HUNGARIAN UNIVERSITY OF AGRICULTURE AND LIFE SCIENCES

EXAMINATION OF TRAVEL AND DESTINATION CHOICE HABITS

IN COUNTRYSIDE

DOCTORAL (PhD) DISSERTATION THESES

FERENC ARANY

GÖDÖLLŐ

2024

Name of the doctoral school: Doctoral School of Economics and Regional Sciences

Discipline of the doctoral school: Regional sciences

The head of the doctoral school: Prof. Dr. habil Zoltán Bujdosó
Professor
Institute of Rural Development and Sustainable   Economy,
Hungarian University of Agriculture and Life Sciences

Supervisor: Dr. Zoltán Egri

Associate professor

Institute of Rural Development and Sustainable Economy,
Hungarian University of Agriculture and Life Sciences

....

Approval of the Head of School   Approval of supervisor(s)

TABLE OF CONTENTS

1. BACKGROUND OF THE WORK, OBJECTIVES

The rapid development of tourism is beneficial for the service providers operating in the given areas, and also supports the development of the host area, as long as the attractions are well managed from a tourist point of view (Kántor, 2021). Before the appearance and spread of COVID-19, the tourism sector already accounted for one tenth of the GDP in the European Union, with 23 million jobs, employing 12% of all employed (European Commission, 2020).

In the previous few decades, the concept of village tourism has undergone significant changes. According to Gannon (1994), who views rural tourism as a set of entertainment programs and services, the purpose of which is to attract tourists to the given settlement. The service providers are local residents who wish to earn an income through village tourism. In this formulation, rural tourism does not only include agrotourism and related accommodation, but also the possibility of vacationing close to nature , the rural atmosphere and additional services such as various hobby activities such as cycling, fishing or horse riding, gastronomy, as well as the sale of agricultural or handicraft products or rural health tourism. As the elements of rural tourism show, tourists use these services to experience the rural lifestyle. According to Perales (2002) , two groups of village tourism can be distinguished : traditional and modern village tourism. In the first case, the style of the given accommodation is the basis of village tourism, while in the second case, tourists want to get to know the architectural heritage more thoroughly and immerse themselves more in nature (in. Kulcsár, 2013).

In our country, tourists are primarily looking for activities related to nature walks and recreation, wine tourism and festival tourism are also popular.

The National Association of Rural and Agrotourism also attaches greater importance to these ideas, rural tourism does not appear as a clearly demarcated type of tourism product, but rather a complexity characterized by rural natural values, material and spiritual heritage, the values and products of agriculture, and other special offers (Szabó 2006, FATOSZ 2012, Kulcsár 2013).

Village tourism is an area that in most cases serves as an additional source of income for the owner of the accommodation, at least in the past this was the most typical in this area. Nowadays, more and more businesses are being created that are organized only around this area of activity and only try to make a living from it. For this, it is no longer enough for someone to have a guest house with a few beds, but also to provide some related service, or to have several places to stay in order to ensure his livelihood.

Csilla Szalók (2016), the president of the National Association of Rural and Agrotourism (FATOSZ) at the time, during rural tourism, tourists have the opportunity to learn about local customs and culture, local living conditions and traditions, and to participate in them. As a result, rural tourism is linked to locations where tourists have the opportunity to engage in these activities, so sightseers can primarily use rural tourism services in farms, villages, and small towns. FATOSZ's latest interpretation of village tourism in relation to village accommodation is that it provides a complex service in a village environment, which includes activities related to hospitality, accommodation, catering and program services. In addition to the above , village tourism offers tourists the opportunity to learn about the conditions in which the locals live, what their customs, culture, and agricultural traditions are like, and they also have the opportunity to participate in these activities.

Objectives and hypotheses

In choosing the research topic, I was greatly influenced by the fact that I have been working in the tourism sector for almost a decade since completing my BSc studies, and I am fascinated by all its areas, especially the world and atmosphere of village tourism. I already wrote my BSc and MSc theses related to tourism, but over the years I only got more involved in the world of tourism and accommodation services. This economic sector has always been a sympathetic form of business for me. Of course, like all areas , tourism and hospitality have not only beautiful and joyful sides, but also many dark sides. Not all guests are satisfied with their trip, their chosen destination , their accommodation, its equipment and services, which I myself have experienced over the years.

For this reason, in the course of my research, I examined travel and accommodation choice habits in rural tourism in relation to the Békés County Values, which is an attraction in the region, as well as the social perception of a large-scale infrastructural investment in a touristically important area and what impact it has on the village for tourism, for which I conducted an online survey as part of primary research.

During my research, I defined the following objectives:

K1: My objective during my thesis is to show how the infrastructural development, namely the construction of the M44 expressway, has a social perception and what effect it has on the tourism of Békés County. In my opinion, the M44 expressway will significantly and positively change the tourism of Békés county in terms of visitor traffic, once the entire road section is completed. Nevertheless, it will not only have an impact on tourism, but in my view the number of people commuting to work will also start to increase in more developed regions, because in a unit of time people will travel further away, even to the capital, to work, or even together in one vehicle. In the same way, "Viharsarok" can become a more favorable investment zone for companies.

K2: My goal is to examine travel habits in an uncertain period, when everything is constantly changing, we are in the aftermath of an epidemic caused by the virus that causes COVID, and there is a war in a neighboring country . During the pandemic, domestic destinations, primarily those located in rural areas, rose in value . My goal is to examine whether these destination areas still dominate the choice of accommodation.

K3 : Destinations where regional cooperation is based on local attractions and values stand out among domestic destinations. Knowing this, my goal was to examine attitudes related to national values. I support what aspects the population considers important when purchasing products and services that are considered national values, namely by examining the Békés County's Store of Value belonging to my place of residence. Since national values, as travel motivation or attractiveness, are strongly related to rural tourism and the choice of destination , they also significantly influence the choice of accommodation and travel habits.

During my research, I determined the following hypotheses :

H1 : As a result of the coronavirus, the value of domestic destinations has increased , especially accommodation with low capacity . When choosing accommodation, travelers consider accommodation in rural areas based on local values to be important.

H2: The completion of the entire road section of the M44 highway will significantly contribute to the upswing of tourism in the Southern Great Plain, including Békés County, and its population retention power .

H3 : Due to the M44 motorway, the number of commuters going to work starts to increase, because the commuting time is shortened and they are willing to work further away in a unit of time - which also affects the county of Békés.

H4 : When choosing accommodation, travelers consider it important that there are tourist attractions , program opportunities, and a wide range of services near the chosen accommodation.

H5 : In rural tourism, the foundation on local values is important, which provides a multitude of tourist attractions through the Békés County Treasures.

My research questions concern three major topics, which are related in the investigation of tourism in the rural area, but due to the differences, it is worth dividing them into three separate parts. Quantitative research may be appropriate in order to ask a sufficiently large sample about the changes in rural areas. In my research questions, travel and accommodation choice factors to domestic, primarily rural destinations dominate, after that I narrow the

research area to a narrower region, the Southern Great Plain. The tourism competitive advantage of the Southern Great Plain is that it is based on local characteristics, which are also reflected in tourism performance. Travel and accommodation choice habits largely depend on accessibility, which is also true for Békés county. The recently completed M44 motorway is not only changing the tourism of the region, but also the way of life of the people living there. Combining these three researches shows how much rural areas can rely on local resources. My aim with the research is to increase the value of accommodation facilities with small capacity and lesser-known tourist areas and to become suitable for further investments/developments.

My first research question focuses on accessibility and transportation, which I test with hypotheses H2 and H3 .

the tourist destination based on local values , the Valuables of Békés Vármegye will be revealed, which I will first systematize through secondary data collection, and then examine the perception of the population in the framework of quantitative research. My hypothesis H5 is related to local values.

Finally, the question asked in connection with the summary of the entire research, which is meant to search for travel and accommodation preferences, will be examined with hypotheses H1 and H4.

2. MATERIAL AND METHOD

2.1. The methodological background of quantitative research

As primary research, I used a quantitative , questionnaire method. I prepared 3 questionnaires, which I shared on online social media platforms and in various tourist groups. A total of 1,144 valid responses were received to the three questionnaires .

In order to achieve the largest possible number of sample items, I also published my questionnaire on portals and groups that, due to their content, deal with accommodation. This is how I chose the "Rural Guest Houses" group, or a closed group, where people exchange information who for some reason cannot go to the pre-booked accommodation, so they offer it to others at a reduced price. In addition, the questionnaire was published on several university websites and social media platforms of professional organizations, which greatly contributed to the high number of responses. When filling out the questionnaire, I assured my respondents that they were filling out a voluntary and anonymous questionnaire. The essence of arbitrary sampling is that I do not oblige the respondent to fill it in and I do not filter who can fill it out. The advantage of this method is that it is less time-consuming, but it is not representative and also strongly distorts the results.

their definition , questionnaire surveys are structured questionnaires to which a sample of the population provides answers. According to Malhotra (2017), the aim of the questionnaire survey is for the creator of the questionnaire to obtain
quantifiable and generalizable information from the respondent . One of the most popular data collection methods is to have the interviewee fill out a questionnaire. Most of the questions are closed, where the respondents choose

from predefined answers. Questionnaires have many advantages. Among other things, it is easy to use, and secondly, the data is reliable. Pre-formulated answers reduce the distortion caused by the interviewer. In addition, the answers received are relatively easy to code and interpret. However, in addition to the advantages, the method also has disadvantages. Such a disadvantage is that the respondents may not want to answer the questions. Furthermore, it is difficult to ask about motivational factors, because the respondent is not sure that he is aware of what is behind his actions. This also caused the biggest challenge in the questionnaires I prepared. Another disadvantage of the questionnaire is that the respondents do not like to answer certain questions. An excellent example of this is open-ended questions, when respondents prefer not to answer them. However, open questions are essential, as closed questions can reduce the validity of the research. Another challenge is that formulating the questions is a time-consuming task (Malhotra , 2017).

