

THE IMPACT OF INTERNATIONAL MIGRATION ON THE LABOR MARKET – A CASE STUDY FROM HUNGARY

Judit Oláh¹, György Halasi², Zoltán Szakály³, József Popp^{4*}
and Péter Balogh⁵

^{1) 2) 3) 4) 5)} University of Debrecen, Debrecen, Hungary

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Abstract

The economic, political and social changes experienced globally in recent years have influenced international migration in various countries. The aim of our study is to present the economic and non-economic aspects which determine the quantitative evaluation of migration and to reveal which of the two main factor groups is more dominant. In January 2017, an online questionnaire survey was conducted on the subject of migration. The group of respondents consisted of 438 full-time BSc, MSc and PhD students in Hungarian higher education institutions. Based on these questionnaires, two independent samples t-test, and one-way ANOVA, factor analysis and binary logistic regression procedures were performed.

Based on the findings obtained, it was concluded that anti-migration behaviour cannot be explicitly explained by its economic impacts on the labour market. The rejecting attitudes observed on behalf of certain respondents were not in significant correlation with their highest educational levels or their given social class. As a result of the statistical analysis performed, it was concluded that the integration of foreigners is hindered by the so-called socio-cultural barriers, which cannot be removed solely by economic policy measures. Social conflicts of interest have to be eliminated in order for migration to have an active and permanently positive impact on the economy.

Keywords: anti-migration attitudes, socio-cultural barriers, impact on the economy, questionnaire survey, correlation.

JEL Classification: I23, J31, J61

* Corresponding author, József Popp – popp.jozsef@econ.unideb.hu

Introduction

The economic, political and social changes experienced globally in recent years have influenced international migration in various countries (Özgür and Deniz, 2014). The main reason for choosing to be a migrant is to seek a better life by finding a better job; the driving forces of migration are wages, human security and work opportunities. For these reasons the number of immigrants is constantly increasing year by year. Hence, immigration has become a significant research topic in recent years and an important global issue for the countries concerned. Human beings have always been mobile and moved abroad in search of new opportunities and better lifestyles (Castles et al., 2014). However, due to substantially increasing international migration movements over the past several decades (Hooghe et al., 2008), this topic has clearly moved to the front of the research agenda.

Our research aims to examine higher education students (both those yet to enter the labor market and those already active employees) and their perceptions regarding how they see the positive impact of migration in the economy. What factors can stimulate economic activity and the perception of migration as a function of economic interests? When defining migration, mainly immigrants from outside the EU are considered, and the free relocation of EU citizens will not be examined. The preliminary assessment is based on the expectation that we consider it important to distinguish asylum seekers within the group of immigrants. According to the 1951 Refugee Convention, an asylum-seeker is a person who is outside the country of his/her nationality and who has a well-founded fear of racial and religious persecution, on the basis of national origin, or membership of a particular social group or because of political opinions (Dajnoki and Kőmíves, 2016a).

As part of the research we would like to find the answer – based on responses from high-skilled labor immigrants and international students – to the question of whether immigration has a positive effect on economic development (and if so, to what extent), and on what considerations respondents' base their judgments as they observe developments. In the course of examining labor market effects, we wish to discuss whether it is possible (and if so, why) to distinguish between low and high-skilled immigrants, and what is their effect on the labor market. The null hypothesis is that the respondents (i.e. higher education students, who comprise the group of high skilled participants in the labor market) believe their own interests are hostile to those with the same qualifications as immigrants increase the competition on the domestic labor market. In contrast, highly skilled immigrants and highly educated foreign students do not pose any threat to the respondents by taking away their opportunity to enter the labor market. Moreover, the results show that this is a positive economic impact.

A further objective of our research is to analyze what non-economic factors can result in a rejection of immigration in cases where the respondents place the interests of the country's economy ahead of their own personal interests. Many studies suggest that opposition to immigration is primarily driven by non-economic concerns associated with cultural and ethnic tensions between native and immigrant populations (Bauer et al., 2000; Citrin et al., 1997; Hainmueller and Hiscox, 2010; Lahav, 2004).

One reason there is no consensus on why people support or oppose immigration is that the data on individual attitudes are ill-suited to testing the theoretical relationships at issue. Studies examining economic concerns about immigration typically begin with a general equilibrium model and derive predictions about how native citizens who own different types of productive factors, and who have different levels of income, will differ in their

views regarding high-skilled and low-skilled immigration (Facchini and Mayda, 2009; Hainmueller and Hiscox, 2010).

1. Review of the scientific literature

1.1 Analysis of the positive effects of international migration and its ability to generate economic development

Immigrant populations in many developed democracies have grown rapidly, and so too has an extensive literature on natives' attitudes toward immigration (Hainmueller and Hopkins, 2014). However, at the same time migration processes are changing very dynamically. The overall process, changes in routes, and list of nations affected by migration – in line with changes in the geopolitical situation – can be drastically transformed. (Dajnoki and Kőmíves, 2016a). Perceptions that immigration has negative economic and cultural repercussions are widespread and have caused sizeable portions of Western populations to favor more restrictive immigration policies (Cornelius and Rosenblum, 2005). In alternative types of open-economy models which allow for economies of scale in production in the industries employing immigrants, inflows of new workers can be shown to generate higher real wages for native workers with similar skills (Brezis and Krugman, 1993). Malhotra et al. (2013), suggests that the weak support for the labor market competition hypothesis results from the fact that a large proportion of Americans are not economically threatened by immigrants. If we focus instead on workers for whom the threat is pronounced, we should see a labor market competition effect.

