried to integrate the factors serving this into our questionnaire. For people to love living in a given settlement, social factors, such as public safety, improvement of living conditions, health care, environmental protection, are considered more important than economic ones (Szirmai & Váradi, 2009). Such factors have also been taken into account when defining our examined indicators.

Q2. Which local (municipal) factors (regarding their importance and the satisfaction with them) are in the strongest relationship with how satisfied residents of the Balaton region are with their settlement as a whole, and whether they would recommend it to their acquaintances as a place of residence or travel destination? This research question is motivated by the idea mentioned in

the introduction that satisfaction with local factors has an impact on the attractiveness of the settlement.

DATA AND METHODS

The research is based on primary data collection which was carried out in two years (2018 and 2019) so far. There was no significant change in the circumstances affecting the Lake Balaton region during the 1 year between the two surveys. With the survey, individuals were asked who study or work in the Balaton region defined in 2016 (GOV, 2016), or own a second home there. Thus the sample was not homogeneous, considering e.g. respondents' attachment to the region, but increasing the satisfaction of all of them is in the interest of the leaders of the settlements. Therefore, the present study aims to provide a comprehensive picture of the opinions of people associated with the region. The 844 evaluable questionnaires collected in 2018 were expanded by an additional 357 in 2019, so the size of the total evaluable sample (n) means the opinion of 1201 people. Previous studies have already reported the results of the 2018 survey (Lőrincz, Lang & Banász, 2019; Banász & Biermann, 2019; Fekete-Berzsenyi, 2019). The present research examines the issues that were included in the survey of both years. Although this sample cannot be considered representative, it typically covers the social stratum whose views may be most relevant to municipal decision-makers in defining long-term development strategies. They are those young people who possessed a higher education or secondary level education qualification. With regard to qualifications at least 86% of the sample completed at least the secondary school (12% did not want to declare their education and 2% finished primary school). In terms of age, almost 90% of the sample reported it and half of the respondents were under 37.

The research model of Table 2 lists the survey questions which we take into account in the study as response variables (A) and the potential explanatory variables (B). We would like to explain (A) the satisfaction of the residents of Balaton with their settlement (A1), and thus whether they would recommend their settlement to their acquaintances, either as a place of residence (A2) or as a holiday destination (A3). These (A) questions could be answered on a scale of 1 to 10, with 1 representing the worst answer and 10 the best. The importance (B1-27) and the satisfaction with (B28-54) 27 local (municipal) factors are used as potential explanatory variables. These (B) questions could be answered on a scale of 1 to 5, where 1 means the worst answer and 5 the best.

Table 2 Research model, 2018-9 (n=1201).

Survey questions		Response options
A)	Response variables	1-10
A1	How satisfied are you with the settlement altogether?	1: completely dissatisfied 10: completely satisfied
A2	Would you recommend the settlement	1: I wouldn't recommend it at all 10: I would fully recommend it
A3	to your friends and relatives as	
	place of residence?	
	holiday destination?	
B)	Potential explanatory variables	1-5
B1- B27	How important for you	1: not important at all 5: very important
B28- B54	How satisfied are you with	
	the listed 27 local (municipal) factors?	1: I am not satisfied at all 5: I am completely satisfied

Source: Own research.

The quantitative research is based on the descriptive statistics and relationship analyses. Since each indicator can be measured on an ordinal (Likert) scale, rank correlation relationships can be interpreted. There are several indicators to measure the strength and direction of these types of relationships. Due to the high number of ties, Kendall's Tau-b coefficient is applied (hereinafter τ). This τ varies from -1 to 1. The sign of the number indicates the positive or negative nature of the relationship. Negative (positive) τ means that as the rank of one variable increases, the rank of another variable tends to decrease (also increase). The absolute value of τ shows the strength of the rank correlation (Hinton, McMurray & Brownlow, 2014). We use the following classification within the interval 0-1 to determine the strength of the rank correlation (Sajtos & Mitev, 2007):

- 0: there is no rank correlation,
-]0, 0.2[: weak,
- [0.2, 0.7[: moderate,
- [0.7, 1[: strong,
- 1: deterministic relationship.

The results are interpreted at a significance level of 5%.

RESULTS

Descriptive statistics

As a first step, we sum up the demographic characteristics of the sample to receive the social features of the respondents. Almost half of the respondents (49%) are locals, who live in the Balaton region and/or works/studies here. 22% of the respondents live elsewhere but have a secondary home/holiday home in the Balaton region. 16% was the rate of locals who live in the Balaton region but works or studies elsewhere. The remaining 13% were those who live elsewhere but works or study in the Balaton region.

There were 31% male and 57% female respondents in the sample. The remaining 12% did not indicate their gender. According to their highest education level, most of the respondents possessed a higher education (diploma) (44%) or secondary level education (42%) qualification. Based on their occupation 27% were intellectual employees, followed by the students (22%). Considering age, the mean was 38 years, the mode was 22 years and the median was 37 years. Latter two mean, that in most cases, the questionnaire was completed by 22-year-olds, and half of the respondents were younger than 37 years old. It can be assumed that the average of opinions can also vary greatly by age group. For this reason, we examined the differences between the average opinions of younger and older people. The boundary between the two age groups was drawn at the median age (37 years). The averages of the opinions of young people and the elderly (on the importance of the 27 settlement factors and the satisfaction with them) do not differ significantly (they differed by -0.002 on average). The average of the opinions measured on a scale of 1-5 differed the most in the following two cases: the average young people rated the importance of the history of the settlement by 0.58 less and the entertainment opportunities by 0.55 more than the older ones.

In the following, we turn to the answers related to the questions presented in Table 2.

A) Descriptive statistics of the response variables

Responses included both extreme responses (1, 10), so the range of responses for each question was 10 units. Table 3 contains some descriptive statistics for the three variables to be explained.

Table 3 Descriptive statistics of the response variables (A1-3), 2018-9 (n=1201).

Survey questions		Descriptive statistics				
		n		Mean	Mode	V
		Answered?				
		yes	no	1-10		%
A1	How satisfied are you with the settlement altogether?	88	12	7.64	8	24
A2	Would you recommend the settlement to your friends and relatives as a place of residence?	90	10	7.73	10	27
A3	Would you recommend the settlement to your friends and relatives as a holiday destination?	90	10	8.41	10	23

V: relative standard deviation
 Source: Own research.

All three questions were answered by approximately 90% of the sample. On the scale of 1 to 10, most gave the maximum score (10) to the question of whether they would recommend their settlements to their friends or acquaintances, either as a place to live or as a destination (Mode=10). However, in terms of their overall satisfaction with the settlement, the most

common response was slightly less, namely 8. Regarding the means and the relative standard deviations of the responses, the following statements can be made:

- the recommendation of the settlement as a destination came in the first place, as the respondents gave the highest average score (8.41) on this question, and the opinions of individual people deviated the least from this average (V=23%)
- the settlement would be less recommended as a place to live (7.73) and even less satisfied with their settlement (7.64). The answers were more similar in terms of satisfaction with the settlement (V=24%), while in the case of recommending the settlement as a place of residence, the opinions of individual people differed the most from the average (7.73), namely by 27% (V).

Overall, the residents of the Balaton region rated the response variables relatively well with a relatively high occupancy rate (about 90%). The results also show that the settlements of the Balaton region are recommended as a destination rather than a place of residence by the locals. This may be due to the degree of overall satisfaction with the settlement. It is therefore important to know which factors should be developed to higher population well-being, quality of life.

B) Descriptive statistics of potential explanatory variables

In the following, we turn to how important and satisfied people are with the 27 settlement factors listed. Responses range from 1 to 5. The response rate was 87-93% for the importance of settlement's factors and 77-92% for satisfaction. Table 4 contains descriptive statistics.

Table 4 Descriptive statistics of the importance and satisfaction with local (municipal) factors, 2018-9 (n=1201).

	importance	Mo	Mean	V	satisfaction	Mo	Mean	V
		1-5		%		1-5		%
Accessibility	B1	5	4.47	19	B28	5	4.14	21
Infrastructure ^a	B2	5	4.57	16	B29	4	3.65	27
Local public transport	B3	5	3.34	43	B30	3	3.09	37
Parking facilities	B4	5	3.80	33	B31	3	3.27	33
Sidewalks	B5	5	4.12	26	B32	4	3.45	30
Bike paths	B6	5	3.75	33	B33	4	3.43	32

Table 4 (continued)

	importance	Mo	Mean	V	satisfaction	Mo	Mean	V
		1-5		%		1-5		%
Natural features of the settlement	B7	5	4.34	20	B34	5	4.33	20
History of the settlement, traditions	B8	4	3.64	32	B35	4	4.04	22
Public institutions	B9	5	4.10	25	B36	4	3.84	24
Health services	B10	5	4.40	21	B37	3	3.37	33
Educational institutions	B11	5	3.92	33	B38	4	3.74	27
Shopping opportunities	B12	5	4.16	23	B39	3	3.37	32
Cost of living	B13	5	4.26	25	B40	3	3.27	30
Favourable real estate prices	B14	5	3.74	33	B41	3	2.70	43
Continuous developments	B15	5	4.23	22	B42	3	3.32	33
Working possibilities	B16	5	3.91	34	B43	3	3.04	37
Recreation, recharging opportunities ^b	B17	5	4.12	26	B44	4	3.44	31
Entertainment, nightlife	B18	4	3.40	38	B45	3	2.94	40
Supply of cultural programs	B19	4	3.94	25	B46	4	3.48	30
Attractions (quantity and quality)	B20	4	3.93	25	B47	4	3.64	27
Restaurants, hospitality	B21	5	4.01	25	B48	4	3.56	28
Age and ethnic composition of the population	B22	4	3.49	36	B49	4	3.65	27
Human relationships ^c , existence of community	B23	5	4.21	23	B50	4	3.90	24
Friendliness of the locals	B24	5	4.24	21	B51	4	3.79	25
Condition of living environment ^d	B25	5	4.58	16	B52	4	3.81	25
Public safety	B26	5	4.70	13	B53	4	4.09	22
Calmness	B27	5	4.56	17	B54	5	4.13	22

Mo: mode, V: relative standard deviation

^a: for example, gas, water, sewerage, road condition, public lighting, ^b: wellness, amateur sports, beach, ^c: family, friends, ^d: green areas, cleanliness, orderliness

Source: Own research.

Focusing on the modes in Table 4, the following interesting observations can be made. The majority considers the importance of all settlement factors to be maximum (5), except for the following five, which are considered one degree less important (4): the history of the settlement, traditions (B8), entertainment, nightlife (B18), the supply of cultural programs (B19), the quantity and quality of attractions (B20), age and ethnic composition of the population (B22). Satisfaction shows a more varied picture. There were only 3 factors with which the majority were maximally (5) satisfied, namely: accessibility (B28), natural features of the settlement (B34) and calmness (B54). Of the remaining 24 factors, the majority are the most dissatisfied with (mode=3) the following 9: local public transport (B30), parking facilities (B31), health services (B37), shopping opportunities (B39), cost of living (B40), favourable real estate prices (B41), continuous developments (B42), working possibilities (B43), entertainment, nightlife (B45).

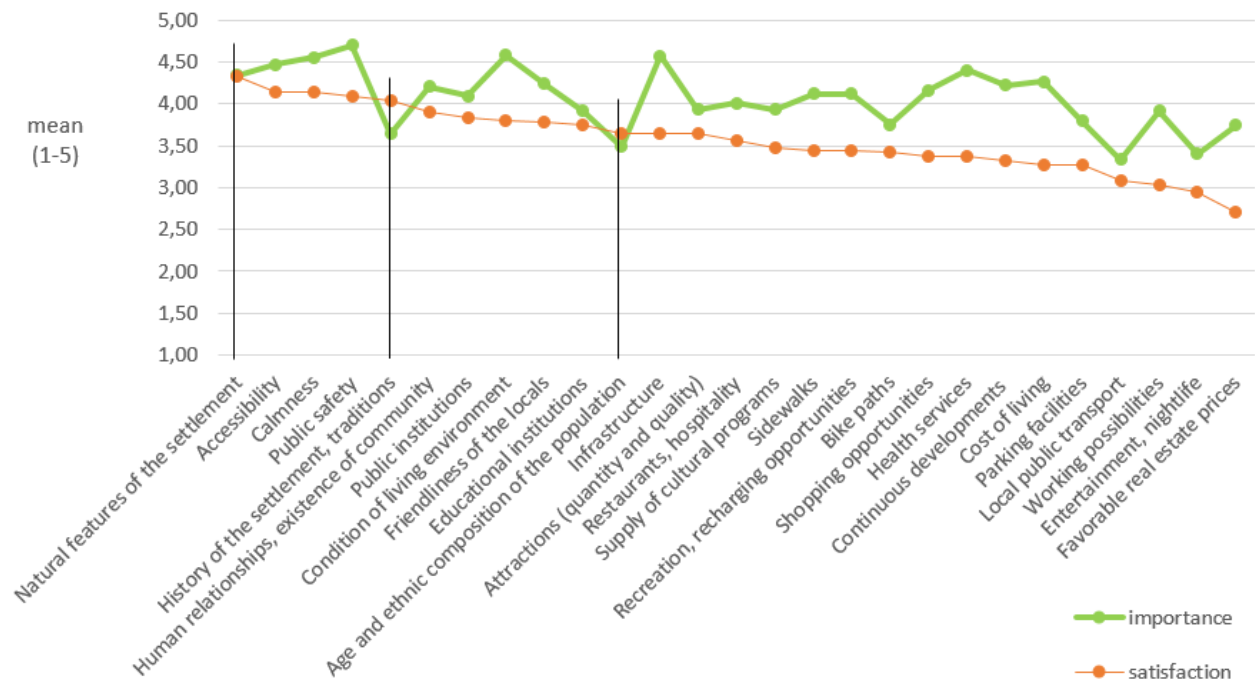
The means and relative standard deviation values of Table 4 belong together. The low (high) value of the relative standard deviations shows that individual opinions differed less (more) from the mean. Figure 1 illustrates the means of Table 4.

Figure 1.a. ranks the 27 municipal factors by the average importance (from the most important to the least important), while Figure 1.b. ranks them by average satisfaction (from the factor they are most satisfied with). On average, public safety is considered the most important, while local public transport is the least important. The average resident of the Balaton region is the most satisfied with the natural endowments of the settlement and the most dissatisfied with the real estate prices.

The mean of the importance and satisfaction was almost the same for the natural endowments. Only two factors make the average resident more satisfied than they consider important:

- history of the settlement, traditions,
- age and ethnic composition of the population.

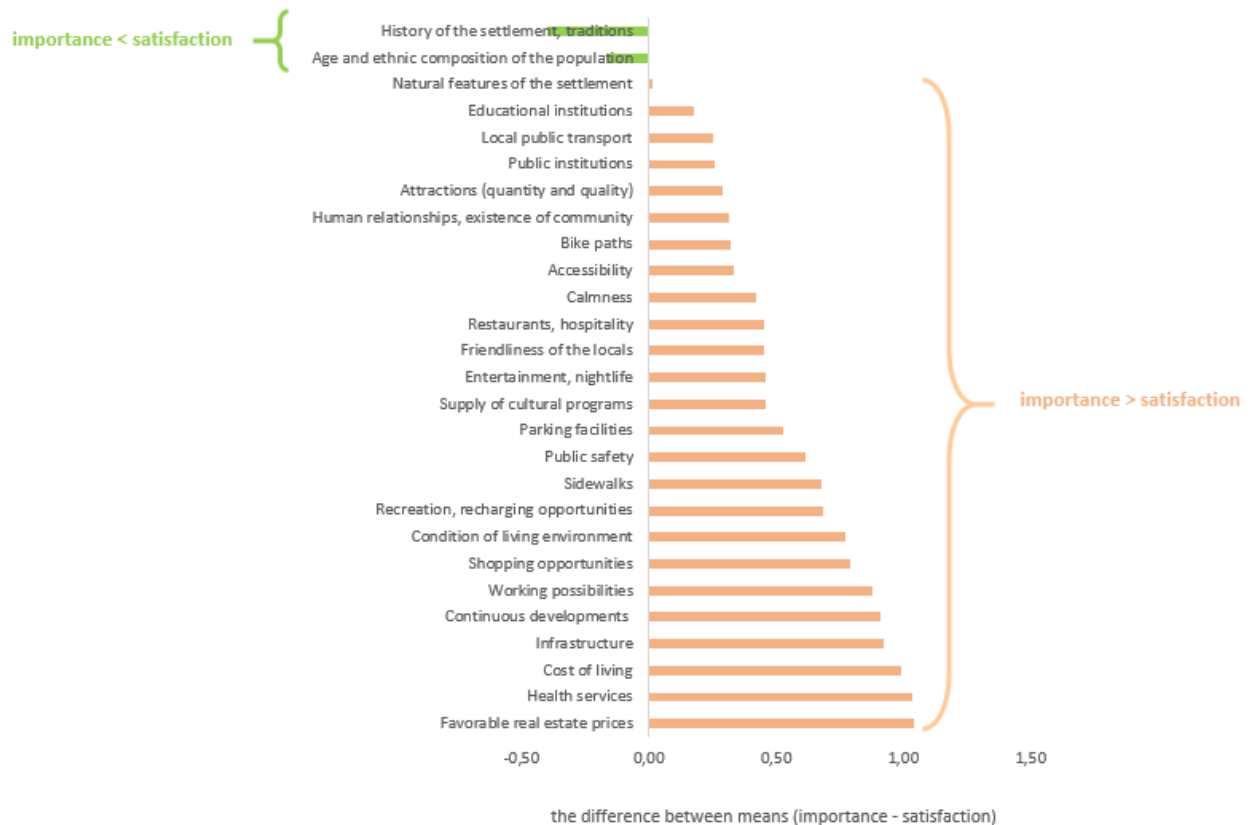
Figure 1 Means of importance and satisfaction with local factors, 2018-9 (n=1201).



Source: Own research.

Figure 2 ranks the results by the difference between average importance and satisfaction (average importance–average satisfaction), which are quantified in Table 4. It is important because the literature suggests designating areas for improvement based on this difference.

Figure 2 The difference between average importance and satisfaction, 2018-9 (n=1201).



Source: Own research.

Based on the results, the top 10 settlement factors with the largest importance-satisfaction gaps are the following in Balaton region: favourable real estate prices, health services, cost of living, infrastructure, continuous developments, working possibilities, shopping opportunities, the condition of the living environment, recreation and recharging opportunities, sidewalks. Almost all of these can be influenced by local and regional decision-makers through the allocation of development resources. Unfortunately, decision-makers have the least influence on the factor with which locals are most dissatisfied, relative to its importance, that is, they have the least impact on the reduction of real estate prices. If the gap is large beside low importance, we would not recommend spending money on improving this factor. However, no such case has occurred, because the importance of all factors was rated at least moderate.

Relationship analysis

Table 5 contains the significant results of relationship analyses, i.e. τ rank correlation coefficients (τ) between response (A) and explanatory (B) variables. It shows that most of the answers to the questions are significantly related, but only weak. The green background colour

indicates stronger relationships, which represent moderate strong relations. All significant result means positive τ values, which mean the higher the importance or satisfaction with a local factor (B) is, the higher the overall satisfaction with the settlement (A).

Table 5 Results (τ coefficients) of relationship analyses.

	I*	A1	A2	A3	S**	A1	A2	A3
Accessibility	B1	0.068	0.072	n.s.	B28	0.146	0.164	0.071
Infrastructure	B2	n.s.	0.076	n.s.	B29	0.237	0.155	0.145
Local public transport	B3	n.s.	0.085	n.s.	B30	0.177	0.128	0.111
Parking facilities	B4	n.s.	0.062	0.086	B31	0.154	0.114	n.s.
Sidewalks	B5	n.s.	0.060	n.s.	B32	0.206	0.158	0.139
Bike paths	B6	n.s.	0.070	n.s.	B33	0.178	0.174	0.076
Natural features of the settlement	B7	0.054	0.085	0.141	B34	0.139	0.162	0.201
History of the settlement, traditions	B8	0.128	0.144	0.199	B35	0.190	0.166	0.205
Public institutions	B9	0.052	0.164	0.111	B36	0.186	0.226	0.163
Health services	B10	n.s.	0.082	0.083	B37	0.209	0.152	0.136
Educational institutions	B11	n.s.	0.134	n.s.	B38	0.210	0.246	0.143
Shopping opportunities	B12	n.s.	0.051	0.064	B39	0.172	0.146	0.171
Cost of living	B13	n.s.	0.077	n.s.	B40	0.214	0.139	0.065
Favourable real estate prices	B14	n.s.	0.085	0.084	B41	0.137	0.079	n.s.
Continuous developments	B15	n.s.	0.102	0.054	B42	0.329	0.233	0.187
Working possibilities	B16	n.s.	0.087	n.s.	B43	0.239	0.228	0.167
Recreation, recharging opportunities	B17	n.s.	n.s.	0.071	B44	0.209	0.118	0.240
Entertainment, nightlife	B18	n.s.	n.s.	n.s.	B45	0.202	0.138	0.241
Supply of cultural programs	B19	0.088	0.121	0.150	B46	0.276	0.219	0.272
Attractions (quantity and quality)	B20	n.s.	0.100	0.145	B47	0.249	0.207	0.325
Restaurants, hospitality	B21	n.s.	0.050	0.058	B48	0.160	0.082	0.166
Age and ethnic composition of the population	B22	n.s.	0.103	n.s.	B49	0.280	0.238	0.167
Human relationships, existence of community	B23	0.060	0.154	0.074	B50	0.264	0.232	0.180
Friendliness of the locals	B24	0.102	0.162	0.097	B51	0.311	0.241	0.197
Condition of living environment	B25	0.053	0.090	0.067	B52	0.346	0.214	0.163
Public safety	B26	n.s.	0.112	0.089	B53	0.228	0.185	0.129
Calmness	B27	0.084	0.127	0.093	B54	0.233	0.155	0.112

I*: importance, S**: satisfaction, n.s.: not significant result at the level at 5%.

Colour key by the strength of the significant results: weak ($]0, 0.2]$), moderate ($]0.2, 0.7]$)

Source: Own research.

Overall satisfaction with the settlement and the recommendation (A1-3) are more related to satisfaction with the local factors rather than its importance. In the following, we will discuss the strongest relationships for each response variable. Overall satisfaction with the settlement (A1) is most related to the satisfaction with the following local factors:

- B42. continuous developments ($\tau = 0.329$)
- B51. friendliness of the locals ($\tau = 0.311$)
- B52. condition of living environment (e.g. green areas, cleanliness, orderliness) ($\tau = 0.346$)

The recommendation of the settlement to friends and relatives as a

- holiday destination (A3) is the strongest relationship ($\tau = 0.325$) with the satisfaction with the quantity and quality of attractions (B47).
- place of residence (A2) is the strongest relationship ($\tau = 0.246$) with satisfaction with educational institutions (B38).

DISCUSSION

Since we would like to make suggestions for the improvement of the actual satisfaction of residents of the Balaton region with their settlements, we followed the suggestion by Chen, et al. (2007), namely, we asked the importance of municipal factors and the satisfaction with them at the same time. Our survey of 2018-2019 in the Balaton region yielded similar results to those in Koltai's (2005) study on Hungary in terms of which factors were at the beginning of the order of importance (public safety) and close to the end of the list (history of the settlement, traditions). In our research, the two factors following public safety were the condition of the living environment and infrastructure (e.g. gas, water, sewerage, road condition, public lighting). These two factors are listed in reverse order in Koltai's (2015) research. It is interesting to note that, in our research, the last two factors in the order of importance in the largest tourist region of the country are entertainment opportunities, nightlife and local public transport. It should be noted that these two factors had the largest relative standard deviation in rating importance (43% for local public transport and 38% for entertainment). That is, these two factors differed the most from the average. This is presumably due to the fact that only 42 of the 174 settlements are located on the shores of Lake Balaton, and many of them are small settlements, where local public transport is not even required.

Our results are in line with the findings of Insch and Florek (2010), namely, that not only the majority but all the 27 municipal factors examined in our survey are in positive correlation with the overall satisfaction of residents with their settlements.

In practical use of our results (which is shown in Figure 2), it is recommended for local and regional decision-makers to obtain development resources for the factors with which locals are most dissatisfied related to their importance (in which cases the importance-satisfaction gap is relatively large).

CONCLUSION

The three variables to be explained were rated relatively good on a scale of 1-10 by the residents of the Balaton region. Although they would recommend their settlements to their

friends and acquaintances as a place of residence, they would rather recommend them as a travel destination.

Based on our analyses, we make the following findings for the two research questions (Q) mentioned in the Introduction.

Q1. Which are the local (municipal) factors that residents of the Balaton region want to develop the most?

Figure 2 showed the municipal factors that residents are most satisfied or dissatisfied with in terms of their importance. In our opinion, on the one hand, settlement leaders must maintain the standard of the factors with which they are relatively satisfied, and which can be influenced by the municipality: the history of the settlement, traditions, (for example, events describing them), natural features of the settlement (for example, preventing the increase of environmental pollution). On the other hand, agreeing with the suggestion of Chen et al. (2007), it is worth focussing on the development of the factors (for example, to look for sources of tenders announced for the Balaton priority tourism development area or those available by individual settlements), with which residents of the Balaton region are the least satisfied at present, compared to how important they are.

These are the favourable real estate prices, health services, cost of living, infrastructure, continuous developments, working possibilities.

Q2. Which local (municipal) factors (their importance and satisfaction with them) are in the strongest relationship with how satisfied residents of the Balaton region are with their settlement as a whole and whether they would recommend it to their acquaintances as a place of residence or travel destination?

Satisfaction with the settlement or recommendation of it (A1-3) is more related to how satisfied individuals are with each municipal factor than to how important they considered them to be. All of the significant relationships are positive. Among them, the strongest statements are about the residents who stick to the Balaton region:

Who are more satisfied with the condition of living environment (e.g. green areas, cleanliness, orderliness), the continuous developments or the friendliness of the locals, they are also more satisfied with the settlement as a whole.

The recommendation of the settlement to friends and acquaintances as a

- holiday destination is mostly influenced by whether they are satisfied with the quantity and quality of attractions. (The more satisfied with the quantity and quality of their settlement's attractions, the more they would recommend the settlement of their friends and acquaintances as a holiday destination.)

- place of residence is mostly influenced by whether they are satisfied with educational institutions. (The more satisfied they are with the educational institutions of their settlement, the more they would recommend their settlement to their friends and acquaintances as a place to live.)

Among these, the municipality can have the least effect on the friendliness of the population. In case the leaders of the local government in the Balaton region would like the people sticking to their settlements to be more satisfied with their settlements as a whole and also recommend them to their friends and acquaintances, this can be achieved by taking measures that will improve the conditions of their living environment, make continuous developments, increase the quality and quantity of sights and attractions, and improve educational institutions.

SUMMARY

The subject of the study was the Balaton region defined in 2016 which unites 174 settlements, including 42 settlements on the shores of Lake Balaton. The research examined the satisfaction of the inhabitants of this region with the settlement factors, compared to their importance. The research aims to answer the following two research questions. 1) Which settlement factors are most dissatisfied with the local population? 2) How strong is the relationship between the importance and satisfaction with the municipal factors, and the overall satisfaction of the locals with their settlement? The latter may also influence whether locals recommend their settlement or not as a place of residence or a destination for their acquaintances. The research is based on primary data collection which was carried out in 2018 and 2019. The size of the total evaluable sample (n) was 1201. Descriptive statistics and relationship analysis were applied as the method of research.

From the differences between the importance of settlement factors and the satisfaction with these factors, decision-makers can infer the use of development resources if they wish to improve the well-being and quality of life of the local population. Our research has contributed to the exploration of the key factors that the population of the Balaton region considers important, and, from their point of view, they can be the basic pillars of long-term economic, social and environmental development. We believe that the elaboration and implementation of development strategies can be successful in terms of social perception, which are based on the needs and internal conditions of the region. Our research endeavoured to provide information for founding such development decisions. The research results can contribute to the elaboration of local developments that meet the actual needs and requirements of the population, taking into consideration that decision-makers do not necessarily influence on all the factors included in this study, and needs and requirements may largely differ in various settlements of the region. At the same time, we believe that a complex vision that takes residential needs into account is essential for making decisions that aim to improve the well-being and the quality of life of the population.

The comparison of the importance of municipal factors and the satisfaction with them helped to reveal current deficiencies that could induce future development efforts. Based on our research, the development of the following 10 municipal factors is most recommended in the settlements of the Balaton region: favourable real estate prices, health services, cost of living, infrastructure, continuous developments, working possibilities, shopping opportunities, condition of the living environment, recreation, recharging opportunities, sidewalks.

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RADIATING MUSEUMS – MECHANISM OF POSITIVE EXTERNALITIES OF OPERATIONS OF CASTLE AND PALACE MUSEUMS IN POLAND FOR COMPANIES IN LOCAL TOURISM SECTOR

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Abstract

The purpose of this paper is to describe positive externalities of operations of castle and palace museums in Poland for private companies in local tourism sector. The paper presents the results of the author's original research, which was based on the multiple case study method. Results show that castle and palace museums in Poland generate positive externalities for private business operations in local tourism sector in three forms, i.e.: location, view and image. They appear in production functions of firms in the shape of: a reduction of customer acquisition costs, a reduction of production costs due to economies of scale, a creative contribution to product, logo, name and brand. A model of the impact of the operations of castle and palace museums on the production function of local tourism companies through the mechanism of external effects has been named: Museum Radiation Model.

Key words: externalities, museum, tourism, cultural heritage tourism

INTRODUCTION

Cultural heritage has multivariate influence on the contemporary development processes. It provides values, benefits and facilities, which are extending in dimensions of science and knowledge, art and aesthetics, collective memory, social identity, solidarity, usefulness and economy, to the whole contemporary society, and to future generations. In each of these perspectives, it is multidimensional. It includes historic palaces and castles, as well as museums that take care of, study and display such places. The main hypothesis of this article concerns the economic impact of cultural heritage on local economy. It says that the operations of the castle and palace museums influence the local economy through the mechanism of externalities. This hypothesis was verified on the basis of a study conducted on the basis of 20 case studies of castle and palace museums in Poland.

Externality is a special type of influence. We observe it when museum don't receive any 'top-up' for using their production from users. So the aim of the research was to look for private

companies which used museum products in their production function without any financial relations between those companies and museums (that means it takes place outside a market) and without the implementation of any public finance tool (for example special taxes paid by those companies for museums).

Verifying the hypothesis of this article was one of the objectives of the study entitled “Externalities generated through activities of castle and palace museums in Poland” (grant no: UMO-2016/21/N/HS4/02879, National Science Centre, Poland), which was undertaken by the author of this paper in 2017-2019. A micro level supply-side approach was adopted, referring to the Theory of Externalities, as well as to the theories of Public Goods and Market Failures. The study allowed for the creation of a model of the impact of castle and palace museums operation on the production function of companies in the local tourism sector through the mechanism of externalities. This model has been named Museum Radiation Model. The objective of this paper is to present the results of this research in the field of verification of the hypothesis presented above, and to present the model.

Externalities in the Production Function

According to the Theory of Externalities on a micro level and from the supply-side approach, an externality is a specific company *Z*'s influence on company *X*, which is characterized by three features: 1) non-financial, noticeable and compulsory nature, 2) it is recognizable in the production function of company *X*, 3) it generates results in the form of costs or benefits for the production volume of company *X*. This is the link outside the market (without agreements and payments) with market effects.

Production capacities of a company in the tourism industry are determined on the basis of the production function, determining the maximum production volume (*Q*) that can be achieved at a given level of expenditure of production factors. The following value-creating factors are included in the production function of a modern company: labour (human capital) (*L*), capital (*K*), land (*T*), entrepreneurship (*E*), organisation (*O*), information (*I*), technology (*Tec*), social capital (*Sc*), effectiveness (τ), and effects of scale (γ) [McConnel & Brue, 1990, pp. 22–23; Sztaba, 2007, p. 79; Beyer 2011, pp. 8–9; Kachniewska & Nawrocka 2012, pp. 82–83; Klonowska-Matynia & Palinkiewicz 2013, pp. 29–31; Machaj 2016, pp. 19–20]. There are three forms of land use in the production process: cultivation, exploitation and location. In service activities, that is also in tourism, land plays a role as a location factor, which denotes

the location of the size and type of economic activity, facility or complex of facilities in a specific area [Jończyk i Kaczor, 2020].

The Theory of Externalities adds one more factor to those listed above, that is Q_z , meaning the production volume of an external company Z versus X, which has noticeable and compulsory effects on the production volume of the company X, i.e., results in its increase or decrease without market (financial) relationships between Z and X, without Z paying attention to X's wellbeing, and without X participating in any production decisions of Z [Scitovsky 1954, p. 146; Baumol, Oates 1998, pp. 16–18, Papandreou 2007, pp. 46–48, 58–59]. Therefore, taking into account Q_z , the company production function can be described in the following formal way:

Equation 1. Formula for production function

$$Q_x = f(L, K, T, E, O, I, Tec, Sc, \tau, \gamma, Q_z),$$

where:

Q_x – production volume for company X

L – labour

K – capital

T – land

E – entrepreneurship

O – organization

I – information

Tec – technology

Sc – social capital

τ – effectiveness

γ – scale effect

Q_z – production volume for company Z, as an externality.

In the theory, the production volume of company Z may have either a positive or a negative effect on the production volume of company X. Negative externalities of company Z's operations are perceived as damages, while their positive externalities are perceived as benefits by company X. Company Z may even not notice such effects of its operations, while company X must feel this influence. The production of company Z is included in the production function of company X as an unpaid, noticeable (appreciable) and compulsory factor [Papandreou 2007, pp. 48, 59]. Positive effects are often an item used consciously.

The negative influence is extensively scientifically described from the point of view of the natural environment [Papandreou 2007, pp. 46, 69]. By polluting (degrading) the natural environment, company Z shifts the costs of its operations onto business entities which use a clean (unpolluted) natural environment for their production or onto the state which, in the name

of society, accepts as its task providing a clean (undegraded) natural environment for the current and future generations. Several methods are used to ensure internalisation of external costs, i.e. including negative externalities generated by the company in the accounting of the polluting company. These are: the Pigouvian tax², a system of government regulations, concessions and limits, a system of tradable emission permits, direct negotiations, and court rulings [Pigou 2013, p. 192; Coase 1960, pp. 3–5, 43–44; Jewtuchowicz 1987, p. 20; Czarny 2011, pp. 291–293; Klimczak 2015, p. 466; N.G. Mankiv, M.P. Taylor 2015, pp. 385–289; Kudelko 2016, p. 339].

Positive effects transferred to a third party, from which collecting payment is technically very difficult to proceed, were indicated from the very beginnings of the Theory of Externalities development. The examples of operations generating positive externalities include providing public goods: operations of a provider of lighthouse light (the effect: light for all passing ships); operations of a beekeeper beneficial for a fruit-grower (the effect: bees pollinating orchard plants), but also of a fruit-grower (because the production volume of the beehive owner depends, amongst others, on the production volume of the fruit-grower); operations of owners in towns making gardens on their private grounds (the effect: a beautiful view, improved quality of air) and lighting private buildings (the effect: the street is lit for all pedestrians), and outside towns, planting forests on their private grounds (the effect: improved quality of air, higher precipitation); research studies (the effect: innovations and lower prices); historic monuments/buildings conservation (the effect: beautiful view of the façades) [Pigou 2013, pp. 135, 183–185; Meade 1952, pp. 63–64; Stiglitz 2004, p. 95; Benhamou 2013, s. 5]. The biggest problem with the operations generating positive externalities combines with the unprofitability of taking them (Acocella 2002, p. 81). One of the methods for solving this problem is subsidization from public funds.

In accordance with the assumptions of the Economics of Culture, the museum was treated in the study as a special type of enterprise that can produce goods that enter the production function of local enterprises as production factors [Towse 2011: 265]. A positive externality of museum operations, therefore, is a museum influence on the company, which is recognised in the production function of this company and generates affirmative results in the form of benefits for its production volume, and this influence has non-financial, noticeable and compulsory nature.