It is important to highlight that the questionnaire survey is the most frequently used primary research and information- gathering technique, which is suitable for descriptive, explanatory and exploratory purposes. A frequently used method, especially when examining concepts such as satisfaction, pain, stress, quality of life. Information can also be collected on attitudes, knowledge, opinions, expectations, and experiences regarding the behavior of the population. The advantage is that it is relatively easy to implement and does not burden the interviewees for the most part, but properly edited and completed questionnaires can provide relevant information , thus often being the only applicable option for certain research topics. The disadvantage is the subjectivity of the researcher and the interviewee, and sometimes the lack of honesty.

With the obtained results, I ran multivariate analyses, factor analysis and cluster analysis using the IBM SPSS program. For the study, I used R-type factor analysis, which is also suitable for information compression (Sajtos-Mitev 2007). The method provides an opportunity to weight individual variables and determine their importance (Lukovics , Kovács, 2011).

the cluster analysis methods , I chose the hierarchical solution, and among the pooling methods, I used the Ward method. The procedure is based on homogeneity of variance, so it can be assumed that homogeneous clusters are formed.

2. 2. Examination of national values

During my first questionnaire survey, I examined the national values of Békés County, during which I basically examined attitudes related to national values. Namely, which aspects the population considers important when purchasing products and services that are considered national values. During the survey, I also explored several other phenomena, for example, regarding the socio-economic status of the respondents, their place of residence, and their knowledge of the national and county treasury. For this, I collected data from primary sources, using an online (Google) questionnaire, which was filled out by a total of 223 people between 15.09.2020 and 30.09.2020. between.

the measurement of attitudes related to local products and market research and the answers to the questions using a Likert scale. The answers can range from 1 to 4 (not at all important, less important, relatively important, very important), in order for the respondent to limit himself in one direction, and not to be comfortable with a neutral answer. So the main question was as follows: "How important are or would be the following aspects to you when purchasing a product/service of national value?"

I was wondering how important the following aspects are for those filling in when they buy a product or service of national value:

- Q161 - Quality of products
- Q162 - Price of products
- Q163 - Freshness of products
- Q164 - Support for local producers and thus the local economy
- Q165 - Hungarian origin of the products
- Q166 - Is it possible to buy discount products
- Q167 - The seller/producer personally provides information about the products
- Q168 - The business has its own website/Facebook page
- Q169 - There is a dining/tasting option
- Q170 - The environment is cultured and clean
- Q171 - Payment by bank card is possible
- Q172 - The person of the producer
- Q173 - The experience and atmosphere of shopping
- Q174 - That the producer knows your shopping habits
- Q175 - The products do not contain additives
- Q176 - Product packaging
- Q177 - Brand name
- Q178 - Marketing the product/service
- Q179 - In the case of food, the taste of the product
- Q180 - Product/service recommended by a public figure
- Q181 - Opinions of others

2.3. The relationship between the construction of the M44 motorway and the tourism of Békés county

During my second research related to travel habits, the social perception and impact of the M44 highway on the tourism of Békés county was on the stage, for which I collected data from primary sources. I created an online questionnaire for this. I published the questionnaire on various social media sites and tourist groups, which was filled out anonymously by a total of 516 people between February 18, 2021 and March 4, 2021.

I created different diagrams and figures from the incoming data in order to illustrate the answers as much as possible. The questionnaire contained closed and open questions in order to get a broader picture of the respondents' opinions regarding the M44 motorway and its impact on tourism, i.e. how the population thinks, what impact it has and will have on tourism after the completion of the entire road section.

2.4. Examination of travel and accommodation choice habits

Finally, my third questionnaire research was conducted between September 9, 2022 and November 25, 2022. I prepared the questionnaire using Google Forms , and I also completed the test questions here. The trial interview took place between September 1 and 8, 2022. In doing so, I asked fifteen people to tell me which parts needed to be modified and clarified after completing the questionnaire. Based on the trial survey, I had to clarify the wording and settings of the questionnaire in the case of the third question related to urban and rural travel . During the answer, the person filling in had to establish a sequence. In order to avoid wrong answers, I have set the mandatory answer per line. In the wording of the question, I drew the respondent's attention to

how he can check his answers. In the second question during the trial survey, related to both urban and rural travel, I was interested in how many times they used accommodation in an average year. However, I did not think that the traveler can use several accommodations during one trip, so I corrected this in the wording of the question . Finally, during the test interview, I was asked to specify in the introduction how the questionnaire is structured. After testing the questionnaires, I corrected the errors accordingly. No other questions arose regarding the rest of the questionnaire, according to the subjects of the test interview, the questions were understandable and clear. I published my corrected questionnaire based on the suggestions , which was answered by a total of 415 people.

After downloading the database, I coded the data in Excel, thereby preparing the data for use with the SPSS Statistics 27 program. During the preparation, I performed data cleaning, handling of missing values, and coding of open questions. I used the filter questions here, since I could not process the answers of those who did not use accommodation. There were those who marked the yes option on the first filter question, so they used accommodation, but they did not "pass" the second filter question (use of urban/rural accommodation). The filter questions proved to be useful, because only those who actually used this type of accommodation completed the questionnaire. After cleaning, I worked with 405 valid answers.

In the first questionnaire, I focused on how consumers' travel and accommodation preferences develop, and what similarities and differences they show. With the help of the quantitative questionnaire method, I can obtain numerical data, which I examine with the help of statistical methods.

From the point of view of research, the main advantage of structured data collection for me is that questions related to travel and accommodation choices

can be coded and interpreted relatively easily. The questionnaire can be filled out via the Internet using scales that can measure the factors of the two mentioned elements, so that the part of the domestic population who have used accommodation in the past year can be reached.

a deductive method, so I asked the specific questions in the second half of the questionnaire. At the beginning of the questionnaire, I applied a filter question, which related to the respondent's travel over the past year. With this question, I narrowed down the answers, since the questionnaire continued for those who took a leisure trip in the past year. In the first half of the questionnaire, I collected questions about the general travel decision and the choice of destination. Among the questions, I asked how often the respondent travels in an average year. After that, my question was directed towards visiting domestic and foreign destinations, that is, towards which one would you rather choose. After that, the respondent had to evaluate on a five-point Likert scale how important a role the selection of the right accommodation plays in their decision. With the help of the questionnaire creation program, I was able to set it so that the questionnaire jumps to the appropriate content unit based on the answers. Finally, I asked the respondents to give a five-point Likert scale evaluation. In the evaluation, I asked the respondent about the trip and the choice of accommodation. When formulating your questions about the choice , I compared the factors included in the model, practical examples from professional life, and the results of qualitative research, thus formulating the evaluation criteria. Overall, it can be said that I mostly used closed questions, due to easier comprehensibility and analysis. For those questions, where the order of the answer options did not show a logical connection, I determined a random order with the help of the program in order to create as little order distortion as possible. I also set conditions regarding the definition of the target group and the number of sample items. From a statistical point of view, the

minimum number of large sample elements is 60 people. A value higher than this provides greater reliability during analyses. A total of 405 valid responses were received to the questionnaire. As the target group of my questionnaire, I targeted those travelers who used accommodation in urban or rural areas during their leisure trips.

2.5. Factor analysis

The factor analysis to show the correlations between the given answers during the questionnaire survey, and also to show the relationships between different attitudes and the effects on the tourism of Békés County.

factor analysis, the final goal is usually to produce as few independent factors as possible, which are able to approximately reproduce the correlations between the measured data. It may happen, however, that the person conducting the investigation considers that it cannot be ruled out that the processes taking place in the background are related to the phenomenon in question. Then, for the sake of better interpretability, the factors obtained during the analysis are usually rotated so that the axes defining the factors are not perpendicular to each other, i.e. the factors are correlated. This is called the oblique rotation or rotation of the factors rotation of factors). If we allow the correlation between the factors , then we must necessarily explain the relationships between them. One possibility is to perform another factor analysis starting from the matrix containing the correlation coefficients between the factors . If the factors obtained in this way are also related, the procedure can be continued until correlated factors are obtained, or only one factor remains as a result of the analysis. The above procedure leads to a kind of hierarchy of factors , which is why this method is called hierarchical factor analysis. This simplified approach only provides information about how the

levels located directly above each other relate to each other, but it is unclear how, for example, the measured variables located at the lowest level are related to the factors located two levels higher (Figure 1). The solution presented below also answers this question.
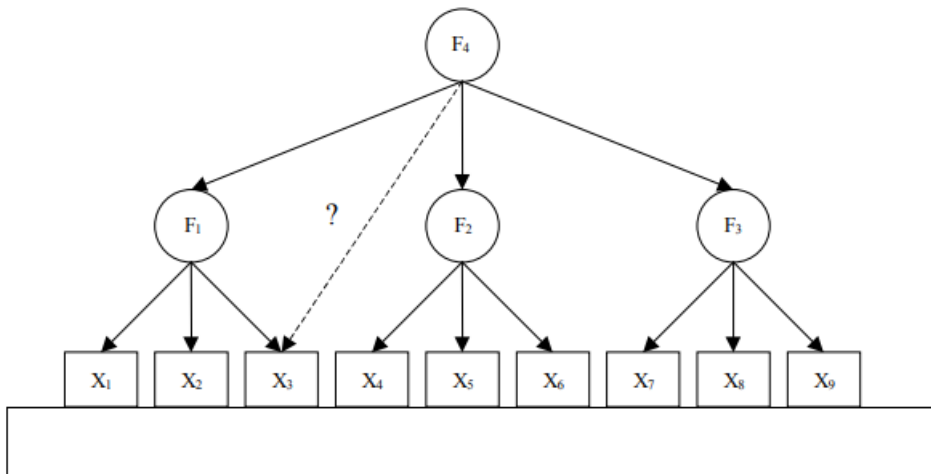
Figure 1: Traditional method of hierarchical factor analysis

Source: Schmied et al . (1957)

Schmied and Leiman's (1957) method for perfecting hierarchical factor analysis presented a completely new procedure in a now classic study. Although the mathematical proof of the procedure is beyond the scope of this thesis, the interested reader can find it in the paper of Schmied and Leiman. Here, I would like to briefly present the course of the procedure. The first half of the procedure is actually the same as the method outlined in the introduction, so it is nothing more than the repeated application of factor analysis starting from the correlation matrices between higher and higher level factors.