Most economically driven theories refer to macro and meso-levels of migration research. They attempt to explain migration using external factors such as regional disequilibria in relation to the economy, labor, wages, governments, poverty etc. (Castles et al., 2014). Furthermore, authors such as Faggian and McCann (2009) point out the need for external knowledge in order to create regional knowledge bases and the ensuing innovation systems. It is not only regionally generated and anchored knowledge which plays an important part in innovation systems, but also new external knowledge. Knowledge exchange between regions and systems can produce innovations (David et al., 2015).

The primacy of cultural over economic concerns gains further support from Card et al. (2012). They use the 2002 ESS and a latent factor model to estimate the relative importance of economic concerns (about wages and taxes) and compositional concerns (about impacts on the country's culture and social life) in shaping immigration attitudes. Consistent with previous research, this study finds that compositional concerns are roughly two to five times more important than economic concerns.

When there is a discussion about the current state of migration and migrants' need to enter the labor market, then stereotyping followed by discrimination should be addressed. (Dajnoki and Kőmíves, 2016b). According to Bindorffer (2006), defining the in-group is a prerequisite of stereotyping as a social phenomenon. People always tend to separate their own in-group from the surrounding out-group, which means they are separated from all other groups. Discrimination is causing serious problems in the countries of the European Union, and in Hungary as well. The various prohibitive legal frameworks do not always protect against discriminatory behavior. To reduce discrimination, according to Csizmár

and Münnich (2005) – it is necessary to prompt changes in people's behavior, and in their attitudes and norms.

1.2 International migration and its impact on the labor market

Labor market competition is not the only channel through which self-interest may shape immigration attitudes (Hainmueller and Hopkins, 2014). Several studies have shown that more educated respondents tend to exhibit higher levels of ethnic and racial tolerance, stronger preferences for cultural diversity, and more economic knowledge, all of which can lead them to favor immigration more than their less educated counterparts (Gang, Rivera-Batiz, and Yun 2002; Dustmann and Preston, 2007; Hainmueller and Hiscox, 2007). The movement of higher education graduates has been of great interest to educational researchers in recent decades. Therefore, there is a growing number of literature on international migration of higher education graduates (Solimano, 2008).

Further key elements of migration research are studies of highly-skilled workers (Salt, 2009; David and Coenen, 2014) and their migration motives (Verwiebe et al., 2010). The research interest in this group has been mainly considered within the context of the brain drain/brain gain discussion (Stockhorst, 2011; David and Coenen, 2014). Migration for education is becoming increasingly important in some parts of the Majority World (Crivello, 2010). Educational achievement or grades can also determine graduates' migration behavior. Generally, graduates who earned good grades during their studies are more prone to migrate (Ciriaci, 2014; Nifo and Vecchione, 2014). Yet there is growing evidence that education is increasingly failing to provide young people with realistic employment alternatives (Punch, 2015). The new migration patterns differ in several respects from those previously experienced, mostly in terms of the time and place in which they occur. In addition, it has been observed that since the late 1990s, new forms of migration patterns have solidified (David et al., 2015). Although "new" migrants are better educated and more mobile than the previous generation, this does not mean that every case has a success story to offer. Even when there is a demand for educated people in several European countries, which is referred to as a skills shortage, many migrants still do not have the adequate entrance requirements for the labor markets of the receiving countries (David et al., 2015).

Hainmueller and Hiscox (2010) find the labor market competition model predicts that natives will be most opposed to immigrants who have skill levels similar to their own. We find instead that both low-skilled and highly skilled natives strongly prefer highly skilled immigrants over low-skilled immigrants, and this preference does not decrease with natives' skill levels. Drawing upon data from the National Election Studies (NES) surveys in the United States in the 1990s, Scheve and Slaughter (2001) find a strong positive correlation between respondents' skill levels, as measured by years of education, and stated support for immigration. Mayda (2006) finds that the positive correlation between natives' skills and support for immigration is strongest in countries where natives are more highly skilled compared to immigrants. These are the countries where high-skilled natives stand to benefit more from the wage effects of low-skilled immigration under the Factor Proportion model (O'Rourke and Sinnott, 2006). Hainmueller et al. (2011), on the basis of this research, notes that fears about labor market competition do not seem to have strong effects. Instead, workers at all skill levels express more support for high-skilled as opposed

to low-skilled immigration. Workers in each industry share similar immigration preferences, even though the industries vary widely in their skill intensity, skill specificity, and penetration by immigrant workers.

