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ATTITUDE OF TOURISTS IN AN ENVIRONMENTALLY SENSITIVE REGION

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ABSTRACT

In the course of the questionnaire-based analysis of the southern watershed of Lake Balaton[1] the authors aimed to reveal a regional pattern of the attitude towards the environment and its protection among tourists of the region. The survey of 250 people addressed the environmental conflicts in the region. The hypothesis was that certain sub-regions can be differentiated by their attitude patterns on the basis of the survey. It was found that the behaviour of the respondents is highly affected by their way-of-thinking (five clusters were defined) as well as the motivating factors. The questionnaire-based interview and the results of the analysis revealed that the tourists visiting the analysed region have various motivations, attitudes and activities, which all influence the way of they care after the environment. The potential conflict behind this variability is that these groups of tourists with different behaviours and approaches choose their holiday destination systematically, and, thus, there are places where the environment is better taken care of, while others suffer. It was seen that, from this aspect, the conditions and facilities provided by certain holiday resorts (settlements), as well as the financial conditions, may influence the choice of the tourists with a different attitude towards the environment.
Keywords: tourism, Balaton, social conflicts, environment

INTRODUCTION

A widely studied area in social science is the influence of human activities and the resulting social conflicts, and, within that, environmentally-conscious behaviour (*Nagy*, 2012). Environmentally conscious behaviour is encouraged by both world-wide (*WHO*, 2009; 2013) and national or EU-level policy programmes (In the recent study, the authors examine this issue from the aspect of tourists on the Southern catchment area of Lake Balaton. A similar analysis was done on a sample of 250 holiday cottage owners, as well (*Horváthné*, 2014). The whole of the questionnaire used in the research assessed the attitude and partaking of various actors on the Southern watershed of Lake Balaton in order to reveal these actors' attitude towards environment and their experiences in various related conflicts within society (*Horváthné and Nagy*, 2013). In the recent study, the author focuses on the answers to questions that are parallel with the questionnaire used for assessing the other actors involved (*Csonka et al.*, 2013) in the entire survey. In the course of the analysis, attitudes influencing the individuals' activities for environmental

[1] The project was supported by the EU (TÁMOP-4.2.2.A-11/1/KONV-2012-0038 id. 'Complex analysis of effects of anthropogenic activities and the relating social conflicts on the example of an ecologically sensitive region of shallow lake (Lake Balaton and its water shed)'

protection, their satisfaction with the environment and the views of tourists on their responsibility are all examined.

MATERIALS AND METHODS

During the course of the research a randomised questionnaire survey was conducted in June 2013 with 250 tourists in the following settlements: Balatonvilágos, Zamárdi, Balatonföldvár, Balatonkeresztúr, Balatonmáriafürdő, Fonyód, Siófok, Balatonfenyves, Balatonszemes, Balatonszárszó, Balatonberény, Balatonboglár, Balatonlelle, Szántód. A database of the answers was analysed for extreme values and missing values, afterwards it was processed with SPSS.20.

Hierarchical cluster analysis (squared Euclidean distance) was used in order to create homogenous groups of respondents according to the aspect of their environmental attitudes. Relationships were looked for between the respondents' a) motivations and attitudes and b) their satisfaction and views on the responsibility of various institutions.

The Lickert-scale was applied in the questionnaire survey to assess the degree of agreement among respondents from 1 (least) to 5 (most). Cross-table analysis (Chi-square test, Cramer value) was used to reveal the influence of settlement or attitude on the degree of agreement with certain statements.

In order to study the factors determining the various activities of individuals for the protection of the environment, factor-analysis was conducted (Main Component analysis, the Varimax method) to analyse the satisfaction with the environment.