2.6. Cluster analysis

I use cluster analysis to classify the respondents into related groups based on the results of the factor analysis carried out after the questionnaire survey, and to associate targeted marketing messages.

Cluster analysis is a dimensionality reduction procedure that can be used to classify and classify blocks of data into homogeneous groups. These groups are called clusters. The data within each cluster are similar to each other according to some dimension and differ from the elements of the other clusters along this dimension. The more homogeneous the groups (i.e. the greater the similarity of their elements) and the greater the difference between them, the more accurate the cluster analysis itself can be said to be. Grouping is based on different distance or similarity measures.

Since the meaningful separation and grouping of data is an important goal of many scientific, business and IT fields, cluster analysis is a frequently used solution for data mining, pattern recognition, image analysis, information retrieval , bioinformatics , data compression and computer graphics.

According to Fülöp (2006), cluster analysis is not a certain specific procedure, but a grouping solution, which divides the original data into meaningful or useful groups (clusters) - depending on the desired end goal. (Fülöp, 2006) Based on this, many different procedures can be used to form clusters, defining the concept of a cluster significantly differently from each other . Popular cluster concepts include clusters containing group members at a small distance from each other, areas surrounding more densely located sets of data, sections, or certain defined statistical distributions. Thus, clustering can become a multi-objective optimization problem . What is the best clustering algorithm and what parameters it is recommended to use, including, for example, the distance function, the density limit, or what the expected number of clusters is, depends

on what the intention is to achieve with the clustering procedure. Cluster analysis is not an automated task, but an interactive optimization process aimed at extracting repetitive knowledge or including trials and failures. During its application, it is often necessary to modify the data and model parameters until the result reflects the desired properties. A typical set of data can be seen in the figure below - they can be classified into different clusters using different clustering procedures. Thus, before the procedure, it is important to define what our goal is, what the exact concept of a cluster is for us.

3. RESULTS AND THEIR DISCUSSION

3.1. Békés Vármegyei Valuables analysis

3.1.1. Treasury factor analysis

this phase of my research , I examined national values, namely how much the population is aware of the values in their own living environment. I first reduced the data received by the respondents using factor analysis. The respondents evaluated the answer options in the questionnaire based on how important they were to them.

The respondents came from several counties: the majority live in Békés counties (55.6%) and neighboring counties.

I was wondering if the respondents could list items from the Békés county treasury on their own during an open-ended question when filling out the questionnaire. It can be concluded that most people mentioned Csaba sausage when filling out the questionnaire. Travel habits and accommodation occupancy data also confirm that by the time the Csaba Sausage Festival is organized, almost 100% of the accommodation capacity in Békéscsaba and the surrounding settlements has already been filled weeks before the event, according to the local TDM and Tourinform offices.

This item was followed by Gyulai sausage, Gyulai Castle, Körös Maros National Park Directorate, Mezőhegyes Stud Farm. Of these, the Békés Tarhosi Music School, István Malm, Orosházi wheat germ beer and Orosházi goose and duck liver or, for example, Gyopárosfürdő were mentioned less often.

KMO and Bartlett's test of sphericity :

Table 1: Results of KMO and Bartlett's sphericity test in the sample

Kaiser-Meyer- Olkin Measure of Sampling Adequacy .		,904
Bartlett's test of Sphericity	Approx . Chi-Square	2421,310
	df	210
	Sig .	,000

Source: own editing

In Table 1, the Bartlett test examines whether the variables in the population are uncorrelated (null hypothesis), i.e. it tests whether the elements of the correlation matrix outside the main diagonal deviate from zero by chance. We would like to reject the null hypothesis, since the factor analysis requires that the variables correlate with each other, preferably as strongly as possible. In this case, the null hypothesis of the Bartlett test (no correlation between the initial variables) can be rejected, since the significance level is lower than 0.05, i.e. the variables are suitable for factor analysis.

The Kaiser-Meyer- Olkin - (KMO) criterion is one of the most important metrics for judging how suitable the variables are for factor analysis. The "goodness" of the KMO indicator can be judged as follows:

- KMO ≥ 0.9 is excellent
- KMO ≥ 0.8 is very good
- KMO ≥ 0.7 is adequate

- KMO ≥ 0.6 moderate
- KMO ≥ 0.5 weak
- KMO <0.5 is unacceptable (Kassai, 2009)

The value of the KMO is 0.904, according to which we can see an excellent suitability for the national values in relation to the examined areas. I illustrate the values for utilities in Table 2.

Table 2: Values of utilities

	Initial	Charges
Q161	1,000	,649
Q162	1,000	,681
Q163	1,000	,633
Q164	1,000	,705
Q165	1,000	,703
Q166	1,000	,786
Q167	1,000	,640
Q168	1,000	,630
Q169	1,000	,619
Q170	1,000	,648
Q171	1,000	,676
Q172	1,000	,694
Q173	1,000	,671
Q174	1,000	,632
Q175	1,000	,640
Q176	1,000	,618
Q177	1,000	,734
Q178	1,000	,787
Q179	1,000	,759
Q180	1,000	,628
Q181	1,000	,538
Extraction Method : Principal Component		

Source: own editing

The communalities values (Communalities , Extraction column) show how the observed variables are explained by the principal components . In the Initial column we find 1,000 before entering the indicators into the analysis, each variable is 100 % carries information . According to the "Loadings" column, the information content of all variables remaining in the factor analysis is sufficient.

Table 3: Analysis of variance summary table

Factor	Initial eigenvalue			Subtraction sums of square loads			Deduction amounts for rotation loads		
	Total	Variance %	Cumulative %	Total	Variance %	Cumulative %	Total	Variance %	Cumulative %
1	8,202	39,059	39,059	8,202	39,059	39,059	4,567	21,746	21,746
2	2,317	11,034	50,093	2,317	11,034	50,093	3,232	15,389	37,134
3	1,361	6,483	56,576	1,361	6,483	56,576	2,720	12,950	50,085
4	1,180	5,619	62,195	1,180	5,619	62,195	2,023	9,632	59,717
5	1,010	4,808	67,003	1,010	4,808	67,003	1,530	7,287	67,003

Source: own editing

The "Variance" table helps to determine the number of factors (Table 3). On the one hand, the factors ' own values inform about this. Their values must be greater than 1. If we encounter an eigenvalue smaller than this, the factor contains less information than a variable. The number of factors can also be determined based on the aggregated (cumulated) percentage of the variance, i.e. we create enough factors to reach a minimum aggregated variance level, for which there are several rules of thumb. In the natural sciences, the accepted variance ratio is at least 95%, while in social science research, 60% is acceptable. The variance explained by the factors is given by SPSS in the default case. The table can be divided into three ternary units, the first contains the initial value (initial eigenvalue), the second contains the values after factor analysis (subtraction sums of square loads), and the third contains the values

after rotation (subtraction sums of rotation loads). The "Total" column shows the eigenvalue, the "Variance %" shows the variance ratio explained by the given factor within the total variance, while the "Cumulative %" column shows the cumulative variance ratio - up to the given factor (Kassai, 2009).

The "Initial eigenvalue" columns present the information content of the factors in a standardized form, i.e. here we can see as many rows (components) as there were starting variables , and the sum of the eigenvalues is the same as the number of components. The "initial" and " after factor analysis" columns of the table are almost identical to each other, but the latter only contains the factors with an eigenvalue greater than 1 that we requested. The analysis shows the factors in the order of the magnitude of the explained variance (Kassai 2009). The factor with the largest eigenvalue/explained variance appears first (4.57 / 21.75%), followed by the second one: 3.23 / 15.39%. (The eigenvalue and the variance are directly proportional to each other.) The five factors preserve a total of 67.00% of information, which exceeds the minimum target of 60 % .

With the help of rotation, the variance explained by the factors can be made more proportional and the interpretation can be made easier. During the analysis, there are cases when indicators that have nothing to do with each other correlate with the given factor , which makes the interpretation problematic. During the rotation, the axes of the factors are rotated in such a way that a simpler and more understandable factor solution is created. " Rotation Sums of Squared The Loadings " block contains the values after the rotation. In the case of the eigenvalues and the variance ratio, there is a minimal rearrangement. The extent of the preserved information does not change.

3.1.2.Rotated component matrix

The component and the rotated component matrix show the connection system of the monitoring variables, describe the location and weight of each variable by factor . Which variable belongs to which factor is known by the so-called refers to factor weight. The factor weight shows the correlation between the original variable and the given factor, the value of which, like the correlation coefficients, can vary between -1 and 1. The larger the factor weight, the larger the factor will explain in the variance of the variable. The reliability of the factor weight depends on the number of sample items. In addition to the number of observation units of the present analysis, we can speak of significant weights for each factor (Table 4).