On the other hand, developments with the American system as regards other migrants who have a preferential access to the American economy and American jobs, show that a classic brain drain is just as likely under global conditions to lead to positive development dynamics (Stark 2004). The concept behind this so-called ‘brain flows debate’ follows the presumption that highly skilled workers are drivers of regional innovation by influencing the regional knowledge base through individual skills and higher degrees (Florida, 2008; Faggian and McCann, 2009; David et al., 2012; David and Coenen, 2014). In turn, even highly-skilled migrants have to deal with uncertainties, which are increased by globalization effects. This makes their migration choices harder, rather than easier. As there is an increasing demand for highly-skilled workers, it is of prime importance to know which motives drive highly educated people to migrate (David et al., 2015). The parallels between the cross-border American and European labor markets are striking. American notions of freedom of movement and its economic benefits still seem to be driving the opening of the European economy, for all the emphasis placed in Europe on governance and the rational political management of the economy (Fawel, 2008).

Research methodology

The goal of this article is to demonstrate how economic and non-economic factors determine the quality of perceptions of migration, and which of the two main groups of factors is dominant. By evaluating the positive and supportive responses which encourage the level of development of the economy and social life, we will be able to interpret the positive effects of migration.

In this study, an online panel survey was carried out in January 2017 among the members of the National Association of Student Councils (also known as Hallgatói Önkormányzatok Országos Szövetsége – HÖÖK) and the National Association of Doctoral Students (Doktoranduszok Országos Szövetsége – DOSZ). Participation was voluntary and anonymous, although we aimed to achieve countrywide representation (Table no. 1). The group of respondents – those who made up the data set – were full-time students in Hungarian higher education institutions, from BSc, Master’s and post-graduate programs. Preliminary studies (Hainmueller and Hiscox, 2010) suggest that higher education graduates evaluate immigration, and resettlement and employment in a foreign country, more favorably and positively.

As to the composition of the questionnaire, it consisted of three main questions, which were: socio-economic issues, issues relating to the economy, and non-economic issues in the context of migration. The questionnaire for data included 60 items and the number of respondents participating in the survey was 438. The first section describes the socio-economic characteristics of the surveyed group, summarizing the respondents’ age, legal status of citizenship, and their highest level of education. The standard of living was also rated on the basis of income, broken down by residence.

Table no. 1: Proportions in the sample and in Hungary

		Survey %	Country %**
Age (year)		21.1(2.13)*	
Gender	Female	56.0	56.4
	Male	44.0	43.6
Place of residence	Countryside	37.2	30.5
	City	62.8	69.5
Highest educational qualification	High School diploma	68.5	73.0
	Bachelor's degree	27.5	25.0
	Master's degree	4.0	2.0
Social class based on income	Lower than average	23.0	
	Average	58.8	
	Higher than average	18.2	

Source: Central Statistical Office (2011), Szabó (2015)

Note: *Mean (SD)

After cleaning the data set, we were able to examine answer sheets. Comparing this data to the data reported by the Central Statistical Office (Központi Statisztikai Hivatal – KSH) in 2011 and 2015, it can be stated that our respondents in higher education accurately represent the national average. The proportion of the urban and rural populations in 2011 was 69.5% and 30.5% (Central Statistical Office, 2017a.). In our data set the proportion was 62.8% and 37.2% (Table no. 1). The distribution of women and men in higher education also accurately reflects the national average. According to the CSO (KSH) report on higher education published in 2011, the proportion of women and men was 56.4% and 43.6%, respectively (Central Statistical Office, 2017b), while in our sample we measured a 44% male participation rate against a female participation rate of 56% (Table no. 1).

We analyzed the distribution of the number of high school diplomas, and Bachelor's and Master's degrees obtained by the participants. In April 2015, the Hungarian Active Youth Research Group (Aktív Fiatalok Magyarországon Kutatócsoport) researched the proportion of full-time students in undergraduate (BA/BSc) programs, Master's degree (MA/MSc) and PhD/DLA programs. According to the survey, 73% of students were undergraduates, 25% in Master's degree programs, and only 2% were PhD students (Szabó, 2015; Central Statistical Office, 2017c.; Central Statistical Office, 2017d). According to the samples we took – in which we measured the distribution of the highest educational qualifications and the active student status – 68.5% of the students had obtained BA/BSc, 27.5% MA/MSc degree programs, and 4% had finished their post-graduate (PhD) activity.

In addition to descriptive statistics, a two independent samples t-test, a one-way ANOVA, a factor analysis and a binary logistic regression model were performed. SPSS 23.0 was used for evaluation. A two independent samples t-test was used to distinguish two variable categories related to the responses of the different socio-economic groups. If the given variable had more than two categories, a one-way ANOVA was performed. A Tukey post hoc test was used for paired comparison. Factor analysis was used to classify questions into common groups and to examine which questions were included in a given group. Each factor was named on the basis of the questions which formed the given factor. Finally, a binary logistic regression model was developed in order to identify the factors which significantly influence the acceptance or refusal of migration.

However, to verify the results of previous studies, first and foremost we need to consider why anti-immigration behaviors are not an appropriate method for interpreting the impact of migration on the economy. In a nationwide U.S. survey, the authors randomly assigned respondents to answer questions about immigrants with different skill levels, thereby obtaining an unbiased comparison between the distributions of attitudes toward high-skilled and low-skilled immigrants. This comparison, and how it varies with respondent characteristics, allows the authors to directly test the predictions of the theoretical models about how economic concerns affect attitudes toward immigration (Hainmueller and Hiscox, 2010).