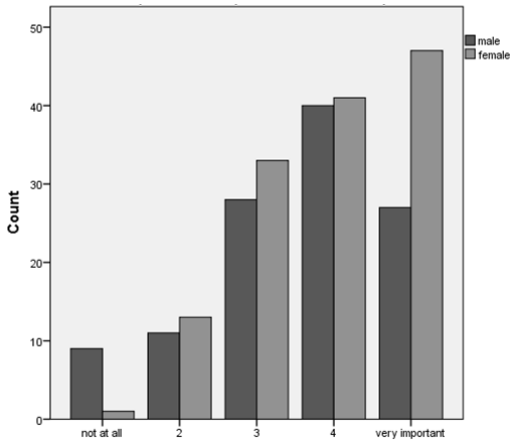
RESULTS AND DISCUSSION

Attitude of tourists towards the environment

The protection of the environment and/or nature is important for a higher number of people (*Figure 1*), although women a have higher share in the category "very important".

Figure 1

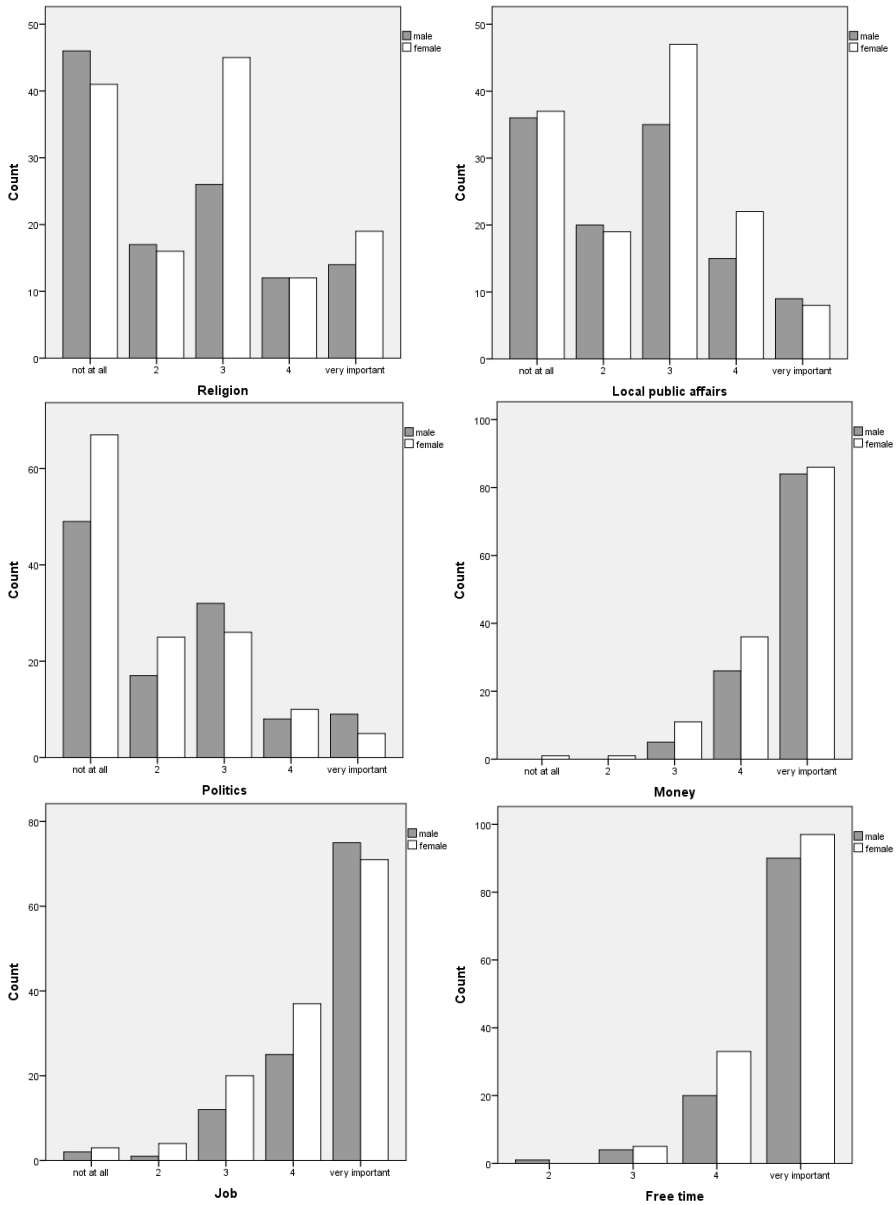
The importance of environmental or nature protection, n=250