Table 4: Rotated component matrix

	Factors				
	1	**2**	**3**	**4**	**5**
Q179	,817	,144	,103	,211	,155
Q165	,766	,148	,304	,024	,021
Q164	,751	,115	,345	-,087	,038
Q161	,748	,065	-,077	,237	,153
Q163	,728	,091	079	,180	,238
Q170	,630	,088	,226	,416	,139
Q175	,619	,232	,436	,107	-,032
Q177	,159	,822	,159	,086	-,022
Q178	,313	,787	,122	,188	-,141
Q180	-,106	,662	,323	,099	,254
Q176	,289	,635	,349	,059	,080
Q181	,019	,633	,038	,132	,343
Q174	,010	,348	,694	,097	,141
Q172	,344	,185	,660	,320	-,064
Q167	,370	,162	,642	,134	,217
Q173	,308	,246	,606	,381	-,061
Q171	,134	-,051	,344	,723	,117
Q168	,219	,359	,033	,672	,035
Q169	,186	,409	,205	,581	,192
Q166	,181	,144	,302	,068	,798
Q162	,420	,110	-,167	,181	,657
Extraction method: Main component analysis . Rotation method: Varimax with Kaiser normalization rotation converged in iteration 9					

Source: own editing

We will scrutinize the matrix after rotation, as this is the clearer, more interpretable structure . The first factor included answers to the questions about the taste of the product, the Hungarian origin of the products , the support of

local producers (thus the local economy) , the quality of the product, the freshness of the products , the environment is cultured and clean, and the products do not contain additives . Among these indicators, higher correlations can be discovered, and according to our results, these have the greatest strength on the given factor . The created factor was named the *Product main component* , the answers move together positively, i.e. those who consider the taste of the product important, the Hungarian origin of the products, the support of local producers, the quality of the product, the freshness of the products, the civility and cleanliness of the environment are also important to them. , and that the products do not contain additives.

the second factor the brand name, the marketing of the product/service, the product/service recommended by the public figure, the packaging of the product, the opinions of others , all of which are strongly related to the latent variable. The second factor created was called Marketing *aspects* . The variables in the factor also move together, for whom one phenomenon is important, along with the others.

the third factor : the person of the producer, the experience and atmosphere of the purchase, the fact that the producer knows your shopping habits, the seller/producer personally provides information about the products. This factor was named the *Producer factor* . As before, all variables are included in the factor with a positive sign . The main answers move together.

The fourth factor is made up of three aspects, between which a very strong and positive relationship can be discovered, namely, the possibility of paying by bank card is provided, the store has its own website/Facebook page, and there is a dining/tasting option. Based on these, the fourth factor was named Extras , since these are factors that are not basic conditions for the operation of a store, but appear as extra services .

, two variables were included in the fifth factor , the price of the products and the possibility to buy discount products. They are also positively related, both have the same sign. The factor was named Price Sensitivity, as it closely interacts with the prices *of* products and services.

3.1.3. Cluster analysis - National values

The first cluster consists of 32, the second 30, the third 31, the fourth 4, the fifth 51, the sixth 35, and the seventh 10 elements. The clusters can be considered homogeneous, their internal dispersion in the case of one factor does not meet the statistical requirements. (In the case of the Extras factor in the fourth cluster .) According to one-way analysis of variance, each factor is significantly different for each group. The most significant differentiation can be observed in terms of product quality , followed by price sensitivity, the producer factor , the existence of extras and finally marketing aspects.

The first cluster is determined especially by the factor containing marketing characteristics , but also by the factor of producers, extras and price sensitivity, these factors are more important than the average when choosing a local product. It is interesting, since the characteristics regarding the quality of the product (taste, origin, quality, freedom from additives) are below average. This cluster was named "Market Aspects".

defined by marketing aspects and extras . The first characteristic is well below average - that is, it is not an important characteristic - while payment by bank card, the availability of the website/Facebook page and the possibility of tasting/eating are important. The importance of product quality is slightly above average, while price sensitivity is also an important factor. The producer factor is below average, and the producer's attitude is not decisive when buying local products. The cluster was named "Experience Package".

For the third customer cluster, the existence of extra options does not particularly determine the customer's behavior, but the one related to the producer and product quality is even more so. Attitudes related to marketing tools and price sensitivity are average, on the basis of which it was named "Quality consumers".

The fourth cluster has a small number of elements (affects 4 people), they represent an outlier group. In the examined sample, a significant difference can be seen in two factors compared to the others. Marketing related to local products does not matter at all, but the producer's attitude during sales and information is even more important. In addition, prices are also determining factors for customers when purchasing. Product quality and the presence of extras are scattered around the average for the group. The cluster was named "Human factor".

In the case of the fifth group of customers, low price sensitivity is one of the most decisive factors , and the quality of the product is decisive. The other factors are average, the availability of extras slightly exceeds the calculated average value. The cluster was named " Price Insensitive ".

In the sixth group, the role of the producer factor is very low, and price sensitivity significantly influences customer decisions. In addition, the extras and marketing factors are far below average, these factors are not important for customers. The demand for product quality is average. The cluster was named " Price Sensitive ".

The last, seventh cluster is small in terms of the number of employees, it does not reach 5% of the sample. A below-average attitude can be detected with regard to all factors, but the characteristics affecting product quality stand out compared to the other groups, as well as price sensitivity and the presence of extras are also significant factors when purchasing local products. I named the latter group "Uninterested".

3.2. The impact of the M44 expressway on tourism in Békés county

An analysis of the relationship between the M44 and tourism was completed at the same time as the other questionnaire, quantitative survey. My goal with the questionnaire survey was to find out how the local population, in particular, perceives the change in their environment and the conditions of the tourism situation as a result of a serious infrastructural development. Tourism is fundamentally an extremely vulnerable industry exposed to many factors, which immediately reacts to changes in external influences. I completed the questionnaire online using Google Forms . I shared the questionnaire through the best-known social media interface, on my own profile and in the information groups of the settlements in the area. This was of great importance, since the local residents feel the change of the impact better and know the antecedents and consequences of the M44 better. For them, the construction of the road is of cardinal importance in everyday life .

During my questionnaire survey, I first scrutinize the demographic data and examine them in more detail. After the composition of the respondents becomes clear, the questions regarding the M44 highway and the attitude of the respondents towards them will be in focus . Before editing the questionnaire, I tested the set of questions. In some cases, the questions had to be refined to make them comprehensible even for the respondents who do not live in the area, but have a connection with the road. I published the questionnaire at the previously indicated time, and then it was open for filling out until the beginning of March. In 12 cases out of 516 valid answers, due to wrong settings, I received an incorrect answer. I then corrected it and the data included in the analysis count from then on.

The first part of the questionnaire therefore begins with demographic data. The first question from the first block referred to the gender of the respondent. Of

the 516 valid answers, the ratio was almost half: 44.19% were men, while 55.81% were women. The next question was about where the applicant lives. To help with the county breakdown, I listed all 19 counties in the questionnaire, so the respondents could indicate their place of residence with a simple choice. Most of the respondents came from Békés County, 62.21% of those who completed the questionnaire. Until then, the counties of Jász-Nagykun-Szolnok and Csongrád followed with the second largest share. The residents of these counties are the most affected by the construction and daily use of the M44 , so it can be rightly assumed that their answers will lead to realistic conclusions.

In addition to the place of residence, its type was also a factor included in the analysis. Figure 13 illustrates that most of the respondents live in small towns and villages. 1.94% of those who fill in are in farms, 31.98% in villages with less than 5,000 people, 48.45% in small towns with between 5,000 and 20,000 people, 12.60% in medium-sized cities with between 20,000 and 100,000 people , 2.71% in cities with over 100,000 people, and 2.33% in the capital.

Table 5), I summarized how the proportion of fillings was distributed in the different age groups. Those under the age of 18 accounted for less than 1% of the sample as a whole. Those aged 18-23 made up 10.85% , those aged 24-30 11.43 % . The highest proportion were between the ages of 31-40 and 41-50. The former accounted for 18.41% , while the latter accounted for 27.13% of the sample. The fillings followed a normal distribution, since the middle values were outstanding, and the youngest and oldest were less.

Table 5: Age distribution of those who completed the questionnaire

Under the age of 18	0.78%
Between 19-23 years	10.85%
Between 24-30 years	11.43%
Between 31-40 years	18.41%
Between 41-50 years	27.13%
Between 51-60 years	17.05%
Over 60 years	14.34%

Source : own editing

I was also curious about the labor market status of the applicants. Here, the respondent had the opportunity to provide several answer options. Only 1.82% of the applicants are secondary school students, and 2.73% are full-time students of higher education institutions who do not work alongside their studies. Similarly, 2.55% are students at a higher education institution, but work in addition to their studies , and 3.28% are correspondence students at a higher education institution who also work in addition to school . 4.74% of those who filled in the status of employee with a basic education . The highest proportion of respondents with secondary and higher education were present in the sample. 24.59% had secondary education and 30.78% had higher education. Entrepreneurs and pensioners had a higher proportion, with nearly 10% each .

After the general demographic data, more specific questions followed. The question related to how the respondents get to their workplace (Figure 14). It was possible to mark several of the answer options. Most people go to work by car, while the second most popular answer was a bicycle. From the point of view of the analysis of the expected effects of the M44 road, it is favorable that nearly half of the respondents go to work alone with their vehicle.

3.2.1. Factor analysis - M44

The following factors were created as a result of the component matrix. Two factors were separated. The first 4 values belong to the first factor , then the last three lines are related to factor number 2 (Table 6).

I named the first factor as infrastructure conditions, while the other as development potential.