² Named after Arthur Pigou (1877–1959), who established foundations for the theory of externalities and who was the first to recognise the state intervention (through taxes and subsidies) as a factor restoring a balance between a private and a social product/cost in a situation where externalities exist in conditions of a free competition.

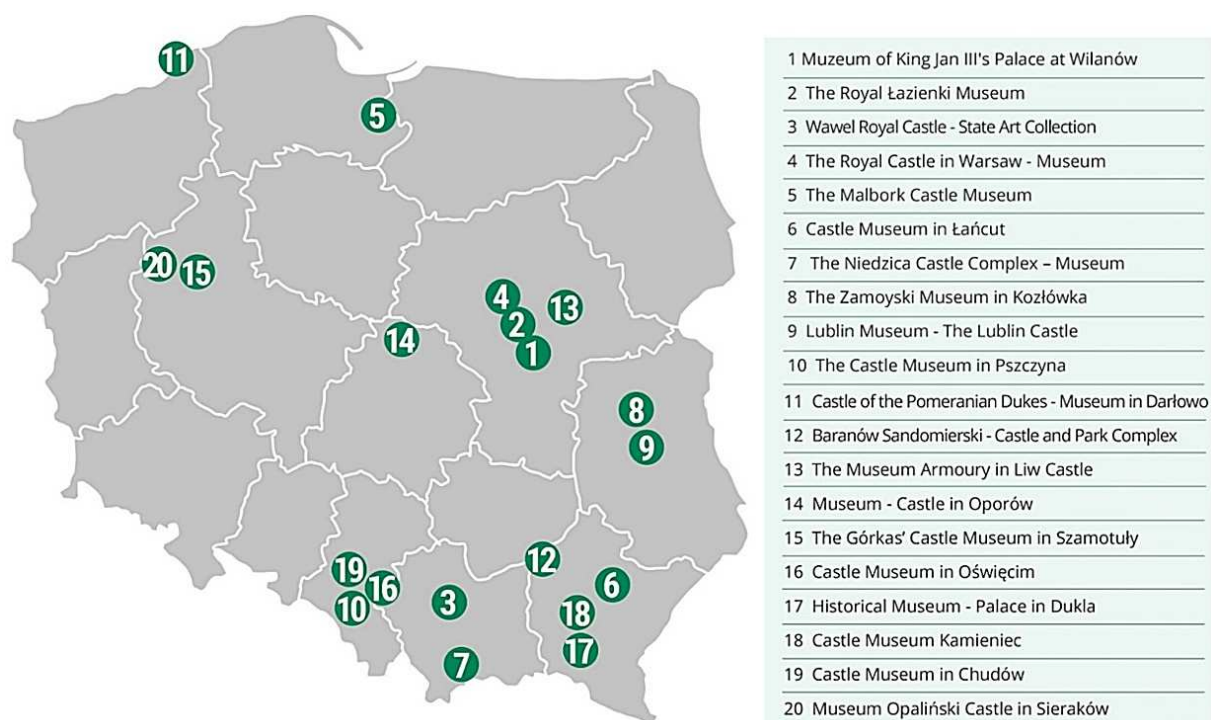
DATA AND METHODS

The castle/palace museum is a non-profit, permanent organizational unit open to the public, which permanently acquires, conserves, researches, communicates and exhibits tangible and intangible heritage for the purposes of education, study and enjoyment, located in a historic castle or palace [The Museums Act of 21 November 1996, art 1]. It usually refers in its name to the castle/palace, where it is located, and this castle/palace is a basic part of its identity. According to information from the National Institute for Museums and Public Collections in Poland, in 2017 in Poland there were 28 museums with the words ‘castle’ or ‘palace’ in their names. Three of them were in the process of formation during the research period. There were also museums located in historic castles or palaces, which did not have the words ‘castle’ or ‘palace’ in their names, but the historical castles or palaces were a core element of their identities and the heritage which they protected.

To find out if and how the mechanism of externalities works, the research based on a multiple case study method was conducted. It included 20 case studies of economic environments organised around castle/palace museums in Poland. All the castles and palaces, where the museum centers of investigated environments were and are located, are included in the Polish Immovable Historic Monuments List. Figure 1 shows the location of those museums on the map of Poland. Each of these museums performs tasks imposed on them by the law in: the Museums Act 1996, the Act on Organising and Engaging in Cultural Activity 1991, and the Act on Heritage Protection and Maintenance 2003³. However, they differ. They are characterised by a different history, status, value of assets, annual budget, visitor numbers and other differences. The majority of them are state or self-government museums. One is maintained by a foundation established by a state-owned company. One museum is maintained by a nongovernmental organisation. One is maintained by a private foundation, and one by a private person. In Poland, the castles belong to a category of historic buildings with the highest transregional recognition amongst society [Obląkowska-Kubiak 2017, p. 256]. Their heritage nature is considered obvious and generally accepted [NID 2017, p. 124].

³ The Museums Act of 21 November 1996, Journal Laws of 1997, No. 5, item 24, as amended; The Act on organising and engaging in cultural activity of 25 October 1991, Journal Laws of 1991, No. 114, item 493, as amended; The Act on heritage protection and maintenance of 23 July 2003, Journal Laws of 2003, No. 162, item 1568, as amended.

Figure 1 A map of Poland with locations of museums – centres of case studies



Source: Own study.

The research was conducted in the period from March 2017 to December 2019 by the author of this text. The author did all research by herself. Its methodology was based on the technique of triangulation (combination of several research methods and validation of data through cross verification from two or more sources). The following research methods were employed⁴:

- a) a field observation with photographic documentation (20) - in a field study, one environment was an area within a circle of the radius of ca. 500 m (1640 ft), with the museum being its centre,
- b) a map of externalities (20) - a map indicating the location of the ‘companies - museum externalities recipients’,
- c) a questionnaire interview with the following groups of respondents: museum directors or representatives (5), village leaders, town mayors or presidents (13), customer service employees (225 companies), company owners (31),
- d) an analysis of website content of private companies (153), communes (22) and museums (20),
- e) an analysis of printed promotional materials (47 companies),
- f) desk research: an analysis of literature, public statistics and museums’ financial reports.

⁴ The number of observations, interviews and analyses is provided in brackets.

RESULTS

The results of the research have shown that the operations of castle and palace museums in Poland generate positive externalities for private business operations in the form of: location, view and image. These products are not the purpose for which museums operate. However, they are not by-products of their activities. Museums care about it. Those externalities appear in production functions of firms in the shape of: a reduction of customer acquisition cost, a reduction of production costs due to economies of scale, a creative contribution to the product, logo, name and brand. Those factors, included in the production functions of private companies in the tourism sector, bring them an economic advantage.

In the research, those externalities were identified in the production functions of the 262 companies. The greatest number of externalities recipients operated in the hotel-restaurant-café industry (HoReCa) (110 entities)⁵. The largest second group included companies described as “creative,” as they use, directly or indirectly (in their products), a high extent of cultural and artistic values (93 entities)⁶. It was followed by groups operating in trade (47 entities)⁷, and transport (9 entities)⁸. Two companies operating in construction investment processes, and one in a beauty parlour. The majority of identified entities operated only in a local market (222), in the immediate vicinities of the museums. However, there were also those operating in domestic (38) and international (2) markets.

The study allowed for the creation of a model of the impact of active castle and palace museums on the production function of companies in the local tourism sector through the mechanism of externalities. The externality ‘location’ has a positive impact on the production function of local firms as a reduction of customer acquisition cost and as a reduction of production costs due to economies of scale. The externality ‘view of a castle/palace museum’ as part of a location was part of services (for example as sceneries of restaurant and café gardens, or in the work of photographers and guides). This externality was also a creative contribution to products (for example souvenirs) and to companies’ logos. The externality ‘image of a castle/palace museum’ was becoming a creative contribution to companies’ names and brands.

⁵ Restaurants, fast foods, snack bars, cafés, ice cream parlours, waffles, hotels and accommodation facilities, mobile catering facilities, alcoholic beverages.

⁶ Local trips organizers and tour guides, individual painters, souvenir manufacturers, photographic operations, art & craft & antique galleries, jewellery shops.

⁷ Souvenirs/gift shops, grocery shops, bakeries, patisseries, newsagents.

⁸ Car parks, taxi.

These results confirm formula 1 of the production function in the area of including positive externalities generated through active castle and palace museums in the production function of local enterprises in tourism sector. It also indicates the need to add creativity to this formula. It shows that new products are rooted in the reintegration of pre-existing materials and knowledge, but obviously, an innovative product - when completed - contains elements that are completely new [Stein 1953, p. 311]. “Creative thinkers go beyond the past to produce genuinely novel ideas and objects” [Weisberg 2006, p. 54].

Externality: Location

Museums attract visitors. This is a basic characteristic of a location with a museum. A visitor is a person (traveler) taking a trip to a main destination outside his/her usual environment, for less than a year, for any main purpose (personal, business) other than to be employed by a resident entity in the country or place visited, other than migration (economic, internal, external, circular, seasonal, temporary, permanent). A visitor brings money from outside into the destination. Visitors are classified as tourists (persons whose trip includes an overnight stay) and as excursionists (persons whose trip does not include an overnight stay) [UNWTO, p. 4]. In 2016, museums centres of case studies were visited by over 9.5 million people in total. The most frequently visited locations were: The Museum of King Jan III's Palace at Wilanów (3.1 mln), The Royal Łazienki Museum in Warsaw (2.1 million), The Wawel Royal Castle – State Art Collection (1.4 million), The Royal Castle in Warsaw – Museum. The Residence of Kings and the Republic of Poland (668 000) and The Malbork Castle Museum (609 000).

Location as an external effect of operations of museums allows the companies firstly to reduce the costs of acquiring customers. And secondly it allows them to increase the scale of production and - thanks it to - reduce production costs due to economies of scale. In the research, 196 private business operations were identified, whose services were used by museum visitors. Most of them operated in HoReCa sector (105 entities) and trade sector (46 entities). They were followed by companies from the creative sector (35 entities), transport (9 entities) and beauty industry (1 entity).

Externality: View

A view is the visible space. It represents something that can be taken in by an eye, sight, and perception. It is a fragment of space, area, landscape, or scenery, filled with details [Słownik Języka Polskiego PWN 2017; English Oxford Living Dictionaries 2017]. The view of a castle/palace museum is a result of historical and contemporary human activities and its

interactions with nature. It is shaped by its history and contains products of a civilisation, and natural components. The heritage landscape ensures a unique view, rarely encountered, of specific aesthetics and biography [Kobyliński 2014, pp.13-15].

The results of the research showed that the view of castle and palace museums (of castles and palaces) became the core, a component or an inspiration for various products and services. Products include souvenirs, interior design items, paintings, photographic wallpapers, flats (flats with a view). Services cover restaurants and cafés (scenery of those places and view from those places), accommodation services (view from hotel windows), touristic guidance, outdoor photography (scenery for photographers' works), painting (subjects of paintings). The view of a museum/castle/palace is becoming a creative contribution to products and services in a production function. Three types of views were included by companies in their production functions, i.e.

- Direct “compulsory” view – the nearest view experienced from a restaurant, café, hotel, or a flat.
- Direct voluntary view – offered to customers by guides; transferred onto various products⁹ by companies manufacturing souvenirs; used by painters as a theme of their paintings; used by photographers as a scenery of offered photo sessions (mainly weddings).
- Transposed view – the view of a castle/palace in another form (painting, photograph, photographic wallpaper) used in an interior design being a component of a service offered to customers (restaurant, café, hotel interiors).

In the research, 113 companies who took this externality were identified. 26 entities provided services relating to organising a visit and guiding visitors. 24 were individual operations of painters. 18 provided catering services (restaurants, fast-food bars). 17 operated as souvenir manufacturers. 15 were conducting photographic operations, 10 offered accommodation, 2 were construction developers, and one was a wine producer.

Freedom of panorama (view) is a very important aspect of a view considered as an externality. This freedom becomes a production factor for companies transferring the view of the museum into souvenirs or components of the interior decorations, as well as for operations of photographers. The freedom of panorama is an exception in the Polish Copyright Act. The law allows to spread out works that are permanently exhibited to the public, without the need

⁹ Magnets, postcards, bookmarkers, key rings, mugs, Christmas baubles, a glass (snow) globes, vodka glasses.

to obtain a permit of copyright holders for these works, but not for the same function¹⁰. Therefore, it is permitted to take outside photos of architectonic objects and use them for example to prepare souvenirs or interior design decorations. The freedom of panorama also belongs to externalities, but those created by a state.

Externality: Image

An image is an impression created in human minds. It is a conceptual representation of a real subject, object, phenomenon or process. It is a combination of associations, judgements, opinions, beliefs, information, ideas, feelings and attitudes. The created image evokes associations, thus providing the object with additional value and contributing to its emotional reception. An image is part of a brand, which belongs to the company's intangible assets. The function of a brand on the one hand is to identify, distinguish and highlight goods and services in the market. On the other hand, it is to create characteristic associations in stakeholders' minds. And generally, in the end, its aim is to generate economic benefits. A brand enables the producer to use the effects of scale. A good brand is a guarantee of quality to clients. A strong brand can be a decisive factor in the market success of a given technology, product or service [Szromnik 2007, pp. 133–134; Zieliński and Kubacki 2014, p. 706; Urbanek 2012, p. 143]. A brand, a name and a logo we can perceive as parts of a social technology factor in the production function. Each brand is characterised by its spontaneous and prompted recognition and awareness.

The result of the research showed that companies used museum images in their names and logos. They used in their names words like “castle,” “royal,” “duke,” “near the castle,” “by the castle,” or words associated with specified names of museums. In their logos, they use appearance (views) of museums more or less directly as creative contribution or inspiration. There were identified 23 companies whose production functions included a brand factor referring to museums in their names, and 5 in their logos. These companies operated in the following industries: restaurant and other catering facilities (9), hotels and other accommodation facilities (5), production of alcoholic beverages (beer, wine, cordials, liqueurs) (4), and other (5). Moreover, a lot of companies were also using views and names of museums

¹⁰ The Copyright and Related Rights Act of 25 November 1991, Journal Laws of 1991, No. 114, item 493, as amended, Article 33.1.

in their advertising operations. In the research, 71 entrepreneurs were identified who were doing it. They were using views and names of museums in their advertising leaflets, in posters and on their websites to give information about their location or about the attractions of the area. In this way, the museums were becoming a part of their product, their offer.

Differences in the strength of externalities – inspirations

It is important to point out that large differences in the strength of externalities for entrepreneurial ventures generated through the individual museums, were identified in the research. Exploration of these differences was not the aim of the project. However, this observation opens a very interesting research field. The author proposes an indicator for the strength of positive externalities for entrepreneurs according to equation 2.

Equation 2. Formula for the strength of positive externalities for entrepreneurs

$$Ex = T + V + I + A$$

where:

Ex – an indicator for the strength of positive externalities for entrepreneurs

T – number of ‘companies - recipients of museum location’

V – number of ‘companies - recipients of museum view’

I – number of ‘companies - recipients of museum image’

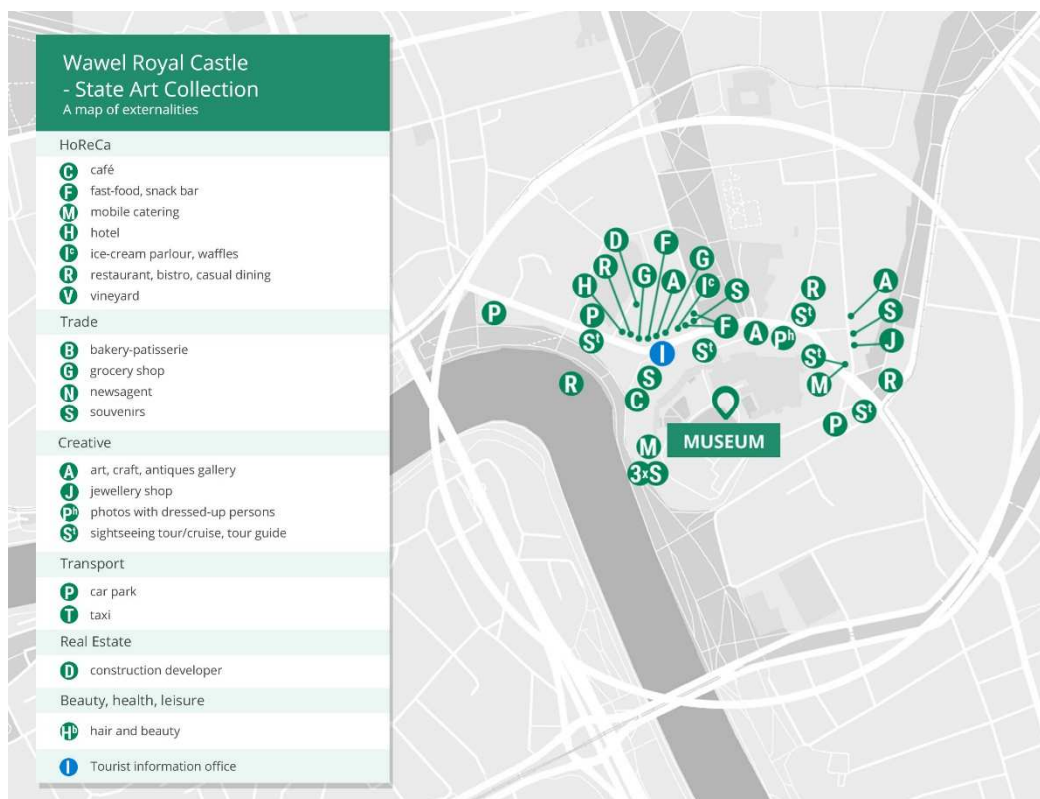
A – number of companies using museum image/name/view in their advertising operations

The use of this probationary indicator permitted the division of the museum centres of case studies into three groups: ‘museums with high strength of positive externalities’, ‘those with moderate strength’ and ‘those with low strength’. The observations during the research allowed the author to distinguish the factors co-occurring with strong and those co-existing with weak positive external effects. The strong effects co-occurred with very valuable (in terms of scientific, historic, artistic and financial values) museum resources, high value of museum fixed assets, high annual museum budget, long history of museum operation, large numbers of museum visitors, museum location in a city, other tourist attractions within walking distance outside the museum grounds, a high level of complementary tourist services in walking distance outside the museum grounds (those services were tourist attractions themselves, they attracted the visitors). The low effects co-occurred with less valuable museum resources, low value of museum fixed assets, low annual museum budget, shorter history of museum operation, low number of museum visitors, location in a village or small town, no other tourist attractions within walking distance outside the museum grounds, none or a low level of complementary

tourist services in walking distance outside the museum grounds, noticeable negative externalities from vicinity (for instance: degraded neighborhood, dangerous and busy street in immediate vicinity, conflict or lack of cooperation in local society). Regardless, this topic requires further research, especially regarding the synergy mechanism.

Below are three examples of maps of externalities (figures 2, 3 and 4) for museums with high strength of positive externalities for entrepreneurs. They show the locations of the companies, which are the recipients of the museums' externalities. Figure 2 shows the map of externalities of the museum Wawel Royal Castle – State Art Collection in Cracow. Figure 3 presents this map for The Malbork Castle Museum (The Castle of the Teutonic Order in Malbork). And Figure 4 displays the situation created by The Niedzica Castle museum (Dunajec Castle built by the Hungarians in Niedzica). There are also photos of these castles and their closest economic neighborhoods.

Figure 2 A map of externalities of the museum Wawel Royal Castle – State Art Collection.



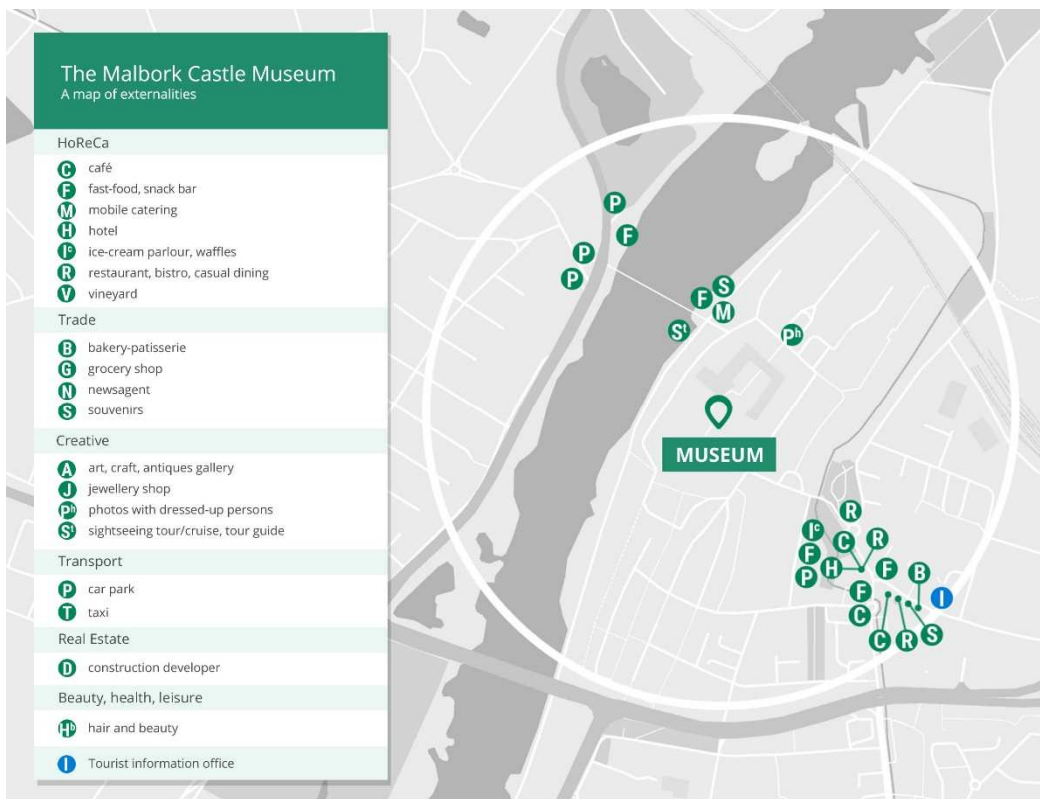
Source: Own study.

Photo 1 Wawel Royal Castle and its economic neighbourhood



Photos by: Katarzyna Obląkowska, 2017

Figure 3 A map of externalities of the museum The Malbork Castle Museum



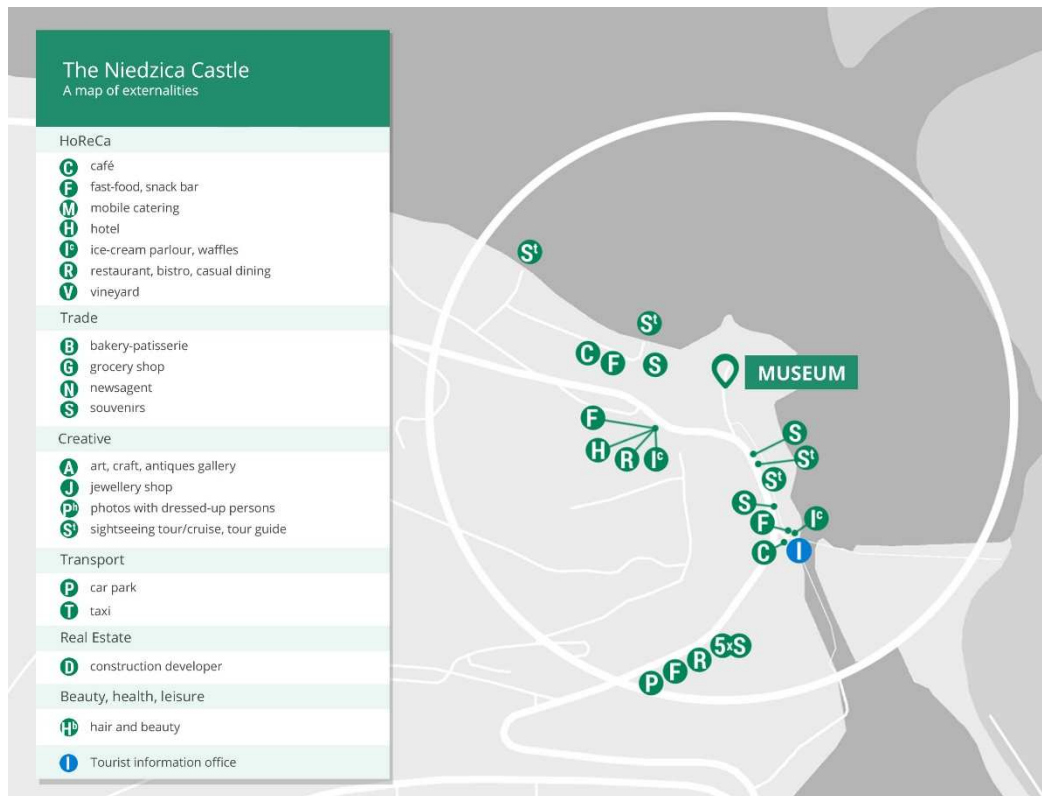
Source: Own study.

Photo 2 The Castle of the Teutonic Order in Malbork and its economic neighbourhood



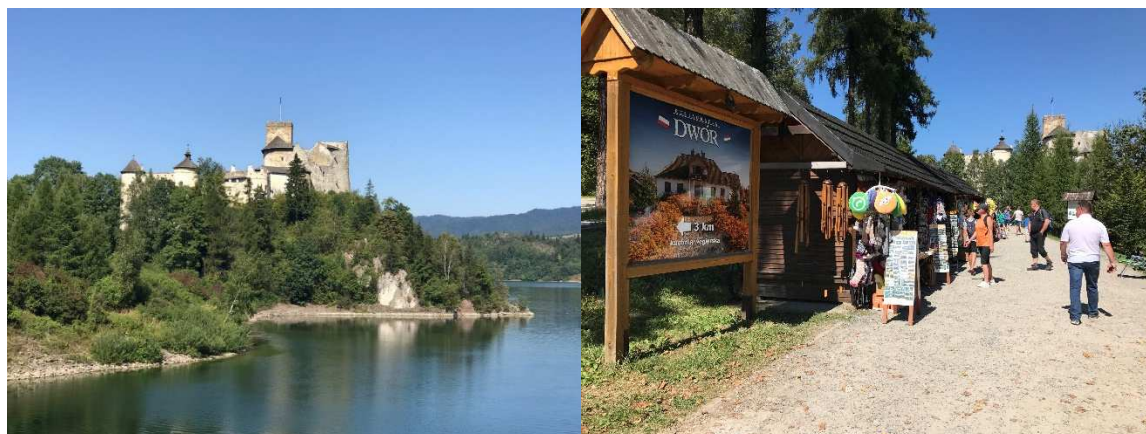
Photos by Katarzyna Obląkowska, 2017

Figure 4 A map of externalities of the museum The Niedzica Castle.



Source: Own study.

Photo 3 Dunajec Castle in Niedzica and its economic neighbourhood



Photos by Katarzyna Obląkowska, 2017

CONCLUSIONS, AN OUTLOOK

The castle/palace museums in Poland generate positive externalities for private business operations in the form of: location, view and image. They appear in production functions of firms as a reduction of customer acquisition cost, a reduction of production costs due to economies of scale, a creative contribution to product, logo, name and brand. The results of the research show that public and private investments into cultural heritage sites and attractions are advantageous for business operations unrelated to investors. This is consecutive evidence for public authorities for cultural heritage investment policy, as well as for the museums themselves in the aim to lead more effective fundraising. It is also useful for entrepreneurial ventures surrounding museums in better understanding how to develop services around cultural attractions.

The results of the research are also the basis for placing the question about ‘rewarding’ museums, which generates positive externalities, by non-investing/non-paying firms and entities, who are recipients of these externalities. This is the question about internalisation of identified externalities. A solution that can be employed here are for example direct negotiations and arrangements. But much simpler would be a special local tax paid by these firms and entities, which would be transferred to a museum budget from the budget of a local government. It should increase the level of museum incomes and reduce the incomes of entrepreneurs, owners of the buildings and landowners around museums. The situation and the level of development of each local tourist market is different. That is the reason why every solution should be tailored to a specific place, specific local needs and potential. It is very important to employ studies, knowledge, negotiations, cooperation and respect for a widely understood common good.

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IMPACT OF EXPENSES ON HUMAN CAPITAL ON THE ECONOMIC GROWTH OF THE COUNTRY: CASE STUDY OF THE REPUBLIC OF KAZAKHSTAN

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Abstract

Analysis of the impact of human capital on the efficiency of the economy of Kazakhstan was based on regression models with the use of statistical data on the volume of investments in professional and higher education, health care, and income per capita, life expectancy, and GDP per capita in 2005-2017. In the current conditions of Kazakhstan, it is found that investments in secondary and higher education and health care have no statistically significant link with the efficiency of the national economy, as well as life expectancy, while income per capita has an impact on economic growth. The low economic effect of expenditures in education and health care may evidence the ineffectiveness of such investments. Spending on higher education does not yet have a significant impact on the change of GDP. This fact indicates that the economy of Kazakhstan has not yet adopted an innovative character. It is necessary to focus on the training of qualified professional personnel at the lower and middle levels, especially on technical specialties.

Keywords: efficiency of the economy, life expectancy, income per capita, expenses on health care, expenses on professional education, gross domestic product, human capital, regression model.

INTRODUCTION

According to Shultz (1968), the valuable qualities acquired by a person, which can be strengthened by appropriate investments, are called human capital. Shultz considered human capital as the accumulated cost of reproduction of labour regardless of the source of its coverage. The results of such investments are the accumulation of people's abilities to work, their creative activity in society, the maintenance of people's lives, health, etc. According to Becker, human capital (HC) is everyone's stock of knowledge, skills, and motivations. Investments in it can be those in education, accumulation of professional experience, healthcare, geographical mobility, information search (Becker, 1964). Lim et al. (2018) define

HC as the aggregate level of education, training, skills, and health of a population that affects the rate at which technology can be developed, deployed, and used to improve productivity. HC is one of the characteristics of a population that, along with physical capital such as buildings, equipment, and other tangible assets, contribute to economic productivity (Lim et al., 2018). Within each type of capital, yield and efficiency may vary. Stocks of human and physical capital are produced through a set of investment decisions that are used as costly points of view, direct costs, and for human capital investments, in terms of alternative costs of human time (Goldin, 2016).

Modern HC theory essentially revolves around the interpretation of the investments for the qualitative improvement of HC. The stock of abilities, knowledge, skills, motivation accumulated in the process of education and labour activity, that is, individual human capital, is able to bring returns, being realized in higher labour productivity, in a higher standard of living (Andrade, Duarte, & Simões, 2018; Annabi, 2017; Bilan, Mishchuk, & Dzhyhar, 2017; López Castellano, García-Quero, & García-Carmona, 2018). Directly and positively affecting productivity, human capital is one of the key factors that determine the economic growth and technological progress of the country (Teixeira & Queirós, 2016). At the same time, the impact of human capital on economic growth depends on the demand for education and skills in the labour market. The demand for human capital, in turn, is largely determined by the institutional environment, which determines the basic conditions for economic activity (Gimpelson, 2016).

Human capital can be divided into three key components: health, education, and experience/training; and its supply can be increased by better education, better health, and new knowledge (Ogundari & Awokuse, 2018). Siddiqui and Rehman (2017) argue that education, whether primary, secondary, higher, or vocational, positively impact the economic growth of a country, and governmental spending on education also has a positive effect on the national economy. Therefore, countries that have consistently oriented human capital towards economic growth can better match their investments in growth patterns. Historical data provide irrefutable evidence that public investment in education is economically beneficial and that conditions that inhibit the acquisition of human capital (institutional and public policy, pedagogical prerequisites, financial infrastructure, etc.) are economically destructive (Warburton, 2020). Fatima, Chen, Ramzan, and Abbas (2020) found that human capital accumulation and trade effects are complementary in terms of impacting the economic growth of the country: the higher the level of human capital accumulation, the greater the impact of trade openness on GDP growth.

In a study based on panel data from 52 African countries from the World Bank's World Development Indicators (WDI) for the period 1985-2015, Bane (2018) concluded that investments in education and health positively and significantly affect economic growth in all African countries, and health investments in human capital have a stronger impact than investment in education. At the same time, the research revealed that education stock as human capital does not influence economic growth in all African countries (Bane, 2018).

Using data from 132 countries for 15 years, the research of Ali et al. (2018) concluded that human capital plays a positive role in GDP growth provided there are high-quality legal institutions and better economic opportunities. Better economic opportunities enhance the impact of human capital on growth: the easier it is to do business and trade in the domestic or international market, the stronger the impact of human capital on growth is (Ali, Egbetokun, & Memon, 2018).

Applying nonparametric and semi-parametric analyses for a sample of 100 countries from 1970 to 2014, Matousek and Tzeremes (2019) examined the nonlinear effects of two human capital indices (identifying whether there is perfect or imperfect substitutability of skilled and unskilled workers) on economic growth. Empirical research results for both indices showed a positive and statistically significant impact of human capital on the levels of economic growth of countries is. At the same time, the identified asymmetric models of human capital showed complete interchangeability of skilled and unskilled workers (Matousek & Tzeremes, 2019).

To analyse the socio-economic development of 20 European countries with varied social policies, Biernacki and Guzek (2019) used a modified Human Development Index (HDI) based on several sources (including EHCI (Euro Health Consumer Index) and PISA (Program for International Student Assessment), and GDP for 2006–2015. The results of the study showed that the dynamics of HDI of countries corresponds to the dynamics of GDP: the more rapid is the dynamics of HDI growth of a country, the more rapid is the dynamics of GDP growth (Biernacki & Guzek, 2019). The research of Roopchund (2017) also found a direct link and correlation between the HDI and the economic growth of a country. According to the research by Zhang (2019), countries with the best human development index and mobile phone use contribute to national economic growth, and the HDI itself is a critical factor facilitating GDP growth in Asia. Examining the correlation and causal relationship between the HDI and its sub-indices and economic, water and energy indicators, Sušnik and van der Zaag (2017) concluded

that just as the (sub) index can influence the dynamics of GDP, so the GDP itself can influence a certain HDI parameter.

Human Development Index is a statistical indicator periodically composed by the United Nations and published in Human Development Report. HDI is designed to measure human capital formation and development in various nations of the world (United Nations Development Programme, 2019). It is the combination of “Life Expectancy Index”, “Education Index” and “Income Index”. The life expectancy index reveals the standard of health of the population in the country; the education index reveals the educational standard and the literacy ratio of the population, and the income index reveals the standard of living of the population. In other words, human capital is measured by health, education, and quality of standard of living (Škare & Lacmanovic, 2016). Therefore, the components of HDI, that is, life expectancy index, education index, and income index, are directly related to human capital formation within the nation. It follows then, that the most important qualitative characteristics of human capital in the economic sense are the professional qualifications, health, and wealth of individuals (Korotovskih, 2019). And it is most convenient to quantify the influence of the level of human capital on the economic performance indirectly through the volume of expenditures on education, professional in particular, including the costs of retraining and advanced training, health care, and income level of the population (Kpolovie, Ewansiha, & Esara, 2017).

MATERIAL AND METHODS

In the study of the impact of human capital on economic growth five socio-economic parameters related to human capital in Kazakhstan for the period from 2005 to 2017 as independent variables were analysed:

- 1) expenditures on secondary professional education per capita;
- 2) expenditures on higher professional education per capita;
- 3) expenditures on health per capita;
- 4) nominal monetary income of population per capita;
- 5) life expectancy.

As the dependent variable reflecting the level of economic growth GDP per capita of Kazakhstan in 2005-2017 was selected.

Tab. 1 presents data on the dependent variable (GDP) and independents variables used for the study (Statistics Committee of the Ministry of National Economy of the Republic of Kazakhstan, 2020).