We set up the following hypotheses:

H1: The results suggest that, among natives generally, labor market competition is not a significant motivator of anti-immigrant sentiment.

Part A: Low-skilled versus High-skilled, compared to respondents' skill level. (Highest educational qualification obtained)

Part B: Low-skilled versus High-skilled, compared to respondents' income level (Social class based on income)

Part C: Social welfare

H2: Non-economic motivators significantly increase anti-immigrant sentiment.

Table no. 2: Results of the t-test and analysis of variance

	High skilled						Low skilled					
	Mean	SD	F value	p value	t-value	p value	Mean	SD	F value	p value	t-value	p value
Female	3.44	1.019	3.099	0.079	-3.498	0.001	1.69	0.768	2.764	0.097	-0.609	0.543
Male	3.79	0.953					1.74	0.898				
Countryside/ Village	3.35	0.917	1.506	0.221	-3.696	0.001	1.66	0.831	0.044	0.835	-0.975	0.330
City	3.73	1.03					1.74	0.823				
Not employed	3.57	1.026	3.409	0.066	-1.014	0.311	1.69	0.816	0.017	0.897	-1.066	0.287
Employed	3.71	0.872					1.81	0.88				
Do not travel abroad	3.56	1.02	2.983	0.085	-0.917	0.360	1.75	0.848	1.368	0.243	2.066	0.040
Travel abroad	3.67	0.956					1.55	0.741				
Do not have family member abroad	3.40	1.064	4.124	0.043	-3.138	0.002	1.75	0.872	2.267	0.133	0.889	0.375
Have family member abroad	3.72	0.941					1.68	0.792				
Do not have foreign friend	3.44	1.051	4.868	0.028	-2.893	0.004	1.68	0.781	1.378	0.241	-0.709	0.479

	High skilled						Low skilled					
	Mean	SD	F value	p value	t-value	p value	Mean	SD	F value	p value	t-value	p value
Have foreign friend	3.73	0.944					1.74	0.866				
Highest education (High school)	3.60	1.022	0.916	0.405			1.73	0.833	2.024	0.133		
Highest education (BSc/BA)	3.52	0.999					1.60	0.789				
Highest education (MSc/MA)	3.88	0.719					2.00	0.894				
Social class (Lower than average)*	3.57	0.972	3.974	0.020	ab		1.89	0.868	2.625	0.074		
Social class (Average)	3.50	1.013			a		1.67	0.827				
Social class (Higher than average)	3.88	0.979			b		1.64	0.751				

Note: * Different letters indicate significant differences at the 0.05 level (using the Tukey post hoc test)

Results

Hainmueller and Hiscox's (2010) study distinguished between attitudes to high-skilled immigrants and attitudes to low-skilled immigrants, because this is a critical feature of the theoretical explanation of how economic concerns affect attitude formation and policy preferences with respect to immigration.

As shown in Table no. 2, men, those living in cities, people who have family members abroad and those who have foreign friends considered the educational levels of immigrants to be significantly more important. PhD students evaluated the entry of both high and low skilled immigrants into the labour market more positively (3.88 and 2.0, respectively); however, this difference was not significant in comparison with other groups. Overall, the survey demonstrates that, regardless of their level of education, respondents are more in favor of high-skilled labor market migration (over 3.0, on average), but PhD graduates have a friendlier attitude than the other two groups. In the case of low-skilled immigrants, all groups are quite dismissive (below 2.0, on average), but students on the Master's program are the most negative regarding this question.

Similarly, we looked at how different social classes – where groups were created based on the income level – evaluate immigration of low and high skilled workers, and the extent to which they fear that the labor market inflow of foreign workers could displace domestic graduates. These comparisons, and how they vary with the characteristics of respondents, allows us to directly test the predictions of the theoretical models about how economic concerns affect attitudes toward immigration (Hainmueller and Hiscox, 2010). For this reason, three groups were developed from these social classes: below average (1), average (2) and above average (3). It was concluded that those belonging to the above average social class evaluated the economic usefulness of high-skilled foreign workers to be

significantly better (3.88), using the Likert-type scale which represents a quality rank ranging from 1 (“totally harmful”) to 5 (“totally useful”).

Foreign attitudes in different situations cannot be understood without the knowledge of the socio-cultural context (Lajos, 2016). Medical Anthropology – which studies human pain, and the steps that will be taken in order to explain the cause of the pain and get rid of it – serves as a good example (Helman, 2007). Besides the lack of cultural competence – which is present during immigration – we have yet to mention the difficulties caused by the lack of competence in the spoken language, and the possibility that immigrants will not be able to express their thoughts in their native language.