Table 6: Rotated component matrix

	Component	
	1	**2**
Today's quality requirement	,665	,169
Sufficient branch junction	,597	,057
Commuting to work	,543	-,020
Inferior road network quality	,491	,323
Southern Great Plain tourism effect	-,174	,804
Investment targets	,211	,631
The population retention force of the countryside	,410	,613
Method: Principal component analysis		

Source: own editing

3.2.2. Cluster analysis - M44 motorway

After the factor analysis, I performed a cluster analysis using the Ward method. The Ward analysis is the best way to create clusters (Table 7).

Table 7: Cluster analysis - M44 motorway

	1	2	3	4	5	6
Today's quality requirement	0.718	0.636	0.691	0.654	0.652	0.71
Importance	0.807	0.885	0.992	0.743	0.79	0.932
Rural population retention force	1.106	1.187	1,093	1,073	1.008	0.734
Southern Great Plain tourism effect	0.637	0.49	0.774	0.555	0.668	0.636
Investment targets	0.482	1,393	0.417	0.382	0.452	0.451
Sufficient branch junction	0.626	0.658	0.678	0.621	0.655	0.718
Inferior road network quality	0.873	0.862	0.82	0.869	0.835	0.648
Commuting to work	0.645	1,274	0.818	0.579	0.837	0.587
Sample distribution	24.81%	18.22%	14.34%	17.64%	13.18%	11.82%
Item number	128	94	74	91	68	61
Cluster name	A forward-looking option	A developing region	Practicality	Speed	Rural options	Small dissatisfaction

Source: own editing

Using the methodology, I created six clusters. The clusters created using the table created with the Ward method were given the following names: forward-looking opportunity, developing countryside, practicality , speed, rural opportunities, minor dissatisfaction.

The characteristic of the first cluster is that the participants consider highways important as the requirements of today. Its infrastructural features (such as gas stations, rest areas, etc.) play an important role in whether the given person chooses the route. In addition, it is important that the created road is covered with a safe and well-maintained pavement. The forward-looking indicator is manifested in the fact that the people filling in have confidence in the population retention power of the region. The expected effect of the development of motorways is that, at a certain level, it provides the local population with conditions that prevent people from emigrating, but rather commute on a daily basis , so that they can remain in the rural areas as a way of life . The quality of inferior road networks drives travelers to the motorway. Since the quality of the asphalt is not everywhere so that even low-floor vehicles can drive easily, the road is a safer and more predictable option. It accounts for 24.18% of the sample , which means 128 people.

The second cluster was named the developing region. There are a total of 94 people in the sample, which represents 18.22% in terms of their share . The quality of highways and their continuous development are important to them. Similar to the first cluster, they believe in the population retention power of the countryside . The highway is seen as being created by large companies for investment purposes, due to the use of cheap local labor. And highways are preferred over lower-order routes. Another important feature of the cluster is that commuting to work is taken as a basis, so the quality of car journeys and the time it saves are important.

The third cluster was named practicality . 74 of the entire sample make up this group, which is 14.34 % . It is also important for them to create such new places that are suitable for transportation. As can be seen in all the clusters, it stands out here as well to increase the population retention power of the countryside. By avoiding inferior roads, commuting is better and they are happy to switch to the highway.

sample with a share of 17.64% , which includes the answers of 91 people. Its most important feature is to avoid inferior roads. I named the cluster speed, since they can best be described as how to get from one place to another the fastest. The majority of the sample was men, from the age group younger than 30.

The fifth cluster was called rural opportunities, and its share was 13.18%, which represents a total of 68 people. What they highlighted most about their rural lifestyle was that they moved to a rural settlement with the development of highways, so commuting to work is easier and takes less time.

Finally, the sixth cluster was named small dissatisfaction, since the people here are dissatisfied with the completed infrastructure, its design and implementation. The sample includes 61 people, representing an 11.82% share .

Overall, it can be said about the cluster analysis that the satisfactions and dissatisfactions of the members of the sample can be clearly seen from the 6 clusters. The construction of the highway brought many good opportunities (e.g. the impact on tourism). However, through more conscious planning, it could have been designed even better and more demanding. Another observation is that with the involvement of local key actors and the population, it could have been an even more socially accepted and popular investment.

3.3. Travel habits and choice of accommodation

3.3.1. Factor analysis – Travel habits and choice of accommodation

Overall, it can be said that the descriptive statistics helped to better understand the travelers' attitude towards the choice of accommodation and their general travel habits. In the following, I will further investigate the characteristics of the sample by using mathematical and statistical methods.

It can be said that with the descriptive statistics I got a general picture of the factors of urban and rural destination and accommodation choice. In the following, I will reveal the deeper relationships with a multivariate analysis. In the first step, I examine whether the mathematical-statistical method I defined, factor analysis, is suitable for analyzing the data. Factor analysis is nothing but a method based on mutual correlation, where a large number of initial variables are included in the analysis, there are no dependent and independent variables (Malhotra , 2017). My goal is to use factor analysis to apply data reduction. However, the following conditions must be met in order to use it. When choosing variables, it is necessary to pay attention to the use of metric variables. Regarding the distribution of the variables, deviations from normality and linearity are important, because violating these conditions reduces the value of the correlation coefficient between the variables (Sajtos et al ., 2007). The relationship between variables and multicollinearity can be considered desirable conditions. I check the fulfillment of this with the help of the correlation matrix between the variables. The homogeneity of the sample is important, which is why I conduct my research on a separate urban and rural sample. When determining the sample size, the larger the number of sample elements, the more reliable the result. There is no accepted opinion, but some researchers say that the number of elements should be at least 3 times more than the number of variables. For the analysis, I call up the previously

described answers, so the metric data in the questionnaire is first applied to the urban sample, then to the rural sample. The respondents expressed their opinion on a five-point scale, where one meant that it did not influence their decision at all, while five meant that it had a complete influence on their decision. During my investigation, I chose the principal component analysis, since I want to reduce the number of variables with a minimal loss of information. After that, I checked the suitability of my data.

, I looked at the value of the Kaiser Meyer- Olkin indicator, which has a value of 0.766. This is the most important metric during the factor analysis, as this is where I judge how suitable my variables are for factor analysis. My value is correct, so it is suitable for analysis.

significance level of Bartlett's sphericity test is examined, its value is 0.000. Overall, the presence of correlation, the KMO value and the Bartlett test support that the variables are suitable for factor analysis. I use the Kaiser criterion to determine the ideal number of factors.

This says that the eigenvalue of the factor must be greater than one. Based on this, six appears to be the ideal factor number for me. Based on the explained variance ratio, i.e. that the variance explained by the factors should be at least 60%, therefore the ideal factor solution also works. The eigenvalue diagram can also be examined, which shows that the ideal solution also works, since there is a steeper break here. After applying the Varimax rotated solution, these results are obtained. Thus, at least one variable belongs to each factor . The utilities are also good, there is no value below 0.25. All solutions are ideal , so the names of the factors follow. If a variable is listed with a negative weight, it should be interpreted in the opposite way.

the principal component method and familiarizing yourself with the previously known conditions, it is clear that the data are suitable for factor analysis. In

addition to the inclusion of different numerical values, the factors were formed according to the table shown above. Among the 10 factors, the first factor included the income, the education of the person filling in, the means of travel that he often uses for his trips, the lifestyle of his residence, and the number of stars obtained in the mandatory rating of the accommodation. Taking into account the common aspects and reducing the factors, I named this factor convenience .

This was followed by the factors included in the second factor , such as the examination of guest experiences of a specific accommodation, the infrastructural equipment of the accommodation and knowledge of the accommodation category. I have to make a short observation here. Government Decree 239/2009, which deals with the detailed conditions for the continuation of accommodation service activities and the procedure for issuing the accommodation operating license, differentiates between the types of the domestic accommodation market. According to this, in addition to the well-defined hotel, there are boarding houses, campsites, holiday home complexes, community accommodation, as well as private and other accommodation in our country. The government decree clearly identifies the parameters that each accommodation must have in order to comply with the given category . In the communication related to domestic tourism management, it does not make a big difference between types of accommodation, so it is less easy for consumers to distinguish accommodation. However, among those who marked this with a high value, there are conscious travelers. The decision based on the accommodation category , the evaluation of the guest experience and the equipment of the accommodation were included in one factor, which I called objectivity as a summary name.

the third factor, the aspects of the hotel's operation came into focus. When I prepared the questionnaire, I had a definite idea that I would include questions in the questionnaire that could be filled out by those who may already have experience in the operational operation of the accommodation or have already participated in it, since their opinion also shapes the opinions regarding the choice of accommodation . The factor thus included factors such as: accommodation ownership, accommodation workplace and compliance with the certification requirements of the Hungarian Tourism Quality Certification Board. Based on this, I named the factor accommodation experience.

the fourth factor , a statement was included in which it is important for the traveler to be able to communicate with colleagues in his native language or to have valid travel insurance during his vacation. I called this factor safety.

The next factors included in the fifth factor were the possibility of choosing breakfast and wellness services. In addition, it is interesting that this factor includes the fact that the cancellation of the vacation may be canceled due to the economic situation. I named this factor convenience, since here tourists think within an absolute framework: there should be fixed services, which are fixed under flexible conditions.

The sixth factor was dominated by luggage storage, the behavior of the receptionist and the presence of attractions close to the accommodation. These characteristics are such plus points when choosing accommodation that I named the factor itself based on this, since they can best be explained this way these factors.

the seventh factor, the friendliness of the receptionist and the differences in the accommodation category were included, the factors are organized around the differences, so I named the seventh factor accordingly.

the eighth factor, the destination came into focus, since evaluations according to social media often play an important role in their choice, in addition to this, the other factor is the examination of online evaluations. Knowing this, I used the term destination focus .

The ninth factor included age, 24/7 reception availability, and correctness of travel after COVID. Since travel after the virus was included in the decision, as well as some safety aspects, I identified this factor with the name COVID-safe .