Table 1 Variables of the study

Year	Dependent variable	Independent variables				
	GDP per capita, mln.tenge	Expenditures on secondary professional education (per capita), mln.tenge	Expenditures on higher professional education (per capita), mln.tenge	Expenditures on Health-care (per capita), mln.tenge	Nominal monetary income of population (per capita), mln.tenge	Life expectancy, years
2005	0.5011	0.0019	0.0047	0.0107	0.0158	65.86
2006	0.6672	0.0023	0.0059	0.0126	0.0192	66.15
2007	0.8299	0.0030	0.0071	0.0166	0.0252	66.34
2008	1.0242	0.0036	0.0069	0.0194	0.0330	67.11
2009	1.0569	0.0044	0.0079	0.0240	0.0343	68.39
2010	1.3366	0.0049	0.0089	0.0252	0.0390	68.45
2011	1.7058	0.0059	0.0109	0.0314	0.0459	68.69
2012	1.8471	0.0068	0.0124	0.0371	0.0519	69.52
2013	2.1132	0.0121	0.0223	0.0420	0.0565	70.62
2014	2.2948	0.0079	0.0128	0.0464	0.0623	71.44
2015	2.3304	0.0076	0.0132	0.0505	0.0673	71.97
2016	2.6397	0.0087	0.0145	0.0604	0.0766	72.41
2017	3.0147	0.0093	0.0154	0.0642	0.0837	72.95

Descriptive analysis, correlation analysis, multiple linear regression, and factor analysis, including calculations, were used to systematize and analyse the collected data.

To analyse the impact of human capital on economic efficiency, the multiple linear regression model using the dependent variable (y) and multiple independent variables (x) was applied for the study:

$$y = \beta_0 \sum_{i=1}^7 \beta_i x_i + \epsilon$$

Where:

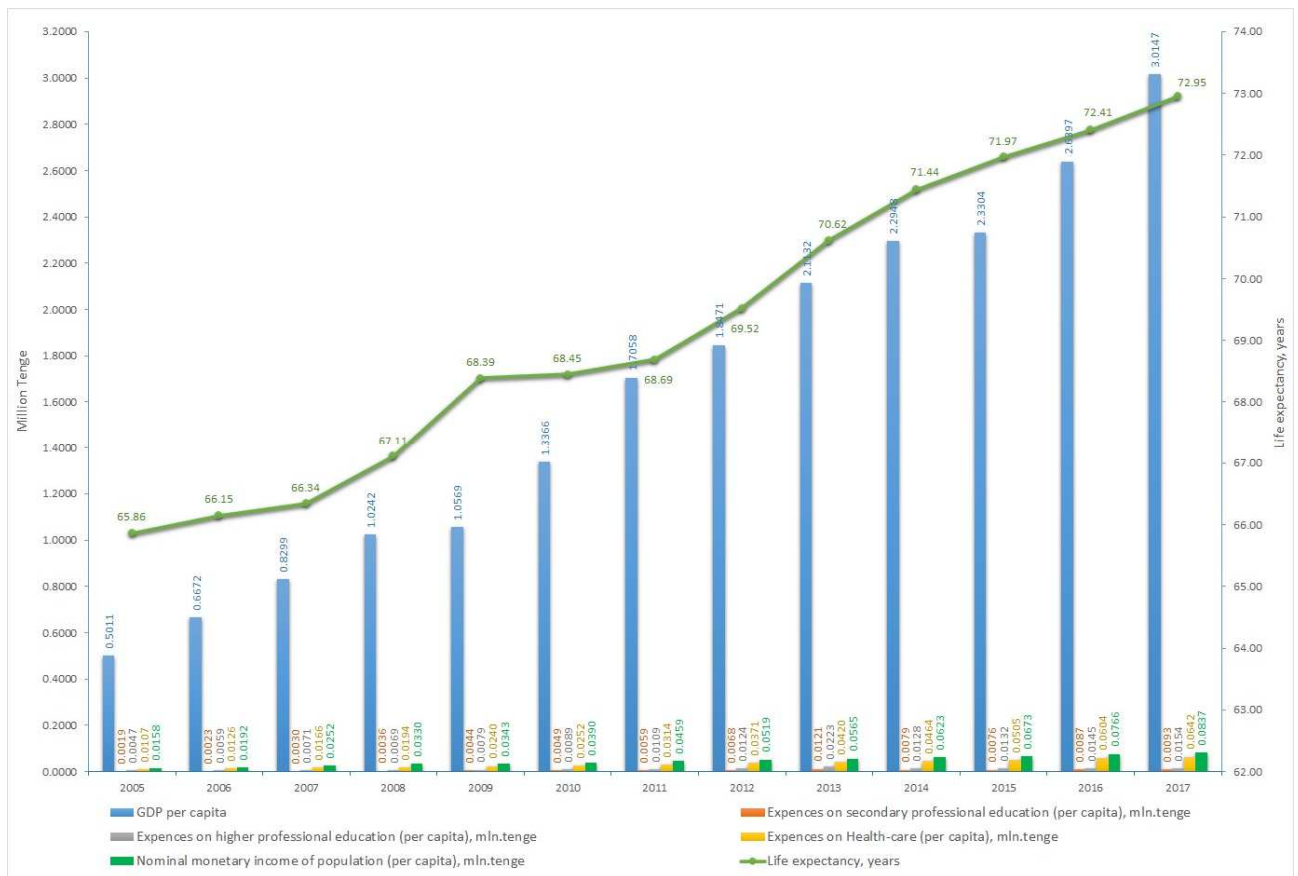
- y is GDP per capita;

- β_0 is a constant;
- β_i are slope coefficients;
- x_1 is expenditures on secondary professional education per capita (SPE);
- x_2 is expenditures on higher professional education per capita (HPE);
- x_3 is expenditures on health per capita (HC);
- x_4 is nominal monetary income of population per capita (PI);
- x_5 is life expectancy (LE).

RESULTS

As shown on Fig. 1, all socio-economic parameters of the Republic of Kazakhstan analysed in the study had positive dynamics in 2005-2017.

Figure 1 Dynamics of socio-economic parameters of the Republic of Kazakhstan in 2005-2017.



Source: developed by the authors based on data of Statistics Committee of the Ministry of National Economy of the Republic of Kazakhstan (2020).

The state's investments in professional education in 2005-2017 grew steadily both in absolute and relative terms. The share of state expenditures in secondary professional education increased from 59.9% in 2005 to 79.6% in 2017 (Fig. 2)

Figure 2 Share of Financing of secondary professional education (%)



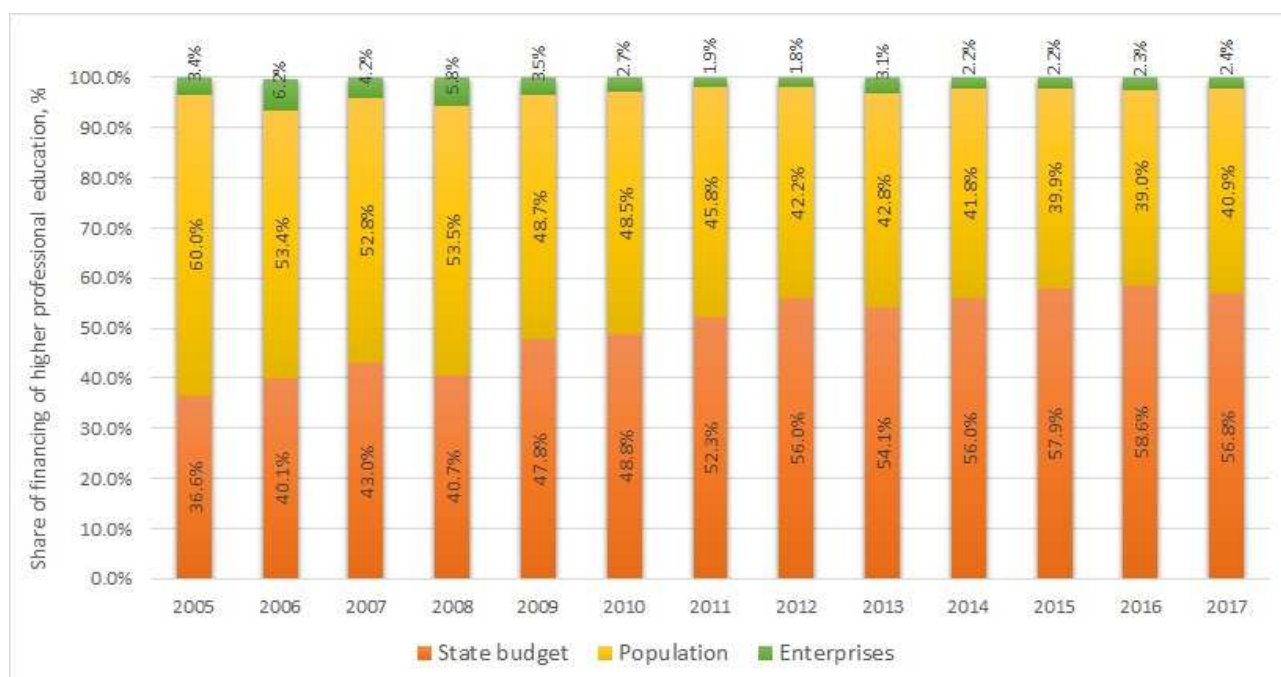
Source: developed by the authors based on data of Statistics Committee of the Ministry of National Economy of the Republic of Kazakhstan (2020).

As shown in Fig. 2, in financing the development of secondary professional education in the period under review, the share of the population has almost halved and amounted to 19.2% in 2017, while the share of expenditures of enterprises has not changed and is in the range of 1.3-1.4%.

In higher professional education the share of governmental expenditures grew from 36.6% in 2005 up to 56.8% in 2017 (Fig. 3).

According to Fig. 3, the share of the population in financing higher professional education has also decreased significantly: from 60.0% in 2005 to 40.9% in 2017. Despite its notable volatility, the share of enterprises in spending on higher professional education also tended to decrease, from a peak of 6.2% in 2006 to 2.4% in 2017.

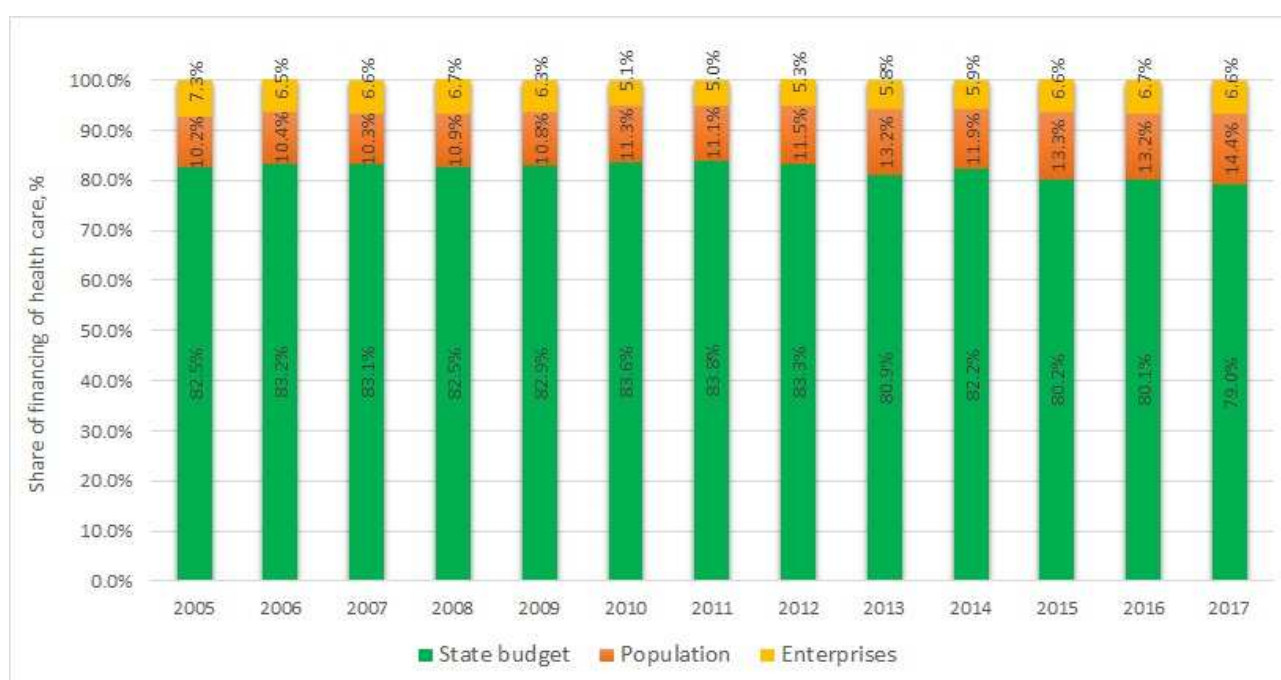
Figure 3 Share of financing of higher professional education (%)



Source: developed by the authors based on data of Statistics Committee of the Ministry of National Economy of the Republic of Kazakhstan (2020).

In the health-care government financial participation remains virtually unchanged, with a slight decline of 3-4 percentage points by 2017 (Fig. 4).

Figure 4 Share of financing of health care (%)



Source: developed by the authors based on data of Statistics Committee of the Ministry of National Economy of the Republic of Kazakhstan (2020).

As shown in Fig. 4, the population's participation in health-care financing tends to grow: from 10.2% in 2005 to 14.4% in 2017. The share of enterprises in expenditures for health-care had a steady downward trend from 2005 to 2011 (from 7.3% to 5.0%); then the trend changed in the opposite direction: from 2012 to 2017. the share of enterprises grew steadily and amounted to 6.6% in 2017.

Descriptive statistics for the dependent variable (GDP) and independent variables (SPE, HPE, HC, PI, and LE) allowing to understand the research data is given in Tab. 2.

Table 2 Descriptive statistics of variables of the research

Variable	Obs	Mean	Std. Dev.	Min	Max
GDP	13	1.6432	0.8050146	0.5011	3.0147
SPE	13	0.006031	0.0030445	0.0019	0.0121
HPE	13	0.010992	0.0048398	0.0047	0.0223
HC	13	0.033885	0.0178172	0.0107	0.0642
PI	13	0.046977	0.0216555	0.0158	0.0837
LE	13	69.22308	2.477457	65.86	72.95

Source: calculated by the authors based on data of Statistics Committee of the Ministry of National Economy of the Republic of Kazakhstan (2020).

Tab. 3 shows the results of calculations of correlation coefficients between variables in relation to the GDP per capita.

Table 3 Correlation coefficients between variables.

Variable	GDP	SPE	HPE	HC	PI	LE
GDP	1					
SPE	0.8865	1				
HPE	0.8158	0.9868	1			
HC	0.9913	0.8605	0.7847	1		
PI	0.9953	0.8639	0.786	0.996	1	
LE	0.9828	0.8771	0.798	0.9878	0.9874	1

Source: calculated by the authors based on data of Statistics Committee of the Ministry of National Economy of the Republic of Kazakhstan (2020).

According to the correlation analysis (Tab. 3), all variables have a positive influence on each other.

To check data adequacy, including normal data distribution, absence of autocorrelation, heteroscedasticity, the effect of multicollinearity, etc., relevant tests were performed. The Skewness-Kurtosis (Jarque-Bera) test for normality showed that as soon as the p-value is greater than 0.05, the data follows a normal distribution (Tab. 4).

Table 4 The Skewness-Kurtosis (Jarque-Bera) Test for Normality

Variable	Obs	Pr(Skewness)	Pr(Kurtosis)	adj	chi2(2)	Prob>chi2
residuals	13	0.9435	0.5827		0.31	0.8577

Source: calculated by the authors based on data of Statistics Committee of the Ministry of National Economy of the Republic of Kazakhstan (2020).

The Durbin-Watson test scored 1.768306 showed no autocorrelation in analysed data. The results of Breusch-Pagan / Cook-Weisberg test for heteroscedasticity ($\chi^2(5) = 3.31$ Prob > $\chi^2 = 0.6523$) showed that heteroscedasticity is absent at the 5% level of significance since p-value is greater than 0.05. The results of Multicollinearity test using variance inflation factors (VIF) are given in Tab. 5.

Table 5 Results of Multicollinearity test

Variable	VIF	1/VIF
SPE	319.41	0.003131
HPE	200.94	0.004977
HC	181.35	0.005514
PI	157.33	0.006356
LE	82.94	0.012057
Mean VIF	188.4	

Source: calculated by the authors based on data of Statistics Committee of the Ministry of National Economy of the Republic of Kazakhstan (2020).

Bartlett test of sphericity revealed that independent variables are not intercorrelated: chi-square = 146.248, degrees of freedom = 10, p-value = 0.000. Kaiser-Meyer-Olkin Measure of Sampling Adequacy valued 0.689 showing that the data can be appropriate. Multiple linear regression (Fig. 5) revealed that R-squared for the regression model is 0.9937 meaning that the research model explains 99.37% of the total variability in GDP per capita score while the remaining 0.63% of the variation in the GDP per capita is explained by other variables not included in the model in this study. F value equal to 219.7 and p-value of F equal to 0.000 shows that the study model is well fitted at the 1% level of significance.

Figure 5 Multiple linear regression

Source	SS	df	MS	Number of obs	=	13
Model	7.72733995	5	1.54546799	F(5, 7)	=	219.70
Residual	.049242122	7	.007034589	Prob > F	=	0.0000
				R-squared	=	0.9937
				Adj R-squared	=	0.9891
Total	7.77658207	12	.648048506	Root MSE	=	.08387

GDP	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]
SPE	22.30004	142.1313	0.16	0.880	-313.7871 358.3872
HPE	4.275886	70.91423	0.06	0.954	-163.4096 171.9614
HC	2.633984	18.29982	0.14	0.890	-40.6382 45.90617
PI	35.34057	14.02397	2.52	0.040	2.179157 68.50198
LE	-.0350618	.0890024	-0.39	0.705	-.2455191 .1753955
_cons	2.139356	5.828926	0.37	0.724	-11.64386 15.92257

Source: calculated by the authors based on data of Statistics Committee of the Ministry of National Economy of the Republic of Kazakhstan (2020).

The results of multiple linear regression allow concluding that the PI variable is influencing the GDP per capita variable, while other variables have no statistical impact on GDP per capita.

DISCUSSION

In Kazakhstan, during the period under review, the financing of human capital development has steadily increased, which is associated primarily with a significant increase in the country's income, primarily due to raw materials industries. At the same time, every year the state was assuming an increasing share of expenses in financing professional education. In conditions when GDP growth is provided mainly at the expense of the raw materials sector (namely energy resources) it is very doubtful to connect the growth of GDP with changes in the financing of the human capital development. On the contrary, the increase in revenues from the commodity sector due to favourable conditions in the commodity markets has led to a significant increase in the participation of the state (both in absolute and relative terms) in the financing of education and health-care (Bilan et al., 2017).

In Kazakhstan the main sources of funding for education and health systems include funds from the state budget, the population, and enterprises, financing from the state budget accounts for the lion's share of all investments in human capital. At the same time, the costs of health-care from the state budget have a stable positive dynamic throughout the analysed period, while

the costs of professional education from the state budget are characterized by certain fluctuations (Korotovskih, 2019).

According to the results of the research, investments in education have no statistically significant impact on changes in the size of GDP per capita. This does not support the findings of the studies of Warburton (2020) and Bane (2018), where the positive influence of investment in education on the economy was revealed. The absence of influence of education financing on economic parameters can serve as confirmation of the idea that the economy of Kazakhstan has not yet adopted an innovative character. The structure of the economy with a bias towards the commodity sectors objectively does not imply its accelerated transition to the innovation path. And this circumstance limits the need of the economy for highly qualified personnel, especially from the sphere of high technologies. It should be emphasized that these features do not indicate that the Kazakh economy does not need highly qualified personnel. They just indicate that the structure of expenditures in the context of training areas should be brought into line with real trends in the economy (Gimpelson, 2016).

One of the papers concerning issues of human capital development in countries in transition examines the relationship between the quality of human capital and the international competitiveness of European countries with an emphasis on Eastern European countries (EECs) (Mulliqi, Adnett, Hisarciklilar, & Rizvanolli, 2018). In line with orthodox theory, a positive relationship was found between the labour force's level of educational attainment and competitiveness. While in the European Economic Area (EEA17), tertiary education is the only significant education-based determinant of the export market share, in EECs both the shares of the workforce with secondary and tertiary education are significant with the former having a greater impact (Biernacki & Guzek, 2019; Fomina, Sizikova, Shimanovskaya, Kozlovskaya, & Karpunina, 2019). This conclusion regarding the Eastern European countries is not consistent with our finding that in Kazakhstan no relationship is found between the economic growth and the expenditures on secondary and higher professional education.

The choice of factors to explain the behaviour of the response variable largely determines the quality of the forecast. The costs of professional education, as well as health-care, seem to be the most important indirect characteristics of the state of human capital in society. A more accurate assessment of the relationship between expenses on human capital development and economic performance can be obtained if we consider the problem in the sectoral context (López Castellano et al., 2018).

In contrast to the results of Ogundari and Awokuse (2018) and Bane (2018), investments in health in Kazakhstan do not directly impact the level of economic development of the country.

At the same time, it should be noted that the research did not study the influence of the level of education or health care on the economic parameters of the country. The absence of a direct correlation between investments in these spheres may indicate that such investments are ineffective in terms of impacting economic growth. Therefore, research of the influence of quantitative parameters of secondary and higher education, health care on GDP would supplement this research and provide the understanding of the effectiveness of the above investments (Ali et al., 2018).

However, such studies, as a rule, encounter the intractable problem of obtaining and forming a database of reliable and complete data on the analysed economic variables. Any progress in this direction will certainly be very useful both in practical and theoretical terms. For a more informative and adequate assessment of the impact of the quality of human capital on economic efficiency, the analysis should take into account the gender and age distribution of the working population.

CONCLUSIONS

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RURAL-TO-URBAN MIGRATION OF YOUNG PEOPLE AND ITS EFFECT ON SMALL CITIES IN HUNGARY

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Abstract

Changes in rural Hungary have been increasing rapidly ever since the government passed the Local Self-Government Act in 1990. The policies set out in this Act affected the local funding systems in Hungary negatively, which led to a rural-to-urban migration in the country. This paper examines the youth's perception of urban migration in Hungary. Data has been collected via questionnaire-based surveys among students of six high schools of the city of Nagykanizsa in Hungary between January and October of 2018. A total of 1197 filled out forms were collected. This paper has a triple aim: to provide an analysis of the interests of youth in smaller towns seeking answers to what would make them stay in such towns and start their careers locally; to identify the factors that influence their inland rural-to-urban migration and to find out what strategies of rural community centers work best in keeping them home in small cities. Based on our findings, recommendations were drawn up in order to initiate the development of new projects in small cities which utilize the arguments and needs of the local youth discovered in the study area of our survey.

Keywords: Urbanization; Migration; Small Cities; Young Generation.

INTRODUCTION

The United Nations and the International Organization for Migration in 2015 both estimated that around 3 million people migrate to cities every week for livelihood purposes. Approximately 54% of people worldwide now live in cities, indicating that world urban population is increasing by almost 6 million people annually (Chittoor, 2018). According to the UN Global Migration Youth report (2014) young immigrants aged 15 to 24 comprised 12% of the total migrant population. In 2015, there were 28.3 million international migrants aged between 15 and 25 in the world translating to one-eighth of the total of 232 million international migrants. (Global Migration and Youth Report 2016). Urbanization and globalization trends incite inland rural-to-urban migration in Hungary. Young Hungarians' perceptions of global

trends and of modern way of life are described in detail in Malota's work (Malota, 2012). Gáti and Malota (2017) analyzed the aspects of educational tourism, when members of young generations travel to cities with favorable higher educational institutions, which tend to be large, urbanized cities.

Rural to urban migration in Hungary is partly influenced by employment and educational factors. It is estimated by the Hungarian statistics authority that urban population increases day by day and approximately 65% of the country's population lives in urban areas (KSH, 2017). It is also estimated that 7 out of 10 young people living in rural areas would prefer to move to urban areas (Sawyer et al., 2001). The primary motivation for rural-to-urban immigration is the lack of basic facilities in small cities, such as basic amenities and education and employment opportunities (Okhankhuele & Opafunso, 2013). Urban development has progressed rapidly due to urbanization and globalization factors concerning economic development and improving infrastructure and social policies (Ramachandran, 2006; Kummitha, 2020). Besides migration, there is a tendency of commuting from small villages to nearby cities (Szőke & Kovács, 2016). Commuters may live in rural areas, but their lives' focus is partially on the city they spend most of their day in. In this present migration scenario, we would like to analyze young people's perception about urban migration.

The Hungarian rural society suffers from substantial inequalities within the rural population, mostly of poor employment opportunities and of low income (Kovács, 2012; Kok, 1999). Hungarian rural population has been decreasing rapidly since the government passed the local government Act in 1990. In accordance with this Act, measures were taken to restructure the funding system to rural authority funding these authorities were suffering from declining financial viability in rural areas (Horvath, 2016). As a result, rural-to-urban migration in Hungary increased rapidly after this Act came into effect. This gradual increase, mainly due to globalization and urbanization, increased the number of employment opportunities in urban areas. Moreover, the government increased the supply of housing in the cities. The increased housing supply in major cities causes major migration from small cities to urban areas. At this juncture, Hungarian urban governance plays a vital role in formulating and implementing innovative policy with the aim of providing access to basic needs to attract people – particularly young people - from rural towns to urban localities.

RESEARCH AND THEORETICAL BACKGROUND

Urbanization has accelerated in the past few decades in Hungary. In 1949, 37.5% of the population lived in 50 towns around Hungary. In 1995, 65% of Hungarians lived in 194 cities. In 2016, 71.67% of the Hungarian population lived in cities. Because of the declining population, a process that has been ongoing since the early 1980s, Hungarian urban population increased gradually (Dövényi & Kovács, 2006). From 1995 to 2016 only 75 cities have increased their population. About one third of the inland immigration moves to Budapest metropolitan areas (Ország & Szobonya, 2013). Internal migration is defined as a movement of people in space, often involving a change in the usual place of residence; it is a movement within national boundaries (International Union for the Scientific Study of Population, 1982). The United Nation's Global Migration Database (UNGMD) shows that the largest share of people among migrants are those in their early twenties, and they choose to migrate due to educational purposes (Greenwood, 2001). Caldwell's article explains that "what education does, more than anything else, is to promote long-term rural-urban migration" (Caldwell, 1969). Young people migrate to urban areas for plenty of reasons, such as higher education, founding and starting of businesses or getting married.

There is now an emerging trend among migration scholars interested in understanding the emotional influencing factors of young people towards urban migration. The influencing push factors for migration are better financial and work opportunities, better education and better social life, and pull factors are lack of facilities and high unemployment rates in rural areas; these factors are mentioned in studies by (Miguel & Hamory, 2009; Eckert et al., 2019; Dziewonski, 1992). According to the International Labor report, there were 71 million unemployed young people worldwide in 2016. This unemployment rate causes the young generation to migrate to urban regions in the hope of finding jobs. As we mentioned rural-to-urban inland migration happened in several transitional stages in Hungary. The most effective phase was during the 1960's when Hungary became an industrialized country in East-Central Europe (Brown & Schafft, 2002). Inland migration from small agricultural regions was directed towards industrialized cities, mainly to Budapest. This flow of intraregional migration continued until 1989. During 1990, internal migration slightly decreased due to economic and social changes in urban areas. According to (Günther, 2000; The international organization for migration, 2018) Hungarian internal migration happened in four phases.

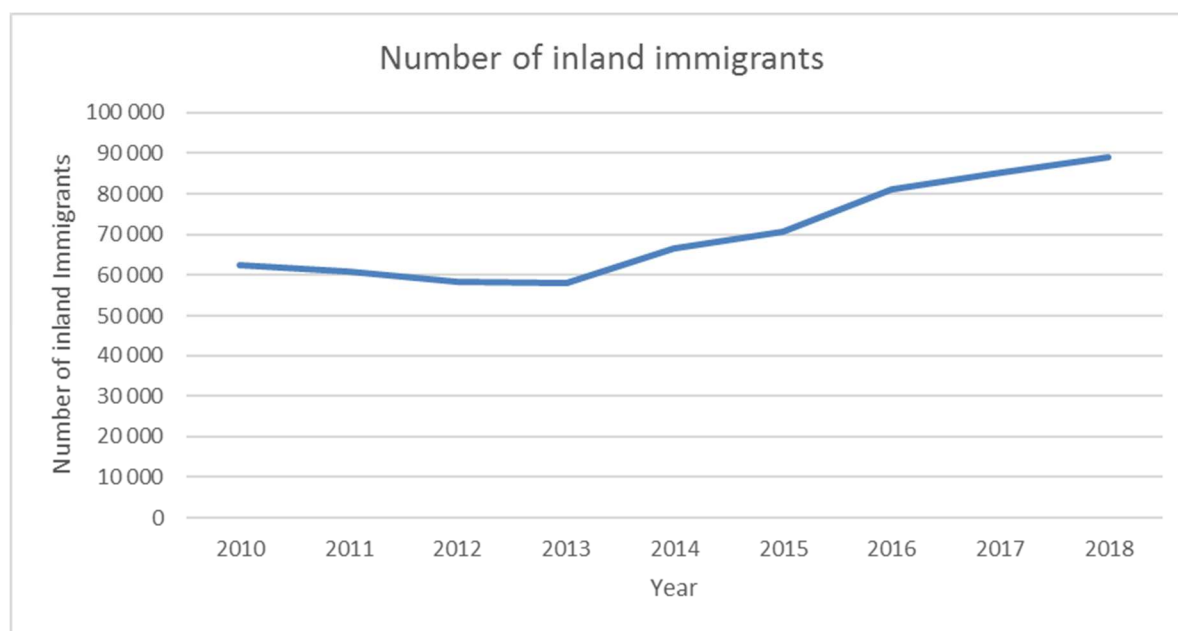
Phase 1 (From the beginning of 1990 to 1997): internal migration decreased until 1994, afterwards it started to stagnate followed by a slight increase due to the Hungarian local government act of 1990.

Phase 2 (From the beginning of 1998 to 2004): Migration moving back to villages from Budapest began, with a peak of around 20 000 people returning to villages due to the high living costs of the Budapest region.

Phase 3 (From 2005 to 2010): This period was a period of economic development. The migration rate increased again: negative immigration turned into positive as people started migrating to Budapest again in 2006. At the same time, villages suffered a population decline.

Final Phase / Phase 4 (From 2010 to 2018): In the period of the global financial crisis migration decreased. Below (Fig.1) indicating that from 2010 to 2013 migration to urban cities was stable. From 2014 to 2018 immigrant movement to cities saw a gradual increase. At present, the young generation is moving from small cities to Budapest for employment and educational purposes and they are not showing signs of planning to return to their hometowns.

Figure 1 Rural to Urban Inland immigration in Hungary



Source: KSH (2010-2018)

DATA AND METHODS

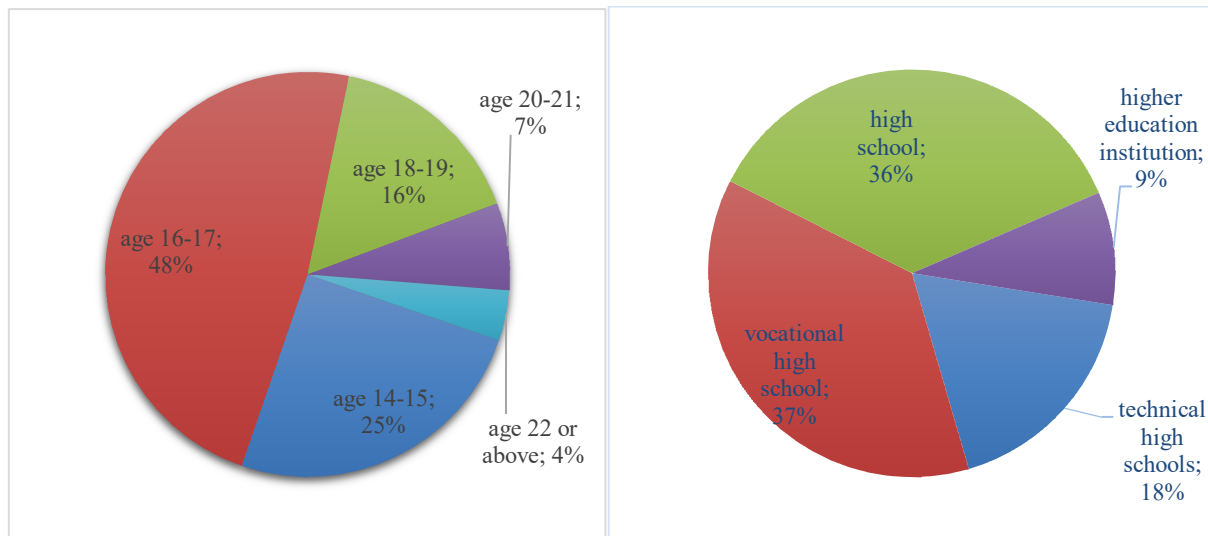
We have conducted our questionnaire-based survey among the students of the selected city's six high schools and one university between January and October of 2018. We have taken into

consideration attitudinal and behavioral aspects (Gyulavári, 2013) during our research as well. The aim of our research was to understand the respondents' opinion of their town as well as their connection to the town and the extent of the city's role in their plans for the future.

We aimed to conduct a complete survey, meaning that we wanted to know the opinions of all students over the age of 14 who study in town, so no sampling method was chosen, the total base population was targeted with the query. At the year of the research (school year 2016/2017) the selected town had 2905 students; they were the base population. Students filled in our questionnaires during homeroom classes, mostly on paper forms, which were digitalized and analyzed later. Unfortunately, not all students were in schools on inquiry days because of illness and other reasons while others refused to answer. As a result, out of the available total base population of 2905 people, 1197 valid filled out forms were received in an estimable manner, resulting in a 41.2 per cent response rate.

The questionnaire primarily consisted of closed-ended questions, thus supporting quick completion and facilitating the quantitative assessment. Microsoft Excel and SPSS programs were used in the processing and analysis phase of the completed questionnaires. With the help of Excel primary frequencies were calculated and illustrations were prepared, while the utilization of SPSS was carried out in the context of the correlation investigations. Among the latter, due to the metric nature of the variables, crosstab analysis was used. The crosstab analysis is a statistical technique that describes two or more variables simultaneously with a table that shows the combined distribution of two or more categorized or value-dependent variables (Sajtos & Mitev, 2007: 138). The relationship between the examined variables can be examined with the help of the Chi-square statistic method. If the significance level of the Chi-square is <0.05 , the relationship can be assumed. Once the statistical significance has been demonstrated, we can also test the strength of the relationship, for which the Cramer-V is best suited, with values ranging from -1 to 1, with values of 0 and close to no relationship, and an absolute value of 1 or close shows the closeness of the relationship (Sajtos&Mitev, 2007: 143). Among the respondents, 46% were female and 54% were male. 50% of those surveyed were locals, 8% were residents of other cities and 42% of smaller towns. The other attributes are shown in the below figure 2.

Figure 2 Distribution of respondent regarding their age and school type



Source: own research, 2018

During our empirical research we have taken into consideration several viability issues, such as the development level of the local economy, standard of education and work, safety and cleanliness, traffic, entertainment and sport possibilities and other aspects in order to form our judgement of the city.

Regarding youth's desire to stay in their hometown we have formulated four questions in the questionnaire. These were focusing on planning to obtain professional qualification in the city; continuing the studies in a local higher-level education institution; knowing the employee opportunities in the town; planning to stay in the town after completing the studies.

RESULTS

In Table (1) the distribution rates of results measured on the four-point rating scale and the averages of the answers received are shown. All averages are above grade 2 and the share of negative valuations have not exceeded 16% in any of the answers given to the survey's questions. It can be observed that the renewed downtown area of the city had drawn the attention of youth to the highest extent – this renovation made the downtown a truly public place, complete with a pedestrian precinct and packed with restaurants and cafés.