While the importance of the other personal values received similar ratings, the respondants considered family, free time, friends, job and money important, but politics not important, meanwhile religion and public issues were rated neutral for respondents (*Figure 2*).

Figure 2

Importance of other personal values, n=250



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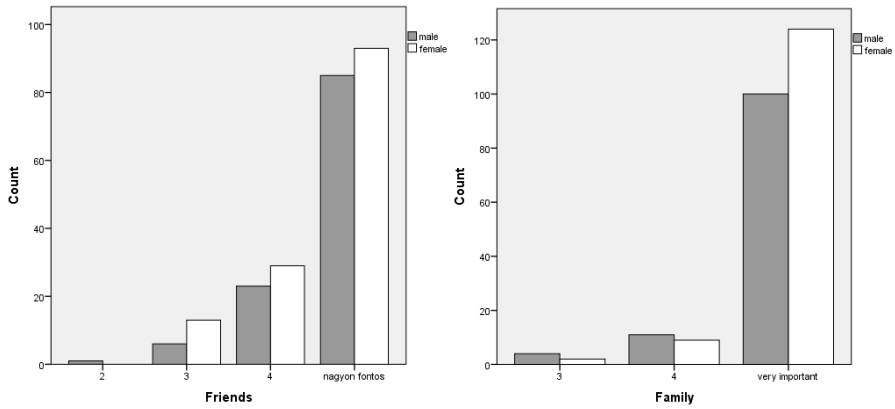


Whenever the respondents rated environmental protection as of high importance, they were also asked whether they are personally active in environmental protection.

The respondents were asked about the frequency of certain activities related to environmental protection. The answers reflect that people frequently 'take care to buy electricity saving machinery or lightbulbs', 'choose a shower instead of bath', 'switch off TV or if not in use', 'save water when doing the washing up', 'put on an extra pullover instead of turning on the heating', 'take nature tripsand 'practice recycling'. However, respondants scored rather neutral to their 'choice of environment friendly labels' or 'refill packs' and 'not accepting nylon bags offered in stores'.

The people never or very rarely 'buy eco-labelled products', 'compost organic waste' and 'turn off TV or radio instead of stand-by function' and 'collect beverage carton for schools'.

The factor analysis of the 15 different activities was expected to reveal a well defined pattern in the activity and behaviour of tourists. Main Component analysis was confirmed by the correlation matrix showing the correlation of many variables at around 0,5-0,7; the adequacy test (KMO) as well as the Bartlett test proved that the data are suitable for the method (*Table 1*).

Table 1

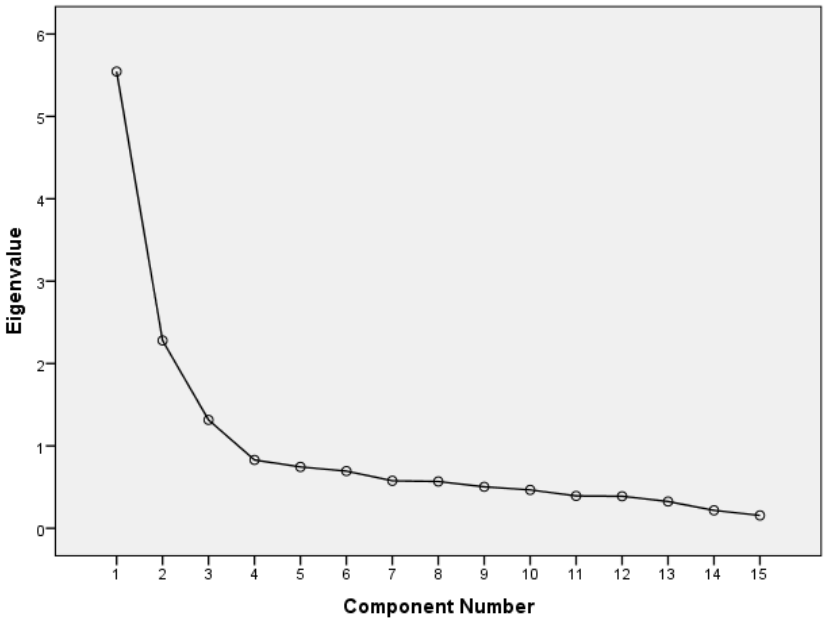
Measuring adequacy of the variables on the activity of tourists