Table no. 3: Distribution of respondents’ opinions regarding factors related to migration

	1	2	3	4	5
	N %	N %	N %	N %	N %
Differentiate immigrants by cultural background	10.4%	16.9%	28.7%	29.6%	14.4%
Importance of language knowledge	3.6%	5.2%	20.4%	35.9%	34.9%
Importance of respecting the law	2.4%	2.9%	14.5%	21.6%	58.7%

Source: Authors’ own research

In our panel survey, 72.7% of the respondents (those giving a minimum 3 as an answer) (Table no. 3) believe that during the differentiation of immigrants, cultural background must be taken into account, because specialist language interpreters could help the integration process. In addition, 75% of them fear for the integrity of the national culture, and they think that by mixing foreign cultures, multiculturalism and transnationalism hurt their country's society. The concept of transnationalism, as migration researches define it, is a process in which immigrants build social bonds between the issuer and the host country (Schiller, et al., 1992). Language knowledge is also a key factor, as expressed by the survey respondents, 91.2% of whom (Table no. 3) believed that a moderate or higher conversational knowledge of the Hungarian language should be required. Similarly, 94.8% of them (Table no. 3) regarded respecting national legislation and compliance with legal regulations as a priority. It can be seen that more than three-quarters of the respondents favor community-wide non-economic interests over personal interests related to the economy.

Table no. 4: Exploratory factor analysis for perceived image items

Items	Mean (SD)	Factor					
		1	2	3	4	5	6
F1: Sense of danger regarding immigration							
Danger of increase in local tension	4.37 (0.784)	0.844					
Danger of increase in crime rate	4.42 (0.820)	0.796					
Danger of parallel society	4.20 (0.866)	0.757					
Danger of extremist activity	4.25 (0.877)	0.732					
F2: Conditions for the success of integration							
Integration's dependency on work and skills	3.88 (0.972)		0.827				
Integration's dependency on language knowledge	3.95 (1.035)		0.780				

Items	Mean (SD)	Factor					
		1	2	3	4	5	6
Integration's dependency on acknowledgment of local culture	4.04 (0.999)		0.690				
Integration's dependency on respect for the law	4.33 (0.970)		0.647				
F3: News sources							
Online press as a news source	3.10 (1.144)			0.968			
Social media as a news source	2.99 (1.144)			0.569			
Foreign media as a news source	2.45 (1.197)			0.558			
F4: Differentiation of immigrants							
Differentiate immigrants by cooperation	3.64 (1.200)				0.712		
Differentiate immigrants by skills	3.70 (1.098)				0.701		
Differentiate immigrants by cultural background	3.20 (1.189)				0.682		
F5: Satisfaction with the present state of the economy							
Level of satisfaction with the current state of healthcare	9.17 (1.213)					0.954	
Level of satisfaction with the current state of education	8.50 (1.366)					0.521	
F6: Eradicate social and economic problems							
Importance of the eradication of social problems	7.80 (1.776)						0.805
Importance of the eradication of unemployment	8.22 (1.760)						0.703
<i>Eigenvalues</i>		4.064	2.677	1.936	1.734	1.505	1.027
<i>Explained variance by factors (%)</i>		22.579	14.871	10.756	9.632	8.359	5.705
<i>Cronbach's alpha</i>		0.869	0.848	0.728	0.763	0.722	0.755

Extraction Method: Maximum Likelihood. Rotation Method: Varimax with Kaiser Normalization; KMO = 0.755; Bartlett test ($\chi^2 = 2751.039$; $p < 0.001$); Communalities: 0.497-0.929; Total Variance Explained: 71.902%; Cronbach's alpha (Total): 0.76; N=419.

The majority of questionnaire items were scaled from 1 to 5 (the Likert-type scale). Value 1 corresponded to the respondent's absolute disagreement with the statement as worded in the item (formulated as a positive statement), whilst value 5 corresponded to the respondent's absolute agreement. Certain questions were evaluated using a Likert-type scale ranging from 1 to 10. The rest of the questionnaire items were categorical.

The reliability of the questionnaire was verified by means of the Cronbach's alpha test. With regard to the results achieved it is therefore possible to regard the reliability of the measurement instrument as sufficient (Table no. 4). The construct validity was verified by means of factor analysis using the varimax rotation of factors, which is the most commonly used method for rotation procedures. The varimax rotation of factors is an orthogonal method of rotation that minimises the number of variables with high loadings on a factor, thereby enhancing the interpretability of the factors (Field, 2013). The suitability of applying the factor analysis was verified on the basis of the Kaiser-Meyer-Olkin Measure of Sampling Adequacy (KMO test) and Bartlett's test of sphericity. The results of both testing statistical methods were satisfactory (Bartlett's test: $p < 0.001$; KMO test: 0.755). The assumptions required to apply the factor analysis were met. The factor analysis identified 6 different background factors which altogether explained 71.9% of the total variance. Based on the fact that the identified factors fully correspond with the content of the questionnaire, we regard the construction validity of the measurement instrument as satisfactory.

As a result of the factor analysis shown in Table no. 4, questions were classified into six independent groups. The first four factors (*Sense of danger regarding immigration, Conditions for the success of integration, News sources, Differentiation of immigrants*) were developed based on non-economic aspects, while factors 5 and 6 (*Satisfaction with the*

present state of the economy, Eradicate social and economic problems) were mainly based on economic aspects. Factors which were specified this way were used in the binary logit model in order to examine their impacts on the general acceptance of migration.