It can also be observed that members of the Z generation (generation Z members were born after 1996) are satisfied with the creation of the ever so important opportunities for physical exercise for youth: they have many sports clubs, gyms and other cost-free ways to do sports in town. The education chapter scored high averages as well, however, it must be mentioned that

the fact that the city is a university town had received the most “1” grades, indicating that such title doesn’t mean much to members of the Z generation.

We can also see in the table that opportunities for student work and events dedicated to the youth have scored 2.55 and 2.53, respectively, which can be considered even more positive, but the share of those students who disagree or rather don’t agree is on the rise. 15.1% of the surveyed youth believe city transportation leaves much to be desired (this chapter received the second most “1” grades), especially when traveling by vehicles is taken into consideration. Based on averages and in a descending order, the students consider the following areas those which need to be developed the most: cleanliness (2.49), public safety (2.48), high standard of living (2.47) and the level of economic development (2.43). Most of the Z generation students surveyed are not working yet, so in this regard, their value judgements are most likely based on the conditions provided by their parents. As seen in scientific literature, stable financial background is important to this generation, however, it is not the only factor that is taken into account when it comes to defining livable environment for them. Experiences and the importance of feeling good at a given place (standard of living) as well as being given the opportunity to work in jobs they enjoy (development level of local economy) are becoming much more important to them.

Table 1 Distribution of respondent opinion regarding the livability of the surveyed town

Statements	Strongly disagree	Disagree	Agree	Absolutely agree	average
I am proud of my city’s renewed downtown area	8.1%	27.4%	44.5%	20.0%	2.76
The city offers many opportunities for youth to do sports	8.0%	28.1%	45.4%	18.5%	2.74
The standard of education in the city’s high schools is high.	11.2%	27.3%	44.6%	17.0%	2.67
The city is held in high regard as it is a university town	15.7%	26.1%	43.1%	15.1%	2.58
The city offers many opportunities for students to work.	12.4%	29.9%	47.6%	10.1%	2.55
There are many events organized in the city that target younger audiences	14.5%	28.8%	46.1%	10.7%	2.53
The city is constantly developing	11.3%	32.1%	49.1%	7.5%	2.53
Traffic in the city is suitable (including both public transportation and travelling by car)	15.1%	28.9%	46.3%	9.7%	2.51
The city’s leadership are performing their job on a high level.	11.1%	33.3%	50.7%	4.9%	2.49
The town is orderly and clean.	13.9%	30.4%	48.1%	7.6%	2.49
Public safety is good in the city.	13.7%	31.5%	48.5%	6.3%	2.48
The city’s population enjoys a high standard of living.	11.7%	33.4%	50.8%	4.1%	2.47
The city has a developed economy.	13.2%	33.5%	50.9%	2.4%	2.43

Source: Author own results based on primary data

A predominant share (80%) of respondents would welcome the creation of a youth center, 12% were unsure about it and 8% did not consider it beneficial or needful at all.

In order to provide useful information to the city, we asked questions in our survey about services, programmes and clubs the youth would welcome most in the youth center. Sports play a central role in the lives of generation Z youth, which is reflected in the fact that the service most of them (817 respondents) want is a gym. This result is interesting, since there are several gyms available in the surveyed town that offer different opportunities to work out. However, the target audiences of those gyms aren't limited to members of generation Z, so it may well be that the popularity of potential youth center gyms among the youth is due to their preference of doing sports without the presence of older people. Next in the popularity ranking were pub classics, such as tabletop soccer and pool with 770 and 761 mentions, respectively. Different expectations regarding the preferred services of a potential youth center might be based on gender, so we surveyed this, too. Substantial (i.e., greater than 10%) differences were observed regarding several services: pool, table tennis, tabletop soccer and sports grounds are more important to men, whereas women would prefer climbing walls, skateboard courses, theater studies or exhibition spaces.

In order to find out what things other than services are relevant in attracting the target generation to potential programmes and events, we surveyed respondents to obtain a better understanding in this regard as well. Entertainment came out on top unambiguously, with concerts, disco and karaoke parties mentioned most often. Besides these, organized excursions and hiking were proven to be of significant interest with 501 respondents mentioning them. Gender preferences have shown significant differences in these fields as well: theater and dance are more popular among women, however, events such as factory visits are mostly preferred by men. Youth centers are generally homes to self-organizing clubs, too. Since founding and creating such clubs might require support from the city, we surveyed which topics would be those of greatest interest to respondents. Movies and video games have proven to be the most popular among the youth, with photographing and cooking clubs also preferred by many. Gender-based differences in preference are observable, as men have shown more interest in computer games, card games, archery and board games clubs, with women preferring to be members of film, photographing, cooking and hiking clubs.

Connections between staying and attachment

Data were analyzed by cross-tabulation to confirm gender differences about staying in the town and personal attachment. The significance level in all examined cases was under 0.05, so the

correlation itself was proven. The strength of the correlation between the variables was different from each statement, between 0.104 and 0.214. These data mean a weak correlation among the gender and the different statements about staying and attachment. The details are shown in the below table (2). 34% of women and 53.9% of men plan to continue their studies locally in order to obtain professional qualification. This can be explained by the fact that women tend to not aim for technological studies, which, to most, means skilled labor.

Table 2 Correlation between staying in town and sexes

I am planning to obtain professional qualification in the city	34.3%	53.9%	0.000	0.214
I wish to continue my studies in a local higher level education institution	7.3%	12.0%	0.001	0.104
There are several institutions/companies where I can be employed once I have completed my studies	14.3%	26.5%	0.000	0.149
I plan to stay here [in the city] once I have completed my studies	9.7%	14.5%	0.000	0.118

Source: Author own results based on primary data

The idea of picking a local higher education institution to study at received rather low averages: 7.3% of women and 12% of men plan to continue their studies at the local university. The reason behind such results may well be that the professional profile of the university is more attractive to men than it is to women, since the courses on offer are mainly aimed at those who are planning to obtain degrees in technological and engineering studies. As seen in Table 2 14.3% of women and 26.5% of men think that in case they decide to stay in town, they would easily find a local place where they could be employed at. The reason behind such difference is the aforementioned availability (or lack of) jobs that tend to attract more men than women.

The city's current economic profile focuses mostly on industry, which is a field that employs much less women than men, even in 2019. Finally, we also asked the respondents if they plan to remain in town for the future. While 14.5% of men said 'yes', the share of women answering identically is just 9.7%. It is worth noting though, that both shares are low, which showcases the problem of small and medium-sized towns in Hungary: the migration of their youth away from home.

Other correlations were analyzed (like connection between town-evaluation and school-type, age categories), but those did not prove to be significant.

DISCUSSION

Creating an environment which is attractive enough for young people to stay in their hometowns is a multifaceted challenge. Such an environment encompasses relevant ambitions in both a physical and an intellectual sense: a youth center may provide ample community spaces to members of generation Z or adolescents; however, the availability of spaces alone cannot offer the necessary configuration of services that must be tailor made for youths to achieve full effect. Once all components are in place, can we only consider a given town's youth policy compatible with the guidelines of positive youth development (PYD) theory and practice (Lerner, 2005) that enables young people to better engage in their community (Lerner et al., 2015; Roth & Brooks-Gunn, 2016) and develop their talents locally (Benson et al., 2006; Roth & Brooks-Gunn, 2003), thus empowering their sense of belonging (Heather et al., 2018; Peterson et al., 2011). Effective PYD programs are based on three core principles, such as providing possibilities to youth in taking part in certain community activities as well as letting them form long-lasting adult-youth relationships, while keeping an eye on sustaining proper, engaging and enduring skills which benefit them on the long run (Lerner, 2004; Wiecha et al., 2012).

According to literature (Garner and Zhao, 2000; Gareth et al., 2019) a way of keeping the youth in their hometowns is to create youth centers for them, where members of generation Z are able to spend time usefully and meaningfully. In order to understand if this is achievable in a middle-sized Hungarian town, we conducted a questionnaire-based survey. A predominant share (80%) of respondents would welcome the creation of such a youth center, 12% were unsure about it and 8% did not consider it beneficial or needful at all. Most respondents (80%) reacted positively to the idea of creating a youth center which would meet such needs, with only 8% opposing it and 12% of them being unsure.

Even though the creation and construction of a youth center requires plenty of resources from the city that is hosting it, operating it and creating suitable content for it can prove to be key factors in making it a success.

CONCLUSION

Rural-to-urban migration is a major concern for most of the small and medium-sized rural cities in Hungary as their youth tends to migrate to larger cities. In Hungary, the capital is considered the most attractive target city among youth migrating within the country. This is a common and persisting problem in all developed countries. In order to explore its causes, we deemed conducting an expansive survey among members of the concerned age groups necessary.

Our main aim was to obtain a better picture regarding the livability of the city and we were also interested in understanding what the ambitions of the local youth were, once they finished their studies.

Creating an attractive environment for youth that encourages them to stay in their hometown is a multilayered challenge. According to the respondents, the construction and professional operation of a local youth center would strengthen their bonds to their town – they even formulated their own advices on what they would consider the most important in it if one were to be built. We believe that the creation of such a community space is a task that can be easily solved by local decision makers, so we recommend starting its development. In order to keep people in town, the availability of interesting and well-paid jobs is a must, since it is these jobs that create the desired standard of living. Achieving this is a top priority for most town leaders all over the world, and there is a huge competition to attract companies that offer such jobs, to settle in their respective towns. The city we have investigated, in its current status regarding size, general capacities, educational system and connections simply cannot be successful in this global competition. What is the way for it to go, then? The town needs a highly conscious development plan that aims to specialize in areas in which other towns don't. Doing so could turn it into a hub that is able to attract people from other regions, and, at the same time, keep its own residents in place, by offering them the prospect of an enduring higher standard of living. Specialization means the strengthening of capabilities that have been long available locally and still are, as well as finding a narrow field of expertise at which the town can excel, both in the market and in education alike. This area of expertise doesn't need to be a trendy one, in fact, the emphasis is on it being unique, as uniqueness is the characteristic that is most likely able to put a small or medium-sized town on the map and provide a desirable alternative for the increasingly more mobile young generation in global space.

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EUROPEAN CAPITAL OF CULTURE 2023 - COMPARATIVE ANALYSIS OF THE HUNGARIAN CANDIDATE CITIES

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Abstract

A Hungarian city will be designated as the European Capital of Culture in 2023. The series of programmes are designed to show the multi-colour European culture, accordingly, the cultural values and cultural dimensions of the cities are in the focus. Several cities take part in the competition in the customary way by submitting their tender documentation within the framework of a pre-selection procedure. Győr, Veszprém and Debrecen proved to be the most probable candidate cities to win in Hungary, they were chosen to enter the second round of the selection procedure. Although the focus of intense attention usually falls on the cultural programmes planned for the project year, the period of the competition itself is also regarded an exciting phase of the project, since this is the period when candidate cities are expected to give an account of their plans, moreover, they are also expected to outline their projected development conception in the field of culture and their cultural potentials. The present study aims to analyse and confront the plans of three Hungarian cities that were selected to enter the second round of the competition and, consequently, it also intends to explore the visions, the strengths and weaknesses of the Hungarian cities of outstanding cultural ambitions mainly via factors denoted in figures. Today we know, that the winning city became Veszprém. Although based on the quantitative data we saw the other two cities as more likely to win, due to a number of qualitative as well as subjective factors, the city of Veszprém proved to be better during the selection procedure. We do not want to override the decision; we only outline an analytical framework for the cultural comparison of our culturally ambitious Hungarian cities.

Keywords: culture, European Capital of Culture, Hungarian cities, plans, competition

Abstract

2023-ban magyar város lesz Európa Kulturális Fővárosa. A programsorozat az európai kultúra sokszínűségét hivatott bemutatni, tehát középpontjában a városok kulturális értékei, kulturális dimenziói állnak. A címért mindig városok sora versenyeznek pályázataikat benyújtva egy kiválasztási eljárás keretében. Győr, Veszprém és Debrecen voltak a legesélyesebb pályázók, e városok jutottak a kiválasztási eljárás második fordulójába. Bár a figyelem nagy része a projektévben szervezett kulturális programokra irányul, a pályázati fázis is izgalmas szakasza a projektnek, hiszen ekkor a pályázó városok számot adnak terveikről, a kultúra terén tervezett fejlesztési elképzeléseikről, kulturális potenciáljukról. A tanulmányban arra törekszünk, hogy a tárgyalt projekt pályázati ciklusának második fordulójába jutott három magyar város terveit ütköztessük, elemezzük, feltárva így módon a kiemelkedő kulturális ambíciókkal bíró magyar városok kultúrával kapcsolatos vízióit, erősségeit, gyengeségeit, főképpen a számokban kifejezhető tényezők mentén. Ma már tudjuk, hogy Veszprém nyert, ugyanakkor a kvantitatív adatok alapján mi a másik két várost láttuk esélyesebbnek a győzelemre. Azonban számos kvalitatív és szubjektív tényező mentén Veszprém városa bizonyult jobbnak a kiválasztási procedúra során. Természetesen nem kívánjuk felülbírálni a döntést, csupán egy elemzési keretet kívánunk felvázolni a kulturálisan ambiciózus magyar városaink kulturális összehasonlításához.

Keywords: kultúra, Európa Kulturális Fővárosa, magyar városok, tervek, verseny

INTRODUCTION

The urban policy of our days is integrating a new attitude into the mechanism of decisions and actions. In urban policy, there has been a more and more spreading mentality to support creativity and give priority to cultural and creative activities. The modernity of the mentality lies in the fact that formerly the settling of industrial and functional facilities was considered predominant. If Central Europe is merely taken into consideration, where the socialist urbanization model used to be prevailing during the past decades, it becomes obvious that these cities had been making great efforts to catch up with the economic development of the Western European countries basically by the aims of industrial expansion and a forced pace of developing heavy industry. (Szirmai, 1996) Western, developed countries, however, had now taken one step forward again when instead of investing in equipment and facilities they had moved towards evolving research development, innovation, human resources, and cultural economy. A characteristic feature of the period was the deterioration of outstanding industrial sectors so they had tried to compensate the process by cultural investments and by establishing research centres. (Enyedi, 2005) Recently, the issue of cultural governing has regularly been referred to in the trends of urban politics of our days. (Fekete 2018a, 2018b)

The strategy outlined above brought about excellent results later on, which could thus generate an upswing of the economic situation, the revival of urban architecture, the modern relationship between culture and tourism, and a successful shift in the structure of the regions. (Haarich & Plaza, 2010) This was precisely the period – exactly in 1985 - when the initiative of the European Capital of Culture (ECOC) project got under way, which became an incentive factor in the process of the renewal of the title-winning cities.

The competition of the Hungarian candidate cities for the European Capital of Culture title took place in the near past within the framework of which the winner city of the European Capital of Culture 2023 tender was designated. The city of Veszprém was chosen as the title owner, however, in the case of the three Hungarian cities that took part in the competition phase and the second round as well, a significant amount of inner energy, interior analyses, goals, and visions were released, which can be considered an unambiguous projection of the western type of trends in urban politics outlined above. Győr, Veszprém, and Debrecen elaborated a new cultural strategy and within the ECOC competition of these cities various cultural projects, capital investment projects, and ideas were drawn up. These cities have explored their economic potentials and also became conscious of the fact that culture and creative capital need to be considered a priority in their cities as well as in their mentality in urban politics and, besides all this, they have committed themselves to implement the targets even if, they would not win ECOC 2023

title. Therefore it is worthwhile studying the ECOC projects in Hungary since they have comprised the main points of the cultural strategy of these cities. The main questions refer to the degree of cultural development to be expected in the cities discussed, the budget plans to be estimated for the cultural sphere in the near future and the way their cultural potential, tourism can be described, moreover, the degree of ambitions the ECOC project generated in these cities. The present study aims to find answers to the questions outlined above. The theoretical introduction of the study analyses the offered potentials of the ECOC project that are expected to strengthen the relationship between culture and city in a modern way. After that the study focuses on the characteristics of the cultural and creative economy from a perspective that these days ECOC projects have already required long-term efforts in economic development, moreover, in the application documents, the three cities have drafted commitment to strengthen this sphere. In the experimental paragraphs of the study, a supplementary research method was written concerning the three Hungarian cities, which makes it possible to make a comparative analysis of the cities according to three aspects.

Culture and city

Philip Boland notes that local actors in cities are increasingly recognizing that cultural events are an important stimulus for urban revitalization, and an excellent example of this is the European Capital of Culture project. In addition, the local culture can form a city image, and a city can be got a new brand through local culture and cultural events. (Boland, 2010) Culture is a cultural capital for cities, which is a major building element for urban development. (Wiesel, 2018) The preservation of cultural values is also important for cities, to which a cultural megaproject can make a significant contribution. (Cohen & Shoval, 2007) At the same time, culture plays an important role in the economy. Cultural industries have become an increasingly popular area for researchers in economic geography in the last few decades. (Gibson, 2003)

The European Capital of Culture project (later ECOC) has had an impact on the relationship between culture and city in an almost revolutionary and radical way. The European initiative got under way in 1985 with a consequence of the renewal of the cities by including such elements as the modernisation of the cultural infrastructure of the cities, livening up cultural life, establishing places of employment, and the promotion of tourism. The great essentials of the ECOC program are that a dialogue of various representatives, authorities, residents, cultural institutions, politicians, private establishments, and civil institutions can be commenced. In addition, the program can

develop in a cultural context, with a common goal for everybody which includes the development of the city and puts new life into the cultural life. The promotion of culture in the cities has become a strategic issue and the ECOC program has contributed to the process in a significant way, the idea of town development based on cultural aspects has moved in the cities. (Ooi, Hakanson, & Lacava, 2014)

The cultural events are considered the most essential elements of the series of programs. According to Greg Richard and Robert Palmer cultural events organised in cities have become the new means of development and the revival of the cities because cultural output has become a significant element of urban economy, consumer needs in the fields of culture have been increasing, which help to improve the city image and the quality of life as well. Cultural events bring about development not only regarding culture but they also generate development as far as the society and the economy of the city is concerned. One of the key elements of the development opportunities mentioned above is the partnership between the public and private sectors and the academic sector in the process of shaping the new strategic thinking and culture-based urban development. The European capital of Culture project has provided excellent examples of this partnership phenomenon as in most of the ECOC cities a separate organisation was set up in order to implement the project and this organisation co-operated with other city operators as well. In the years to come the resulting management model could remain present in the cities that previously owned the ECOC title. (Richards & Palmer, 2010) The economic return of the ECOC project was also manifested in providing creative impulses to the creative activities in the cities and thus creating the expansion of creative and cultural economy. (Campbell, 2011)

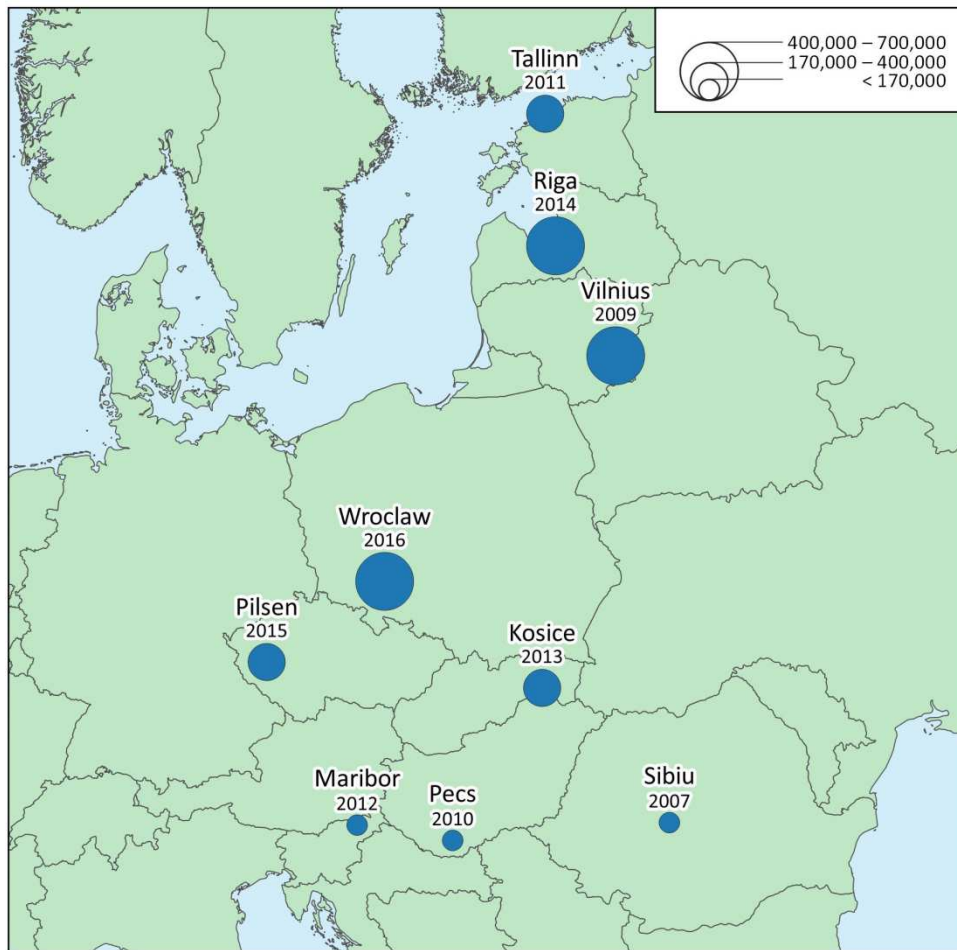
Over the years, the ECOC project has also become a catalyst for urban regeneration. The city of Glasgow (1990) has already consciously designed its ECOC program to accelerate the city's prosperity and increase its image. The project was successful, making Glasgow an example of such a city that took good advantage of the urban regeneration impact of a large-scale cultural event. (Garcia, 2004, Balsas, 2004) In the following years, a number of cities followed the example of Glasgow and incorporated elements of urban development into their ECOC programme, such as renewal of public spaces and certain parts of town, development of cultural infrastructure, and other infrastructural developments. Among others, Salamanca, a city in western Spain that won the title in 2002, has created a creative cultural district with new art venues, but there are also many cities - Brussels, Porto, Weimar, Genoa - that have renovated their historic center as part of their ECOC program. An example is Porto, which had a new concert hall built in 2001,

the Casa de Música. (Balsas, 2004) The value of new cultural facilities is to give an important impetus to the cultural life of cities that can raise the levels of cultural tourism as well as cultural participation. (Richards & Palmer, 2010)

In the context of the ECOC project, we also saw that mainly capitals as well as large cities, such as Copenhagen, tried to improve their own position in terms of tourism and global city rankings. (Evans, 2009) These cities have recognized that the ECOC project is an excellent opportunity to explore issues related to cultural tourism, also because the project involves a multitude of cultural events. The cities can address a number of issues in the framework of the ECOC project, for example, improving the city picture, accelerating urban regeneration, promoting cultural supply, developing partnerships, all of which are related to cultural tourism. In this context, of course, we can talk about long-term sustainable results if cultural regeneration initiatives exist as part of the urban development strategy and if the ECOC project is designed to have a harmonious relationship between cultural demand, the economy, locals, and tourists. (Palmer & Rae, 2004)

Since 2007, cities in Central and Eastern Europe have also been classified as cities that own the ECOC title (Fig. 1). Nine cities, including Pécs as a Hungarian city, implemented the ECOC program. The European Capitals of Culture project in Central and Eastern Europe has also demonstrated the ability of the project to renew the relationship of culture and city in a revolutionary way. In the macro-region of Hungary, the period of nine ECOC years brought to the surface various elements of urban renewal among others the development of urban infrastructure, modernization, the establishment of new cultural sites and facilities as well as the utilisation of industrial sites and buildings for cultural purposes. Spatial cultural networks developed as the ECOC cities organised cultural programs with partner settlements in their region. In many cities derelict districts were successfully reconstructed and integrated in the bustling city life. These quarters of the cities were often given a unique image and special characteristics and new cultural features were also added to their wealth. In the course of the projects the cities did not forget about of the disadvantaged groups of the society either. They aimed at better social integration of these groups through cultural communication. Every city became known by their ECOC projects on an international, European scale. Millions of tourists and visitors came to these cities in the program years. (Morvay, Rechnitzer, & Fekete, 2020)

Figure 1 European Capitals of Culture in Central and Eastern Europe



Source: own design

Cultural and creative economy

Over the past decades, the ECOC initiative has been complemented by the tendency of economic development in addition to cultural events and programs. Cultural economy and the creative economy are considered a segment within the economy for which the ECOC project can provide impulses and support mechanisms since the winning city, as a capital of culture, can evolve its creative and cultural potentials during the series of events. In the last two decades, urban leaders and city-research professionals have been confronted with very specific characteristics of the creative and cultural economy itself, because in many cases, as a new alternative, the old, usually disrupted industry has been replaced by activities of the cultural and creative industry and, as a matter of fact, substituted for former industrial sectors. The cultural and creative industry generate new innovative products and services but it provides valuable input for other industries as well. Creativity can now be regarded as one of the most important pillars of the new economy but it should be emphasized that art and culture have started to represent new

economic potential. The concept of the creative economy cannot be defined precisely because creativity by itself is a difficult idea to grasp and creativity can be found in all areas of human activity. Consequently, areas like cultural, scientific, technological, and economic creativity can be formed. In fact, as far as the individual is concerned, categories like emotional, cognitive, intentional, and spontaneous creativity can also be distinguished. (Hojnik & Rebernik, 2014)

Research on the creative economy has been intensifying lately and this can be explained by the fact that the role of creative industry has become more significant during the latter decade and it is becoming an increasingly important segment of the economic systems. Several reports have been drafted at international, national and regional level and these reports show that creative industry has had a significant influence on regional and macroeconomic issues. Examples include the KEA European Affairs 2006 publication, the 2007 UNESCO report, the 2008 European Parliament publication or the 2010 UNCTAD report.

The definition of creative economy was also given by the European Union in the Green Paper published in 2010 according to which creative economy involves industrial sectors in which culture represents the input factors and it has a cultural dimension, yet the output factors are functional like architecture, design, graphic design or advertising. Apart from the notion of the creative economy, the concept of cultural industry gains significance as well when the production and “distribution” of the products and services of industries are discussed which have a specific character. The process of production and consumption takes place at the same time, embodying and expressing the cultural expression independently of any commercial value. These fields include performing arts, visual arts, cultural heritage, films, books, and media. (Green Paper, 2010)

The international organization UNCTAD also provides a concept, however, it refers to a very broad category. According to the definition creative industry is regarded to be a certain set of the production of services and products, manufacturing and distribution in which processes creativity and intellectual capital represent the prime input factor. This includes a range of knowledge-based activities, focusing not only on arts, and is able to generate revenue through trade and proprietorship, includes tangible products and non-tangible intellectual or artistic services with creative content, economic value, and market intent. It is at the crossroads of arts, service, and industry sectors and represents a new dynamic sector in world trade (UNCTAD, 2010)

Apart from the effects that the creative economy has had on regional and macro-economy, it has also been interpreted as a certain kind of social ecology. The reason for this is that the creative economy can attract high qualified workforce into the regions. At the same time, it also attracts investment and generates new business activities like restaurants, clubs, theatre performances, art galleries, and various other potentials to develop cultural life. The creative industry is also the means of the circulation of information, it is able to initiate communication and create entertainment facilities, moreover, it can be considered a key factor in the process of the approach of the economy to the cultural environment. (Deuze, 2009)

Various models have been drawn up to make the concept of the creative industry comprehensible. The most frequently used model is the UK DSMS model - the symbolic text model - which contains the core branches of cultural industry, the peripheral branches of cultural industry, and the branches of cultural industry that are on the dividing line. However, the model of homocentric circles can also be mentioned (core creative arts, other core branches of the creative industry, broader branches of cultural industry, and related industrial branches) as well as the WIPO model of copyrights in all countries (core copyright industries, dependent copyright industries, and partial copyright industries). It is not an easy task to compare the models outlined above as creative industries are interpreted in various ways by the individual models and the statistical figures and data of the organisations concerning the creative industry of a particular country are not compatible with one another. (Throsby, 2010)

Nevertheless, in consequence of the increasing interest shown in the creative industry researchers are making great efforts to make an adequate index that is suitable to compare different countries. One of such endeavours can be represented by the European Index of Creativity, which tries to integrate the indicators related to culture-based creativity, or rather it aims to incorporate the existing social-economic indicator scheme, like for instance the European Innovation Scoreboard. The cultural dimensions of creativity require factors that other indices do not include. The followings can be brought as examples: education in art schools, the rate of employment in the field of culture, the supply of cultural events, the rate of participation in cultural events, examples of technological breakthrough, the support of creative activities regarding regulation and financing and the contribution of creative industry to the economy. There are approximately 32 indicators of this kind in the European Index of Creativity. These indicators are assorted in five pillars of creativity: human capital, technology, institutional environment, social environment, openness and diversity. (Hojnik & Rebernik, 2014)

METHODOLOGY AND DATA

The focus of the present study is the comparative analysis of three Hungarian candidate cities that got into the second round of the competition to win the European Capital of Culture title. In 2023 Hungary will be the exclusive representative of the European Capital of Culture programme as the cities of the other pre-selected country (UK) could not participate in the selection process because of Brexit. Accordingly, the present analysis endeavours to compare Győr, Veszprém and Debrecen according to the given indicators. As a database the statistics and data releases of the second round of the three cities were used primarily supplemented by data from the Central Statistics Office related databases.

The present study does not aim to compare the cultural value of the three application dossiers, much rather would it intend to set up gradation on the basis of measurable, quantitative data.

The data sets available in the applications were arranged into groups, so three indicator groups were formed in the Tab. 1 according to three aspects: cultural capacity, tourism potential and financial capacity. 14 indicators were assigned for these three groups in order to justify the quantitative comparative analysis of the present study. It must be emphasized that the aspects of the selection process were not naturally confined to these fields, various qualitative and, in many cases, subjective factors had their role in the process as well (ability to implement, European dimension, cultural content etc.), which are not included in the research, but which certainly had an influence on the jury.

Table 1 Research factors and related indicators

Criterion	Indicators
Cultural capacity	I1. Number of institutions of public education
	I2. Number of cultural programmes
	I3. Number of participants in cultural programmes
	I4. Number of institutions of historical heritage
	I5. Number of museum exhibitions
	I6. Number of museum visitors
	I7. Number of theatre performances
	I8. Number of spectators at the theatres
Tourism potentials	I9. Number of accommodation capacities
	I10. Number of overnight stays
Financial capacities	I11. Volume of cultural budget
	I12. The proportion of cultural budget relative to total budget
	I13. Number of planned investments
	I14. Planned amount of operating costs

Source: own editing

THE CAPACITIES OF THE CANDIDATE

The three applicant cities have different capacities concerning the fields of culture, tourism and the strength of their economy. These capacities can be denoted in figures, they are set data that appear in the tender dossiers of each city or and other parameters are also determinant in various aspects of the execution of the program like for example the number of settlements in the surroundings of the city, the number of residents in the applicant city or the capacity of their institutions.

In the analysis of national competitors, it is important to take into consideration the number and size of the settlements that surround the central city. Holders of earlier ECOOC organised programmes one after the other together with partner settlements, consequently, the volume of the conurbation is a determinant factor. Tab. 2 makes it evident that only the Győr region is real conurbation, the number of settlements of which is 68. However, the competitor cities are centres for settlements of a big city, the Debrecen group of settlements has 13 settlements and the Veszprém group has 18 settlements. The table also contains figures regarding the number of population of these cities, Debrecen is the second most populated city of Hungary with 203.000 inhabitants, Győr has approximately 130.000 inhabitants and Veszprém has 60.000 inhabitants.

Table 2 Number of settlements in the economic attraction zone and the number of inhabitants in the applicant cities (data of 2014)

Types of spatial structures	Number of settlements	Population
Conurbation		
of Győr	68	
Győr		129.568
Settlement groups of a big city		
of Debrecen	13	
Debrecen		203.059
of Veszprém	18	
Veszprém		60.392

Source: own edition based on Central Statistics Office data

CULTURAL CAPACITY

In the comparative analysis of the cultural capacities of the competitor cities the study emphasizes the capacities of the institutions of each city, the volume of cultural programmes, moreover, the number of museums and theatres and their attractive force as well. On the basis of the figures in Tab. 3, it can be told that – among the examined cities - Debrecen stands first concerning its cultural public institutions, it is the maintainer of 41 such institutions, besides, Veszprém is also a significant maintainer of public

institutions. Győr is currently maintaining a relatively large number of cultural public institutions, but it has come third in the ranking process.

Table 3 Cultural facilities: institutions and programmes (year 2015 data)

Candidate city	Number of cultural public institutions	Number of cultural programmes	Number of cultural programmes per capita	Number of participants in cultural programmes
Győr	25	1.241	0.010	336.563
Veszprém	36	958	0.016	267.300
Debrecen	41	5.146	0.025	727.526

Own edition based on Central Statistics Office figures

Debrecen proved to be prominent concerning the number of cultural programmes as well, more than 5.000 cultural events and programmes were organised in the city. Győr can be ranked into the middle of the field, it organises 1241 programmes yearly. Finally, Veszprém comes third as the number of cultural programmes they offer is less than 1000. Nearly 728.000 people participated in the cultural events organised by Debrecen in 2015, which number represents the highest value among the competitor cities. The city of Győr comes next with a scale of approximately 300.000. Veszprém brings up the rear with the number of 270.000. The table also shows the number of cultural programs per capita. Based on this, it can be seen that the most programs per inhabitant were in Debrecen in the year under review, followed by Veszprém, and finally Győr closes the line. However, the indicators in this case are examined in the context of the European Capital of Culture, in which case it is not the population of the city holding the ECoC title that forms the basis of the cultural consumer base, but the number of visitors, often in the order of 1.5 million.

Table 4 Cultural facilities: museums and theatres (year 2015 data)

Candidate city	Number of institutions of historical heritage	Number of museum exhibitions	Number of visitors at museum	Number of performance at theatres	Number of performance at theatres per capita	Number of spectators at theatres	Number of theatres
Győr	12	55	71.596	660	0.005	163.934	2
Veszprém	3	37	90.869	402	0.007	75.480	2
Debrecen	7	36	162.573	775	0.004	115.148	2

Source: own edition based on Central Statistics Office figures

On the basis of Tab. 4 it is obvious that Győr stands first as far as museums are concerned, the city has 12 institutions of historic heritage. The number of museums with art exhibitions is 7 in Debrecen and 3 in Veszprém. The number of exhibitions organised in Győr was the highest in 2015, the museums in the city set up 55 art shows, the number of exhibitions that took place in Veszprém was 36, in Debrecen this number was 36. It is interesting to point out that even though Győr has the greatest number of museums the number of visitors of museums is the lowest compared to the other cities examined in the present study, slightly more than 70.000 people wanted to see the art exhibitions. A low number of museums can be found in Veszprém, however, they attracted 90.000 visitors and in 2015 and Debrecen could record an exceedingly high number of visitors in their museums, approximately 162.000 people. To change over to the sphere of theatres, it can be stated that Debrecen and Győr likewise hosted 600-700 performances in their theatres and Veszprém organised 402 theatre performances during the examined period, which is a slightly lower number. Győr is standing out compared to the other cities discussed as far as the number of visitors of the theatres is concerned: the spectators purchased 164.000 theatre tickets, which number amounts to 50.000 more than in Debrecen and it is 90.000 more compared to the figures of Veszprém. The number of theatres is 2 in the case of both cities.

Finally, in the case of the number of performance of theatres, the per capita value was also taken into account. The value of this indicator in case of Veszprém is the best, the second best number can be found in the case of Győr, while Debrecen lags behind the former two cities in terms of this indicator. However, we continue to emphasize that in the case of the European Capital of Culture project, it is not the needs of the local population that need to be met as much as possible, but those of millions of visitors, who will come in the year of the ECoC project.