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.861
Bartlett's Test of Sphericity	Approx. Chi-Square	1 700.727
	df	105
	Sig.	0.000

The scree plot (*Figure 3*) and the total variance explained confirmed that 3 factors can be defined[2].

Figure 3

Scree plot for activity of tourists



The *Table 2* summarises the factor values indicating to what extent an individual variable correlates to the factors.

The three differentiated *factors behind* the *behaviour and activities* of the tourists can be defined as:

Factor 1: consciousness in choice
Factor 2: thrift
Factor 3: activism

The hierarchical cluster analysis resulted in five groups of people, which have different motivations toward environmental protection.

Cluster 1: tourists who consider economic decisions in addition to being environmentally conscious in their choices. These people are active but sometimes their opportunities are narrowed by conditions (e.g. composting, availability of environmental programs in schools).

Cluster 2: conscious both in economic and environmental aspects; active in their behaviour.

[2] These variables have an Eigen-value above 1, which means that its explanatory power in the total variance is higher than that of one single variable

Cluster 3: motivated for environment protection, but only determined by economic factors. They do not consider environmental labels and are not active in environment protection.

Cluster 4: the members of this cluster have better economic status (as they do not care that much about thrift) and are conscious of their choices regarding environmentally friendly products (which are in general more expensive), but these tourists are less active concerning trips to nature and selective waste collection.

Cluster 5: totally unconcerned.

Table 2

Rotated Component Matrix for activity of tourists

	Component		
	1	2	3
1. Whenever I can, I buy organically certified food products.	.075	.888*	.192
2. Among products with similar functions I choose the one with eco-labels.	.123	.873	.055
3. I take care to purchase energy saving electronic equipment, bulbs.	.770	.161	.131
4. I prefer to choose re-fill products to decrease waste.	.306	.646	-.170
5. I do not accept free nylon bags offered at stores.	.157	.706	.157
6. I try to save water and do not use running water for dish-washing.	.774	.137	.001
7. I prefer showering to bathing.	.728	.120	-.001
8. I put on extra clothes instead of turning on the heating.	.682	.121	.104
9. I turn off the TV if nobody is watching it.	.829	.057	.048
10. I turn off the light if nobody is in the room.	.803	.110	.051
11. Instead of using the stand-by function, I turn off the TV, radio.	.122	.604	.405
12. I like hiking in nature.	.508	.286	.161
13. I recycle my household waste.	.658	.138	.335
14. I compost the organic waste from my household.	.123	.071	.821
15. I take part in the recycling programs of local schools	.118	.175	.766
Extraction Method: Principal Component Analysis. *Rotation Method*: Varimax with Kaiser Normalization.			