Finally, in the last factor , the condition for modifying the reservation was the involved factor, I matched this with another adjective, so the name of the factor was also related to this.

the factor analysis , the factors with numerical values were reduced, so the factors may be suitable for cluster analysis in the future. As a result, I used the following to name the factors : comfort aspect , objectivity, accommodation experience, safety, comfort, plus aspects, differences, destination focus , COVID- safe and others.

3.3.2. Cluster analysis – Travel habits and choice of accommodation

1) The first cluster is called the service-centric travelers, because it is characteristic of them that they evaluate the accommodations according to objective aspects, and during the choice they try to set up a sequence according to such factors, and then make a choice. In addition to the extra aspects, such as various services: wellness facilities, breakfast facilities, etc. they pay a lot of attention. In addition to the services, travelers are also ranked based on the location of the destination and its assessment on social media and guest reviews. It is also important that they can book under flexible conditions. For

them, the favorable conditions provided by booking.com may be one of the booking options. They are present in the sample with a share of 21.48% . It was typical for a total of 87 travelers, so service-oriented travelers were represented with the second largest proportion among those who completed it.

2) The second largest proportion was represented by safe travelers, so I named the second cluster safe travelers. They are characterized by the fact that they are strongly influenced by comfort aspects, they choose on the basis of objective criteria, and the destination plays a decisive role in the decision. In addition, due to COVID, they re-evaluated the number and frequency of their trips. Safe travelers were present in 28.89% of the sample , which in numerical terms was 117. Safe travelers choose accommodation where cancellation and booking conditions are clarified in advance, the staff's attitude towards guests is positive, and the accommodation has a strong presence on social media. Hotels and guesthouses are usually behind their choices because of security, because this is where they feel the security that the place and the brand behind it can provide.

3) Also with a high distribution, the third cluster represents a high proportion in the sample. Leisure travelers are included in the cluster in 17.04% . Relaxed travelers are similar to safe travelers, but for them language skills, travel insurance, and the evaluation of the mandatory star rating operated by the Hungarian Tourism Quality Certification Board are also important. The purpose of the mandatory rating introduced in January 2022 is to evaluate accommodations based on an objective system of criteria and classify them into comfort levels. In the case of accommodations that entered the market after 2022, star rating is now mandatory. In the case of hotels and boarding houses, the previously classified accommodations received the stars, which they can use for 3 years. For the travelers in the cluster , when choosing

accommodation, in addition to online guest reviews, the accommodation's star rating is also a consideration.

4) The share of the fourth cluster is 10.37%, which represents the opinions of a total of 42 travelers. A truly special situation has developed in this cluster, since the people filling in are simultaneously running accommodation and taking part in the trip as individuals. As travelers, the accommodation owners also prioritize comfort. It is interesting that they pay less attention to the accommodation rating system and the stars earned there, for them this is not as influencing a factor as in the case of other travelers.

5) The fifth cluster includes absolutely objective travelers. Their share in the entire sample is 3.70%, a total of 15 people. Their essential element is that they do everything based on objective aspects: ratings, opinions, descriptions. They are exposed to these factors when choosing accommodation and during their travels.

6) Conscious travelers are in the sixth cluster. Conscious travelers take the services and all other factors into account, carefully think through what pros and cons arguments they can list next to each route. Their share in the sample is 10.37%. A total of 42 people belong to this group.

7) Finally, the seventh cluster included analytical travelers. It is typical for them that, like conscious travelers, they consider the arguments one after the other when choosing accommodation and finally choose the one that is the most favorable not only based on price, but also on the basis of all other factors.

During the cluster analysis, the segments that can be distinguished during the choice of accommodation were determined . The identification of the segments is useful, among other things, because it is possible to prepare specific offers and messages for them that specifically address them.

4. CONCLUSIONS AND RECOMMENDATIONS

At the beginning of the research, the following hypotheses were formulated:

H1 : As a result of the coronavirus, the value of domestic destinations has increased , especially accommodation with low capacity . When choosing accommodation, travelers consider accommodation in rural areas based on local values to be important.

H2: The completion of the entire road section of the M44 highway will significantly contribute to the upswing of tourism in the Southern Great Plain, including Békés County, and its population retention power .

H3 : Due to the M44 motorway, the number of commuters going to work starts to increase, because the commuting time is shortened or they are willing to work further away in a unit of time - which also affects the county of Békés.

H4: When choosing accommodation, travelers consider it important that there are tourist attractions , program opportunities, and a wide range of services near the chosen accommodation.

H5: The foundation of significant local values in rural tourism provides a multitude of tourist attractions in connection with the Békés County Valuables .

In the course of my research, I found that rural tourism represents the sustaining power of the countryside , and also helps the viability of small and medium-sized enterprises in the village. The range of service providers does not only include village accommodation providers, but also various other service providers, such as tour operators, bike or boat rentals, horse service providers, but also organic farmers and primary producers. In the field of rural

tourism, the network of the National Association of Rural and Agrotourism , which has already been established, manages the local and county village organizations and destinations with professionalism under the leadership of experienced specialists, President Pál Frankó, and his leadership and guidance . Therefore, in my opinion, in terms of further development, it is absolutely necessary to support the organization in the future.

In any case, an organization like the National Association of Village and Agrotourism is needed in the future , which unites the village organizations of the county, and thus the local service providers. In order for village tourism to show further growth, it is important to attract young people to the profession, and for this, the unconditional support of the Hungarian Tourism Agency is necessary. Village accommodation owners who own a guest house cannot represent themselves individually up to management. FATOSZ is a support that should be given an ever-increasing role and authority in the coming years, because they are primarily faced with specific problems by the members.

Village accommodation providers must also strive to develop quality tourism. Although FATOSZ awards the 4 sunflower designation and the Hungarian Tourism Agency the high-star rating, a service provider must continue to comply with it even after the certifications, since the MTÜ's certification officers can carry out ad hoc inspections at the catering establishments at any time.

In accordance with the research objectives, I formulated five research hypotheses . **My first** hypothesis **was** related to domestic travel and accommodation habits. The focus of my presentation was that travelers were unable to travel due to the closure of borders as a result of the COVID-19 pandemic. Due to the epidemic situation, many people avoided large crowds and crowded places. This encouraged people to choose domestic destinations,

which tended to be less crowded and more relaxed. As a result, the attractiveness of rural areas and small settlements increased, which was also reflected in the visitor traffic data. Low- capacity accommodations typically offer fewer rooms or units, allowing guests to distance themselves and stay in a safer environment, which was an important consideration during the pandemic. During the coronavirus epidemic, people put more emphasis on being close to nature and a calm environment. Rural areas offered and continue to offer such values, and thus become more attractive to those who want to escape from the hustle and bustle of the city and crave fresh air. People increasingly value authentic local experiences and cultures. Small accommodations in rural areas often offer a direct connection to local communities and culture that meet these needs of travelers. My first hypothesis was the following: As a result of the coronavirus, domestic destinations have risen in value , especially accommodation with low capacity. When choosing accommodation, travelers consider accommodation in rural areas based on local values to be important. My first hypothesis , which according **to the coronavirus, the value of domestic destinations has increased , so that accommodation with low capacity in particular. When choosing accommodation, travelers consider it important to find accommodation in rural areas based on local values - I used** statistical methods (Levene test) **to verify** my statement .

second and third hypothesis were related to my first research question. The second hypothesis was the following: **the completion of the entire road section of the M44 motorway will significantly contribute to the upswing of tourism in the Southern Great Plain, including Békés County, and its population retention power .** The completion of the entire road section of the M44 motorway will provide greater access to the region's tourist destinations. It is important to assess how this affects the development of tourism, the

attraction of new visitors and the development of tourism infrastructure in the region. In connection with this, the research question and related hypotheses were formulated . The completion of the road creates opportunities for new businesses and investments in the region. The new infrastructure and the boom in tourism create jobs in the region, which can contribute to reducing population migration and increasing the population retention power of local communities. Road construction and the boom in tourism can also have environmental effects, which are important to take into account from the point of view of the sustainable development of the region. I chose hypothesis testing to test the thesis. Based on this, my **second hypothesis was confirmed.** The completion of the M44 highway has an impact on the tourism performance of the Southern Great Plain.

According to my third hypothesis **, the number of commuters going to work will start to increase due to the M44 motorway, because commuting time will be shortened or commuters will be willing to work further away during a unit of time - which also affects the county of Békés.** The opening of the M44 motorway can result in shorter travel times for employees who work in or around the Békés county and live in the region. As a result, it will be a more attractive option for them to accept jobs further away, as the new route can reduce commuting time. The opening of the new road allows employees to more easily reach more distant workplaces, which were previously more difficult to reach. This allows them to search for job opportunities more widely, which can increase the number of commuters in the region. The new highway could contribute to economic development and industrial growth in the region. New businesses can appear, new jobs can be created, and existing companies can expand. As a result, the number of workers looking for work in Békés County is increasing, and the new highway will

make it easier for them to reach new workplaces. However, during the hypothesis test, **my third statement was also verified** .

my fourth hypothesis **, when choosing accommodation, travelers consider it important that there are tourist attractions, program opportunities, and a wide range of services near the accommodation to be chosen.** Travelers are often looking for a location where they can comfortably relax and unwind, but at the same time have easy access to various programs and services without having to travel long distances. An accommodation that is close to tourist attractions and other activities can be an ideal choice for such travelers. It is important for travelers to save time and money in accessing programs and attractions. If the accommodation is close to these, the time and cost spent on the trip can be reduced, and the programs can be more easily integrated into the daily plans. Having a wide range of amenities close to your accommodation allows travelers to plan more flexibly. For example, having a restaurant, shop, or tourist office within easy reach of the property helps travelers satisfy their needs and wants more quickly and easily. The proximity of tourist attractions and program opportunities enriches the travel experience. Travelers love to discover new things, visit special places and try interesting activities, and a hotel close to many of these options can make the trip more attractive. My goal was to determine the factors that are closely related when planning and booking a trip, and which are really important and decisive for guests when booking a trip and an accommodation. **My hypothesis was confirmed** , according to which it is important for travelers to have outstanding tourist attractions near the accommodation.