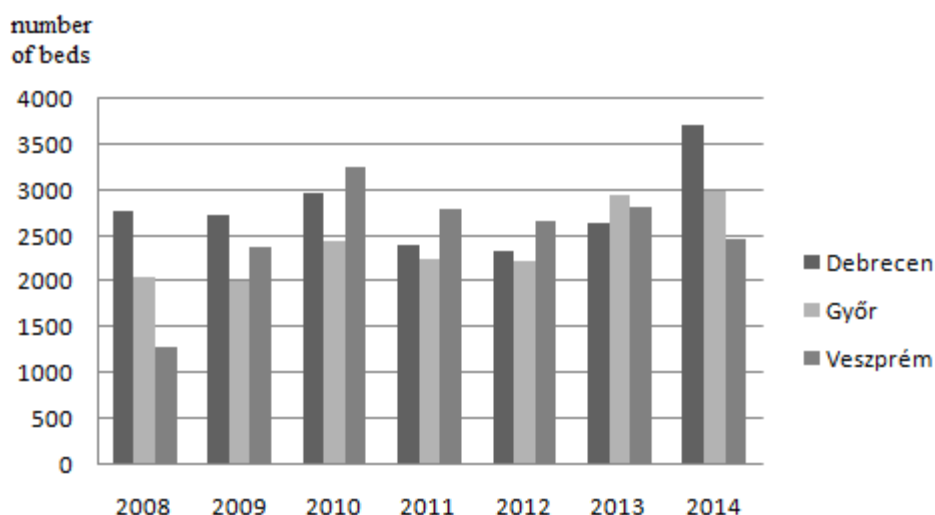
TOURISM CAPACITY

In terms of the tourism potential of our examined cities, we first compare the accommodation places of commercial accommodation establishments. Our data source was the TEIR¹¹ database, however, the data of the last five years were missing, so we took the 2008 global economic crisis as a starting point, compared to which year we show the development of the values in Fig. 2. The data were given per 100 thousand inhabitants. Based on the figure (below), it can be seen that we can establish the following order: Debrecen, Győr, Veszprém, if the accommodation capacities are compared on the basis

¹¹National Spatial Development and Spatial Planning Information System of Hungary

of the latest available data. At the same time, the chart also shows that capacities have changed from year to year, in any case showing a significant increase compared to the year of the crisis.

Figure 2 Number of beds in commercial accommodation per 100.000 inhabitants



Source: own editing based on database of TEIR

The capacities of this accommodation are discussed in more detail below thanks to the data provided in the ECoC applications of the three examined cities.

Table 5 Accommodation facilities in the candidate cities

Győr			Veszprém			Debrecen		
Category	Places of accommodation	Capacity	Category	Veszprém	Region	Category	Volume	Number of beds
4 star hotel	8	678	4 star hotel	161	3.500	5 star hotel	1	no data (n. d.)
3 star hotel	19	1.387	3 star hotel	70	2.256	4 star hotel	8	n. d.
Guest-house	23	585	Guest-house	365	1.150	3 star hotel	6	n. d.
Other	42	3.335	Places of private accommodation	150	29.653	Other commercial places of accommodation	32	n. d.
			Hostel	1.606		private	150	n.d.
			Camp site	17				
			Couchsurfing	537				
			Airbnb	300				
			Other	no data				
Total	92	5.985	Total	1.650	56.300	Total	197	7.289

Source: own editing based on the figures of the application documents

The top line of Tab. 5 includes accommodation facilities and capacities of the cities. It is unambiguous that Debrecen would be able to sleep the highest number of guests in the ECOC year, Győr stands second in this respect and Veszprém is the third city in the ranking. In the application dossier the city of Veszprém supplied information on the accommodation capacity of its region as well, not by accident, the city is planning the ECOC project in regional dimension, hand in hand with the Balaton area. At the same time, for the purposes of our investigation, the accommodation capacity in the cities were taken into account. Debrecen did not supply information on the number of places of accommodation and provided only totaled data in the application dossier, which means it was not specified in the document how the 7.300 beds were distributed among the different types of places of accommodation.

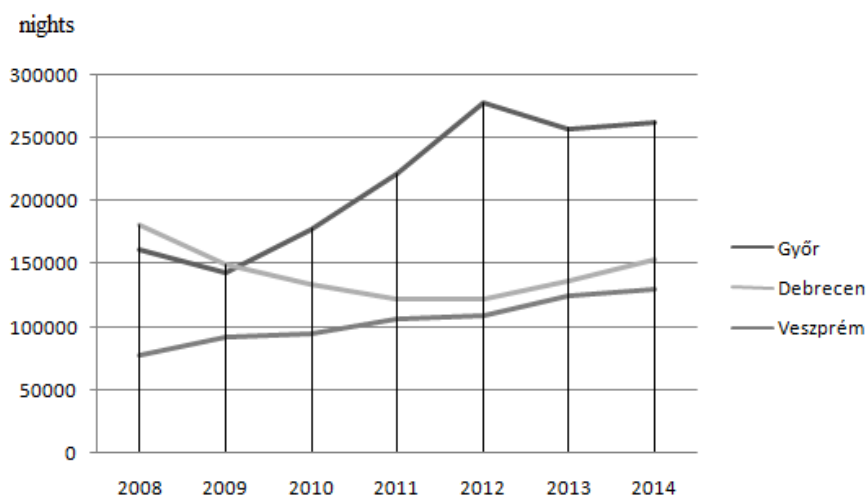
Table 6 The number of overnight stays in the candidate cities in 2017 (pers.)

Győr	Veszprém	Debrecen
417.491	219.500	374.016

Source: own editing based on the figures of the application documents

Tab. 6 shows the number of overnight stays in the course of years. The application dossier of Győr contains annual data, Veszprém is supposed to have supplied the data of the last year available and Debrecen did not at all provide any data regarding the change of the indicator. It is however unambiguously shown in the table that Győr has multiple values compared to Veszprém.

Figure 3 Number of guest nights in commercial accommodation establishments per 100,000 inhabitants



Source: own editing based database of TEIR

In Fig. 3, we wanted to show the change in the number of guest nights for the three examined cities. Data on the last five years were also not available in the TEIR database in terms of this indicator, so we also took as a starting point the 2008 global economic crisis. In Figure we can see the change of the number of guest nights in commercial accommodation in Győr, Debrecen and Veszprém. It can be clearly seen in the figure that Győr has the highest numbers per 100 thousand inhabitants. From the starting year, there is an increase in the terms of this indicator. Debrecen shows a rather declining trend with regard to the examined indicator, but from 2011 onwards Debrecen could experience a slow increase. Finally, the city of Veszprém has the lowest value of the indicator, but at the same time the city can boast a continuous, steady upward trend.

FINANCING CAPACITY

Tab. 7 shows the scale of the cultural budget of the applicant cities. In fact, an index number is also included in the table that compares the budget of the cultural region with the total budget of the city in the given years. The relevant figure for us is the latter ratio, as we cannot expect from Veszprém, with a population of 60.000, to spend the same amount on culture as the other two regional centers. Based on the figures, it is evident that Győr has the largest scale of cultural funding and there is a significant volume of cultural budget available for Debrecen as well. Veszprém, being a smaller-size settlement, spends less on the maintenance and promotion of culture compared to the former two cities. In the case of all the three cities the increasing tendency can be observed together with the occurrence of a smaller scale recession at certain points and the candidate cities are making efforts to promote culture on a greater scale.

Table 7 The cultural budget of the candidate cities in the course of the years

Year	Győr		Veszprém		Debrecen	
	Cultural budget (Euro)	Percentage of total city budget	Cultural budget (Euro)	Percentage of total city budget	Cultural budget (Euro)	Percentage of total city budget
2014	20.203.949	11.5%	4.737.181	9%	12.598.990	10.06%
2015	19.644.547	12.6%	4.886.031	10.9%	15.351.325	12.74%
2016	20.838.865	11.4%	4.704.581	12%	16.862.503	15.19%
2017	19.355.809	9.0%	6.912.192	15.6%	18.260.173	13.88%

Source: own editing based on the figures of the application documents

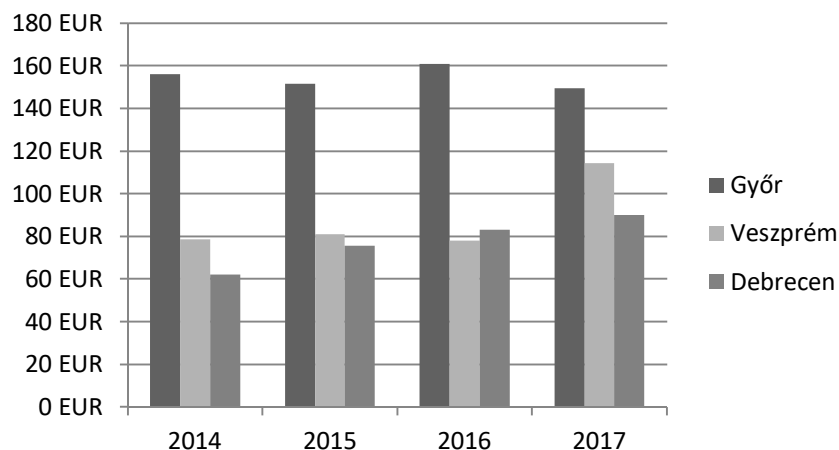
Returning to the ratios, it can be seen that regarding earlier years Veszprém provided a particularly high 15.6% rate for year 2017. Only Debrecen founded culture in 2016 with such a high rate and at the same time Debrecen also produced a high rate of 13.88% in

2017. Index numbers of approximately 12% appeared regarding year 2015 in the case of Győr and in the case of the budget of Debrecen, and in the case of Veszprém in 2016.

In their tender documents all the three cities committed themselves to increasing this rate to 15% in the future five-year-period, which ambition indicates the cultural strategies of the cities and their commitment to promote culture as well as their first steps towards cultural economy.

The cultural budgets per capita of the three cities are shown in Fig. 4. It is an outstanding fact that the cultural budget of Győr surpasses the city of Veszprém and Debrecen as well. The differences between the values are the consequence of the fact that the city can manage a higher scale total budget and this is also demonstrated by the 9% index number of year 2017 (Tab. 7). This value shows that although this year the proportion of expenditures of Győr spent on financing culture was lower in the total city budget compared to the other two cities, the degree of the amount spent on culture was still higher than the expenditures of Veszprém and Debrecen. Consequently, the scheme of financing policy and the potentials of real economy must be delimited, all the candidates have plans, but there are different kinds of resources available for the three cities.

Figure 4 Cultural budgets per capita of the applicant cities in the course of the years



Source: own edition based on the application documents

High-quality cultural environment is required by the ECOC project, as a result, candidate cities feel urged to bring about significant investments and developments in the cultural sphere. The three cities examined in the present study are planning numerous investments in the future five years, certain investments directly serve to develop the conditions of the ECOC project, certain investments, however, contribute to the success of the project in an indirect way. Relevant data is shown by Tab. 8.

Table 8 Number of investments in the candidate cities

Győr	Investments directly connected to the ECOC project	Investments indirectly connected to the ECOC project
Number of investments	18	10
Veszprém	Projects in process and investments in sites already set up	Investments directly connected to the ECOC project
Number of investments	7	6
Debrecen	Investments directly connected to the ECOC project	Investments indirectly connected to the ECOC project
Number of investments	11	10

Source: own edition based on the application documents

Győr is endeavoring to carry out 28 investments because of the ECC project and in order to develop the field of culture. The city is planning to carry out 10 investments in direct connection with the project discussed, and finance them by the accessible resources of the Modern Cities Programme, the Local Government and the European Union. Concerning direct projects and investments Veszprém has had smaller scale plans, which include the development of several already existing institutions. Indirect projects are also estimated and they include new sites as well.

Debrecen can be considered exactly the opposite of Veszprém in this respect, the city is planning a great number of direct investments. These investments are, with the exception of certain examples, projects of infrastructure development. Moreover, significant number of indirect projects are being planned in Debrecen with the help of financial resources similar to Győr.

Table 9 The proportion of operational expenses in the budget of the candidate cities

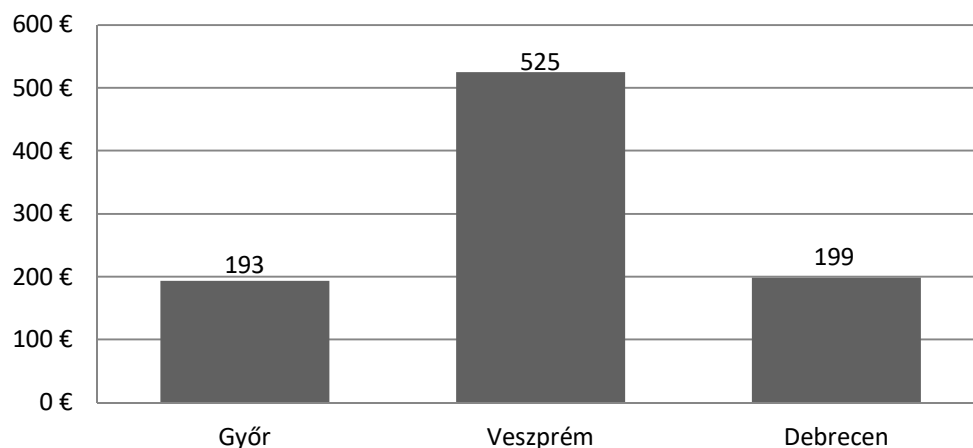
Győr			Veszprém			Debrecen		
Operation costs (Euro)	Public sector	Private sector	Operation costs (Euro)	Public sector	Private sector	Operation costs (Euro)	Public sector	Private sector
25.012.148	89.7%	10.3%	31.700.000	88%	12%	40.320.000	90.1%	9.9%
Division of public sector resources (euro)								
National government	8.012.821		National government	12.700.000		National government	20.000.000	
City	9.615.384		City	11.160.000		City	11.820.000	
Region	0		Region	2.790.000		Region	0	
EU	4.807.692		EU	1.250.000		EU	1.500.000	
Others	0		Others	0		Others	3.000.000	

Source: own edition based on the tender documents

Tab. 9 shows the budget planning of the ECOC project, the amount of revenue that covers the costs and the distribution of the resources. All the three cities aim to finance the operational costs of the project mainly from public resources with a proportion of about 9-10%. The city of Veszprém is inclined to rely more on the private sector in this regard and hopes that approximately 12% will be collected from private contribution. In a detailed examination of the distribution of resources it becomes clear that Győr is expecting to get approximately 8 million Euros from the National Government, while Veszprém is expecting 12.7 million Euros, a considerably greater amount and Debrecen hopes for 20 million Euros. At the same time, Veszprém is bolder in the city level in its project financing plan compared to Győr. Veszprém is inclined to spend more than EUR 11 million for this purpose and also trusts that its region will also contribute to the costs with nearly EUR 3 million. Debrecen also intends to launch the project with similar ambition and the city would spend an amount of EURO 11.8 million as a charge on its own budget. Among the financial resources expected from the European Union, the targeted amount is very high in the case of Győr, the city expects nearly EUR 5 million in EU funding for the project, however, the other two cities defined the financial item as an amount of EURO 1-1.5 million.

All in all, the budget plans can be described by the features that the Győr plan is the most reasonable, the Veszprém plan is of a greater volume and the Debrecen plan can be considered the largest scale.

Figure 5 ECoC operational expenses per capita of the candidate cities



Source: own edition based on the application documents

Fig. 5 shows the visually represented values of the budget plans per capita discussed above, which properly illustrates that Veszprém in proportion to its population is considering a largest project and would be ready to spend more than double of the amount on the project compared to the city of Győr and Debrecen. As a matter of course, the resources for covering the operating costs discussed above would not be transmitted to the account of the winning city in one amount, but in an annual schedule distributed in a six-year period.

DISCUSSION

On the basis of the analytical framework outlined in the introduction of this study the following Tab. 10 provides a summary of the research. In the case of certain indicators, the city showing the highest quantitative result was awarded 1 point, however, 3 points were awarded to the city with the lowest result. Consequently, the lower the points of a city are, the better results they can take pride in.

Table 10 Results of the research

Research criteria	Indicators	Győr	Veszprém	Debrecen
Cultural capacity	I1. Number of institutions of public education	3	2	1
	I2. Number of cultural programmes	2	3	1
	I3. Number of participants in cultural programmes	2	3	1
	I4. Number of institutions of historic value	1	3	2
	I5. Number of museum exhibitions	1	2	3
	I6. Number of museum visitors	3	2	1
	I7. Number of theatre performances	2	3	1
	I8. Number of spectators at the theatres	1	3	2
	sum	15	21	12
Tourism potentials	I9. Number of accommodation capacities	2	3	1
	I10. Number of overnight stays	1	3	2
	sum	3	6	3
Financial capacities	I11. Volume of cultural budget	1	3	2
	I12. The proportion of cultural budget relative to the total budget	2	1	3
	I13. Number of planned investments	1	3	2
	I14. Planned amount of operating costs	3	2	1
	sum	7	9	8

Source: own editing

It can be seen that Debrecen has achieved the best result in terms of cultural capacity, Győr closely follows and Veszprém has come third. It is worth of attention that in the case of certain indicators only Győr and Debrecen come in the first places and Veszprém did not prove to be the best in any research criteria. In terms of tourism potentials Győr and Debrecen have come first with similar points, according to both indicators Veszprém has proved to be the weakest. As a result of financial capacities Győr has taken the lead, followed by Debrecen and Veszprém. In fact, Veszprém was only able to take the lead in terms of one indicator which is the proportion of the city budget spent on the cultural sphere. This can obviously be explained by the size of the city and the volume of its budget as well.

CONCLUSION

The aim of the study was to evaluate the performance of Hungarian cities applying for the 2023 ECoC on the basis of specific indicators. The order of strength established on the basis of the selected cultural, tourism and financial indicators. The order shows the relative performance of the three Hungarian cities that got into the second round of the selection process for ECoC title. Based on the analysis, it can be said that based on the selected indicators, the two Hungarian cities, Győr and Debrecen produced better results than Veszprém in practically all cases.

All in all, it can be seen in Table 10 that based on the examined indicators the two major cities, Győr and Debrecen finished shoulder to shoulder according to the research and Veszprém clearly got the weakest result. At the same time, Veszprém was appointed the title of European Capital of Culture by the International Jury on 14th December 2018. This also shows that the selection was, of course, not only based on quantitative indicators, but also on other factors that cannot or only difficult to measure (creative elements of each application, professional / political lobby, regional development considerations, etc.). The reason for the decision could have been also the fact that, apart from the success of the possible objective criteria listed in the previous chapter, the Jury considered the award to be a good opportunity for the small city with weak hard indicators to develop and make a real breakthrough.

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VERWENDETE MARKETINGINSTRUMENTE IM HEIL- UND THERMALTURISMUS IN TRANS-DANUBIEN, UNGARN

EMPLOYED MARKETING INSTRUMENTS IN HEALTH AND THERMAL TOURISM IN TRANS-DANUBIA, HUNGARY

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Abstrakt

Eines der wichtigsten Ergebnisse der Europäischen Union ist der freie Personenverkehr. Es wurde schon im Jahr 1986 ausgesprochen, weil es als Teil der Römischen Verträgen von 1957 und der Einheitlichen Europäischen Akte auf Gründung der Europäischen Wirtschaftsgemeinschaft im Integrationsprozess formuliert wurde. Die internationale Migration spielte in der Geschichte von Ungarn in den letzten 20 Jahren eine herausragende Rolle. Nach der Streichung der Ausreiselimination konnten sich die Kanäle der legalen Migration erweitern. Dieser Prozess hat zwischen den Osteuropäischen Nachbarländern zu einer regen Migration geführt. Die Europäische Union garantiert die freie Bewegung der folgenden vier Grundfreiheiten:

1. Moneten;
2. Arbeitskraft d. h. Personen;
3. Dienstleistungen;
4. Waren.

Man kann es leicht und eindeutig feststellen, dass der freie Personenverkehr- innerhalb der Grenzen der Mitgliedstaaten ist eines der herausragenden Ergebnisse der Europäischen Union (Szivas 2001, Lengyel 2005).

Die Europäische Union wurde mit dem Ziel gegründet, die häufigen Kriege zwischen Nachbarn zu beenden, welche ihren Höhepunkt im Zweiten Weltkrieg gefunden hatten. Ab 1950 begann sich die Europäische Gemeinschaft wirtschaftlich und politisch zu vereinen. In der Mitte der 20-sten Jahrtausend, also im Jahr 1957 wurde mit dem Vertrag von Rom die Europäische Wirtschaftsgemeinschaft (EWG), der „Gemeinsame Markt“, geschaffen (Europa Webseite, 2016).

In einer Kleinstadt in Luxemburg wurden in den Jahren 1985 und 1990 Abkommen unterzeichnet, die den freien Personenverkehr und den Abbau von Grenzkontrollen im europäischen Binnenmarkt zum Ziel hatten.

Die wichtigsten Punkte des Schengener Abkommens sind die Folgenden:

- die Abschaffung von Personenkontrollen an den Grenzen zwischen den Ländern des Schengenraumes
- gemeinsame Regeln für die Kontrollen an den Außengrenzen,
- gemeinsame Visa-Politik,
- eine verstärkte Zusammenarbeit von Polizei und Justiz, was den Wegfall der Grenzkontrollen erst möglich machte.

In diesem Sinne kann man aussagen, dass Tourismus heutzutage in den meisten Ländern der EU großgeschrieben wird. Viele wollen sich damit beschäftigen und dadurch reich werden. Man darf aber nicht vergessen, dass alles auch nur ein Geschäftszweig ist und seine Rentabilität vor allem davon abhängt, ob man ihn gut macht oder nicht.

Schlüsselworte: Tourismus, EU, Übernachtungen von ausländischen Gästen, Modell des Tourismus, Anzahl der ausländischen Passagiere, Kommunikationspolitik, Tourismusintensität in den Regionen

EINFÜHRUNG

Tourismus (oder Fremdenverkehr-viele Fachleute sind gegen diese Benennung, weil Touristen nicht als „Fremde“ behandelt werden dürfen-, touristischer Reiseverkehr) umfasst die Gesamtheit aller Erscheinungen und Beziehungen, die mit dem Verlassen des üblichen Lebensmittelpunktes und dem Aufenthalt an einer anderen Destination verbunden sind. Dies führt zur Vielfältigkeit der Reisetypen im Tourismus (Puczko & Rätz, 1998).

Wie ich es schon vorher erwähnt habe, ökonomische, ökologische, interkulturelle und infrastrukturelle Ziele bilden den Kern der Tourismuspolitik und wirken auf die Tourismusorganisationen. Sozialwissenschaftliche Freizeitforschung gibt es aber erst seit der 20er Jahre, mit Zusammenhang den Namen von Fritz Klatt und Andries Sternheim. Empirische Arbeiten zur Freizeitpsychologie entstanden aber erst Anfang der 60er Jahre. Hans Thomae (1960) war nämlich, der die Beziehungen zwischen Persönlichkeitsstruktur, Freizeitverhalten und sozialen Faktoren untersuchte (Opaschowki, 2001).

Geschichte des Tourismus

Nun kurz über die Geschichte des Tourismus, der nämlich genauso alt ist wie die Geschichte der Menschheit. Schon immer sind Menschen gereist. Was man dazu braucht, ist ein wichtiges Reisemotiv. Bekanntlich wurden bereits in der Frühzeit der Geschichte Reisen u.a. aus spirituellen bzw. religiösen Motiven oder wegen der Olympiade sowie auch zum Zwecke der Erkundung entfernterer Regionen und des Recherchierens attraktiverer Umweltbedingungen unternommen. Die ersten dokumentierten Pauschalreisen wurden ab 1841 durch den berühmten Thomas Cook veranstaltet (Maccannell, 1999). Entscheidende Bestimmungsfaktoren für die Entwicklung des weltweiten Tourismus sind v.a. die durch den technischen Fortschritt erzielte Erhöhung der Arbeitsproduktivität sowie die damit verbundene Steigerung der individuellen Einkommen wie auch die vermehrte Freizeit. Weiterhin sind die gestiegene Lebenserwartung, der gestiegene Lebensstandard sowie damit zusammenhängend das erhöhte Bildungsniveau besonders hervorzuheben. Darüber hinaus liefert die Entwicklung des Transportwesens auf dem Lande, zu Wasser und in der Luft, die Entwicklung der Informationstechnologie sowie der Wegfall bzw. die Durchlässigkeit vormals vorhandener politischer Grenzen entscheidende Impulse für die ständig steigende wirtschaftliche Bedeutung des Tourismus (Lengyel, 2005).

ZIELE UND METHODEN

Modell des Tourismus

Wie auch Bacsi (2017) in ihrem Artikel darüber geschrieben hat, Touristische Attraktionen sehr vielfältig sein können. Darunter versteht man die Besuche von Freunden und Verwandten, Gesundheit, Freizeit und Unterhaltung, Liebe der Natur und Kultur. Kulturtourismus kann man auch als eine wichtige touristische Motivation nennen. Kultur ist nämlich zusammen mit Tourismus ein wachsender Wirtschaftssektor (Bacsi, 2017). Die können miteinander in engem Zusammenhang stehen. Es ist eindeutig, dass die Kunden (Touristen) fordern kulturelle Programme und Sehenswürdigkeiten an.

Auf der nächsten Seite ist ein sehr schönes und eindeutiges Modell (Abb. 1) über den Tourismus sichtbar. Ich möchte Ihnen mit diesem Modell zum Ausdruck bringen, dass fast alles den Tourismus beeinflussen kann.

Man darf es aber nicht vergessen, dass auch Tourismus eine große Bedeutung in den Funktionen und Prozessen der Gesellschaft, Ökonomie, Ökologie, Politik, Individuum und Freizeit hat (Freyer, 2010, 2015).

Abbildung 1 Ganzheitliches oder modulares Tourismusmodell



Quelle: Freyer, 2010

Als Pionier der modernen Tourismuskritik gilt unbestritten der Schriftsteller Hans Magnus Enzensberger, der schon am Ende der fünfziger Jahre die moderne Tourismusentwicklung als einen „Phyrrhussieg“ kritisierte. Die vermeintliche Befreiung von der industriellen Welt etabliert sich selber als Industrie und die Flucht aus der Warenwelt wird ihrerseits zur Ware. Eindeutig ist das, was man gesehen haben muss. „Auf der Photo-Safari zur Etoschapfanne erläutert der Zoologieprofessor die sights der Natur von der Teilnehmern eines 24-tägigen Afrikafluges, mit Tanzen Watussis und Lippenpflockneger“ (Opaschowski, 2002: 128). Warum habe ich es erwähnt? Im Internet habe ich einen Artikel gefunden, was eine russische Reiseleiterin geteilt hat. In diesem Artikel kann man 10 Gründe lesen, warum die Reisenden eine andere Reiseziel wählen sollten, statt Hévíz.

In diesem Artikel kann man wunderschöne Fotos über den Thermalsee und über die Stadt sehen, aber darunter steht, dass diese Fotos nicht völlig korrekt sind. Die Stadt Hévíz ist gar nicht ruhig, sondern voll von Touristen. Der Schutzwald, rund um dem Thermalsee ist ungeordnet, die Russen sind zu laut, usw. (TermalOnline, 2015).

Diesen Artikel wurde via Facebook im Jahr 2018 geteilt.

Vor dem Erreichen eines Reiseziels gibt es wenige Anhaltspunkte, die Qualität des Angebots zu beurteilen. Was man besitzt, ist ein Leistungsversprechen des Anbieters. Das Ergebnis

bei der Reiseentscheidung ist immer Ausfluß individuellen Informations- und Entscheidungsverhaltens (Wöhler, 1993).

Zwar legen empirische Erfahrungen nahe, daß in der höchsten Risikoklasse doppelt so viele Dienstleistungen vertreten sind wie andere Produktarten, doch die Risikowahrnehmung hängt wesentlich von den risikobehafteten Leistungsfaktoren ab (Guseman, 1981).

Zeithaml unterschied in einem Beitrag intrinsische¹² und extrinsische¹³ Leistungskriterien. Insofern ein Kunde erst am „point of consumption“ die für ihn bedeutsamen intrinsischen Leistungskriterien nachprüfen kann, wird er sich am „point of purchase“ auf extrinsische Kriterien wie Marke, Preis, Image oder Surrogate verlassen und diesbezügliche Informationen suchen (Höflich, 2016). Welche Informationsquellen genutzt werden, ist ein Ergebnis des bei der Risikoreduzierung verfolgten Suchverhaltens.

Online-Marketing hat eine herausragende Rolle im Tourismus (Berg, 2009). Ich habe Interview mit den Leitern der Heilbäder von Hévíz, Sárvár und Lenti gemacht. Alle Direktoren waren an der Meinung, dass Online-Marketing sehr wichtig ist. Die Heilbäder von Lenti und Sárvár nutzen noch Print Medien sehr gerne. Sárvár hatte auch eine sehr gute Radio Werbung mit einem Ohrwurm. Alle Heilbäder können auf Facebook auch darüber berichten, was bei ihnen eben passiert. Man kann es aussagen, dass das Internet ein Spielplatz der Inszenierung, Geschichten und Eitelkeiten ist (DGFP Webseite, 2018).

Das Online Marketing bietet eine Fülle an neuen, schnellen und preiswerten Kanälen, um die Zielgruppe der Heilbäder zu erreichen. Nun ja, zur Zeit gibt es Viele, die reinen Online-Unternehmen, die kein Büro, keinen Laden und gerade mal einen Briefkasten haben.

Beim Direkt-Marketing geht es um jeden direkten Kontakt mit einem Kunden oder Interessenten, denn jeder Kontakt ist eine gute Chance, ein Angebot zu machen.

Ich habe via meiner Forschung drei verschiedene Fragebögen zusammengestellt. Einen für Touristen(auf ungarisch, deutsch und englisch), einen für Rheumatologen und einen für Hausärzten. Ich war darauf neugierig, ob ihnen die Prävention und die Gesunderhaltung wichtig oder nicht so wichtig ist. Alle Ärzte haben damit einverstanden-also 100% haben eindeutig mit

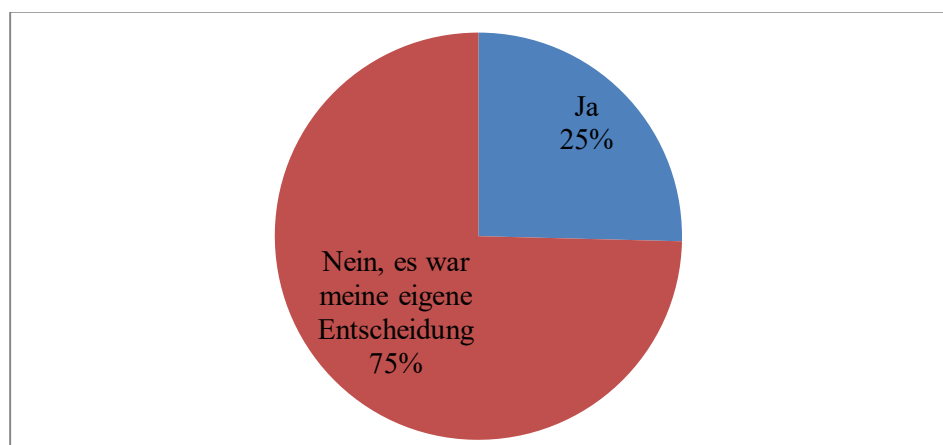
¹² intrinsisch: darunter in der Leistung liegende

¹³ extrinsisch: außerhalb der Leistung liegende

JA auf die Frage geantwortet, ob sie ihre Patienten den Besuch der Heilbäder in Trans-Danubien Ungarn empfehlen-dass, Prävention in der Zukunft immer größere Relevanz kriegen sollte. Meine Fragebogen haben 67 Hausärzte und 44 Rheumatologen in der Region ausgefüllt haben.

Auch die Direktoren der Heilbäder waren an der Meinung, dass Prävention sehr wichtig ist. Viele besuchen die Heilbäder nur bei rheumatischen Erkrankungen, Gelenkschmerze oder wegen Regenerierung nach einer Operation. Heutigen tags haben die Leute leider zu wenige Zeit sich damit beschäftigen, um immer gesunder zu bleiben. Auch die Touristen und Besucher habe ich gefragt (Abb. 2), ob ihnen die Hausärzte es empfahl, oder leider nicht, die Heilbäder von Trans-Danubien regelmäßig zu besuchen. Den Leuten, die mit Überweisungen in den Heilbädern kamen, natürlich 100% haben es empfohlen, aber den anderen, leider nicht.

Abbildung 2 Der Hausarzt hat es Ihnen empfohlen, ein Heilbad der Region zu besuchen



Quelle: eigene Ergebnisse des Autors

74,6% der Besucher haben es geantwortet, dass ihre Hausärzte es ihnen nicht erwähnt haben, dass es notwendig wäre mindestens 1mal pro Jahr ein Heilbad aufzusuchen, um dort das Heilwasser und verschiedene Behandlungen in Anspruch zu nehmen. Es ist aber notwendig zu wissen, dass diese Befragten in den Heilbäder nicht mit Überweisung ankamen.

„Würden Sie mehrmals oder würden Sie schon früher die Behandlungen der Heilbäder in Anspruch nehmen, wenn die (durch Ihr Hausarzt) empfohlen würden?“

82% den Beantworten haben mit JA, und erst 18% mit NEIN geantwortet.

Ich wollte es nicht aussagen, dass die Hausärzte nicht die Wahrheit sagten, aber ihre Antworten standen im Gegensatz zu den Antworten den Befragten. In einer Kleinstadt, wie z.B.: Keszthely im Komitat Zala gehören zu einem Hausarzt 860-2000 Personen. Die haben ab Montag bis Freitag Sprechstunden, aber nur in vier Stunden, pro Tag. Die Keszthelyer Hausärzte verpflegen täglich 20-100 Patienten. Man kann das auch verstehen, dass sie sich für einen Patient nicht so viele Zeit nehmen können. Die Mehrheit ihrer Patienten kennen die nicht. Unabhängig davon

bin ich völlig an der Meinung, dass sie motiviert werden sollen (Informationen von Dr. Hertelendy).

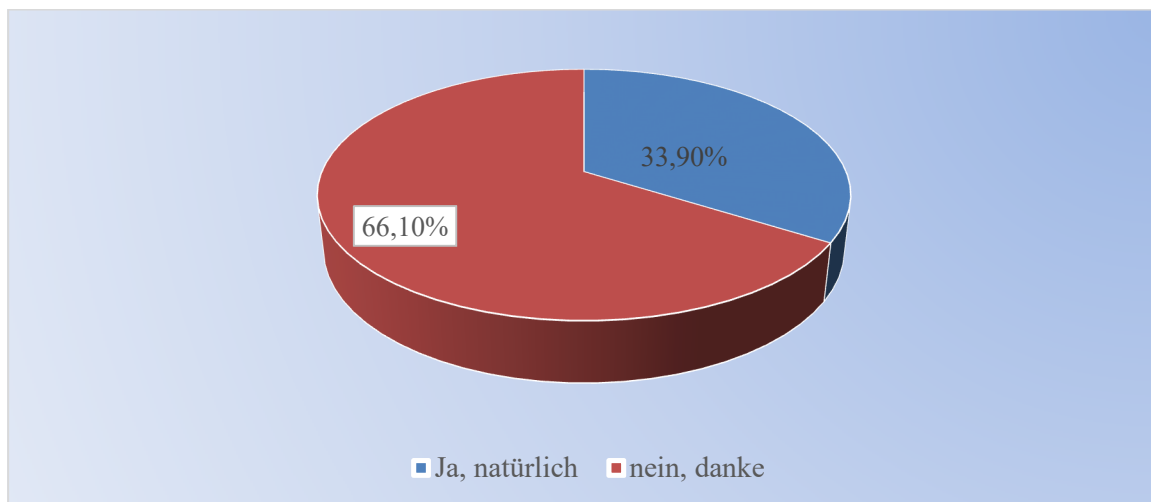
Auch die Direktoren der erwähnten Heilbäder habe ich es gefragt, ob ihnen es wichtig ist, mit den Hausärzten gute und aktive Kontakte zu haben. Hévízer Direktor antwortete, dass das Krankenhaus Szent András sehr gute Kontakte mit den Hausärzten pflegt.

