ROLE OF EDUCATION AND SKILLS IN ECO-TOURISM IN SZEGED, HUNGARY. A QUESTIONNAIRE-BASED STUDY

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Abstract. The purpose of this study was to produce a human resources database for Szeged city, to determine the main professional features of the participants in tourism in general and eco-tourism in particular, and to detect migration willingness with special interest to qualifications, language skills and wages. Altogether 875 people working in tourism filled in the questionnaires consisting of 371 questions. Regarding the location of the workplace, the areas within the Inner Boulevard and Ujszeged were the most important. The ratio of female workers was higher only in the tourism infrastructure and among those who planned to work in Hungary, out of Szeged, within the next 5 years. Older age categories were qualified in substantially higher ratio, while younger age groups were remarkably concerned in mobility. Language skills were important especially for those, who were interested in mobility.

Keywords: eco-tourism, qualifications, education, knowledge of languages, working conditions, migration.

AIMS AND BACKGROUND

The word 'hospitality industry' has been used to describe the commercial provision of services associated with the provision of food, drink and accommodation in restaurants, bars and hotels[1]. Tourism is a highly important sector of the European economy, since this area produces more than 5% of the GDP of the European Union

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(EU) and employs around 5.2% of the total labour of EU (Ref. 2). In Hungary, the number of labour employed in tourism was about 323 000 in 2012 that amounted to 8.4% of the total employment[2]. Multiplier (value-added) effect of the tourism sector in Hungary is 2.5. In this way, supply expansion of tourism in a region leads to the revival of the local products of tourism and to new jobs[3,4]. However, development of tourism involves an increase of detrimental environmental effects[5–7].

Those employed in tourism show substantial difference in their education. Namely, from those employees having no qualifications to those having tourism qualification of university degree a large-scale of workers are required for maintaining the processes of this economic sector. Since those having minimum level of education (e.g. maids and bell boys) or those having basic qualifications (e.g. cook and waiter) are predominant in the tourism sector, accordingly tourism activities are identified as of low status activities[8].

International travel is a rapidly growing activity entailing cross-cultural communication between hosts and guests from different language areas. There is, therefore, a growing worldwide need in the hospitality industry to communicate effectively with guests[9]. Language skills can also be used later during personal mobilisation, when those who were employed abroad return home or move to another place[10].

The aim of the study is to produce the human resources database of Szeged and then to fulfil the following tasks: (1) to determine the spatial characteristics and the main professional features of the participants of the tourism attractiveness and the intermediary sector[11]; (2) to determine the attractiveness and the retaining capacity of Szeged city among employees, with special interest to the levels of qualification and foreign employment; (3) to analyse past and future migration willingness of the tourism workers in Szeged, and (4) to study language skills, as well as past and future domestic and foreign mobility of the employees.

EXPERIMENTAL

Szeged (46.25 N; 20.10 E; h = 79 m a.s.l.) lies near the confluence of the Tisza and Maros Rivers. It is the 3rd largest city in Hungary, with 168,000 inhabitants covering an area of about 46 km^2.

The analysis is performed on comprehensive questionnaire-based interviews[3,4,6]. When compiling the questions, similar questions of the Central Statistical Office of Hungary for the given subject were considered. Altogether 170 private entrepreneurs, furthermore workers of non-profit and for-profit ventures, namely in total 875 people filled in the questionnaires. The questionnaires consisted of 371 questions. The questionnaire survey occurred between May and October 2012, while its electronic encoding finished in December 2012.

First, a factor analysis was applied to the initial data set consisting of 181 columns (questions) in order to reduce these 181 influencing variables to a smaller number m, the factors that can be viewed as the main functions of the groups of the influencing variables that potentially influence the selected resultant variables[12]. After performing a factor analysis, a special transformation of the factors retained was fulfilled to find out to what degree the above-mentioned 181 explanatory variables affect the selected resultant variable, and for giving the rank of their influence[12,13].