Finally, in accordance with my fifth hypothesis , I examined that **the foundation of significant local values in rural tourism offers a multitude of tourist attractions in relation to the Békés County Valuables.** Among

other things, my goal here was to examine attitudes related to national values. The cultural and historical values included in the Békés County Treasures can be a significant tourist attraction. For example, museums, castles, castles, churches, folk architectural monuments, etc. These attractions attract those interested in exploring the region's cultural heritage and historical background. The local foods, drinks and gastronomic traditions included in the Békés County Treasures can also represent an important tourist attraction. Tasting and getting to know the traditional dishes and local specialties made in the region can be attractive to those interested in enjoying local culinary experiences. Buying and learning about products made by local artisans , as well as tasting and buying products produced by local producers can be an important part of the experience of a trip. The cultural and folklore values included in the Békés County Treasury can be a source of inspiration for various events and festivals. For example, folk dance festivals, local festivals, craft fairs, etc., which attract visitors and provide an opportunity to learn about and experience local culture and traditions. My **fifth hypothesis was confirmed.**

Destination Management Organizations, traditional preservation associations and other grassroots civic initiatives are once again important players in the cooperation between the service providers and the destinations concerned . It is important to support these organizations from above and, according to my proposal, involve them at a higher level in decision-making, since without their unifying work and activities, the village service providers would not have access to representation and would be deprived of a lot of information .

The aim of our research was to explore and analyze the relationship between local values and tourist attractions , as well as to understand how they contribute to the upswing of rural tourism and the economic development of

the region. During the research, I examined several important research questions, which were as follows:

attractions included in the Békés County Treasures affect the tourist attraction and attendance of the region?

What is the impact on rural tourism of the completion of the entire road section of the M44 motorway, especially with regard to the increase in the number of commuters going to work?

How do low- capacity accommodations contribute to the upswing in rural tourism, and why do accommodations in rural areas based on local values become more attractive to travelers?

How can the local values and tourist attractions included in the Békés County Archives be effectively used in the development and promotion of tourism?

5. NEW SCIENTIFIC RESULTS

NEW SCIENTIFIC RESULTS AND THEIR EVALUATION

In the course of my research, I explored travelers' tourist preferences and trends in rural tourism, including accommodation selection criteria, travelers' needs and expectations regarding tourist experiences.

H1 →E1: As a result of the coronavirus, the value of domestic destinations has risen , especially accommodation with low capacity . When choosing accommodation, travelers consider accommodation in rural areas based on local values to be important. My research shows the specific needs and preferences of travelers during domestic trips. Within this, the attractiveness of accommodations in rural areas and local values such as traditional catering, proximity to natural attractions, etc. can be prominent. My research helps to understand the dynamics of tourism trends and changes, especially as a result of the coronavirus epidemic. The new research findings reveal to what extent and in what form travelers' preferences have changed when traveling to rural areas following the pandemic , as well as what long-term effects these changes may have on tourism. Based on my new research results, more effective tourism development strategies and measures can be developed, the aim of which is to support low- capacity accommodation and boost rural tourism. As part of this, special attention can be directed to the development and promotion of accommodations based on local values.

Statistical explanation:

The Levene test sig : 0.273, so I continued with the hypothesis test. F-test value: 1.291. The associated significance level: 0.243. The value of eta ^{2} is 0.41. The relationship between the two variables is thus classified as moderate.

My assumption that domestic destinations have risen in value as a result of the coronavirus has been confirmed, especially accommodation with low capacity . When choosing accommodation, travelers consider accommodation in rural areas based on local values to be important.

H2 →E2: The completion of the entire road section of the M44 motorway will significantly contribute to the upswing of tourism in the Southern Great Plain, including Békés county, and its population retention power . In the course of my research, I found that the M44 expressway already contributes greatly to the recovery and tourism development of Békés County. And after the completion of the entire track section, the number of travelers and visitors to Békés county can start to increase. At the same time, the amount of tourism investments may also start to increase, since from one end of the country, e.g. It will be possible to get from Győr to the other end, Gyula, by highway, which is an old dream of the "Viharsarok". Many people visit the county of Békés on the completed section of the M44 highway, as there are real gems in this county, such as the natural and built national treasures of Szarvas and Gyula. The Szarvasi Arboretum is visited by thousands of guests every week during the summer, and even from Mosonmagyaróvár come to the Water Theater to see their favorite stage show one evening, and thus even generate a guest night.

Statistical explanation:

The Levene test sig . value is 0.723. According to this, the H0 hypothesis is not rejected, but the value of the F-test is examined. The value of the F-test is 4.243 and the corresponding sig is 0.425. After that, only the determination of the strength of the relationship follows. eta ^{2} : 0.14, which is considered a weak relationship. The completion of the entire road section of the M44 highway

will thus contribute to the upswing of tourism in Békés county and its population retention power .

H3 →E3: Due to the M44 motorway, the number of commuters going to work starts to increase, because the commuting time is shortened or they are willing to work further away in a unit of time - which also affects the county of Békés.

third hypothesis was confirmed. Thanks to the M44 expressway , the number of commuters starts to increase, because the commuting time is shortened, and the population living in the Békés county can get to work further away in the same amount of time, and the delivery time of products is also shortened.

This is proven by the fact that many people are already going from Békés County to Kecskemét to work at the Mercedes factory. Many people deal with transporting workers to companies in an organized manner, thereby saving costs. At the same time, people will not only be able to get to Kecskemét faster, but also to Budapest, because many people are already commuting , even though the entire road section has not yet been completed. This will certainly start to increase if, specifically , it is possible to get from Gyula to the capital by expressway. My hypothesis is supported by the fact that, as a result of my primary research, I defined a cluster whose members are most important to be able to avoid inferior roads. I named this cluster "speed", since they can best be described as how to get from one place to another in the fastest time.

Statistical explanation:

As a result of the hypothesis test, the variable included in the analysis, the method chosen to test the hypothesis A, is ANOVA. The null hypothesis of the Levene test was proven, as the significance level is 0.800. According to this,

the F test can be performed, the value of which is: 4.344, sig . value: 0.435. According to this, the value of eta2 is 0.34, which suggests a weaker than average relationship.

H4 →E4: When choosing accommodation, travelers consider it important that there are tourist attractions , program opportunities, and a wide range of services near the chosen accommodation.

I named the created cluster "service-centric travelers", as it is characteristic of them that they evaluate accommodations according to truly objective criteria, and during the selection process they also make sure that the selected accommodation meets these criteria. In addition, they also pay attention to the extra aspects, such as various services, such as wellness, the possibility of breakfast, etc., to which they pay a lot of attention. Apart from these aspects, in addition to the services, the location of the destination , its ranked popularity in social media and the flexible booking and cancellation conditions are also important and decisive. I can confirm from experience that it is particularly important for guests to have the program options and tourist attractions near the accommodation that they looked for in advance when they planned their trip to the given settlement . Countless times, guests ask how far the Szarvasi Arboretum and the Mini Magyarország Maketpark are on foot from the accommodation, for example, or whether they should go by car. Mainly the 60+ age group tend to hesitate whether to take a 30-40 minute walk or do it by car or call a taxi.

Statistical explanation:

The two variables are the relationship between the choice of accommodation and the attractions and services. With the selected method, my goal is to

examine whether there is a difference between the group averages. The test of my analysis is the F-test, the null hypothesis of which is: H0: The average of the groups does not differ significantly. If I decide to reject H0 as a result of the F-test, then the difference between the averages of the groups is significant. If this exists, I can determine its extent with the eta ^{2} indicator. However, the variance analysis can only be performed if homogeneity of variance is met, which I examine with the Levene test. The null hypothesis of the Levene test is that the standard deviations are equal. So, if the hypothesis H0 of Levene 's test is not rejected, that is, the value associated with it is greater than 0.1, then the F-test can be performed. The Levene test sig . value is 0.755, so I will investigate further, since I do not reject the H0 hypothesis , that is, homogeneity of variance exists, the F test of the analysis of variance can be performed. The sig . value: 0.054, F value: 0.948. The value of eta ^{2} is high: 0.78. Since there is a strong relationship between the variables, my hypothesis was confirmed , according to which, when choosing accommodation, travelers consider it important that tourist attractions, program opportunities, and extensive services are close to the accommodation to be chosen.

H5 E5: The foundation of significant local values in rural tourism →provides a multitude of tourist attractions in connection with the Békés County Valuables .

During my research, it was possible to identify and evaluate the local values included in the Békés County Treasures, including cultural, historical, gastronomic and natural values. These results helped to understand the tourist attraction and significance of the values. Based on the results, the tourist attractions of the local values included in the Békés County Treasures were mapped, as well as the travelers' preferences in relation to them. This can help

in the development and promotion of tourist destinations. As a result of my research, the participation and interest of local communities in relation to the local values included in the Békés County Treasures can be assessed, as well as the opportunities and challenges of sustainable tourism development. This provides an opportunity to involve local communities and ensure the long-term sustainability of tourism.

Statistical explanation:

As a result of the hypothesis test, the variable included in the analysis is the familiarity of the tourist attractions in the Békés County Treasures and the frequency of the importance of local values. Since one value is an ordinal variable and the other is a numerical value, ANOVA is the method chosen to test the hypothesis . I accept the null hypothesis of the Levene test, because the significance level is 0.823. The value of the F test is 3.345, sig . value: 0.543. The strength of the relationship between the two variables, based on eta ^{2}: 0.31, which indicates a weaker than average relationship.