** the coefficients' square is the explanatory power of the factor in the variable; minimum requirement would be 0.35 at sample size n=250*

Characteristics of the tourist clusters

It was assumed that the five clusters of the tourists can be characterised by different attitudes, which can be seen in the answers given by the respondents on various habits or opinions. These answers are grouped by their nature: personal values (such as family, job, politics, etc); personal interest and responsibility to the local or

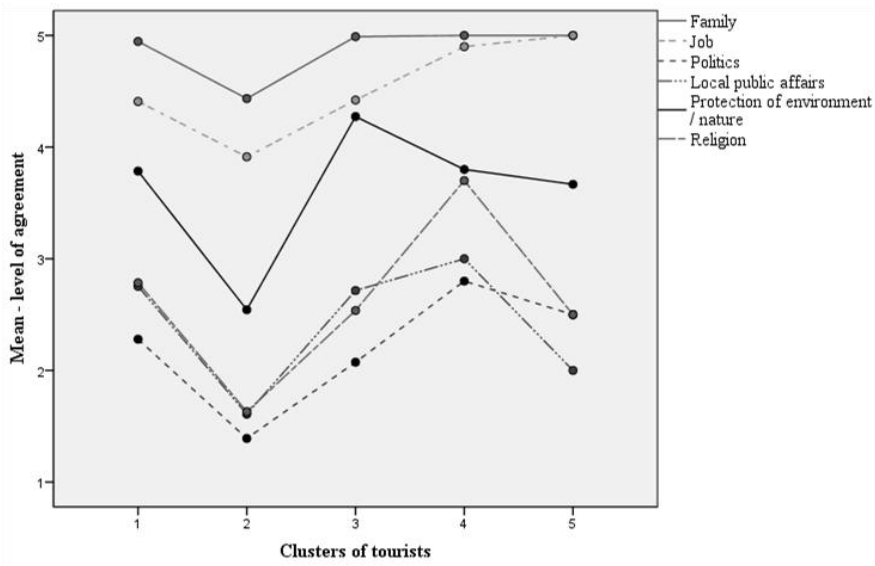
global environment; the personal activities (listed above) and the way these people think about the responsibility of various organisations regarding environmental problems.

The results of the ANOVA show that the clusters' members haven't got different habits in choosing the length of their holiday. They are also similarly influenced by the quality of the natural environment or the water quality of Lake Balaton.

Although the difference between the way of their thinking is eye-catching (*Figure 4*), which is illustrated by the relative importance of family (p=0.00), job (p=0.01) and moreover of local affairs, politics, environment or nature protection and religion (p=0.00).

Figure 4

Difference in the importance of personal values of the clusters' members



Additionally, it can be seen that environmental protection is more important than other community values, such as religion or public affairs, but it has a different relative position for each cluster.

Similarly, the general way of thinking about personal values determines the attitude towards environment both in terms of personal interest and responsibility (*Figure 5*). There is also a clear difference between the putative efficiency of individual activity in favour of the solution of environmental problems (p=0.00).

The tourists were also asked about their individual activity regarding the protection of the environment. The overall opinion is shown in *Figure 6*. It is again the cluster 2 that believes in its inefficiency, while cluster 4 is the most hopeful.

When it comes to the details, the clusters are highly different (*Figure 7*).

Figure 5

Opinion of respondents on environmental protection in terms of interest, personal responsibility and efficiency