RESULTS AND DISCUSSION

Preceding the analysis, 181 influencing or explanatory variables, as personal, material and organisational components of the tourism infrastructure were received forming 5 question groups. From these 181 variables, regarding their importance, altogether 3 target variables were selected, namely (1) 'tourism infrastructure' (spas, museums, events); (2) 'having qualification on tourism/hospitality', and (3) 'working abroad within the next five years'; and 3 factor analyses with special transformations were applied on the above data sets.

When studying the 'tourism infrastructure' (spas, museums, events), 16 from the 29 explanatory variables were associated significantly to the target variable (Table 1). Workplaces on cultural and sport areas show strong positive connection with the tourism infrastructure. Regarding the location of the workplaces, the Inner Boulevard, i.e. the city core and Ujszeged, namely the area on the left bank of the Tisza River are important, while the areas between the Inner and Outer Boulevard and beyond the Outer Boulevard are irrelevant for the tourism infrastructure (Fig. 1). The analysis shows the definite prevalence of female employees in the tourism sector. At the same time, the role of age is unimportant with the restriction that the ratio of those born between 1978–1982 is substantially smaller than the ratio of the other age categories. Concerning the highest level of qualification, the most striking fact is that a substantial part of the employees in the tourism infrastructure passed university, while only very few of them completed vocational school. Nevertheless, the ratio of those qualified on tourism hospitality is significantly low. Contrary to the fact that Szeged is a university town, English language skill is not characteristic; furthermore, employees rarely use languages in the tourism infrastructure. These are logic consequences of the finding that foreign work experience is not typical in the tourism infrastructure (Table 1).
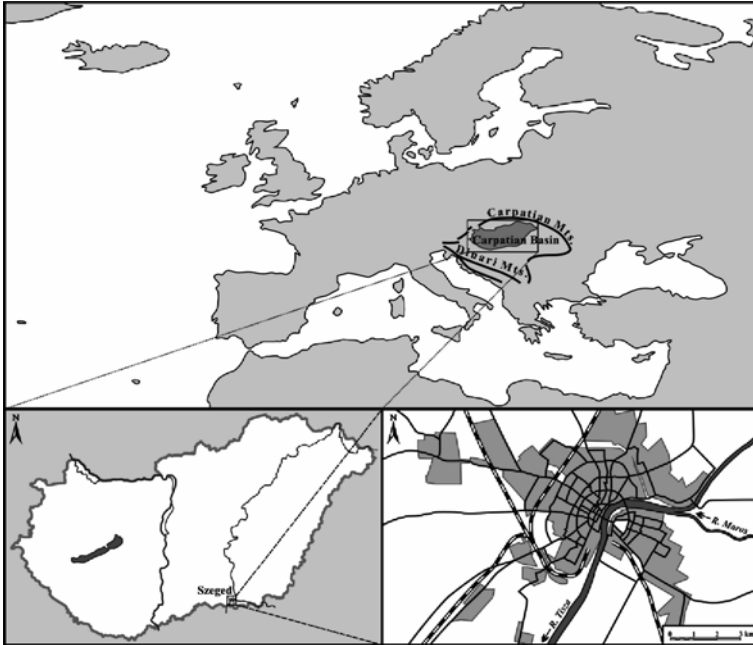
Fig. 1. Location of Szeged: Hungary in Europe (upper large panel), Szeged in Hungary (low left panel) and the urban web of Szeged with Újszeged (south-east part of the city)

Table 1. Special transformation – effect of the explanatory variables on the 'eco-tourism infrastructure' as resultant variable and the rank of importance of the explanatory variables on their factor loadings transformed to Factor 1 for determining the resultant variable (thresholds of significance: **bold**: $x_{0.01} = 0.087$).