Table no. 5 shows the variables used in the binary logistic regression model. It can be observed that factors 5 (*Satisfaction with the present state of the economy*) and 6 (*Eradicate social and economic problems*) – which involve “Highest education”, “Social class” and “Have family member abroad”, as well as economic questions – did not have any significant impact. At the same time, differences were observed between the various categories or levels of the other factors of the model. As regards gender, the exponential beta value was 2.606, which means that men have a probability of accepting migration positively of 2.6 in comparison with women. The probability of accepting migration decreases to 0.67 with the increase in age. Youngsters who work during school or used to work before school (probability value: 0.16) are much more afraid of immigrants taking their jobs than those who have never had a workplace (where the probability value is much lower than 1). Those who regularly visit foreign countries show a similar attitude (probability value: 0.29). This means that these people consider migration to be less positive than their counterparts. A contrasting result is obtained in the case of those who *have foreign friends*, as the probability of accepting migration is 3.39, compared to those who do not have such friends. Those who live in cities (*Place of residence*) also regard migration much more positively than those living in towns (probability value: 2.33). In the case of factor 2, which shows the success of integration, the probability of accepting migration increases to 2.8 with the increase of factor scores. The same tendency can be observed in the case of factor 4 (*Differentiation of immigrants*), but here the probability value was 2.06. The probability value of factor 1 (*Sense of danger about immigration*) was very low (0.18), which shows that the increase of factor values represents the increase in the threat of migration, resulting in a significantly lower willingness to accept migration. The probability value of factor 3 (*News sources*) is also below 1 (0.631), which potentially results from the fact that those who use the media as the main source of news will become less accepting of migration, especially because there has been a significant amount of negative news on this topic recently.

Table no. 5: Variables in the equation of the Binary Logistic regression modela

	B	p value	Exp(B)
Gender (Male)	0.958	0.007	2.606
Age	-0.396	0.005	0.673
Highest education (High school)		0.307	
Highest education (BSc/BA)	0.622	0.281	1.862
Highest education (MSc/MA)	1.584	0.139	4.875
Social class (Lower than average)		0.699	
Social class (Average)	-0.264	0.504	0.768
Social class (Higher than average)	-0.399	0.435	0.671
Employed (Yes)	-1.831	0.004	0.160
Usually travel abroad (Yes)	-1.233	0.008	0.291
Have foreign friend (Yes)	1.220	0.001	3.388
Place of residence (City)	0.845	0.015	2.329
Have family member abroad (Yes)	0.078	0.820	1.081

	B	p value	Exp(B)
<i>F1: Sense of danger regarding immigration</i>	-1.692	<0.001	0.184
<i>F2: Conditions for the success of integration</i>	1.031	<0.001	2.804
<i>F3: News sources</i>	-0.461	0.010	0.631
<i>F4: Differentiation of immigrants</i>	0.721	0.003	2.057
<i>F5: Satisfaction with the present state of the economy</i>	0.286	0.091	1.331
<i>F6: Eradicate social and economic problems</i>	-0.008	0.971	0.992
Constant	3.156	0.275	23.481

a. Binary Dependent Variable: Overall acceptance of immigration (Yes / No); -2Loglikelihood value: 247.598; Cox & Snell pseudo R-square value: 0.306; Nagelkerke pseudo R-Square value: 0.470

Two fundamental hypotheses were established before conducting this survey. According to H1 and parts A, B and C, it seems to be a valid statement that anti-migration attitudes cannot be explicitly explained by the possible economic impacts of migration on the labour market. Attitudes of rejection are not in a significant correlation with the highest educational level or the given social class of the respondents. Respondents with higher levels of education and income are afraid of losing their jobs, despite the fact that they basically oppose those who do not seek their vacant positions. Furthermore, considering the higher educational level of respondents, a negative attitude towards migration is shown by those who are less likely to be forced to apply for social benefits following their studies. Consequently, the arguments against economic migrants cannot be of economic origin either.

Conclusion and discussion

Since the confirmation of H1 justified the examination of other factors which are more distant from the labour market, hypothesis H2 stated that the reasons for anti-migration attitudes may be of a less economic nature. A panel survey aimed at a group representing the whole of society was conducted to explore whether H2 can be confirmed. Those filling out the questionnaire responded to both economy – and society-related questions connected to migration. As a result of the statistical analysis performed, it was concluded that the integration of foreigners is hindered by the so-called socio-cultural barriers which cannot be solved solely by economic policy measures. Consistently, immigration attitudes show little evidence of being strongly correlated with personal economic circumstances. Instead, research finds that attitudes to immigration are shaped by sociotropic concerns about its cultural impacts – and to a lesser extent its economic impacts – on the nation as a whole (Hainmueller and Hopkins, 2014; Cornelius and Rosenblum, 2005).

Social conflicts of interest have to be eliminated in order for migration to have an active and permanently positive impact on the economy. In the case of lower incomes respondents are more in favor of the acceptance of immigrants with a low level of qualification, which is also contradictory to the statement that the determining reason of the general mood of immigration is the overriding burden of the Member State's social welfare system (European Commission, 2016). Máté (2015) also emphasized the role of educational level in labor productivity. In this case, more educated immigrants can be better adapted to the host countries and seemed to contribute better economic growth in high-skilled industries.

The lack of integration increases the Hungarian population's sense of threat and pushes migrants into an exposed state. The development of parallel societies decreases the freedom

of local culture. Our behaviour, as well as our view of the world and our fellow men and women are determined by national concepts dating back over several hundreds and thousands of years; therefore, shaping these concepts goes beyond the current capacity of social science. However, we think that increased attention should be paid to socio-economic factors when developing economic models which analyse migration, as well as when conducting further examinations.