1. table : Results of the hypothesis test

Hypothesis	The result of the calculation	Decision
H1: As a result of the coronavirus, the value of domestic destinations has risen , especially accommodation with low capacity . When choosing accommodation, travelers consider accommodation in rural areas based on local values to be important.	**one-way ANOVA** Levene's test sig : 0.723 Test F: 1.291 sig : 0.243 eta ^{2} : 0.41	Among the variables medium relationship there is **APPROVED**
H2: The completion of the entire road section of the M44 highway will significantly contribute to the upswing of tourism in the Southern Great Plain, including Békés County, and its population retention power .	**one-way ANOVA** Levene's test sig : 0.723 Test F: 4.243 sig : 0.425 eta ^{2} : 0.14	Among the variables moderately weak relationship there is **APPROVED**
H3: Due to the M44 motorway, the number of commuters going to work starts to increase, because the commuting time is shortened or they are willing to work further away in a unit of time - which also affects the county of Békés.	**one-way ANOVA** Levene test sig : 0.800 Test F: 4.344 sig : 0.435 eta ^{2} : 0.34	There is a weaker than average relationship between the variables **APPROVED**

Hypothesis	The result of the calculation	Decision
H4: When choosing accommodation, travelers consider it important that there are tourist attractions , program opportunities, and a wide range of services near the chosen accommodation.	**one-way ANOVA** Levene's test sig : 0.755 F-test: 0.948 sig : 0.054 eta ^{2} : 0.78	Strong among variables the connection **APPROVED**
H5: attractions in connection with the Békés County Valuables .	**one-way ANOVA** Levene's test sig : 0.823 Test F: 3.345 sig : 0.543 eta ^{2} : 0.31	Among the variables weak connection there is **APPROVED**

Source: own editing

PUBLICATIONS

Scientific journal article - in a foreign language specialized journal

1. Egri, Z. - Paraszt, M. - Arany, F. (2018): Disparities of economic development in Central and Eastern Europe based you the extended urban-rural typology . Lucrari Scientific Management Agricol (1453-1410 2069-2307): 20 3 pp 339-344
2. Arany, F. - Egri, Z. (2018): The examination of the Leader - resources in the Hungarian settlements , Lucrari Scientific Management Agricol (1453-1410 2069-2307): 20 2 pp 5-10
3. Egri, Z. - Arany, F. (2017): Spatial relations of the convergence in the central and eastern European regions , Lucrari Scientific Management Agricol (1453-1410 2069-2307): 19 3 pp 265-272
4. Szabó, Cs. - Arany, F. (2019): The population retention of the Northern Great Plain Region accordingly lake the agricultural and rural development , Pro Scientia Ruralis (2457-9068) : 4 3-4 pp 36-51
5. Egri, Z. - Arany, F - Paraszt, M. (2018): Examining the economic convergence in Central and Eastern Europe by using the Markov Chain Method , Lucrari Scientific Management Agricol (1453-1410 2069-2307): 20 3 pp 333-338
6. Egri, Z. – Tánczos, T. – Arany, F. (2017): The role of health inequalities in Hungary's urban economic development , Management strategies (2392-8123) : 2007 3 (37) pp 36-46

Scientific journal article - in a specialized journal published abroad in Hungarian

1. Glózik , K. – Arany, F. (2016): Tourism developments in the area of the Körösö Valley Leader Action Group, Outlook - Perspective : Revista De Stiinta Ski Cultura (1454-9921 2064-504X): 20 21 pp 38-45

Scientific journal article - in a Hungarian specialized journal

1. Egri, Z. – Tánczos, T. – Paraszt, M. – Arany, F. – Szabó, Cs. (2017): The role of health capital in the territorial inequality of socio-economic

development, Váloság: Társadalomtudományi Közlöny (0324-7228 2062-8900): 60 4 pp. 87-111

2. of the convergence of Central and Eastern European regions , Contemporary Social and Economic Processes (1788-7593 2676-9867): 3 12 pp 259-268

Book excerpt - in Hungarian

1. Szabó, Cs. – Arany, F. – Egri, Z. (2018): The population retention power of the Northern Hungary region in the light of agricultural and rural development policies, In: László Dinya (Dinya László Marketing, management) EKE/AVK/Rural Development and Landscape Management Institute ; József Csernák (József Csernák Economic and Organizational Sciences) EKE/GTK/ÜTI/Department of Finance and Accounting (ed .)

2. Arany, F. – Egri, Z. – Glózik , K. (2017): Examination of territorial inequalities in the light of Leader resources in Békés County In: Futó Zoltán (Futó Zoltán Növénytermesztés) SZIE/AGK/Institute of Agricultural Science and Rural Development (ed .) Hungarian countryside - perspectives , solutions for the XXI. century: I. rural development conference, Conference place, time: Szarvas, Hungary 2017.10.05. - 05.10.2017 Szarvas: Szent István University University Publishing House, pp. 8-15

3. Arany, F. – Egri, Z. –Szabó, Cs. (2017): Examination of spatial inequalities based on LEADER titles, In: Dinya László (Dinya László Marketing, management) EKE/AVK/Rural Development and Landscape Management Institute; József Csernák (József Csernák Economic and Organizational Sciences) EKE/GTK/ÜTI/Department of Finance and Accounting (ed .)

4. Glózik , K. – Arany, F. (2018): The role of local products in the tourism of Mezőberény

5. Arany, F.- Szabó, Cs.(2018): The impact of the M6 motorway on the development of the economy , In : Zoltán Egri (Zoltán Regional

Development of Egri) SZIE/AGK/Institute of Agricultural Science and Rural Development; Károly Bodnár (Károly Bodnár Agricultural Science) (ed .), Logistics in the Southern Great Plain

6. Arany, F.- Szabó, Cs.(2019): The development of Hungary's infrastructure in rural areas, In: Bodnár Károly (Bodnár Károly Agrárgazdaságtan) SZIE/Faculty of Agricultural and Economic Sciences (ed .), 5. Logistics in the Southern Great Plains: Peer-reviewed scientific conference publication

7. Arany, F. - Glózik , K. (2015): The role of European Union funds in village tourism in Békés county between 2007-2013, In: Dr. Zoltán Futó (ed .), Szent István University, Faculty of Economics, Agriculture and Health Sciences Scientific works prepared in the Scientific Student Workshops, Szarvas: SZIE Faculty of Economics, Agriculture and Health Sciences, pp 9-16

Book excerpt - in a foreign language

1. Paraszt, M. - Arany, F. (2018): Higher (local) added value than the potential of the countryside to break out - II. International Scientific Conference on Rural Development: Peer-reviewed scientific publication
2. Arany, F. - Egri, Z. - Paraszt, M. (2018): Higher (local) added value than the countryside's breakout potential - II. International Scientific Conference on Rural Development: Peer-reviewed scientific publication

Conference announcement in a journal or conference volume - in a foreign language

1. Szabó, Cs. – Arany, F. (2021): The exercise of Hungarian agriculture you population change through the area-based aid system in 2017. Place and time of the conference: Szarvas,
2. Egri, Z. – Paraszt, M. – Arany, F. (2018): Disparities of economic development in Central and Eastern Europe based you the extended urban-rural typology , In: The 10th International Scientific Symposium for Students Eng young researchers "Management of sustainable rural development " Conference location, time: Timisoara , Romania 22.11.2018 - 22.11.2018 Timisoara : Banat's University of Agricultural Sciences and Veterinary Medicine , p. 1.

3. Egri, Z. – Paraszt, M. – Arany, F. (2018): Examining the Economic Convergence in Central and Eastern Europe by Using the Markov Chain Method , In: The 10th International Scientific Symposium for Students Eng young researchers "Management of sustainable rural development ", Conference place, time: Timisoara , Romania

Conference announcement in a journal or conference volume - in Hungarian

1. Arany, F. – Szabó, Cs. (2018): The impact of the M6 motorway on economic development. In: Logistics in the Southern Great Plain, Szarvas, pp. 37-45.
2. Arany, F. – Szabó, Cs. (2019): Development of Hungary's infrastructure in rural areas. In: 5. Logistics in the Southern Great Plain, Szarvas, pp. 23-29

Abstract

1. Szabó, Cs. – Arany, F. – Egri, Z. (2018): The population retention power of the Northern Hungary region in the light of agricultural and rural development policies. In: XVI. International Scientific Days, 272 p. Arany, F. – Egri, Z. – Szabó, Cs. (2018): Examination of spatial inequalities based on LEADER rights. In: XVI. International Scientific Days, pp. 47-47.
2. Szabó, Cs. – Arany, F. – Egri, Z. (2018): The population retention power of the Northern Hungary region in the light of agricultural and rural development policies. In: XVI. International Scientific Days, 272 p.
3. Arany, F. – Egri, Z. – Szabó, Cs. (2018): Examination of spatial inequalities based on LEADER rights. In: XVI. International Scientific Days, pp. 47-47.

Further announcements

1. Egri, Z. – Paraszt, M. – Arany, F. (2018): Disparities of economic development in Central and Eastern Europe based you the extended urban-rural typology , Poster

2. Egri, Z. - Arany, F. (2018): The Role of Health Inequalities in Hungary's Urban Economic Development , The 11th International Conference of the Romanian Regional Science Association " Future dynamics of regional development and planning , 12-13 May 2017, Constantin Brancoveanu University, Pitești , Romania .

3. Egri, Z. – Paraszt, M. – Arany, F. (2018): Examining the Economic Convergence in Central and Eastern Europe by Using the Markov Chain Method , Po