Den anderen war es nicht so wichtig. Die wollen bei den schon vorher erwähnten und verwendeten Marketing Strategien bleiben (also noch mal: Internet/besonders Facebook), und Print Medien (Berg, 2009).

ERGEBNISSE

Nun ja.... Internet ist schnell, immer aktuell, erreichbar und kostet auch weniger. Sie, also die Heilbäder schreiben oft verschiedene Spiele für die Verteiler (via Facebook) aus, damit das Bad noch populärer werden könnte. Heutigen tags sind die mobil Applikationen¹⁴ ganz populär, downloaden. Ich wollte es aber auch wissen (Abb. 3), was die Befragten darüber denken.

Abbildung 3 „Würden Sie gerne eine kostenlose Applikation downloaden, womit Sie sich über die Aktionen und Aktualitäten der Heilbäder von Trans-Danubien informieren könnten?“



Quelle: eigene Ergebnisse des Authors

Ich habe es gedacht, dass die Leute kontaktfähig sind und sich dafür freuen, aber habe mich geirrt. 33,9 % der Befragte würden eine solche Applikation über die gesamte Heilbäder von Trans-Danubien downloaden, aber die Mehrheit, also 66,1 % haben mit NEIN geantwortet.

¹⁴ Applikation: lateinisch applicare= „anlehen“ steht für Anwendungssoftware, ein Computerprogramm, das eine für den Anwender nützliche Funktion ausführt.”

Wichtig sein konnte, dass die Heilbäder die gewonnenen Kontakte auch weiterhin pflegen und mit Informationen und Angeboten versorgen. Wie ich es schon vorher erwähnt habe, neben der direkten Kundensprache, Networking und gute Kontakte mit den Hausärzten das Beste sind, was die Bäder für ihr Unternehmen tun können. Es kostet sich nichts außer Neugier und Offenheit. Beim Falle den Hausärzten kann man auch über Influencer-Marketing sprechen (Onlinemarketing Webseite, 2018).

Die empirische Beschreibung des Tourismus stützt sich auf offizielle Statistiken zu Reishäufigkeit und Reiseausgaben (OECD, 2018) auf repräsentative Umfragen zu Reisemotiven und Reiseverhalten. Während sich die Tourismuspsychologie vor allem für Reisemotive und -verhalten von Individuen interessiert, stellt die Soziologie das individuelle Verhalten und Erleben in den Kontext soziokultureller Prozesse und Strukturen. Gefragt wird nach den gesellschaftlichen und kulturellen Bedingungen des Reisens, wie zum Beispiel die Relationen des Tourismus zu anderen sozialen Bereichen. Aus diesem Sinne thematisiert die Tourismussoziologie verschiedene Zusammenhänge von Arbeitszeit, Freizeit und Reiseverhalten; die Abhängigkeit des Reisens von materiellen Ressourcen; den Wandel des Reiseverhaltens in Relation zum kulturellen Wertewandel; die aufgrund sozialer Ungleichheiten für verschiedene Bevölkerungsgruppen unterschiedlichen Möglichkeiten und Beschränkungen des Reisens (Vester, 1999).

Tabelle 1 Ankünfte und Übernachtungen der Beherbergungsbetriebe und Hotels in Ungarn 2003-2017

Jahr	Beherbergungsbetriebe				Hotels			
	Σ Gäste	Ausländer	Σ Übernachtung	Ausländer	Σ Gäste	Ausländer	Σ Übernachtung	Ausländer
2003 (100%)	6315	2948 46,6%	18611	10040 53,9%	4092	2375 58%	11699	7346 62,8%
2004	+4,7 %	+10,9 %	+1,5 %	+4,7 %	+11,7 %	+15,8 %	+8 %	+10,3 %
2005	+11,8 %	+16,9 %	+6 %	+7,4 %	+22,6 %	+22,5 %	+16,2 %	+15,2%
2006	+13,7 %	+12,3 %	+5,6 %	+0,05%	+25,5 %	+17,4%	+17,1 %	+7,6%

Tabelle 1 (Fortsetzung)

Jahr	Beherbergungsbetriebe				Hotels			
	∑ Gäste	Ausländer	∑ Übernachtung	Ausländer	∑ Gäste	Ausländer	∑ Übernachtung	Ausländer
2007	+18,3 %	+17 %	+8,1 %	+1,3%	+32,4 %	+22,4%	+20,7 %	+9 %
2008	+21,1 %	+19,3 %	+7,3 %	-1 %	+37,4%	+25,6%	+21,1 %	+7,8 %
2009	+13,2 %	+9,5 %	+0,5 %	-9%	+26,6 %	+14,9 %	+12 %	+9,9 %
2010	+18,3 %	+17,4 %	+5 %	-4,7%	+36,8 %	+26,5%	+20,5 %	+6,7 %
2011	+27 %	+29,6 %	+10,8 %	+3,7%	+51,1 %	+41,8%	+31,4 %	+17,6 %
2012	+32,8 %	+41,2 %	+17,2 %	+13,5%	+60,9%	+55,3%	+42,1 %	+30,4 %
2013	+40,7 %	+48,8%	+23,4 %	+19,3%	+71,1%	+62,9%	50,2 %	+36,3 %
2014	+52,6 %	+56,6%	+31,3 %	+23%	+83,6 %	+69,9 %	+57,8 %	+39,9%
2015	+64,7%	+67,1%	+39,1%	+29%	+97%	+80%	+66,7%	+45,7%
2016	+76,04%	+79,8%	+48,4%	+37,5%	+113%	+93,4%	+79,2%	+55,2%
2017	+88,2%	+91,6%	+59,9%	+48,8%	+122%	+105%	+91,7%	+67,5%

Quelle: KSH Webseite (2018)

Der Tourismusindustrie der Europäischen Union kommt mit ihrem enormen Beschäftigungspotenzial ein hoher Stellenwert in den Volkswirtschaften der Mitgliedstaaten zu. Es ist eindeutig, dass der Anschluss zur Union herausragende Auswirkungen hat. Im Jahr (Tab. 1) 2004 und 2005 kamen um 11,7 % und 22,6% mehr Ausländer nach Ungarn um ihre Freizeit in einem Hotel zu verbringen, als im Jahr 2003 (vor unserem Anschluss). Die Zahl der ausländischen Übernachtungen ist auch um 10,3% und 15,2% angestiegen.

Das neue Jahrzehnt, also 2010 begann mit einer schlimmen Wirtschaftskrise, aber auch mit der Hoffnung, dass eine engere europäische Zusammenarbeit nachhaltiges Wachstum und Wohlstand bringen werden. Ab 2012. sind die Prozente der Statistiken dramatisch angestiegen. Die Ankünfte und die Übernachtungen wurden um 69,9 % bzw. um 39,9% wurden erhöht.

Heiltourismus, als Reisemotivation

Wie ich es schon vorher erwähnt habe, die Motivationen der verschiedenen Zielgruppen können auch unterschiedlich sein. Im Buch, Das gekaufte Paradies kann man sich darüber informieren, welche Reisemotivationen die Befragte (3.000 Befragte) bei der Urlaubsplanung haben. 77% alle Befragten antworteten:“ Im Urlaub lege ich großen Wert auf schöne Natur und saubere Landschaft. Feriengebiete mit verschmutzten Stränden und verbauter Landschaft meide ich.“ Im Urlaub möchten sich Viele entspannen und zur Ruhe kommen, aber auch viel erleben und unternehmen. Sie wollten aber auch frei und flexibel bleiben (Opaschowski, 2001).

Die Touristen haben aber auch verschiedene sogenannte „Urlaubswünsche“.

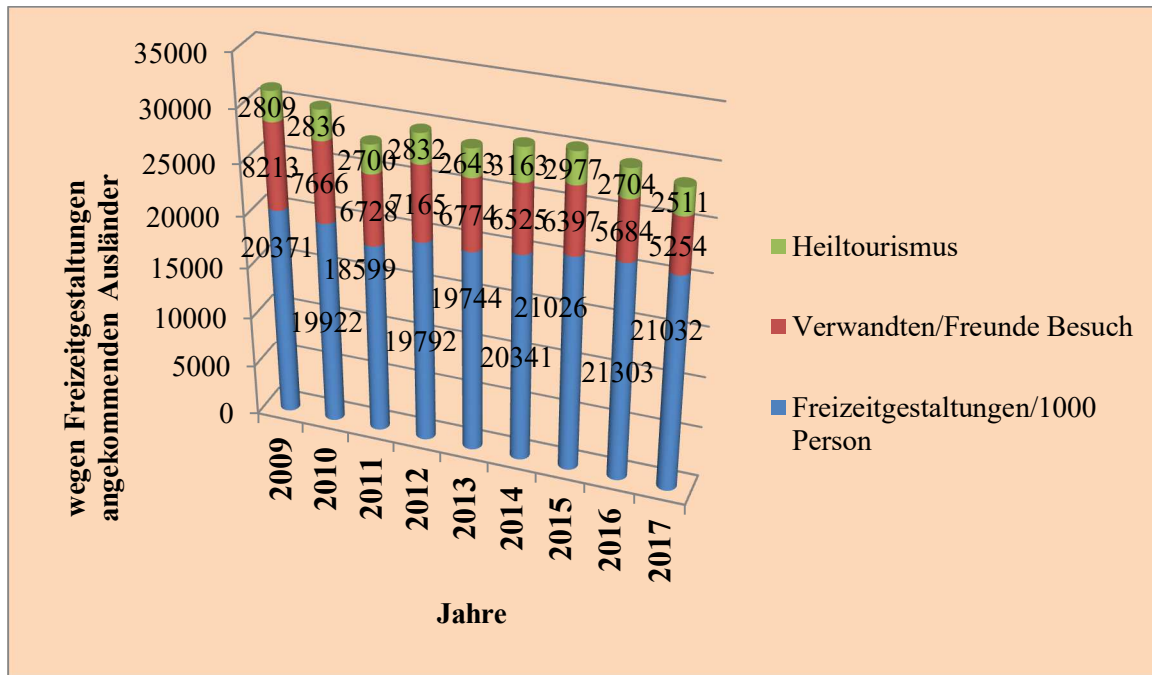
Der schon erwähnte Horst W. Opaschowski (2001) hat sich darüber erkundigt, was alles die Reisenden in einem Urlaub kriegen möchten. Die Antworten waren natürlich unterschiedlich, unabhängig davon wählten Viele die Sauberkeit, schöne Natur, Sonne, Strand und im Liegestuhl faulenzten aus. In einer Studie von Škodová Parmová, Dvořáková Lišková, und Kain (2018) wurden demonstriert, dass heutzutage, in der heutigen Wirtschaft das Verständnis und die Aufrechterhaltung der Servicequalität für Gäste und Touristen und die Wettbewerbsfähigkeit den Hotel und Catering- Einheiten (Gastronomie) beim Wachstum wesentlich sind.

Jin-Woo, Robertson und Cheng-Lung (2004) in ihren Studien auf die Natur von SERVQUALs definierten ein fünfdimensionale Struktur, die Defizite der Erwartungen und Wahrnehmungslückenmodell, das dem SERVQUAL und dem zugrunde Komplikationen bei der Erklärung und Operationalisierung von Erwartungen unter anderen liegen. Einer der bemerkenswerten Forscher, der auf den Ruf die Modifikation des SERVQUAL-Modells reagierte, war zum Beispiel Wong (2003). Diese Autoren schlugen eine siebendimensionale Struktur (Zuverlässigkeit, Sicherheit, Reaktionsfähigkeit, Mitarbeiter, Anpassung, Einrichtungen und Flugmuster).

Man kann es also aussagen, dass Tourismus ein Spiegelbild unserer Gesellschaft ist.

In dieser Tabelle (Abb. 4) möchte ich demonstrieren, was für eine Rolle der Heiltourismus besonders in den letzten 3 Jahren innerhalb dem Tourismus spielt.

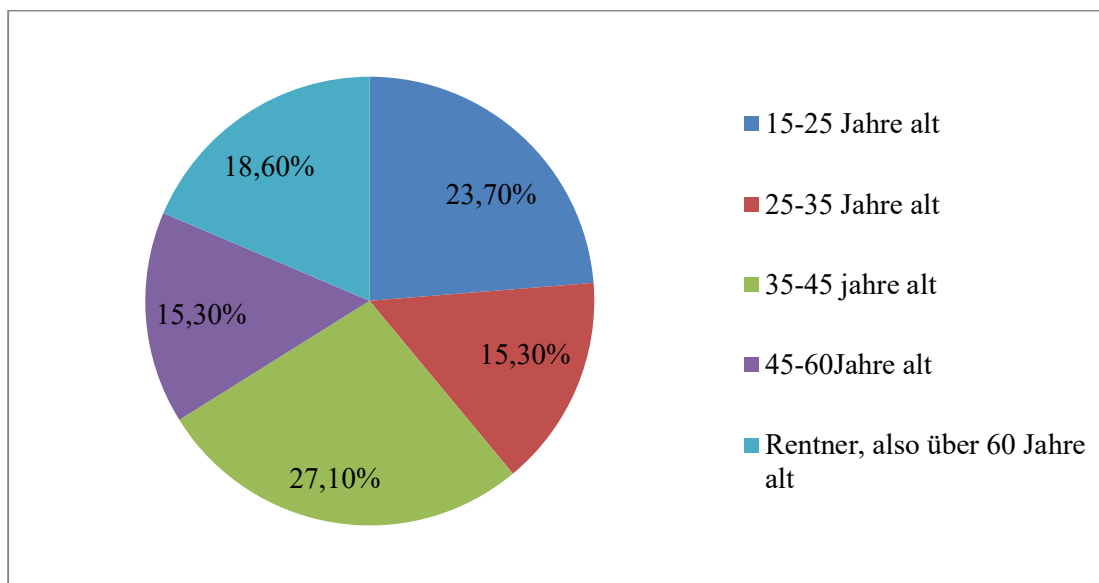
Abbildung 4 Reisemotivationen der in Ungarn angekommenen Ausländern 2009-2017



Quelle: KSH Webseite (2018)

Mit Hilfe meiner Fragebogen wollte ich wissen (Abb. 5), worüber sich die Befragten via eine Applikation informieren möchten.

Abbildung 5 Altersverteilung den Befragten

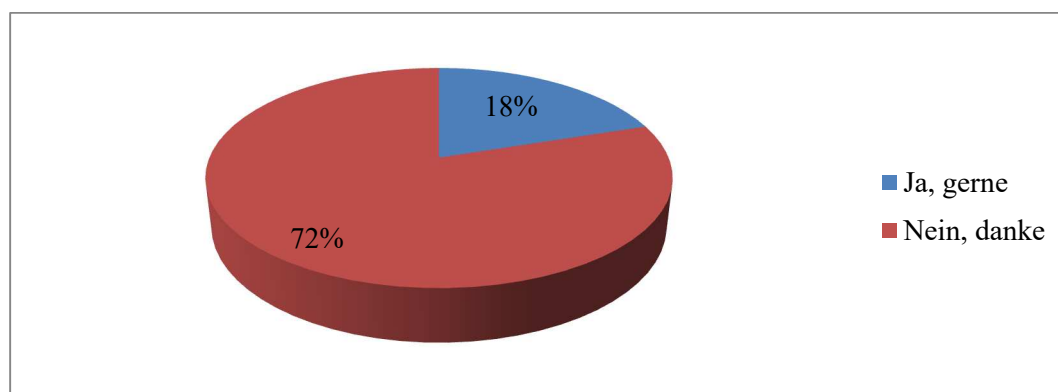


Quelle: eigene Ergebnisse des Autors

Also 23,7% 15-25 Jahre; 15,3% 25-35 Jahre; 27,1% 35-45 Jahre; 15,3% 45-60 Jahre alt und 23,7% schon Rentner, also über 60 Jahre alt.

Also, zurück zur Frage (Abb. 6): „Möchten Sie per Email über die positive/negative Auswirkungen des Heilwassers Informationen bekommen?“

Abbildung 6 „Möchten Sie elektronisch (Email) über die Aktualitäten, Aktionen der Heilbäder von Trans-Danubien Informationen kriegen?“



Quelle: eigene Ergebnisse des Autors

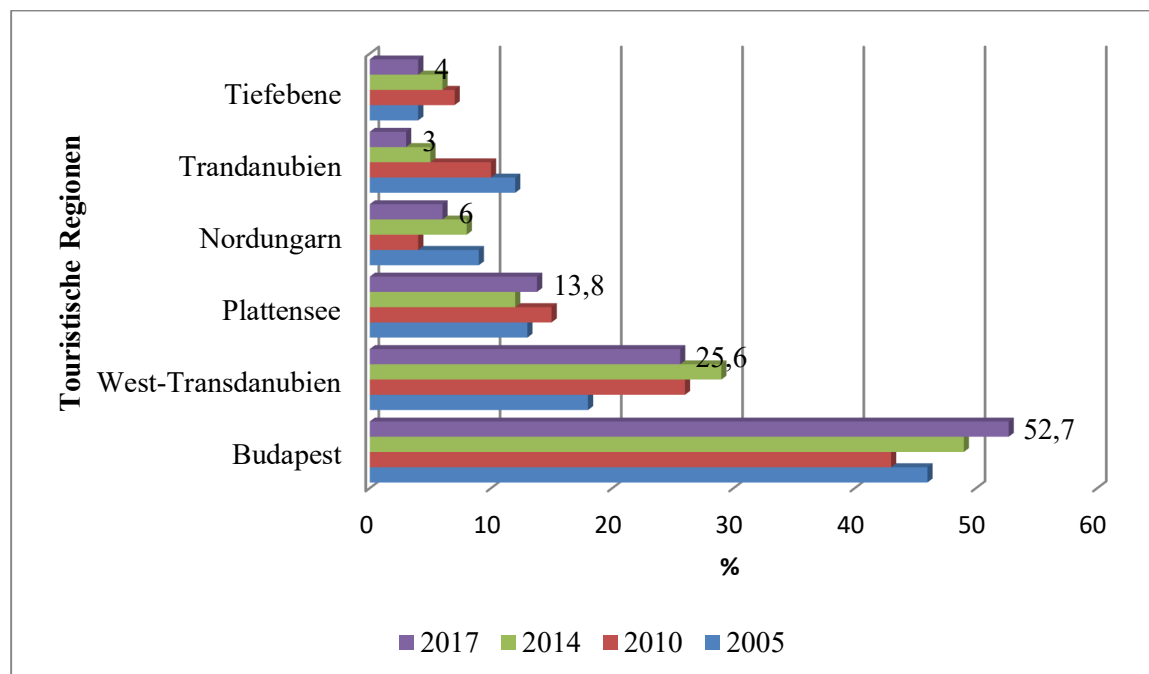
72% der Befragte haben mit NEIN geantwortet und erst 18% mit JA, und haben ihr E-Mail Adresse drin geschrieben. Warum? Man hat nur wenige Freizeit und ist es auch einfacher fast alles via Internet, also elektronisch erledigen. Demzufolge kriegt man täglich sehr viele Werbungen, Anzeigen in Emails und ihre elektronische Postfächer werden schnell voll. Sie wollen keine mehr haben. Hier kommt die schon erwähnte Influencer-Marketing in Frage (Höflich, 2016).

Die Gesunderhaltung der Menschheit ist also eine sehr wichtige Aufgabe der Ärzte, und hier kommen auch Heilwasser und Heiltourismus in Frage.

Warum eben Heiltourismus? Heiltourismus oder Gesundheitstourismus ist auch eine Form des Tourismus aber es ist gar nicht so leicht zu definieren. Nach Brittner (1999, 24-25) wird er als „Kombination von Urlaubsvergnügen und individuellen fachkundig betreuten und wissenschaftlich fundierten Gesundheitsprogrammen“ definiert. Eine andere Definition von Rulle, Hoffmann und Kraft (2010): der Besuch von Heilbäder und Kurorte durch Gäste aus dem In- und Ausland, die die Angebote der Gesundheitsförderung aufgrund eigener Entscheidungen nutzen und in der Regel auch privat bezahlen. Davon ausgehend ist Ungarn reich an Thermalquellen (es gibt 1289 Thermalquellen und 83 Thermalbäder), so viele Ausländer verbringen ihre Freizeit in Heilbädern und Thermalhotels gern, um sich dort völlig zu erholen und ausruhen. Aus diesem Sinne sind die mehrtägigen Reisen populär. Die Auswirkungen der globalen Wirtschaftskrise 2009 sind auch an den Daten sichtbar. Im Jahr 2010 ist die Zahl der Anreisenden im Falle der Heiltourismus um 1 % gesunken aber im Jahr 2011 ist dieselbe Zahl schon um 21% gestiegen. Im Jahr 2014 war diese Erhöhung schon 47,7%. Die Beliebtheit des Heiltourismus beeinflusst auch die Ankünfte der Ausländer in den verschiedenen touristischen Regionen (Horkay, 2003a, 2003b). Auf der nächsten Seite (Abb. 7) werden die ausländische Gästeankünfte in den 9 touristischen Regionen demonstriert Neben

den Gesundheitstourismus spielen Öko-, Fahrrad-, Gastronomische-, Jagd-, Wein-, und Freizeit Tourismus auch eine ganz wichtige Rolle im touristischen Leben der ungarischen Regionen.

Abbildung 7 Die beliebtesten Regionen im Kreis der Ausländer von Ungarn



Quelle: KSH Webseite (2018)

In einer interessanten Studium von Škodová Parmová, Dvořáková Líšková, und Kain (2018) kann man sich darüber informieren, wie sich die Tourismusdienstleitungen in einem anderem Staat, also im Fall der Tschechischen Republic nach der Anzahl der Touristen und Einkommensindikatoren vor der Krise 2008 entwickelten. Diese Studie weist darauf hin, dass durch die Verbesserung des Qualitäts (neue Qualitätssicherung) wurde nicht nur die Zufriedenheit den Touristen, sondern auch die Erhöhung des Humankapitals versichert. Unter Veränderung im Tourismus verstanden die Autoren ein 5 Jahre lang dauerndes Projekt. Im Laufe der Zeit (in den ersten zwei Jahren des Projekts) wurden mit den Tourismusunternehmen konsultiert und haben ihnen die Möglichkeit den Schulungen des tschechischen Service Quality System (CSKS) kostenlos zu erkennen. Es gab zwei Ebenen von Schulungssystemen und Zertifikaten. Der erste Schritt zur tschechischen Servicequalität System war die Entscheidung der Organisation, in das System einzutreten. Die Dokumentation enthält Vision und Teamqualität Engagement und Nachweis der Einhaltung der technischen Qualität Annahmen, Beschreibung der Prozess und Schritte des Prozesses (der Prozesse) und des Aktionsplans. Nach dem Abschluss sendet der Quality Coach die Dokumentation an die Zertifizierungsstelle. Die Hauptphilosophie des gesamten Konzepts basiert auf den Bedürfnissen von den Kunden (Touristen, Besucher, Gäste etc.) und basiert auf konstant Verbesserung der angebotenen

Dienstleistungen, was natürlich sehr wichtig für jedes Tourismusunternehmen Management ist (Škodová Parmová, Dvořáková Líšková & Kain, 2018).

SCHLUSSFOLGERUNGEN UND VORSCHLÄGE

Es kann nicht in Frage gestellt werden, dass Tourismus in Ungarn eine bedeutende Rolle spielt. Tourismus hat die Bedeutung als Instrument für Arbeitsplatzschaffung, Infrastruktur, Wirtschaftswachstum und Entwicklung erkannt.

Es ist eindeutig, dass neben der Hauptstadt, West-Transdanubien und der Plattensee sehr beliebt sind. Meistens besuchen Österreicher, Deutsche, slowenische Staatsbürger und Russländer West-Ungarn und die Umgebung des Plattensees. Der Anschluss zur Europäischen Union hat daneben noch viele positive Auswirkungen. Tourismus ist nämlich in den EU-Ländern ein bedeutender Wirtschaftszweig, auf den 4,7 % des BIP, 6% der Beschäftigung und 215 der Dienstleistungsexporte entfallen.

Wenn man feststellen will, wie wettbewerbsfähig die Tourismusindustrie ist, benötigt man genaue Informationen über den Umfang der Reisesströme, ihre Merkmale, das jeweilige Profil der Zielgruppen und die Reiseausgaben sowie über den Nutzen für die europäischen Volkswirtschaften.

Zum Fahren braucht man aber nicht nur Freizeit, Infrastruktur, Lust und genügendes Einkommen, sondern auch Sicherheit.

Es gibt viele Destinationen – wie auch West-Transdanubien in Ungarn -, deren Wirtschaftskraft vom Tourismus abhängig ist. Der Tourismus stellt hier eine Haupteinnahmequelle ausländischer Devisen dar. Bei uns in Ungarn und besonders in West-Transdanubien gibt es keine Terrorgefahr.

In der Nähe eines berühmten Heilbades (Hévíz), in Sármellék, sollen nicht weniger als 5 Milliarden Forint in den Ausbau des Flughafens investiert werden. Zudem kommen noch infrastrukturelle Entwicklungen. Hoffentlich kann diese Destination in der Zukunft immer mehr Reisegäste empfangen und dadurch unsere Heilbäder und Heimat immer populärer machen.

SUMMARY

It's clearly that tourism is nowadays very important in most countries of the EU. Many want to deal with it and be rich. But you should not forget, however, that everything is a division even and profitability mainly depends on whether you do it well or not.

Tourism comprises the totality of all phenomena and relationships that are associated with leaving the usual food point and staying at another destination. This leads to the diversity of the types of travelers in tourism. The first documented travel packages were organized from 1841 by the famous Thomas Cook. Crucial determinants of the development of global tourism are the increase achieved by the technical progress in labor productivity and the resulting increase in individual incomes as well as increased leisure time. Furthermore, the increased life expectancy, the increased standard of living and thus coherently the

increased level of education are particularly noteworthy. Moreover, the development of transport on the land, at sea and in the air, the development of information technology and the absence or the permeability formerly existing political boundaries provides crucial momentum for the ever-increasing economic importance of tourism.

Short about the history of the Union. The following European politicians (Konrad Adenauer, Joseph Bench, Johan Willem Beyen, Winston Churchill, Alcide de Gasperi, Walter Hallstein, Sicco Mansholt, Jean Monnet, Robert Schuman, Paul-Henri Spaak and Altiero Spinelli) and their vision of a united Europe have we owe the creation of the European Union in which we live today. Without their energy and determination we would not have the peace and stability in Europe, which we now take for granted. This, already mentioned politicians have had a great idea: a peaceful, united and economically successful Europe. The European Union was founded with the aim of ending the frequent wars between neighboring countries to an end.

The tourism industry in the European Union has an important place in the economies of the Member States with its enormous employment potential. It is clear that the connection to the Union has outstanding impact. In 2004 and 2005, more foreigners came to 11.7% and 22.6% in Hungary to their leisure time in a hotel to spend, as in 2003 (prior to our port). The number of foreign overnight stays is also increased by 10.3% and 15.2%.

The new decade, so in 2010 began with a dire economic crisis, but also with the hope that closer European cooperation sustainable growth and prosperity will bring. From 2012, the percentages of the statistics have increased dramatically. The arrivals and the overnight stays were by 69.9% and 39.9% were increased. The effects of the global economic crisis in 2009 are also visible on the data. In 2010, the number of arriving has fallen by 1% in the case of medical tourism but in 2011 the same number has risen already to 21%. In 2014, this increase was 47.7%. The popularity of medical tourism also affects the arrivals of foreigners in the various tourist regions. It is clear that in addition to the capital, and Western Transdanubia Balaton are very popular. Mostly visiting Austrians, German and Russ countries Western Hungary and the region of Lake Balaton. The connection to the European Union has deviated many positive effects. Tourism is in fact in the EU countries an important sector, which accounts for 4.7% of GDP, 6% of employment and 215 of services exports.

If you want to find out how competitive the tourism industry, one needs accurate information on the volume of tourism, its characteristics, the profile of the target groups and the tourism expenditure and the benefits for the European economies.

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BEVERIDGE CURVES OF THREE HUNGARIAN COUNTIES WITH THE HIGHEST PUBLIC EMPLOYMENT RATES

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Abstract

In the study, we use the Beveridge curve to examine the labor market processes in Hungary, and in three selected counties, in recent years. The counties were selected on the basis of the highest public employment rates in 2019. The subjects of our further labor market analyzes were Borsod-Abaúj-Zemplén, Szabolcs-Szatmár-Bereg and Békés counties. For the counties, the curves were made using two methods for the period 2013-2019, first the unemployment rate for the working age population (15-64 years) and then the public employment indicator were compared with the job vacancy rate. In the course of the research, we examined the relationship between the unemployment rate and the public employment indicator in the selected counties. To examine the correlation, Pearson's correlation analysis was performed. With the correlation calculation, we were able to get an answer to the strength of the relationship between the variables (in our case, the two labor market indicators). In connection with the coefficient, we examined the percentage by which one criterion explains the variance of the other criterion using a coefficient of determination.

Keywords: Beveridge curve, job vacancy rate, public employment rate, Pearson's coefficient

INTRODUCTION

The National Employment Service (NES) has been continuously registering the unemployed since 1989, the most basic area of the Office's data collection activity is unemployment (Fejes, et al., 2006).

According to NES data, the average monthly number of registered jobseekers in 2013 was 527,624, which decreased by approximately 50% by 2019, when 252,550 persons were registered. The number of people with a primary education was 108,288. The educational attainment of registered jobseekers in 2019 was as follows: 43.2% had 8 primary or lower education degrees, 25.2% had vocational or vocational education, 25.4% had secondary education and only 6.2% had tertiary education. Jobseekers with primary education were mainly concentrated in two counties, 16.63% of them lived in Borsod-Abaúj-Zemplén county and 14.22% of them in Szabolcs-Szatmár-Bereg county. Unemployment data by educational

attainment suggest that educational attainment significantly determines the chances of becoming unemployed. Those with higher (primarily tertiary) education typically enjoy greater protection against becoming unemployed (Hajdú-Koncz, 2020).

In addition to unemployment statistics, the NES data series also provide information on labor demand developments. Job vacancy statistics are based on labor demand notifications from employers. The largest proportion of companies are looking for an employee for an unskilled job, because they are basically interested in applying for jobs that can be filled in a subsidized form. Most job vacancies were registered in 2019 in Borsod-Abaúj-Zemplén county, excluding Budapest.

The financial and economic crisis of 2008 also spilled over into the labor market, interrupting the European Union's employment growth trend and increasing the number of unemployed in the 27 member states by a total of 5 million in 2009 (European Commission, 2013). The peculiarity of the situation in Hungary is that in a relatively short period of time the Hungarian labor market experienced the second shock after the turn of the 1990s. The already low employment rate, which had hardly improved since the post-transition crisis, fell to 55.5% in the population aged 15-64, according to the Central Statistical Office (CSO) in 2009. Roughly 130,000 jobs were lost, and the unemployment rate reached 10.5%.

The new labor market situation created as a result of the crisis and the concomitant lack of income forced state intervention (Csoba, 2010). Tackling the crisis in the labor market required a strong increase in public involvement, which was reflected in employment policy. Within the system of tools for dealing with labor market anomalies, the expansion of the possibility of public employment in Hungary has been given priority. In general, a person who may be employed and has reached the age of 16, as well as a jobseeker registered with the district office or a person receiving rehabilitation benefits under the Disability Benefits Act, may be included in public employment.

THEORETICAL BACKGROUND

Today, public employment programs can be found in the active employment policy instruments of more than 40 countries (Ruby - Sampson, 2019). In the United States (Job Corps, National Supported Work) and the United Kingdom (New Deal for Young People), active employment policy programs address a specific problem or age group. Comprehensive national programs are organized in most continental European countries, where regions with low employment rates typically have higher levels of public employment (Kessing - Strozzi, 2017). According to international research on the topic, targeted, complex treatment programs work more

efficiently than extensive programs (Hudomiet - Kézdi, 2008). As a result of the 2008 crisis, Latvia, Hungary, Slovenia, Portugal, and the Czech Republic, among the EU member states, used their public employment programs on a larger scale (Kálmán, 2015). Overall, well-targeted public works programs can be a means of combating poverty by providing temporary employment (Brown-Koettle, 2012; Zimmermann, 2014).

In Hungary, the active employment policy instruments and the assistance system underwent major changes in 2011. The National Public Employment Program has been introduced, which can be considered as a “workfare” type public employment system. The term “workfare” evolved from the combination of the words working-for-benefit, which means “work for support” (Lodemel, 2000). It is characteristic of “workfare” systems that the beneficiaries have to meet various conditions aimed at improving the beneficiary's employability (training, rehabilitation, gaining work experience), on the other hand, they also require activities that are beneficial to society (for example public works).

The year 2012 was another milestone, the Start work programs were launched, in which the economic goal structure of value creation also appeared. Between 2009 and 2016, the number of participants in public employment increased steadily; in 2016 the average monthly headcount reached 223,469 persons. With the narrowing of the labor reserve starting from 2017, the number of public employees also decreased; by 2019 it decreased to 106,259 people.

There are large differences between the member states of the European Union in the proportion of GDP allocated to labor market interventions. According to the European Commission's Labor Market Policy (LMP), Hungary was in the middle in terms of total active employment policy expenditure in 2018: as a share of GDP, Hungary spent less on active assets (0.588%) than Germany (1.388%) and the Nordic countries, but more than some Central and Eastern European and Mediterranean countries. On the 10th anniversary of the crisis, Hungary (0.411%) spent the most on direct job creation as a share of GDP, alongside Finland (0.196%), Ireland (0.151%), Croatia (0.120%), and Spain (0.118%). According to LMP data, most of the employment policy expenditures in Hungary until 2011 were spent on jobseeker's allowance and social assistance, the distribution of expenditures by measures changed from 2012: the most significant expenditures already served direct job creation (public employment programs).

Compared to urban areas, the employment situation in rural areas is much worse (Bódi - Obádovics 2000). In Hungary, the flagship of public employment is the eastern part of the country. Borsod-Abaúj-Zemplén, Szabolcs-Szatmár-Bereg, Hajdú-Bihar, and Békés counties are affected by significant employment policy interventions. Fig. 1 can serve as an eclectic example of the East-West divide axis typical of Hungary. In contrast to the settlements of Western Transdanubia, Central Hungary and Central Transdanubia, which present much more favorable economic indicators, public employment is of paramount importance in the

settlements of our worst situation regions (in the economically less developed Northern Great Plain; and in Northern Hungary, which has been severely affected by the decline of heavy industry).

Figure 1 Number of public employees in 2019 (persons)



Source: Own editing based on National Spatial Development and Spatial Planning Information System data (2019)

Research aims and hypotheses

In the first part of the research, we sought the answer to how labor demand and supply developed in Hungary between 2013 and 2019, assuming that the fit of the search-pairing variables became closer. Subsequently, we examined the development of the 2019 county-level public employment indicators in order to narrow the research area, making it probable that the value of the indicator is outstanding in the more economically backward counties.

In a further phase of the research, we also examined changes in labor market demand and supply for the counties with the three highest public employment rates selected, comparing them with data at the national level. We hypothesized that the models of counties with higher public employment rates would differ significantly from the national average. To facilitate the interpretation of the obtained results, we also examined the educational attainment of jobseekers in the counties, assuming that the proportion of the unemployed with low educational attainment is significantly high in counties with a high public employment rate. The analysis included a correlation study between the unemployment rate and the public employment rate,

supposing a positive linear relationship between the two criteria. During the performed correlation study, statistical hypothesis pairs (null and alternative hypotheses) were set up. The null hypothesis assumes equality, flawlessness, so in our case the unemployment rate and the public employment rate are equal. Our alternative hypothesis to the null hypothesis assumes the difference between the two variables.