Today, the great challenges faced by countries are the economic, political and social problems caused by migration. All these challenges are supposed to be addressed collectively. Attention should be paid to the extremely high levels of migration and the debate about coexistence in the host country. With regard to Hungary's migration role, its current migration status is largely determined by government and policy decisions made years before. These decisions determine, under other circumstances, whether a country concerned will serve as a country of migration destination, as a recipient country or as a transit country in the future (Hautzinger et al., 2014.). Regarding several aspects of migration, the most relevant research directions and dilemmas, security policy, legal and human rights aspects, current trends and their impacts should be highlighted.

The global migration trends will give big challenges for the developed economies. Migration trends should be analysed not just at local or regional level but at global level as well. In the 21st century the possibilities for free travelling and the access to the different infocommunication devices make the global international migration flows faster than ever before. The developed countries have to help the indigent people or nations with different types of aid. But on other hand emphasis should be put on the success rate of the different integration policy accomplished by receiving countries. The different types of comparison analysis developed in migration studies with a special attention to European literature is highly recommended as well. The utility of ethnography to the planning of successful integration policy and programs for immigrants is another research topic seems worthy of investigate.

References

- Bauer, T.K., Lofstrom, M. and Zimmerman. K.F., 2000. Immigration Policy, Assimilation of Immigrants, and Natives' Sentiments towards Immigrants: Evidence from 12 OECD-Countries. *IZA Discussion Paper No. 187*, Institute for the Study of Labor (IZA).
- Brezis, E. and Krugman, P., 1993. Immigration, Investment, and Real Wages, *NBER Working Paper 4563*, National Bureau of Economic Research.
- Card, D., Dustmann, C. and Preston, I., 2012. Immigration, wages, and composition al amenities. *Journal of the European Economic Association*, 10(1), pp. 78-119.
- Castles, S., De Haas, H. and Miller, M.J., 2014. *The age of migration: international population movements in the modern world*. (5th Edition). Basingstoke: Palgrave Macmillan.
- Central Statistical Office, 2017a. *Városi lakosság aránya*. [online] Available at: <<http://demografia.hu/hu/tudastar/fogalomtar/84-varosi-lakossag-aranya>> [Accessed 10 January 2017].
- Central Statistical Office, 2017b. *Visszatekintő adatok*. [online] Available at: <http://www.ksh.hu/nepszamlalas/taalak_iskolazottsag> [Accessed 10 January 2017].
- Central Statistical Office, 2017c. *Oktatás (1960-) 2*. [online] <http://www.ksh.hu/docs/hun/xstadat/xstadat_hosszu/h_wdsi001b.html> [Accessed 10 January 2017].

- Central Statistical Office, 2017d. *Oktatás (1960-) 1.* [online] <http://www.ksh.hu/docs/hun/xstadat/xstadat_hosszu/h_wdsi001a.html> [Accessed 10 January 2017].
- Citrin, J.D.P., Green, C.M. and Wong, C., 1997. Public Opinion towards Immigration Reform: The Role of Economic Motivations. *Journal of Politics*, 59, pp. 858-881.
- Ciriaci, D., 2014. Does university quality influence the interregional mobility of students and graduates? The case of Italy. *Regional Studies*, 48(10), pp. 1592-1608.
- Crivello, G., 2010. Becoming Somebody: Youth Transitions through Education and Migration in Peru. *Journal of Youth Studies*, 14(4), pp. 395-411.
- Cornelius, W.A. and Rosenblum, M.R., 2005. Immigration and Politics. *Annual Review of Political Science*, 8, pp. 99-119.
- Dajnoki, K. and Kömives, P.M., 2016a. Migránsok integrációja a munkaerőpiacon és az oktatás világában - lehetőségek és kérdések. In: Papp, K. and Kerepeszki, R. Ed. *Menekültek, migránsok, új hazát keresők*. Debrecen: Debreceni Egyetem Történelmi Intézete, pp. 231-252.
- Dajnoki, K. and Kömives, P.M., 2016b. Migránsokkal kapcsolatos munkaerőpiaci attitűdök feltárása egyetemi hallgatók körében. *International Journal of Engineering and Management Sciences*, 1(1), pp. 1-9.
- David, A., Barwinska-Malajowicz, A. and Coenen, F. 2012. From brain drain to brain exchange: how to use better highly skilled workers; a conceptual approach. *Unia Europejska*, 216(5), pp. 25-35.
- David, A. and Coenen, F. 2014. Alumni networks - An untapped potential to gain and retain highly-skilled workers? *Higher Education Studies*, 4(5), pp. 1-17.
- David, A. and Barwińska-Malajowicz, A., 2015. Opting for Migration: Is it Just an Economic Necessity? – A Comparison between German and Polish Highly Skilled Graduates. *Journal of Education and Training Studies*, 3(2), pp. 114-125.
- Dustmann, C. and Preston, I.P., 2007. Racial and Economic Factors in Attitudes to Immigration. B.E. *Journal of Economic Analysis and Policy*, 7(1), Article 62.
- European Commission 2016. An Economic Take on the Refugee Crisis – A Macroeconomic Assessment for the EU. Institutional Paper 033/2016, pp. 7-32.
- Facchini, G. and Mayda, A., 2009. Does the Welfare State Affect Individual Attitudes toward Immigrants? Evidence across Countries. *Review of Economics and Statistics*, 91(2), pp. 295-314.
- Faggian, A. and McCann, P., 2009. Human capital, graduate migration and innovation in British regions. *Cambridge Journal of Economics*, 33(2), pp. 317-333.
- Favell, A., 2008. The new face of East-West migration in Europe. *Journal of Ethnic and Migration Studies*, 34(5), pp. 701-716.
- Field, A., 2013. *Discovering Statistics Using SPSS*. 4th Edition. SAGE publication.
- Florida, R., 2008. *Who's your city? How creative economy is making where to live the most important decision of your life*. New York: Basic Books.
- Gang, I.N., Rivera-Batiz, F.L. and Yun, M.-S., 2002. Economic Strain, Ethnic Concentration and Attitudes towards Foreigners in the European Union. IZA Discussion Paper No. 578, Institute for the Study of Labor (IZA).