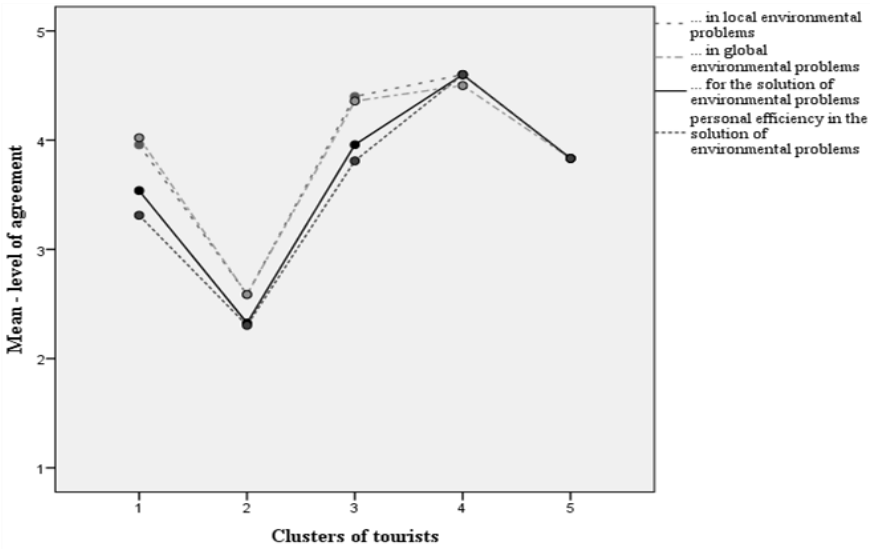


Figure 6

Opinion of tourists on their personal contribution to environment protection, n=250

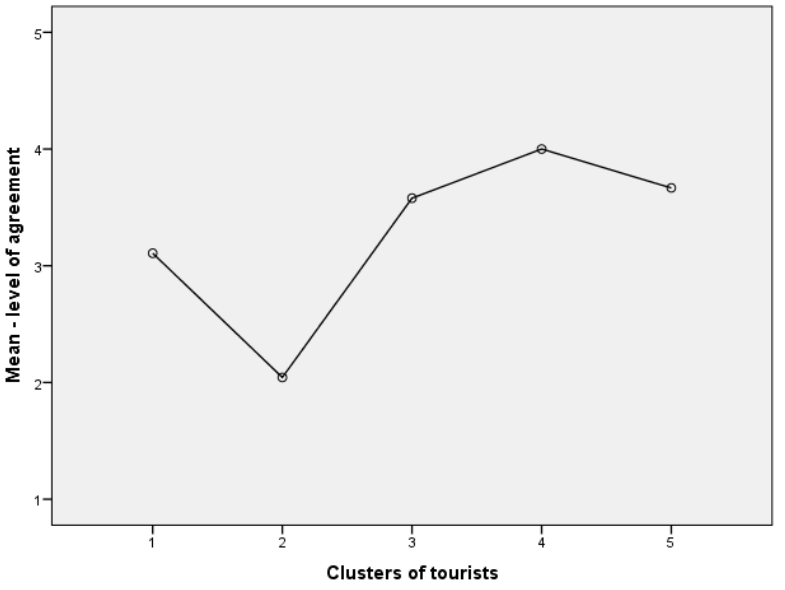
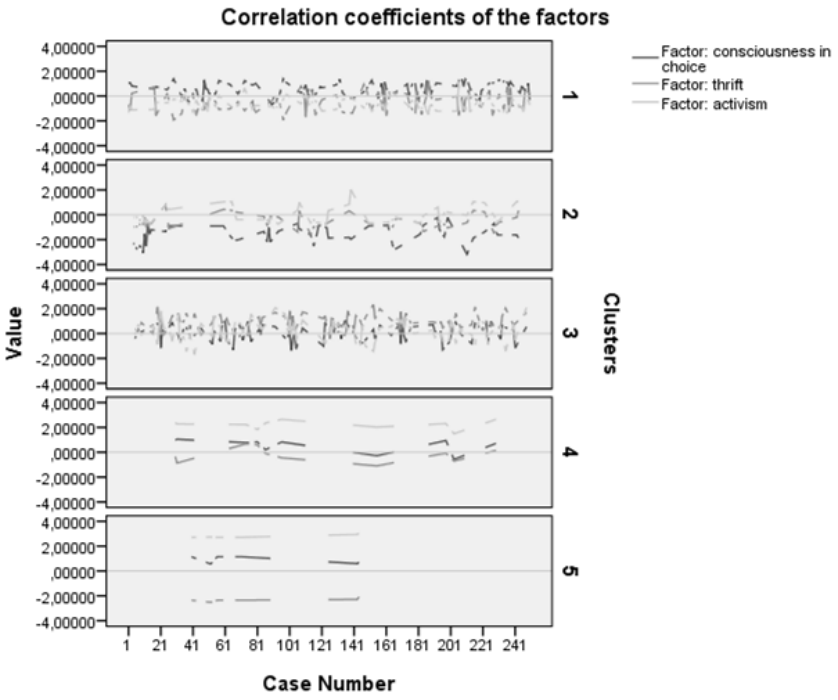