In line with the research objectives, we formulated the following hypotheses, which were supplemented with the pairs of hypotheses needed to examine the significance of the correlation coefficients:

- H1.** From 2017, the matching of the search-pairing variables of the labor market in Hungary (in our case: the unemployment rate and the ratio of vacancies) is more optimal.
- H2.** In the selected counties, there is a positive linear relationship between the unemployment rate and the public employment rate. Null hypothesis: The unemployment rate and the public employment rate are equal. Alternative hypothesis: The unemployment rate and the public employment rate are not equal.
- H3.** Models for selected counties with higher public employment rates differ significantly from the national average.
- H4.** The proportion of the unemployed with a low level of education is significantly high in counties with a high public employment rate.
- H5.** There is a positive linear relationship between the ratio of job vacancies to the number of unemployed and the share of the unemployed with primary education. Null hypothesis: The values taken by the two variables are equal. Alternative hypothesis: The values taken by the two variables examined are not equal.

DATA AND METHODS

During the preparation of the study, the emphasis was basically on the analysis of statistical data collected from secondary sources. The information on unemployment required for the surveys was provided by the public databases of the NES, while the data used in the analyzes related to public employment were provided by the public employment database compiled by the Ministry of the Interior. The interval of the study is 7 years, in determining the period we took into account the development of the headcount data of public employment. In Hungary, most people participated in various public employment programs in 2016 (223,469 people), therefore we selected 2016 as the median of the research interval. In order to examine the ongoing processes, we also examined the 3 years before and after the selected year.

The labor market can be analyzed with many models, the best known of which are the search-matching models (Morvay, 2012). In the framework of the research, the Beveridge curve was

selected from the search-matching models suitable for the analysis of the labor market. The model basically starts from the pairing of job seekers and job advertisers. The curve can be well applied to the examination of rural areas in Hungary, because in the examination of these areas the distorting effect of wages is less pronounced in the model, as typically the wage determination means the mandatory minimum wage. In our research, the curve illustrates the relationship between the unemployment and job vacancy rates for the working-age population (15–64 years). The job vacancy rate is the quotient of the number of vacancies and the number of employees (Lipták, 2014). The authors Dow and Dicks-Mireaux, who created the curve, found a negative relationship between the two rates, and if the economy is in recession, high unemployment is associated with few job vacancies (Rodenburg, 2007). As a first step in the study, we analyzed the national labor market data between 2013 and 2019 using the selected search-pairing model.

In the next phase of the research, the counties that were the subject of our further labor market analyzes were identified. When selecting the counties, we took into account the development of the public employment indicator in 2019, and further analyzes were carried out in the counties with the three highest values. The indicator chosen to delimit the research area shows the weight of public employment as an active labor market tool. The public employment indicator - as defined by the Ministry of the Interior - is the ratio of the average monthly number of participants in public employment to the working-age population.

In the selected counties in the period between 2013 and 2019, the relationship between the unemployment rate and the public employment indicator and its strength was explored by correlation analysis. To examine the correlation, Pearson's correlation analysis was performed. Correlation calculation provides an answer to the question of the strength of the relationship between the variables (in our case, the two labor market indicators). It should be noted that the correlation analysis was performed with a low number of items, so it is only possible to explore the direction of the relationships in the first place. Pearson's correlation is a linear statistic, so it gives a reliable value for data sets where the relationship between the two variables can be described by a line (Wilcox, 1998). The value of the coefficient varies between +1 and -1, the closer the relationship is, the closer the absolute value of the coefficient is to 1. The coefficient is strong in absolute terms in the range of 0.7-1; medium at 0.3-0.7 intervals; and indicates a weak correlation at 0-0.3 intervals (Nemes Nagy, 2005). If the sign of the correlation coefficient is positive, then there is a straight, otherwise inverse proportionality between the two variables. If there is no correlation ($r = 0$) the two variables are not necessarily independent, but there is certainly no linear type of relationship between them. However, Pearson's coefficient is not suitable for exploring causal relationships, so we can only say whether the two variables examined are related, but we do not get an answer as to what caused this.

The result of the correlation test is strongly influenced by the outlier points (Vargha, 2000). Outliers are meaningless data for the model, which can significantly affect the parameters of the regression line fitted to the model (Hawkins, 1980). In the framework of the research, we considered outlier points as values that significantly distorted the obtained models. A method based on logarithmization was chosen to filter out outlier points. The pre-recorded constant product of the mean of the logarithms (\log_2) calculated for adjacent sample elements (in our case, the value of the constant is 6) is less than the difference between the two largest elements, then the largest element was considered an outlier. The constant can vary depending on the accuracy with which we want to determine the outliers (Verma, 1997).

Correlation results were also hypothesized to support whether the results obtained were significant. Significance (p) is the probability of committing the first type of error. In statistics, a result is significant if the probability that it was obtained as a mere play of chance remains below a predetermined value (Vita, 2011). Depending on the results obtained in the study, the chosen values are 1% and 5% ($p = 0.01$ and $p = 0.05$).

In the framework of the research, we examined with what coefficient of determination the percentage by which one criterion explains the variance of the other criterion (the mean of the square of the deviation from the mean). Assuming a linear functional relationship between the variables, the coefficient of determination is equal to the square of the Pearson correlation coefficient (Zhang, 2017). The value of the indicator is between 0 and 100%, so it determines the strength of the relationship in%.

The Beveridge curves for the counties depicted data for the period 2013-2019. The curves were made using two methods, first, the unemployment rate for the working-age population (15-64 years) and then the public employment indicator were compared with the job vacancy rate. To facilitate the interpretation of the obtained results, we also examined the educational attainment of jobseekers in the counties.

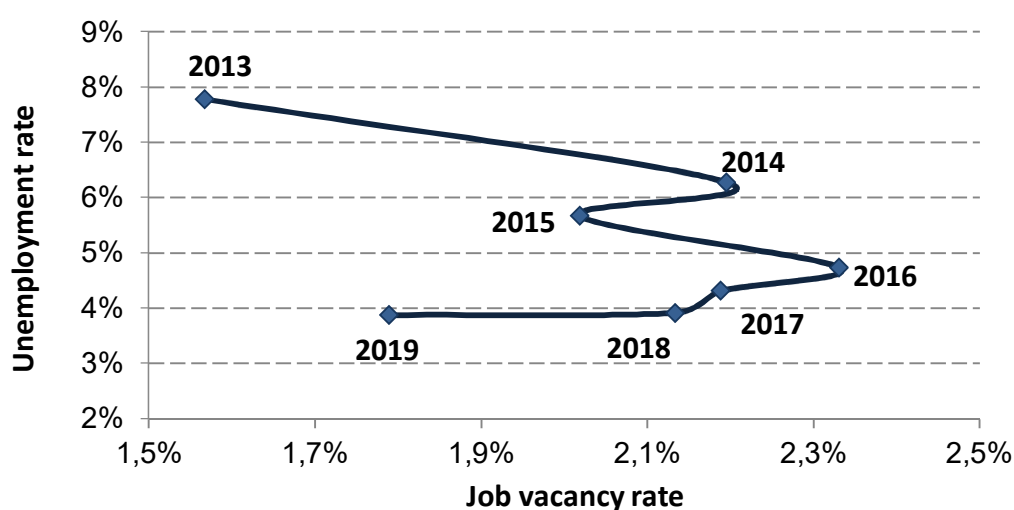
RESULTS

National level research

In the first part of the study, the data were evaluated at the national level. On the Beveridge curve, we illustrated the relationship between the vacancy rate of the 15-64 age group (the ratio of vacancies to the economically active population) and its relative unemployment rate in the interval between 2013 and 2019. Fig. 2 clearly shows that in the growth phase between 2013 and 2016, the job vacancy rate increased with the decrease in the unemployment rate, so the two factors moved in opposite directions.

Increased employment migration, mainly to EU member states, also contributed to the improving employment data, which can also be seen in the Beveridge curve. Emigration was a response to employment opportunities that had become more precarious as a result of the crisis and to an increase in the financial burden on householders (increase in foreign currency loans). This picture is further nuanced by demographic processes, with natural reproduction lagging far behind the mortality rate of the regional and local population, besides the fact that human resource reserve remaining locally is characterized by an aging age structure. Foreign employment, emigration, an aging population were all reduced domestic indicators.

Figure 2 Beveridge curve – national average (2013-2019)



Source: Own construction based on CSO and NES data

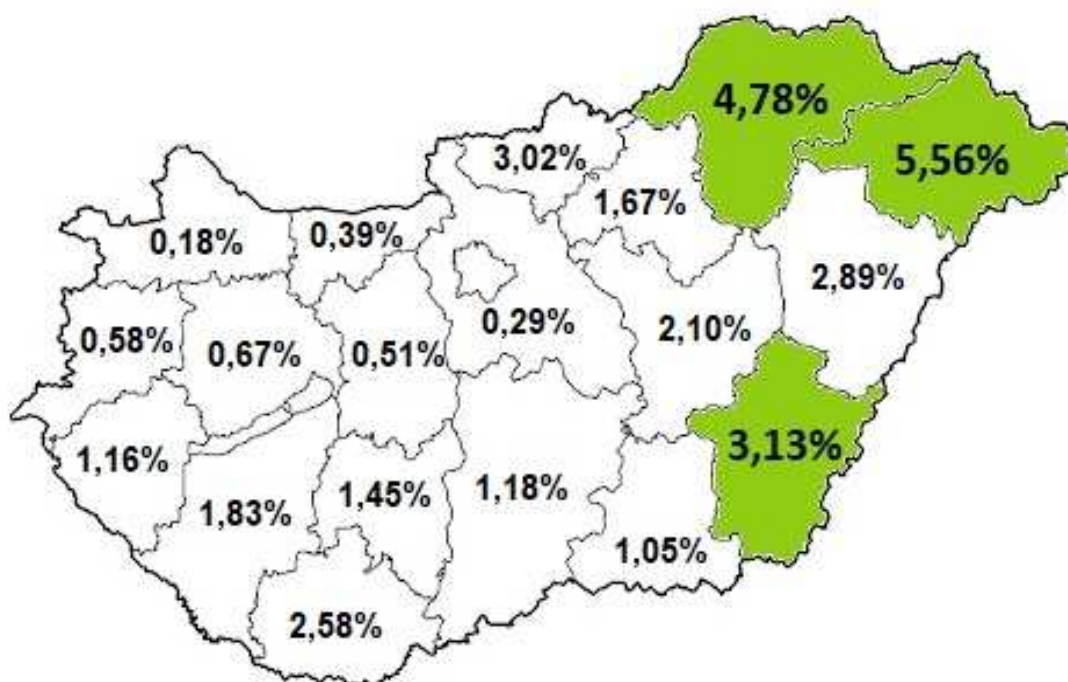
After 2016, while unemployment continued to decline, the job vacancy rate also showed a declining trend. An inward shift in the overall curve, a decrease in the job vacancy rate, in addition to a decrease in the unemployment rate, may even indicate an improvement in the matching. When the variables fit more optimally, it is easier to fill vacancies than before, because then the skills required by employers (qualifications, experience) and the skills of the workforce show leveling. However, based on the research results, the degree of fit cannot be considered more optimal; only in the current labor market situation, companies were forced to lower their expectations of employees.

Demarcation of the narrower research area

In the next phase of the research, the counties with the three highest indicators were selected on the basis of the values of the 2019 public employment indicators. Fig. 3 illustrates the data on the number of public employees and the public employment indicator for 2019 by county.

The data on the number of public employees can provide information on the extent of employment policy interventions. The number of public employees in 2019 was outstanding in Szabolcs-Szatmár-Bereg (20,860 people), Borsod-Abaúj-Zemplén (20,163 people), and Hajdú-Bihar counties (10,208 people).

Figure 3 Public employment rates in 2019



Source: Own construction based on Ministry of the Interior data (2019)

However, the basis for the selection of counties was not the number of public employees, but the public employment indicator, because with the help of the indicator we can get a more accurate picture of the importance of public employment. The value of the indicator was the highest in Szabolcs-Szatmár-Bereg (5.56%), Borsod-Abaúj-Zemplén (4.78%), and Békés (3.13%) counties in 2019 (Fig. 3). Therefore, the subject of our further analyzes was these three counties. The selected counties belong to the less developed, low-income convergence club of Hungary (Egri-Kőszegi 2018, Egri 2019).

Correlation test

In the course of the research, we examined the relationship between the unemployment rate and the public employment rate in the selected counties. In the period 2013–2019, the relationships between the two indicators were explored using Pearson's correlation analysis. Tab. 1 shows the Pearson coefficient and significance values as well as the coefficient of determination.

Table 1 Examining the relationship between unemployment and public employment

County	Pearson's coefficient (r)	Significance (p)	Determination coefficient % (r ²)
Szabolcs-Szatmár-Bereg	-0,510	0,242	26,01
Borsod-Abaúj-Zemplén	-0,286	0,534	8,18
Békés	-0,222	0,632	4,93

Source: Own construction and calculation based on Ministry of the Interior data (2019)

The Pearson correlation analysis indicates a medium correlation between the unemployment rate and the public employment indicator in Szabolcs-Szatmár-Bereg county for the values between 2013 and 2019 ($r = -0.510$). The connection is weak in the case of Borsod-Abaúj-Zemplén and Békés counties. The value of the coefficient has a negative sign for all three counties. In the case of a negative coefficient, there is an inverse proportionality between the two variables examined, so the high unemployment rate is coupled with a low public employment rate. Outliers strongly influenced the results obtained, as evidenced by the low coefficients of determination. Low values (below 10%) indicate, on the one hand, that the fit is weak, that the reality content of the model is low, and, on the other hand, that the explanatory power of the model is low.

After filtering out the outlier points, we can get a more accurate, realistic picture of the labor market. After filtering out the outliers, the coefficient indicates a positive, medium correlation ($r = 0.3 - 0.7$) for all three counties (Tab. 2). A positive sign indicates the generality that if the unemployment rate is high, the value of the public employment indicator will also be high.

The results cannot be considered significant because the probability that we obtained it only as a game of chance did not remain below the predetermined value for any of the counties.

Table 2 Coefficient value after filtering outlier points

County	Pearson's coefficient (r)	Significance (p)	Determination coefficient % (r ²)
Szabolcs-Szatmár-Bereg	0,580	0,306	33,64
Borsod-Abaúj-Zemplén	0,684	0,203	46,79
Békés	0,636	0,248	40,45

Source: Own construction and calculation based on Ministry of the Interior data (2019)

In our case, the coefficient of determination gives the answer to what percentage of the unemployment rate explains the variance of the public employment indicator. In the case of all examined counties, the result was over 30%, the highest value was shown by Borsod-Abaúj-Zemplén county. The coefficient expresses the explained variance, so the variance of the public employment indicator is explained for an unemployment rate in 46.79%.

Analysis of selected counties

For the selected counties, examining the period 2013-2019, the Beveridge curves were constructed using two methods. In the first step, we compared the county unemployment rate calculated for the working-age population (15-64 years) and job vacancy rate; then in the next step, we compared the job vacancy rate of the counties with the public employment indicator also.

Comparing the number of job vacancies to the number of unemployed, we can find out what percentage of jobseekers could be absorbed by labor demand if the demand and supply side were fully matched (the qualifications and experience required by employers and the skills of employees are the same).

In the equilibrium state, employers would have been able to employ 40% of the unemployed in Borsod-Abaúj-Zemplén county, 36% in Békés county and 25% in Szabolcs-Szatmár-Bereg county in 2019.

The unemployment rate decreased significantly in all three counties between 2013 and 2018, after that with some increase observed in 2019. In the period under review, the unemployment data improved by almost 4% in Békés (Fig. 4) and Borsod-Abaúj-Zemplén (Fig. 6) counties and by approximately 7% in Szabolcs-Szatmár-Bereg (Fig. 5) county.

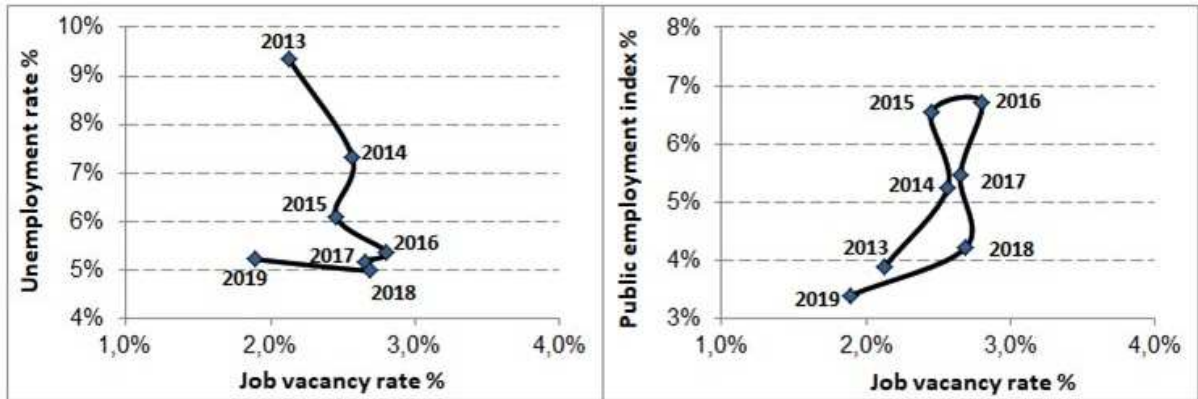
The job vacancy rate no longer gives such a uniform picture, while in Szabolcs-Szatmár-Bereg and Békés counties the job vacancy rate decreased to approximately 2% by the end of the term, until then in Borsod-Abaúj-Zemplén county it increased to 3.41%.

In Békés county, a trend similar to the national one took place in the period 2013-2019, unemployment decreased until 2016 and the job vacancy rate increased slightly, then the curve turned inwards thus, with fewer job vacancies, slightly more people sought work.

Examining Szabolcs-Szatmár-Bereg county, the curve also shifted inwards, where the shift is significant after 2014, with almost no change in the proportion of vacancies since 2015, while unemployment fell by 2.53%points.

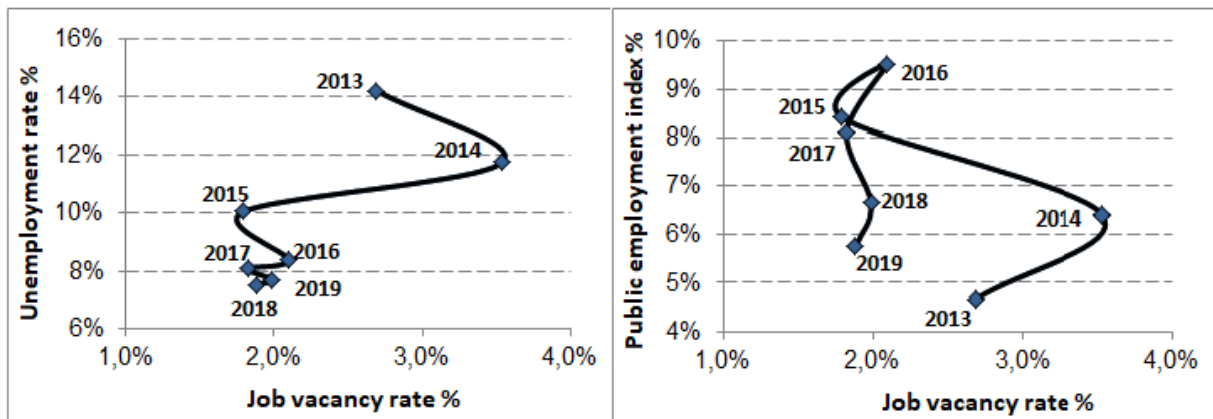
According to the research, the previous statement that the improving trend is not due to a better match between supply and demand is also true for Békés and Szabolcs-Szatmár-Bereg counties.

Figure 4 Beveridge curves – Békés county (2013-2019)



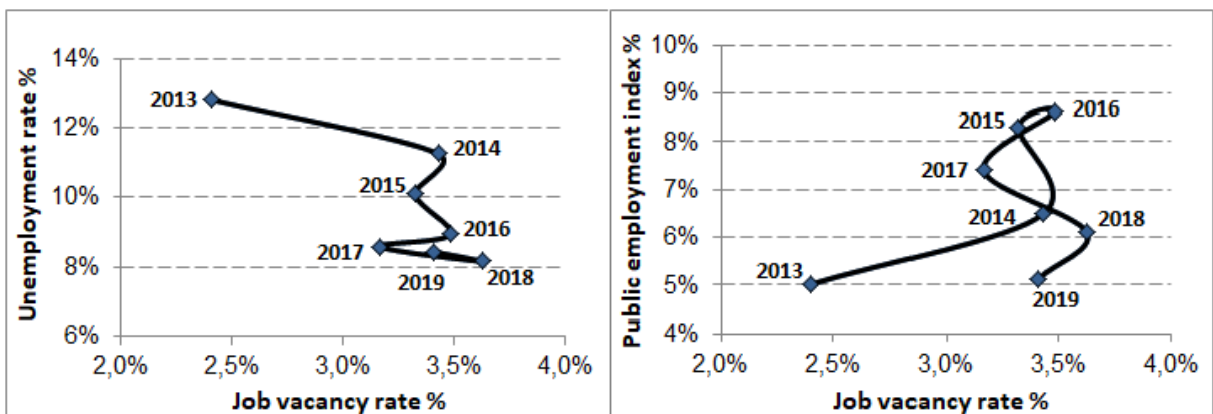
Source: Own construction based on Ministry of the Interior and NES data (2013-2019)

Figure 5 Beveridge curves – Szabolcs-Szatmár-Bereg county (2013-2019)



Source: Own construction based on Ministry of the Interior and NES data (2013-2019)

Figure 6 Beveridge curves – Borsod-Abaúj-Zemplén county (2013-2019)



Source: Own construction based on Ministry of the Interior and NES data (2013-2019)

The public employment indicator followed a similar trend in the counties examined, reaching its peak in 2016 and then approaching the baseline values again in 2019. The value of the indicator was the highest in Szabolcs-Szatmár-Bereg county (9.54% in 2016). Examining the

whole period, the change in the public employment rate in the counties ranged from 0.12 to 1.10%points in absolute terms.

The movement of the curves (Fig. 4, Fig. 5, Fig. 6) is in the opposite direction until 2016, while the unemployment rate decreases, the value of the public employment rate increases. The juxtaposition of the models is a good illustration of the inverse relationship between the improvement in the unemployment rate and the increase in the public employment rate.

Once the public employment peak is reached, the curves will reverse, and in addition to further declining unemployment, public employment also declined.

In Borsod-Abaúj-Zemplén county, a completely different picture emerged, the decreasing unemployment rate from year to year was accompanied by an increasing job vacancy rate. The special situation was contributed by the fact that the demand for labor was the highest here in the years under review (12.45% of all vacancies reported in 2019) and the highest number of unemployed with general or lower education was registered here (18,004 persons, 16.63% of job seekers). The outstanding demand for labor on the national average mainly meant low-skilled jobs for which support could be requested.

Cartogram No. 7 represents the proportion of people with primary education in relation to the total unemployed at the settlement level. In Borsod-Abaúj-Zemplén (16.63%) and Szabolcs-Szatmár-Bereg (14.22%) counties, the proportion of the unemployed with a low level of education represents a significant proportion

Figure 7 Proportion of unemployed with primary education by settlement, % (2019.11)



Source: Own editing based on National Spatial Development and Spatial Planning Information System (2019)

In the case of Borsod-Abaúj-Zemplén county, the high job vacancy rate may be related to the proportion of registered job seekers with outstanding primary education.

The results of the study confirmed that the level of education obtained significantly determines the chances of becoming unemployed. Those with higher education typically enjoy greater protection against becoming unemployed.

We also examined the relationship between the ratio of job vacancies to the number of unemployed and the ratio of the unemployed with primary education. The results of the correlation test are shown in Tab. 3.

Table 3 Examining the relationship between the share of the unemployed with primary education and the job vacancy rate

County	Pearson's coefficient (r)	Significance (p)	Determination coefficient % (r ²)
Szabolcs-Szatmár-Bereg	0,990**	0,000	98,01
Borsod-Abaúj-Zemplén	0,965**	0,000	93,12
Békés	0,911**	0,002	82,99

* Significant at p <0.05 level, ** Significant at p <0.01 level

Source: Own construction and calculation based on NES data (2019)

The Pearson's coefficient shows a strong ($r < 0.7$) correlation between the two variables for all three counties. The coefficient is positive, so it is a directly proportional relationship, the higher the proportion of people with primary education, the higher the labor demand in relation to the number of unemployed. In Szabolcs-Szatmár-Bereg and Borsod-Abaúj-Zemplén counties we can state that the null hypothesis is true at 100%, in the case of Békés county at 99.8%. This means that the chances of obtaining a random value are minimal (0% and 0.2%).

The coefficients of determination were also evaluated as part of the study. The coefficient expresses the explained variance. The share of the unemployed with a primary education in Békés county in 82,99%, in Borsod-Abaúj-Zemplén county in 93,12%, Szabolcs-Szatmár-Bereg county in 98.01% explains the dispersion of the job vacancy rate.

CONCLUSION

In Hungary, the flagship of public employment is the eastern part of the country. In contrast to the settlements of Western Transdanubia, Central Hungary, and Central Transdanubia, which present much more favorable economic indicators, public employment is of paramount importance in the settlements of our previously worst-off regions, Northern Hungary and the economically less developed Northern Great Plain.

Hypothesis **H1** formulated at the beginning of the research, according to which the fit of the search-pairing variables of the labor market became more optimal, was rejected. Given the current labor market conditions, with the narrowing of the labor reserve starting in 2017, domestic companies are now looking for more employees than they are laying off. As an inseparable benefit of labor shortages, employers have been forced to lower their expectations of employees. This finding was also supported by Beveridge curves illustrating the relationships between the unemployment rate and the vacancy rate.

According to our hypothesis **H2**, there is a positive linear relationship between the unemployment rate and the public employment indicator in the selected counties. The performed Pearson correlation analysis, after filtering out the outlier points, confirmed a positive mean relationship between the two indicators. A positive sign indicates the generality that if the unemployment rate is high, the value of the public employment indicator will also be high. The juxtaposition of the Beveridge curves using the two methods is a good illustration of the proportionality between the improvement in the unemployment rate and the increase in the public employment rate up to 2016. Thus, hypothesis H2 was confirmed by the research.

Hypothesis **H3** is considered valid for two examined counties. Based on the research results, it can be stated that it is also true for Békés and Szabolcs-Szatmár-Bereg counties that the improving trend is not due to a better match between supply and demand. In Borsod-Abaúj-Zemplén county, the share of job vacancy rate increased next to the decreasing unemployment year by year. In order to facilitate the interpretation of the obtained results, we also examined the educational attainment of the jobseekers.

Hypothesis **H4**, according to which the proportion of the unemployed with a low level of education is significantly high in counties with a high public employment rate, was also confirmed. It was found that the highest proportion of unemployed people with a primary education is present in Borsod-Abaúj-Zemplén county in Hungary and - unlike the national average - the number of vacancies in this county also increased in the period under review. The results of the research proved that the acquired educational qualification significantly determines the chances of becoming unemployed. Those with higher education typically enjoy greater protection against becoming unemployed.

The research also revealed a relationship between the ratio of job vacancies to the number of unemployed as well as the ratio of the unemployed with a primary education. The study confirmed hypothesis **H5**, the Pearson coefficient shows a strong ($r < 0.7$) correlation between the two variables for all three counties. The coefficient is a positive, so it is directly proportional

relationship, thus higher the proportion of people with a primary education, the higher the labor demand in relation to the number of unemployed.

In the examined counties, if we take into account the public employees as unemployed, it can be stated that approximately 40% of the registered unemployed are still employed in the public employment system.

SUMMARY

In the study, we use the Beveridge curve to examine the labor market processes in Hungary, and in three selected counties, in recent years. The counties were selected on the basis of the highest public employment indicators in 2019. The subjects of our further labor market analyzes were Borsod-Abaúj-Zemplén, Szabolcs-Szatmár-Bereg, and Békés counties. For the counties, the curves were calculated using two methods for the period 2013-2019, first, the unemployment rate for the working-age population (15-64), and then the public employment rate was compared with the job vacancy rate. We assumed that the curves of the worst-performing counties differ significantly from the national average. In order to facilitate the interpretation of the obtained results, they also examined the educational attainment of jobseekers in counties.

During the preparation of the study, the emphasis was basically on the analysis of statistical data collected from secondary sources. The information on unemployment required for the research was provided by the public databases of the NES, while the data used in the analyzes related to public employment were provided by the public employment database compiled by the Ministry of the Interior.

In the course of our research, we examined the relationship between the unemployment rate and the public employment rate in the selected counties. To examine the correlation, Pearson's correlation analysis was performed. In connection with the coefficient, we examined with the help of a coefficient of determination what percentage of one variable explains the variance of the other variable. We also examined the relationship between the ratio of job vacancies to the number of unemployed and the ratio of the unemployed with primary education.

In Békés county, a trend similar to the national one took place in the period 2013-2019, unemployment decreased until 2016 and the job vacancy rate increased slightly, then the curve turned inwards thus, with fewer job vacancies, slightly more people sought work. In the case of Szabolcs-Szatmár-Bereg county, the curve also shifts inwards, here the shift is significant after 2014, with almost no change in the proportion of vacancies since 2015, while unemployment decreased by 2.53%points.

In Borsod-Abaúj-Zemplén county, a completely different picture emerges, the decreasing unemployment rate from year to year was accompanied by an increasing job vacancy rate. The special situation was contributed by the fact that the demand for labor was the highest here in the years under review (12.45% of all vacancies reported in 2019) and the highest number of unemployed with general or lower education was registered here (18,004 persons, 16.63% of job seekers). The outstanding demand for labor on the national average mainly meant low-skilled jobs for which support could be requested.

The research confirmed a positive medium relationship in the selected counties between the unemployment rate and the public employment rate.

The correlation between the job vacancy rate and the share of the unemployed with a primary education also showed a positive, strong relationship in all three counties. The coefficient showed a directly proportional relationship, the higher the proportion of peoples with primary education, the higher the demand for labor relative to the number of unemployed.

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SIGNIFICANCE OF DIGITAL COMMUNICATION CHANNELS FOR TOURISM PROVIDERS IN HOLIDAY REGIONS

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Abstract

This paper deals with the importance of print products in SME corporate communications. To this end, the interest of customers of a German tour operator belonging to the SME in printed travel literature is analyzed. For this purpose, two independent samples with $n=1,500$ each are examined. An influence of the characteristics age, gender, place of residence can be proven. In each case, the influence is of medium strength. Logistic regression is then used to try to explain better the consumption of printed travel literature. In addition, the economic importance of a customer, which was determined during a customer segmentation, is included. It becomes clear that the place of residence with age and customer segment are of particular importance. This shows that print cannot be dispensed with in corporate communications in certain target groups. It also becomes clear that optimal coordination of corporate communications can be developed into a competitive advantage for SMEs. Namely, when a target group that differs from the overall population is reached more efficiently than by national or international competitors.

Keywords: SME, Marketing, Communications, Tourism

INTRODUCTION

Owner-managed small and medium-sized enterprises make an enormous economic contribution (Walter, 2017c, p. 57). After all, 85 percent of companies in the European Union are run by owner families. At the same time, they provide 60 percent of jobs in the private sector (Walter, 2017a, p. 4). In tourism, the group of owner-managed SMEs also has an outstanding position throughout Europe. In Tyrol, for example, 98.4% of the hotel industry is family-owned (Weber & Kühne, 2015). In Germany, tourism is also largely characterized by SMEs. This is ensured by 2,300 tour operators, almost 4,000 bus companies, 11,000 travel agencies, and more than 222,000 companies in the hotel and catering industry (Weber, Göhlich, Schröer, & Engel, 2017). Against this background, Zehrer (2020) speaks about a pronounced fragmentation of tourism. To develop still market power, tourism SMEs regularly come together in cooperations at the level of a destination — albeit very differently structured cooperations (Wilke, 2009b, p. 26 ff.). This seems to be based on future expectations. According to Eller, Glowka & Zehrer (2020), small and medium-sized tourism enterprises were already confronted with tougher

competition within the industry before the Corona pandemic (Walter, 2017b, p. 6). However, Pichler (2020) adds, the potential of cooperation is still underestimated. Yet small and medium-sized enterprises are also offered marketing and communication channels in this way that they would not be able to tap individually (Wilke, 2009c, p. 55 f.).

According to Wiener (2020), the tourism industry already was in crisis before the Corona pandemic and will continue to be so after the emergency (Wilke, 2009a). The same is due to the economic and social environment in which companies operate today. This is increasingly characterized by complexity and dynamics (Spielhagen, 1996). Ultimately, this ensures that in the battle for the limited clientele of holidaymakers, regional SMEs and international corporations are pitted against each other (Wilke, 2009a). The result is a persistent, destructive competition that leads to increased market concentration. During this, small tourism offers are increasingly disappearing (Will, 2018, p. 29). Škodová Parmová et al. (2018) also see threatened the existence of tourism offers that do not succeed in conveying a USP (Zehrer, 2020).

Against this backdrop, if tourism SMEs want to assert themselves in the market in the long term, they must optimize their processes to increase their competitiveness (Hoffmann, Lennerts, Schmitz, Stölzle, & Uebernickel, 2016; Pfeil, 2016, 332 f; Rauch, 2019, p. 186). Marketing communication is of particular importance in this context. This management tool allows existing or potential visitors of a holiday destination to be shown how precisely their personal requirements or needs can be met (Zerfaß, 2006, p. 57). In essence, it is about activating target groups effectively and efficiently through strategic planning (Bassewitz & Ritter, 2001, p. 708). According to Kormanova (2015), the degree of effectiveness achieved here has a direct influence on the operating result and thus high entrepreneurial relevance (Pfanstiel, Da-Cruz, & Rederer, 2020, p. 318).

This is why the field of corporate communication has already been the subject of much academic work. A variety of approaches exist on this long ago (Heister, 1962; Helfrich, 2016; Zerfaß, Bentele, Schwalbach, & Sherzada-Rohs, 2018). However, these always aim to address the statistical average customer. They are modeled from demographic and statistical data as well as focus tests and customer feedback (Pfohl & Arnold, 2006, p. 142). However, this concept, which is often found traditionally, is subject to ongoing criticism, because it does not appreciate the uniqueness of the individual sufficiently (Philipp, 2017, p. 72). Moreover, the traditional concepts always require the use of all known instruments of marketing communication.

Given the individual needs of tourists and regionally different media infrastructure, it might be possible to develop corporate communication of tourism SMEs into a competitive advantage. This would require putting together a locally more efficient communication mix compared to national or international campaigns (Zerfaß & Piwinger, 2014, p. 28).

THEORETICAL BACKGROUND

The aim of this study is to determine, whether tourism SMEs can win customers more efficiently through individual corporate communication than with generally valid communication concepts. This is of particular interest because decisions in SMEs are often not made rationally. Also, the business management competence of the decision-makers, who are put into function by family structures, is often insufficient (Enz, 2019b, p. 9). In SMEs, this often leads to decisions being made intuitively or not at all. Against this background, Reichard, referring to Zerfaß, Fink & Winkler, states that SME marketing communication is essentially situational (Reichard, 2019, p. 79; Zerfaß, Fink, & Winkler, 2015, p. 49). While there is consensus that the field of corporate communication has experienced a professionalization in recent years (Hetze, Bögel, Emde, Bekmeier-Feuerhahn, & Glock, 2019, p. 259; Johann, 2020, p. 147), this development is traditionally found in large companies, corporations and organizations (Lützler, 2007, p. 127; Mast & Spachmann, 2005, p. 15; Zerfaß & Pleil, 2017). In contrast, Friedrichs and Winkler identify increasing tendencies towards professionalization in the field of marketing communication even among small and medium-sized enterprises (Friedrichs & Winkelmann-Fietz, 2020, 25 ff; Winkler, 2020, p. 3). This development can be explained by the now generally accepted realization that strategic communication is indispensable for successful competitive positioning (Falkheimer et al., 2016; Kiesenbauer, 2018, p. 1; Winkler, 2020, p. 61).