- Hainmueller, J. and Hiscox, M.J., 2007. Educated Preferences: Explaining Attitudes toward Immigration in Europe. *International Organization*, 61(2), pp. 399-442.
- Hainmueller, J. and Hiscox, M.J., 2010. Attitudes toward highly skilled and low-skilled immigration: Evidence from a survey experiment. *American Political Science Review*, 104(1), pp. 61-84.
- Hainmueller, J. and Hopkins, D.J., 2014. Public attitudes toward immigration. *Annual Review of Political Science*, 17, pp. 225-249.
- Hautzinger Z., Hegedüs J. and Klenner Z., 2014. A migráció elmélete. Nemzeti Közzolgálati Egyetem Rendészettudományi Kar, Budapest: Nemzeti Közzolgálati és Tankönyv Kiadó Zrt.
- Helman, Cecil G., 2007. Culture, Health and Illness (5th edition) London: Oxford University Press.
- Hooghe, M., Trappers, A., Meuleman, B. and Reeskens, T., 2008. Migration to European Countries. A Structural Explanation of Patterns, 1980-2004. *International Migration Review*, 42(2), pp. 476-504.
- Lahav, G., 2004. Immigration and Politics in the New Europe. Cambridge: Cambridge University Press.
- Lajos, V., 2017. Migránsvilágok, jótékonykodás és gyakorlati alkalmazás. Lehetséges kulcskérdések a kortárs migrációs folyamatok kutatásában, pp. 175-190.
- Malhotra N., Margalit, Y. and Mo, C.H., 2013. Economic explanations for opposition to immigration: distinguishing between prevalence and conditional impact. *American Journal of Political Science*, 57(2), pp. 391-410.
- Mayda, A.M., 2006. Who is against immigration? A cross-country investigation of individual attitudes toward immigrants. *Review Economics and Statistics*, 88(3), pp. 510-530.
- Máté, D., 2015. Impact of Human Capital on Productivity Growth in Different Labour-skilled Branches. *Acta Oeconomica*, pp. 51-67.
- Nifo, A. and Vecchione, G., 2014. Do institutions play a role in skilled migration? The case of Italy. *Regional Studies*, 48(10), pp. 1628-1649.
- O'Rourke, K.H. and Sinnott, R., 2006. The determinants of individual attitudes towards immigration. *European Journal of Political Economy*, 22(4), pp. 838-861.
- Özgür, E.M. and Deníz, A., 2014. A migration system formation based on tourism between Russia and Turkey (Antalya) *Aegean Geographical Journal*, 23(2), pp. 1-18.
- Punch, S., 2015. Youth transitions and migration: negotiated and constrained interdependencies within and across generations. *Journal of Youth Studies*, 18(2), pp. 262-276.
- Salt, J., 2009. Processes among the highly skilled in Europe. *International Migration Review*, 26(2), pp. 484-505.
- Scheve, K. and Slaughter, M., 2001. Labor Market Competition and Individual Preferences over Immigration Policy. *Review of Economics and Statistics*, 83(1), pp. 133-145.
- Schiller, N. G., Basch, L., and Blanc-Szanton, C., 1992. Transnationalism: A new analytic framework for understanding migration. *Annals of the New York Academy of Sciences*, 645(1), pp. 1-24.

- Solimano, A., 2008. *The International Mobility of Talent*. Oxford: Oxford University Press.
- Stark, O., 2004. Rethinking the brain drain, *World Development*, 32(1), pp. 15-22.
- Stockhorst, J., 2011. *Verfügbarkeit von hoch qualifizierten Arbeitskräften abseits von Ballungsräumen. Regionale Restriktionen und Chancen für Hochtechnologieunternehmen der Medizintechnik*. Stadt und Regionalforschung. Berlin: LIT Verlag.
- Szabó, A., 2015. Aktív Fiatalok Magyarországon Kutatócsoport, A magyar egyetemisták és főiskolások Magyarországon.
- Vorwiebe, R., Mau, S., Seidel, N. and Kathmann, T., 2010. Skilled German migrants and their motives for migration within Europe. *International Migration & Integration*, 11(3), pp. 273-293.