Tourism infrastructure (spas, museums, events)	Weight	Rank of importance
	0.905	–
1	2	3
Type of workplace		
Cultural spot	**0.706**	1
Sport	**0.338**	3
Location of the workplace		
Within the inner boulevard	**0.133**	10
Between the inner and outer boulevard	**−0.134**	9
The area beyond the outer boulevard	**−0.251**	5
Ujszeged	**0.260**	4
Gender		
Male	**−0.095**	14
Female	**0.089**	16

to be continued

1	2	3
Born, year		
1988–1992	0.037	26
1983–1987	−0.064	17
1978–1982	**−0.105**	11
1973–1977	−0.057	19
Highest level of qualification		
Vocational school	**−0.227**	6
Secondary school	0.000	29
Vocational school based on graduation	−0.057	18
College	0.046	22
University	**0.181**	7
Having qualification on tourism/hospitality		
Yes	**−0.593**	2
Speaking languages		
English		
No	0.049	21
Yes	**−0.099**	12
German		
No	0.054	20
Yes	−0.038	25
Frequency of language use		
Never	0.012	28
Rarely	**0.096**	13
Frequently	**−0.092**	15
Worked abroad		
Yes	**−0.150**	8
Working abroad within the next 5 years		
No	0.039	24
Yes	−0.041	23
Working in Hungary, out of Szeged, within the next 5 years		
Yes	0.021	27

Dependence of the 'qualification on tourism/hospitality' as target variable on selected explanatory variables was also analysed (Table 2). The target variable is in significant direct association with the primary superstructure, denoting that more accommodation and catering points and more developed the primary super-structure; the more employees are qualified on tourism hospitality and vice versa.

Whilst, the significant reverse association with the tourism/eco-tourism/infrastructure (spas, museums, events) indicates that this influencing variable is irrelevant in determining the target variable. Catering related workplaces confirm

the significant parallel association of the primary superstructure with the target variable. At the same time, employees of accommodation points, cultural spots and sport related workplaces definitely underperform, regarding qualification on tourism/hospitality. Qualification is much more characteristic for male workers compared to females. Furthermore, qualification is predominant for those born between 1973–1977, 1978–1982 and 1983–1987. The youngest age group born between 1988–1992 probably starts further training after a few years practice. Note that the highest level of qualification is largely related with vocational school, and vocational school based on graduation, while the role of the secondary school is definitely marginal. Language teaching and learning is an important part of the education on tourism and hospitality in non-English language areas. Accordingly, it is not surprising that language skills on English and German are important components of the qualification. In addition, those qualified specialists on tourism/hospitality speaking at least one foreign language are much more mobile than those without any language skills. This is why a substantial number of qualified workers on tourism and hospitality are working abroad in their profession and plan to work abroad or in Hungary out of Szeged within the next 5 years (Table 2).

'Working abroad within the next 5 years' is another emphasised variable selected as a target variable and its most important influencing components should be determined (Table 3). In this analysis, 18 influencing variables show significant connection with the target variable from the 31 influencing variables considered.

Those workers having the above plan are employed predominantly in catering points, namely in restaurants and other service units, while those working in hotels or cultural spots are significantly underrepresented in this respect. Especially younger ages tend to working abroad, highlighted by those born between 1988–1992. At the same time, those born between 1973–1977 and between 1978–1982 are definitely less interested in this respect. This phenomenon can be explained with the generally higher mobility and willingness of younger people for working abroad. It seems that even only some years of difference in age should also be taken into account in this regard.

The willingness for working abroad is significantly higher for those who completed secondary school and are qualified on tourism and/or hospitality, while those who completed college are remarkably underrepresented. Those speaking English or German and use the language frequently also show a significantly high willingness for working abroad (Table 3).

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Table 2. Special transformation – effect of the explanatory variables on 'having qualification on tourism/hospitality' as resultant variable and the rank of importance of the explanatory variables on their factor loadings transformed to Factor 1 for determining the resultant variable (thresholds of significance: *italic*: $x_{0.05} = 0.066$; **bold**: $x_{0.01} = 0.087$)