Although there is an agreement that corporate communication is also a success factor for SMEs (Müller, 2011, p. 11; Zerfaß, 2014, p. 22), only a few studies have so far dealt with the specific prerequisites or the different nature of SME communication (Enz, 2020a; Winkler, 2020, p. 61). Although Fischbach & Mack already criticized the lack of scientific examination of professional corporate communication in SMEs in 2008 (Fischbach & Mack, 2008, p. 36), research, as Moog & Witt agree with Fischbach & Mack, has so far focused primarily on purely business aspects or topics from marketing (Fischbach & Mack, 2008, 35 f; Moog & Witt, 2013). While Fischbach & Mack attribute this fact to the long tradition of business administration compared to communication research (Fischbach & Mack, 2008, p. 36), the author of this paper

see the reason primarily lacking research funding. Corporate communication is predominantly seen as a cost factor (Heemsoth, 2019, p. 227). SMEs can indeed be considered innovative and often work successfully with universities. However, SMEs prefer to use their budgets in research projects related to their core business searching for innovations (Fuka, Vrchota, & Rolínek, 2018; Kamerar, 2016; Vrchota, Volek, & Novotná, 2019).

Interest in strategic marketing communication and frugality are not contradictory. According to Johann, a communicated message can also be regarded as a business asset to which a monetary value can be attributed (Johann, 2020, 98 ff.). Thus, the idea identified by Škodová Parmová et al. of countering global competition with regional strategies could also be transferred to the discipline of marketing communication (Škodová Parmová, Líšková, & Kain, 2018). Besides, Enz notes that different marketing channels are available in different regions. These also have regionally different effects on the opinion formation of target groups. Thus, with a communication mix, that is adapted optimally to regional conditions, a competitive advantage can be developed for SMEs operating regionally compared to supraregional competitors oriented towards the average customer (Enz, 2019a, p. 190).

Definition SME

Dobošová et al. agree with Bondareva & Zatrochová, that there is consensus that SMEs are the basis of a stable and successful market economy (Bondareva & Zatrochová, 2014; Dobošová, Hupková, Beňuš, Mihálová, & Synetska, 2020, p. 21). However, the understanding of which companies belong to the SME category is inconsistent. As early as 1991, Kosmider has registered over 200 approaches describing SMEs (Kosmider, 1991). Against this background, the idea of an expedient definition in individual cases has prevailed over a generally valid definition (Becker & Ulrich, 2011, 18 f.). Both qualitative and quantitative criteria can be used (Botzkowski, 2017, p. 39). This paper considers a company to be an SME if it meets the criteria set by the European Union. Accordingly, a company is considered an SME, if it employs a maximum of 250 employees and has an annual turnover of no more than 50 million euros (Enz, 2020b, p. 29).

Definition of marketing communication

Ternés et al. see the task of marketing communication as influencing the decisions of members of a defined target group in the interest of the company (Ternès, Klenke, Jerusel, & Schmidtbleicher, 2017). It is therefore a matter of creating the desired perception about products

and services offered or the company as a whole. To this end, opinions must be anchored in the minds of customers and non-customers, reinforced or changed in the interests of the company (Kilian, 2019, p. 63). Against this background, marketing communication is to be understood as an integrating management process. This includes all internal and external communication instruments. Bruhn also speaks of integrated communication in this context (Bruhn, 2016, p. 107). In this context, Bruhn argues that a message is perceived more concisely the more it is conveyed similarly on different channels (Bruhn, 2009, p. 46).

However, marketing communication is undergoing major changes. This is due to new technologies that are changing the media landscape (Scheu & Schedifka, 2018, 178 f.). Volkswagen AG, for example, spends almost 50 percent of its media budget on digital communication channels in 2020. In 2015, the share was still 25 percent. At the same time, the shift is linked to the expectation of greater efficiency. Marketing efficiency is to be increased by 30 percent. This goal has to be achieved even though the use of new communication channels requires about five times more campaign elements than before (Volkswagen AG, 2018). To achieve such effects, globally operating groups can streamline their processes. Volkswagen's approach is exemplary for the current implementation of marketing communication. By contrast, it is not conceivable for SMEs to use additional communication channels in a cost-neutral way by simply regrouping (Enz, 2020b).

Tourism SMEs have to deal with two challenges at the same time. On the one hand, increasing competition results in growing cost pressure (Beritelli & Bieger, 2020, p. 494). On the other hand, new communication channels, especially social networks such as Instagram or Facebook, are gaining significant influence on tourists and their usage behaviour regarding tourism offers (Kreuter, 2020, p. 48). To avoid higher communication expenses, tourism providers have increasingly shifted their budgets towards new digital communication channels in recent years.

This is expressed, for example, in ADAC Motorwelt, the club magazine of Germany's largest automobile club. In 2010, it was published a total of ten times with a circulation of 14.5 million copies. For many pages, classified ads were the dominant graphic element. Small and medium-sized hotels and accommodation providers advertised for customers. So did tour providers or further education providers such as skiing or sailing schools (Tieschky, 2010). Since 2020, Motorwelt has been published only four times a calendar year. The circulation has dropped to 5 million (ADAC Newsroom, 2020). There are no more tourist classifieds in the ADAC Motorwelt, after a serious decline in the number of advertisements in recent years.

This trend is also reflected in the publications of tour operators and hotels. For example, the majority of the approximately 2,500 tour operators on the German market still rely on catalog sales. Due to the high printing and logistics costs as well as a low booking rate per catalog, the use is becoming increasingly restrictive (Herrmann & Wetzel, 2018, 33 f.). Today, only 30% of sales in travel agencies are based on consultation with a printed catalog (Graefe, 2017). In contrast, the use of electronic catalogs increased by 27.5% in the last 3 to 5 years alone (Statista Research Department, 2015). At the same time, the number of providers who no longer provide printed information is increasing (Beetz, 2016; Visit Sweden GmbH, 2020). The tourism industry thus is following a trend from the mail-order business. For example, the large German mail-order company Neckermann stopped producing catalogs in 2012, and the Hamburg-based Otto-Versand followed suit in 2018 (Voß, 2018).

The present research work is intended to clarify whether SME's renunciation of print communication in tourism is a sensible business consequence. This would be the case if customers and potential consumers could be reached just as effectively with other communication channels — at lower costs simultaneously.

DATA AND METHODS

This paper examines the behavior of the customers of a medium-sized German tour operator. For this purpose, the company carried out an existing customer promotion. In the period from 1st to 28th February 2020, 1,500 existing customers could order actually priced travel information free of charge. The customers could choose between travel guides and illustrated books on travel destinations worldwide. In addition, customers could choose between the classic printed version and a digital edition for smartphones, tablets or computers. The customer gifts had a merchandise value of up to 25 euros, which provided an incentive to participate in the campaign. In fact, the interest in the retrievable publications was so great that the contingent provided was used up after 2.5 weeks and the measure had to be ended prematurely.

Analysis of customer potential

The tour operator under review belongs to the SME group. As of 31st December 2019, it had a base of approximately 10,000 active customers of all ages. It should be noted that the preferences of individual tourism offers differ greatly depending on the age of the consumer (Golder, Jans, Tschöpe, & Herzog, 2017, 3 f.). Against this background, it is important to clarify

whether the consumption of printed travel information is also age-dependent. This results in the first hypothesis to be tested:

H1: There is no dependency between the consumption of printed travel information and the age of the consumer.

The customer potential can be selected according to other sociodemographic data in addition to age. An important factor for the present research work is the place of residence. Aufner et al. (2020) have shown that individual media use is influenced by location (Aufner et al., 2020, p. 347). This is consistent with Döweling, who could already prove in 2019 that internet use increases with the size of the place of residence (Döweling, 2019, p. 67). From this, the question can be derived, whether the consumption of travel literature differs in rural and urban regions. However, different concepts exist to delineate urban and provincial areas (Albrecht & Walther, 2017, 6 ff.). According to Albrecht, a differentiation can be made because of population density and other characteristics such as settlement density and transport area (Albrecht & Walther, 2017, p. 9). However, differentiation can also be made based on other aspects, such as the function of a place in the context of the central place concept (Miosga et al., 2020, p. 6). In addition, there is not even a binding definition of the different types of places of residence (Danielzyk, 2017, p. 11). In the economic-geographical context, the terms village, market, small town, medium center, upper center, and the large city can be found. To categorize neatly the available data, a differentiation is made in this paper because of the number of inhabitants of the respective places of residence. The author follows the definition of the German Federal Statistical Office. In accordance with international practice, this defines a city as a large city, if it has more than 100,000 inhabitants (destatis.de, 2011). Based on these data, it is to be clarified whether the place of residence influences the consumption of printed travel information. This results in the hypothesis to be tested:

H2: Consumption of printed travel information is independent of the place of residence.

Besides age and place of residence, gender could also have an effect on interest in printed travel literature. After all, men are more open to new technologies than women (Störk-Biber, Hampel, Kropp, & Zwick, 2020, p. 29). In addition, younger people are more tech-savvy than older people (Deutsche Akademie der Technikwissenschaften & Körber Stiftung, 2020, p. 13). In this context, it should be considered that electronic travel literature might appeal more to a tech-savvy target group, as it combines information with modern technology. In addition,

digital travel information offers new possibilities such as 360-degree panoramas, virtual tours, etc. Considering this perspective, the influence of gender on the consumption of printed travel literature is to be examined. This will be done within the framework of a hypothesis test:

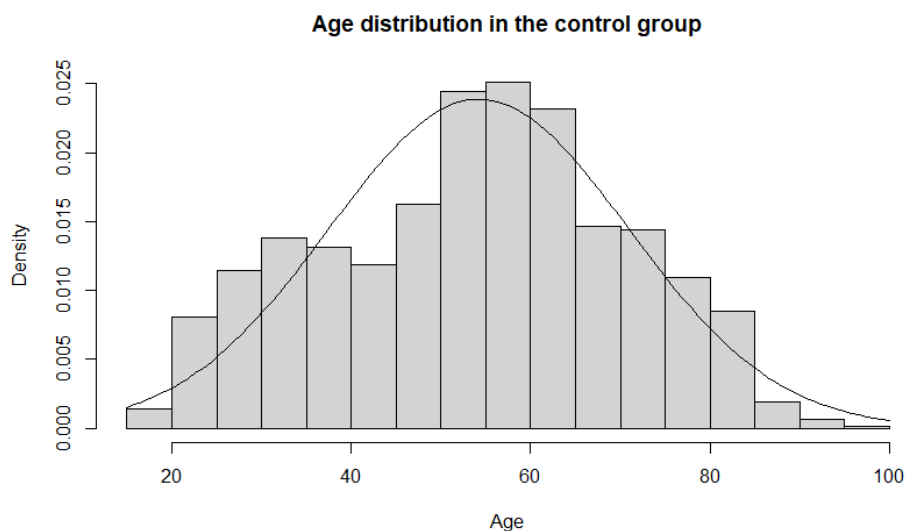
H3: Consumption of printed travel information is independent of gender.

In order to clarify the research, questions formulated, the participants of the described existing customer campaign are analyzed. This involves a total of 1,500 data records. These contain the age of the participant, the specification of the place of residence, the gender as well as a characteristic, whether the participant is an A, B, or C customer. This attribute is assigned because of the turnover within the last three years.

To identify possible special features within the customer group interested in printed travel information, a comparison group is necessary. For this purpose, a control group with 1,553 data records was formed from the customer base. These comparison customers were determined in a random draw. Before starting the data analysis, it is, therefore, necessary to check whether the distribution of the random sample matches the population of the entire customer base. If this were to deviate extremely unintentionally, this would have a negative impact on the significance of the tests.

To check the random sample, a histogram is created over the age distribution using the software R 4.0.3. This shows that the distribution fits the corresponding population.

Figure 1



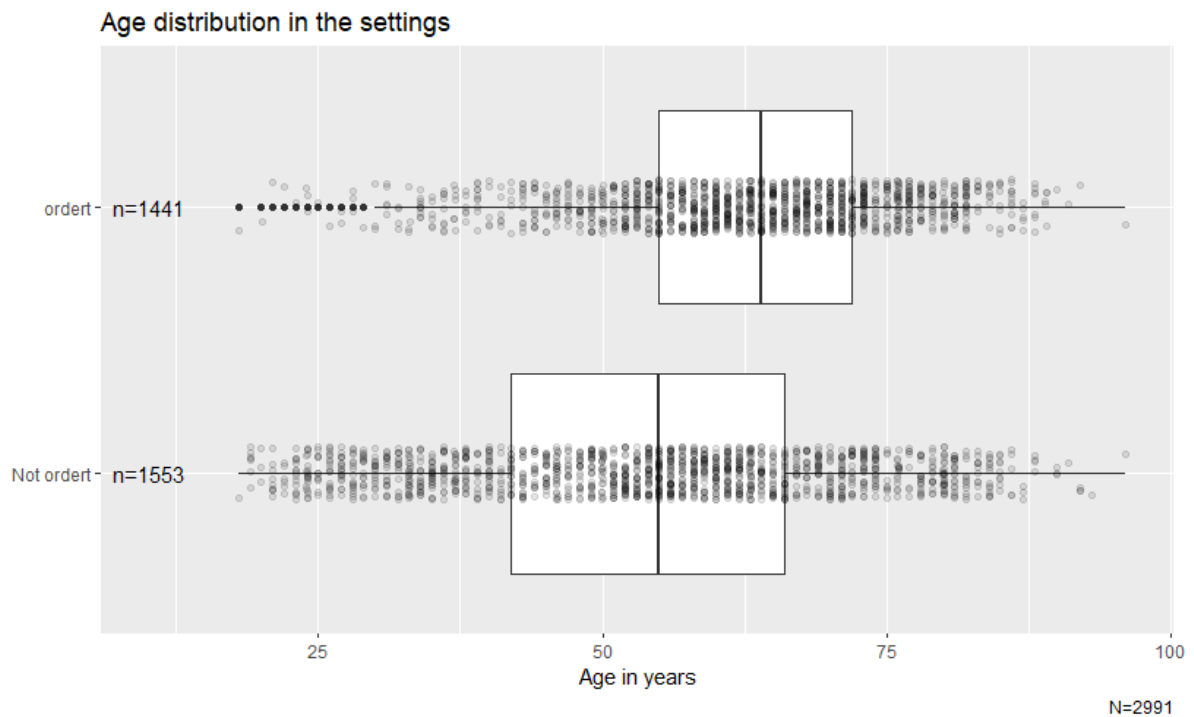
Methods for testing the hypotheses

Hypothesis H1 states, that there is no correlation between the consumption of printed travel information and the age of the consumer. It is therefore a matter of examining the mean values of two independent samples for differences. Such an analysis can be carried out using a t-test. This exists in two versions: the simple Student's t-test and the Welch's t-test (Sakai, 2016). According to White et al., the Welch t-test is preferable, if it cannot be ruled out that the mean values differ. The Welch t-test is also preferable, if it cannot be ruled out, that there are different deviations from the normal distribution in the samples, (White, Redford, & Macdonald, 2019). Against this background, the Welch t-test is used to test hypothesis H1. For the Welch t-test to produce a robust result, two independent samples must be present. In addition, a metrically scaled y-variable is necessary. Furthermore, the y-variable must be normally distributed within the groups. It also needs a normally distributed error term. In contrast to the normal t-test, however, almost equal variances of the y-variables of the two groups are not necessary (Walther, 2019). The test shows that all requirements for the Welch t-test are fulfilled.

The Welch t-test is carried out within the framework of this research work with the software R 4.0.3. Basically, an analysis of the two samples shows that the group of purchasers of travel literature is on average significantly older than the comparison group. This is illustrated in figure 2, which is output by R using the package ggplot2:

```
>          ###          Test          Hypothese          H1
> # Dependence of willingness to order on age
> # Diagram "Representation of age distribution"
> boxplot(df$Alter~df$Bestellung)
```

Figure 2



```

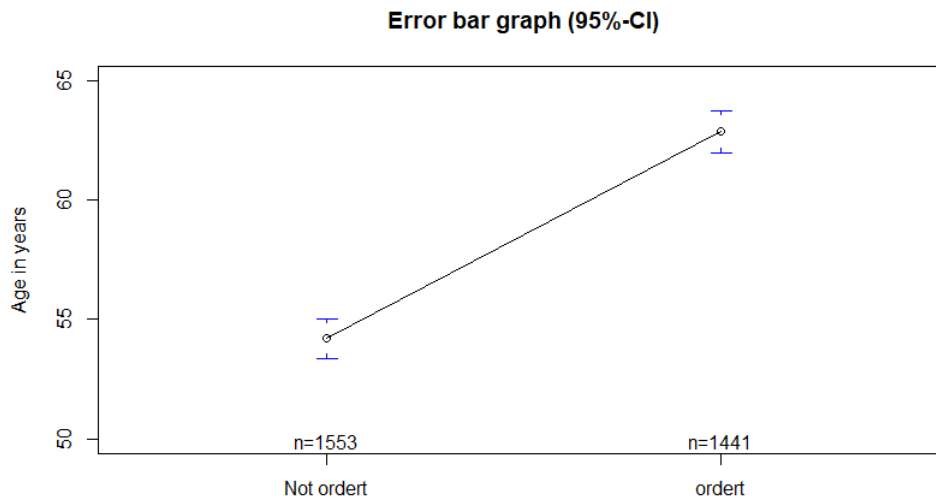
> ### Test Hypothese H1
> # Welch-Test
> psych::describeBy(df$Age, df$Order)
> t.test(df$Age~df$Order, var.equal=FALSE)
> gplots::plotmeans(df$Age~df$Order,
>   main="Error bar graph (95%-CI)",
>   xlab = "",ylab = "Age in years",
>   ylim=c(50,65))
> effsize::cohen.d(df$Age~df$Order, na.rm=TRUE, paired=FALSE, pooled=FALSE)

```

The average age according to participation status differs significantly according to Welch's test ($t(2881.2)=-16.06$, $p<0.001$), with the group of orderers having an age 8.66 years higher (95%-CI [7.6, 9.7]). According to Cohen (1992), the effect size is $d=0.68$ and corresponds to a medium effect.

The group of orderers is on average 62.88 years old (median=64, SD=12.68), while the group of non-orderers is 54.21 years old (median=55, SD=16.69).

Figure 3



The mean effect is confirmed by the Glass's Delta Test, which was also carried out. This shows a lower value of -0.7572906 and an upper value of -0.6097302 for a 95% confidence interval.

Thus, it cannot be proven that age and ordering behavior are independent. Consequently, hypothesis H1 must be rejected.

Another factor influencing ordering behavior could be the place of residence. This is expressed in hypothesis H2. It states that the consumption of printed travel information is independent of the place of residence. According to Schlager, if the stochastic independence of the results of two groups is to be examined, the chi-square test can be applied. The prerequisite is, that the null hypothesis H0 has been accepted (Schlager, 2020, p. 219). If the examined characteristics are not stochastically independent, there is obviously a correlation between the attributes. If the characteristic expresses membership of a group, it can be interpreted as a group difference according to Bortz et al. (Bortz & Schuster, 2016, p. 137).

In this case, a group characteristic is examined that exists in two forms. The characteristic 'big city' includes the inhabitants of cities with more than 100,000 inhabitants. The characteristic 'non-metropolitan' groups together the inhabitants of regions considered rural for the purposes of this study.

Table 1

	non-metropolitan	big city	sum
not ordered	1060	492	1552
ordered	1099	344	1443
sum	2159	836	2995

Table 2

	non-metropolitan	big city
not ordered	1118.787	433.2127
ordered	1040.213	402.7873

In both samples, $n > 50$ and old values are greater than 5. Thus, all prerequisites are fulfilled and the chi-square test can be carried out. The distribution in the samples already indicates a difference, as the mosaic diagram created with R shows:

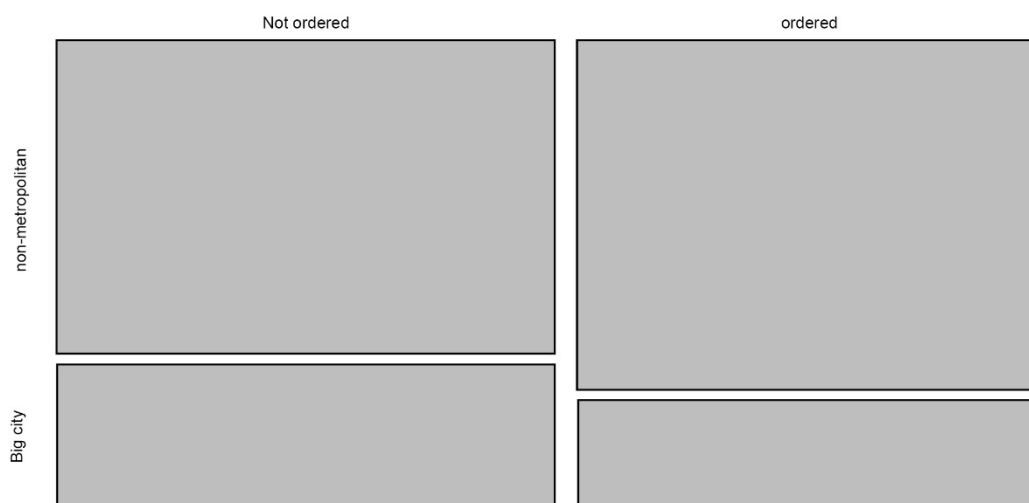
```
### Hypothesis H2: Dependence of willingness to order on the place of residence
```

```
#Mosaic diagram
```

```
> mosaicplot(table(df$Order, df$GS))
```

```
> addmargins(table(df$Order, df$GS))
```

```
> barplot(table(df$Order, df$GS), beside=TRUE)
```

Figure 4**Distribution of place of residence for participation**

```
> ### Hypothesis H2: Dependence of willingness to order on place of residence
```

```
> # Chi-Quadrat-Test
```

```
> (chiq1 <- chisq.test(table(df$Order, df$GS)))
```

```
> addmargins(table(df$Order, df$GS))
```

```
> chiq1$expected
```


Performing the chi-squared test yields a P-value of 2.0164-06 (p-value = 0.002016) with a test statistic of 22.58 (x-squared = 22.58) and one degree of freedom (df = 1). Thus, the null hypothesis must be rejected. A significant correlation between ordering behavior and place of residence can be assumed.

To measure the strength of this correlation, a derivation of Chi-square is carried out using Cramer's V. This is possible because the underlying cross-tabulation is larger than 2x2 (Bauer).

```
> # Cramers V for Hypothese H2
> library(lsr)
> cramersV((table(df$Order, df$GS)))
```

The calculation yields a value of 0.3474576 for Cramer's V, which corresponds to a medium correlation (Benning, 2020).

Another group characteristic can be derived from the available data set with the gender of the participants included in the samples.

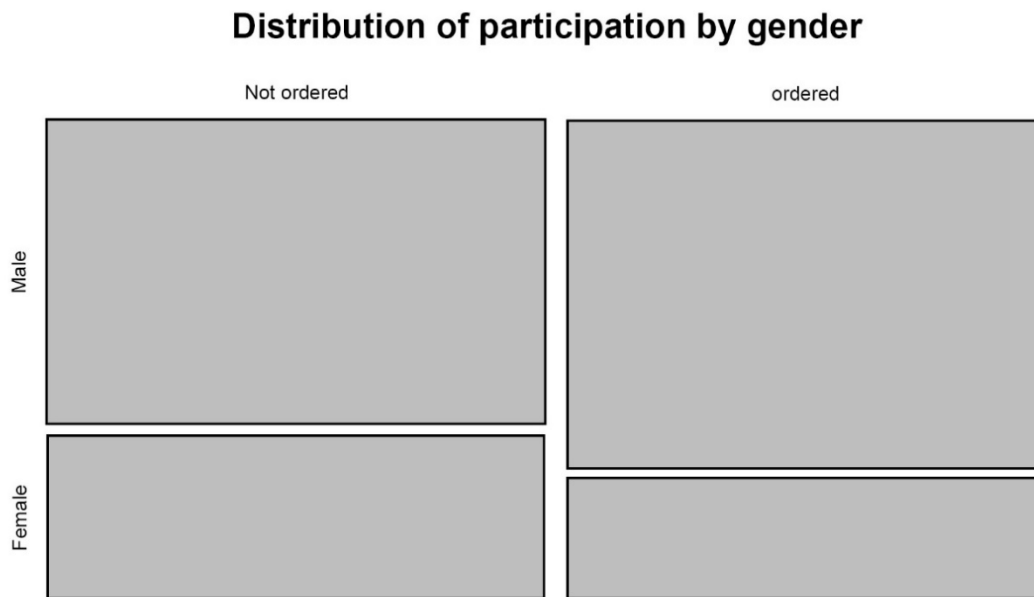
Table 3

	male	female	sum
not ordered	1009	543	1552
ordered	1115	383	1498
Sum	2124	926	3050

Table 4

	male	female
not ordered	1080.803	471.1974
ordered	1043.197	454.8026

The prerequisites are tested with R and the procedures outlined for hypothesis H2. Checking the prerequisites for the chi-square test to test hypothesis H3 shows that $n > 50$ in both samples. Furthermore, all values are greater than 5. Thus, hypothesis H3 can be tested using the chi-square test. The distribution in the samples also indicates a difference here, as shows the mosaic diagram created with R:

Figure 5

Performing the chi-square test gives a P-value of 1.9484-08 ($p\text{-value} = 0.000019$) with a test statistic of 31.546 ($\chi\text{-squared} = 31.546$) and one degree of freedom ($df = 1$). Thus, the null hypothesis must be rejected. A significant correlation between ordering behavior and place of residence can be assumed.

The strength of the correlation is determined by the help of Cramer's V. The prerequisite of a cross-table larger than 2×2 is given. Using calculation, a value of 0.08682851 can be determined for Cramer's V. This means that the value is below 0.2, which corresponds to a weak correlation (Benning, 2020).

In summary, it can be said that different identified factors have a diverging influence on the usage behavior regarding the consumption of printed travel information. The aspects of age and place of residence have a stronger influence than gender.

Traditionally, purchasing decisions are the product of various influences. It is therefore not enough to establish, that a specific factor has a significant effect. Rather, it is necessary to consider the interplay of different influences to evaluate the effectiveness. This requirement is considered in the present project by carrying out a logistic regression. For this purpose, the sample is expanded by an additional factor, the customer segment.

Customer segmentation in the company under review is automated using the Salesforce Marketing Cloud software. Basically, a distinction is made between A, B, and C customers. Different criteria flow into the segmentation. These are age, duration of the customer relationship, number of previous bookings, booking volume per person per year, and expected booking volume in the next three years.

The logit model for logistic regression is a very robust classification procedure. It enables the explanation of a dependent binary variable. At the same time, it allows a prediction regarding the probability of occurrence of an event (Willems, 2018, p. 2). In the context of this research work, it will be used to explain participation in the campaign — and the assumed interest in printed travel literature. While a logistic regression analysis, the aim is to predict the probability of the dependent variable taking the value 1, considering the independent variables (University of Zurich UZH, 2018). Transferred to the described project, the question thus is clarified: Do the independent variables "age", "place of residence", "customer segment" or "gender" influence the probability that the dependent variable "order" takes the value "yes".

The aim of logistic regression is to predict class membership. Formally, this is a conditional probability, which according to Hude can be described as follows (Hude, 2020, 125 f.):

$$p = P(\text{Klasse} = 1 | (X_1, \dots, X_m) = (x_1, \dots, x_m))$$

To ensure that the forecast values are between 0 and 1, the so-called logit transformation for the probabilities p is required. This means, that in a first step, with the support of the regression function, any numerical values can initially be forecasted. These are the logits of the probabilities. In a second step, the logits are transformed back to the required probabilities. According to Hude, the logit of a probability is defined as follows (Hude, 2020, p. 126):

$$z = \text{logit}(p) = \log\left(\frac{p}{1-p}\right)$$

The analysis of the present data set is carried out according to this approach using the software R 4.0.3 with the R package `descr`. The following command structure is used:

```
> ### Logistic regression
> glm1 <- glm(Ordert~Factor 1+... + Factor 4, data=df, + family = binomial())
> summary(glm1)
> Call: glm(formula = Ordert ~ Factor 1 + ... + Factor 4, family = binomial(), data = df)
```

A logistic regression model, therefore, consists of independent variables or their inclusion and combination. The quality of the model is variable. For this reason, all combinations of the factors "age", "place of residence", "customer segment" or "gender" are first calculated for this study. Subsequently, the model quality is assessed according to the determined pseudo-R². Nagelkerke's R² is used to evaluate the models set up. The larger the Nagelkerke R², the better the model (Willems, 2018, 8 ff.). Values from 0.5 indicate good explanatory quality (Stein, Pavetic, & Noack, p. 62). If the Nagelkerke R-square is between 0.1 and 0.3, the model has medium explanatory quality. If the value is less than 0.1, the explanatory quality of the model is to be considered poor (Smigierski, 2020). Furthermore, the R² according to McFadden is

considered, when considering the available data. A model is considered to be well-fitted from a value of 0.2 (Willems, 2018, 8 ff.).

Table 5

Variablen	Chi2	Sig.	Nagelkerke Index	McFadden's R2
All Factors	8.179.462	0,00000000	0.3199958	0.1980491
Age+Customer segmentation+Place of residence	8.164.785	0,00000000	0.3193103	0.197561
Gender+Age+Customer segmentation	8.050.169	0,00000000	0.3155004	0.1948565
Age+Customer segmentation	8.030.204	0,00000000	0.3146345	0.1942427
Gender+Customer segmentation+Place of residence	655.412	0,00000000	0.2631981	0.1586947
Gender+Customer segmentation	642.639	0,00000000	0.2585263	0.1555525
Customer segmentation+Place of residence	638.922	0,00000000	0.257106	0.154981
Customer segmentation	6.250.801	0,00000000	0.2520255	0.1512007
Gender+Age+Place of residence	2.741.154	0,00000000	0.1168171	0.0661749
Age+Place of residence	2.642.325	0,00000000	0.1127167	0.06374635
Gender+Age	2.53.6837	0,00000000	0.1084405	0.06122303
Age	2.426.065	0,00000000	0.1038282	0.05851052
Gender +Place of residence	5.837.433	0,00000021	0.02576427	0.01408236
Gender	3.212.112	0,00144854	0.0139698	0.0075986
Place of residence	2.307.627	1,55700300	0.01023829	0.00556325

RESULTS

The research presented here is based on three hypotheses. They all serve to attempt to explain customer behavior. Specifically, the aim is to identify factors that lead to the ordering of printed travel literature. One possible influencing factor could be the age of a consumer. Therefore, the influence of the factor age on ordering behavior was analyzed using the Welch t-test. For this purpose, the null hypothesis "There is no dependence between the consumption of printed travel information and the age of the consumer" was tested stochastically. The result was that no independence could be proven — the hypothesis had to be rejected. It can therefore be assumed that age has an influence on interest in printed travel information. However, the calculations only showed an effect of medium strength.

The further hypothesis H2: "The consumption of printed travel information is independent of the place of residence" was tested using a chi-square test. This revealed that no independence could be proven. Thus, it can be assumed that the place of residence has an influence on the interest in printed travel literature. The evaluation of the effect by Cramer's V, however, also indicates only a medium influence.

Hypothesis H3: "The consumption of printed travel information is independent of gender" was tested on the same path as hypothesis H2 due to its nature. Again, no independence was found. However, the effect in the assessment by Cramer's V only shows a small influence.

To explain better the interest in this communication channel expressed by ordering printed travel information a logistic regression was carried out. In doing so, a further factor was included in the considerations with the affiliation to a customer segment. A total of 15 models were set up by the author, which were tested for their significance by logistic regression. The models shown in Table 1 represent all possible combinations of the available characteristics. In the first step, the models are evaluated according to Nagelkerke. This shows that many of the models have a value between 0.1 and 0.3, which corresponds to medium quality. For this reason, an evaluation using McFadden's R2 is carried out in a second step. According to this approach, a value of 0.2 or more indicates a good fit. This value, rounded off, is achieved by three models. The best value, with a Nagelkerke Index of 0.3199958 and a Mc Fadden's R2 of 0.1980491, is achieved by the model that takes all factors into account. This is followed by the models with the factors "Age+Customer segmentations+Place of residence" and "Gender+Age+Customer segmentation". This illustrates that the characteristics of age and customer segmentation have a clearer influence on consumption. At the same time, it shows that gender and place of residence also have a noticeable effect.

DISCUSSION

It is already known that consumption can be influenced by various factors (Bieber, 2017, p. 36). Against this background, cross-national target group models have emerged in recent decades based on sociodemographic data. These are based on customer segmentation, which assigns consumers to a milieu. The assignment is associated with the assumption of particular affinities to different communication channels (Flaig & Barth, 2018, p. 9). According to Reinecke & Wortmann, however, customer segmentation is a form of modelling. A model, however, is always a simplified representation of reality, that aims to clarify certain aspects (Reinecke & Wortmann, 2018, p. 195). The decisive factor for the findings is often the size of the sample (Flaig & Barth, 2018, p. 6). For nationally or internationally active actors such as the Federal Chancellery, BMW or Reemtsma, models calculated for an entire country offer a high information content (Flaig & Barth, 2018, p. 8). The situation can be different if regional providers or companies with a customer clientele that differs from the general population have to process a customer potential that diverges significantly from the expected customer potential.

In this case, according to Reinecke, different media preferences and media consumption could have to be handled in a differentiated way (Reinecke & Wortmann, 2018) - a position that is supported by this research work.

The present evaluation shows that age has an effect on interest in printed travel information. This is in line with the influence of age on travel activity already proven by Hallerbach in 2001. However, the results differ regarding the factor "gender". While Hallerbach does not attribute any significance to gender relates travel activity, the present study does (Hallerbach, 2001, p. 415). In this context, the research design should not be disregarded. The data set on which this paper is based shows, that there is a causality between gender and ordering behavior. A statement about the willingness to travel to the destination about which information was requested cannot be derived at this point.

The relevance of the place of residence is also important for the creation of an efficient communication mix. In the present data set, this characteristic can be shown to have a low medium influence. However, within the framework of the evaluation, a distinction was only made based on the address between places of residence in cities with fewer or more than 100,000 inhabitants. This does not consider that medium-sized and smaller towns in the suburbs of metropolises can already have a metropolitan character. In addition, peculiarities in media consumption may be much more pronounced in very rural regions than in small towns.

Another important aspect is the consideration of the different customer segments. Basically, it can be assumed that customers with regular and higher sales with a tour operator have an increased travel behavior. This could explain a likewise increased interest in the consumption of printed travel literature. However, this would hide the fact, that these customer groups can also use other information channels. Against this background, the available data can also be interpreted to the effect, that discerning customers, who are willing to pay, prefer printed travel information. This is in line with BMW's experience. The manufacturer of premium cars had discontinued its customer magazine in 2018. Based on feedback from a discerning clientele, the publication, which has since been available online, is to appear in print again from 2021 (sb, 2020).

CONCLUSION

Marketing communication is undergoing major changes due to increasing digitalization. Gaiser & Theobald note in this context that communication with stakeholders is becoming increasingly complex and dynamic. At the same time, classic communication channels retain

their purpose. Digital communication channels are joining them (Gaiser & Theobald, 2017, p. 142). This position, developed in 2017, is underpinned by the present work. At the same time, it becomes clear that the global changes in marketing communication are influenced in their effect by the recipients.

This paper shows that target groups that differ from the overall population can be reached more effectively with an individually tailored communication mix. In doing so, attention must be paid to efficiency. The efficiency of a communication channel depends on two factors. On the one hand, these are the contact costs, i.e. the costs associated with the use of the channel. On the other hand, it is the economic attractiveness of the target group. Efficiency for tourism SMEs arises in communication when a target group equipped with the necessary purchasing power is reached at favorable contact costs. If it is possible to achieve more efficiency than the competition at this point, then a competitive advantage can arise from marketing communication.

At the same time, this study provides approaches for further research. This could examine the significance of place of residence on the effectiveness of communication channels in more detail. In particular, differences between rural areas and large cities could be examined more closely. Likewise, a special study could analyze the interest in printed and digital travel literature in more detail. Possible questions could be the reason for choosing a print product — or a test of ordering behavior under the option of print or digital media.

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