Figure 7

The evidence of factors behind the behaviour of tourists in the different tourist clusters



It is found that tourists of the analysed region clearly have a different approach (attitude) regarding their personal activities for environmental protection (*Figure 7*). The most conscious cluster is Cluster 1 with moderate evidence of thrift and active participation as motivators. Clusters 4 and 5 have a slightly similar level of consciousness, but for both of these clusters activism is a well defined motivator of individual habits. The difference between Cluster 4 and 5 is made by the fact that Cluster 5 is much less motivated by economic aspects (thrift). Cluster 2 has the lowest motivation for environmental protection, neither consciousness nor (or to a lesser extent) economic considerations are of interest to them. If anything, it is active participation which can be a motivator for them.

According to the above mentioned characteristics, the following cluster categories are defined:

Cluster 1: The Conscious
Cluster 2: Unmotivated
Cluster 3: Economically-driven
Cluster 4: Active and sound
Cluster 5: Active

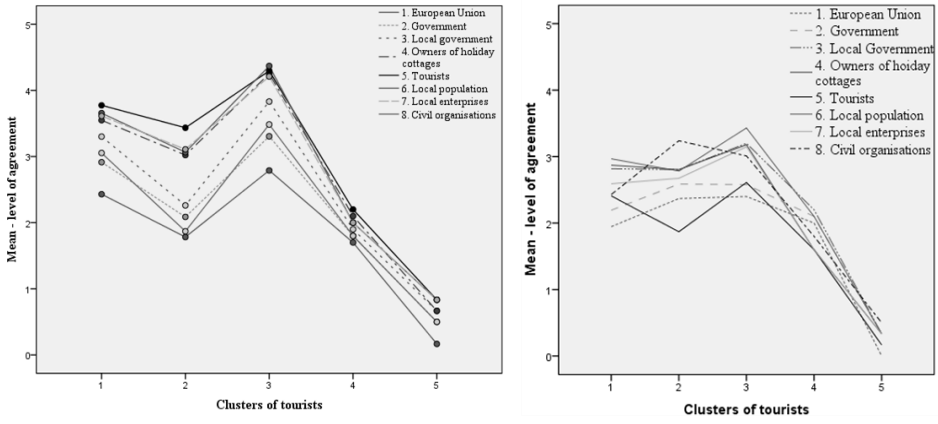
All the above indicate that the tourists of the analysed region can be approached and reached for the purposes of environmental protection in different ways. Another implication is that if the tourists of different attitudes towards the environment target different places, then an influence on the status of the local environment can be traced or measured.

The difference between the ways of thinking of different clusters of tourists in the analysed region can be seen in their opinions of the responsibility and activity of various organisations working on environmental problems.

According to the respondents, they see each given organisation as having a higher degree of responsibility for protecting the environment than the degree to which each actually acts. More interesting, though, is the fact that Cluster 5 hasn't got enough information to give their opinion, while they rated their personal activism as being higher than that the other clusters (*Figure 8*). The most critical is Cluster 3, while the least is Cluster 4. Local population, enterprises, tourists and owners of holiday cottages have the highest responsibility according to the respondents; conversely, the tourists do less or almost the least for environmental protection. The putative role of civil organisations, however, is high, compared to the responsibility.