Having qualification on tourism / hospitality	Weight	Rank of importance
	0.719	–
Structure:		
Tourism infrastructure (spas, museums, events)	**−0.632**	2
Primary superstructure (accommodation and catering points)	**0.485**	3
Secondary superstructure (additional/ personal services; sport, health services)	−0.027	26
Type of workplace:		
Accommodation point	**−0.096**	17
Catering point	**0.646**	1
Cultural spot	**−0.387**	5
Sport	**−0.380**	6
Gender:		
Male	**0.195**	11
Female	**−0.191**	12
Born, year:		
1988–1992	−0.053	23
1983–1987	**0.149**	15
1978–1982	**0.087**	19
1973–1977	**0.285**	8
Highest level of qualification:		
Vocational school	**0.089**	18
Secondary school	**−0.172**	13
Vocational school based on graduation	**0.236**	10
College	0.009	27
University	−0.056	22
Speaking languages:		
English:		
No	**−0.279**	9
Yes	**0.286**	7
German:		
No	**−0.171**	14
Yes	**0.148**	16
Worked abroad:		
Yes	0.028	25
Worked abroad in tourism / hospitality:		
Yes	**0.407**	4
Working abroad within the next 5 years		
No	*−0.085*	20
Yes	0.052	24
Working in Hungary, out of Szeged, within the next 5 years		
Yes	*0.083*	21

Table 3. Special transformation – effect of the explanatory variables on 'working abroad within the next 5 years' as resultant variable and the rank of importance of the explanatory variables on their factor loadings transformed to Factor 1 for determining the resultant variable (thresholds of significance: *italic*: $x_{0.05} = 0.066$; **bold**: $x_{0.01} = 0.087$)

Working abroad within the next 5 years	Weight	Rank of importance
	−0.783	–
1	2	3
Structure:		
Tourism/Eco-tourism infrastructure (spas, museums, events)	0.050	20
Primary superstructure (accommodation and catering points)	−0.049	21
Secondary superstructure (additional / personal services; sport, health services)	−0.021	26
Type of workplace:		
Accommodation point	**0.094**	17
Catering point	**−0.095**	15
Cultural spot	**0.095**	14
Sport	−0.043	22
Gender:		
Male	−0.014	29
Female	0.005	30
Born, year:		
1988–1992	**−0.644**	1
1983–1987	−0.034	24
1978–1982	**0.188**	9
1973–1977	**0.135**	12
Highest level of qualification:		
Vocational school	−0.016	27
Secondary school	**−0.095**	16
Vocational school based on graduation	0.052	19
College	**0.103**	13
University	−0.041	23
Having qualification on tourism / hospitality		
Yes	*−0.078*	18
Speaking languages:		
English:		
No	**0.372**	3
Yes	**−0.307**	5
German:		
No	**0.178**	10
Yes	**−0.164**	11

to be continued

Continuation of Table 3

1	2	3
Frequency of language use:		
Never	**0.353**	4
Rarely	−0.015	28
Frequently	**−0.250**	6
Connection with the guests:		
Direct connection	−0.005	31
Indirect connection	0.024	25
Worked abroad:		
Yes	**−0.223**	7
Worked abroad in tourism / hospitality:		
Yes	**−0.205**	8
Working in Hungary, out of Szeged, within the next 5 years		
Yes	**−0.568**	2

CONCLUSIONS

The first human resources database was produced for Szeged and the analysis counts specific for the study area in Hungary. The method of factor analysis and special transformation applied in the study is an appropriate method for the analysis and can be considered unique in the field of tourism.

The most important results are summarised as follows. The types of work-place greater or lesser degree are in significant and parallel associations with all the 3 selected target variables. Concerning the location of the workplace, the areas within the Inner Boulevard and Ujszeged are the most important, indicating a substantial direct association with the target variables. In general, women are predominant in the tourism sector in Hungary[2]. However, the ratio of female workers is higher only in the tourism infrastructure and among those who plan to work in Hungary, out of Szeged, within the next 5 years. Note that older age categories are qualified in substantially higher ratio, while younger age groups are remarkably concerned in mobility. The knowledge, experience and qualification of the individual predominantly influence the efficiency of his/her work and, thereby, the satisfaction of his/her employer and the success of his/her workplace. For the 'tourism infrastructure', non-vocational highly qualified employees are characteristic, furthermore, 'qualification on tourism hospitality' is mostly acquired by passing vocational schools. At the same time, mobility related target variables are mainly based on lower-skilled education. Except for the tourism infrastructure, qualification on tourism/hospitality is in direct and significant connection with the target variables. Language skills are generally important components of the

target variables, especially for those, who are really interested in mobility. Social acceptance of tourism and eco-tourism activities is low. At the same tame, the main driving force of going abroad is the higher wages.

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