Figure 8

Opinion of respondents on the responsibility and contribution of various organisations to environmental protection, n=250 (p<0.05)



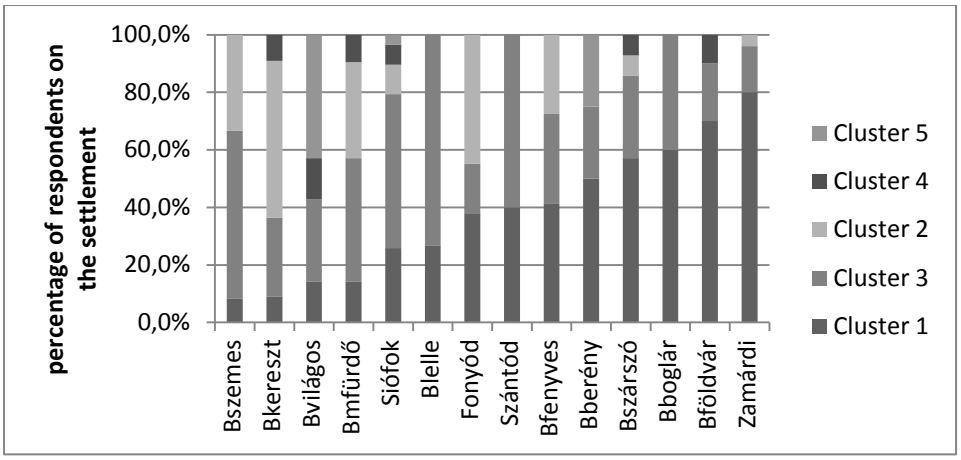
There was a correlation found also between the cluster membership and the level of graduation, as well as the current job status of the respondents. Cluster 2 has a significantly higher number of pupils and Cluster 1 has a significantly higher number of jobless people, while they are much less in Cluster 4 ($p<0.05$). The proportion of respondents with a higher level education is the highest in Cluster 1 and 3 ($p<0.05$).

The hypothesis regarding whether groups of tourists of different attitude visit different settlements for holiday was analysed with ANOVA, too. It was found that cluster membership and the chosen place of holiday are in relationship (*Figure 9*).

The tourists of Siófok belong to Cluster 1 and 2 mainly; the members of Cluster 1 visit Balatonfenyves and Balatonlelle. The tourists of Cluster 4 visit fewer settlements for holiday; they can be seen in Fonyód, Balatonmáriafürdő, Balatonfenyves and Balatonkeresztúr. In Zamárdi, typically the tourists of Cluster 3 and in less extent those of Cluster 2 and 5 can be seen.

Figure 9

Distribution of cluster members by settlements (place of holiday), n=250



Summarising, the questionnaire-based interview and the results of the analysis revealed that the tourists visiting the analysed region have various motivations, attitudes and, thus, activities, which all influence the way they care for the environment. Of course, while the contribution of these people is not the same regarding the actual status of the environment (e.g. children, jobless people or housewives), it is still reasonable to interpret the results in a way that indicates there is a confirmed concern that tourists with different views and attitudes influence the environment of various settlements differently.

CONCLUSIONS

Statistical tools were used to test the applicability of the data provided by the questionnaire based interview of 250 tourists in the Southern watershed of Lake Balaton in order to reveal patterns in their personal behaviour and attitude toward the environment. The objective of this analysis was to find and define these patterns, which can be the basis of following researches which seek to reveal correlations between the similarly (local population, holiday cottage owners) or in other way (local governments, companies, etc) studied attitude of other actors. The final outcome of the complex research is expected to reveal the relationship between the ecologically sustainable development of the settlements situated on the watershed and the human activities influencing it.

It was found that five different groups of the tourists can be defined within the analysed region, whose clusters are characterized by different ways of thinking both in the responsibility and contribution to environmental protection. The *potential conflict* behind this variability is that these groups of tourists with different behaviour and approach choose their holiday settlement systematically, and, thus, there are places where the environment is better taken care of, while others suffer. It was seen that from this aspect the conditions and facilities provided by certain holiday resorts (settlements), as well as the financial conditions, influence the choice of the tourists with a different attitude toward the environment. Although the results confirmed that the quality of nature or water does not differ along the analysed settlements.

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