

Institutional Determinants of Higher Education Students' International Mobility within the Erasmus Programme Countries

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SUMMARY

One of the major EU policy objectives is to enhance the international mobility of students. The Leuven Communiqué published in 2009 set an objective of increasing the ratio of European Higher Education Area (EHEA) higher education graduates participating in a study or a training period abroad to at least 20% by 2020. However, currently the majority of European Union Member States perform significantly below the target in this respect. Also, since a low number of students are interested in mobility programmes, the funds of the Erasmus-type student mobility programs remain unused. This study focuses on highlighting the factors that represent barriers to student participation in mobility programs. After conducting a literature review on international student mobility and presenting major statistics describing outbound mobility, this study investigates factors related to institutional components of the higher education system that affect the international mobility of Erasmus young people. Among the explanatory factors related to Erasmus-type student mobility, cultural factors including Hofstede's indulgence and uncertainty avoidance seem to have the greatest influence on student mobility intentions in Europe. The findings revealed that better planned Erasmus processes (pre-, during and post-mobility activities such as departure, course choice, staying in a host country, etc.) and better communicated career opportunities and labour market values of the mobility could considerably contribute to an increase in the number of outbound students. One of the main lessons learned from the conducted analyses is that Europe's rich cultural diversity needs to be considered in the course of promoting the Erasmus Programme in Europe. In addition to adopting common communication, promotion and direction strategies, programmes need to be elaborated that take national specificities into account.

Keywords: Erasmus, higher education, student mobility, culture, institutions

Journal of Economic Literature (JEL) codes: F22, I23, J61, M14

DOI: <http://dx.doi.org/10.18096/TMP.2018.02.01>

INTRODUCTION

The Bologna Declaration (1999) targeting the creation of the European Higher Education Area (EHEA) set out six main goals, one of the key pillars of which was to facilitate the mobility of students, teachers and researchers and to recognise qualifications and periods of study. The Bologna Declaration was originally signed by 29 European countries and a further 19 countries joined the Bologna Process in eight Ministerial Conferences later. (The tenth Ministerial Conference of EHEA was held in Paris in May 2018). Point 18 of the Leuven Communiqué (2009, p. 4), which is the outcome document of the sixth

Bologna Ministerial Conference in Leuven, states that in 2020 at least 20% of those graduating in the European Higher Education Area should have had a study or training period abroad. This objective was further developed in the 'Education and Training 2020' work programme (a part of the Europe 2020 strategy), which stipulated that students participating in mobility abroad should have a minimum of 15 ECTS credits or the mobility should last a minimum of three months (Agostini & Capano 2013, p.153). The mobility period abroad is not capped. Thus, studies abroad with the aim of obtaining a degree also contribute to meeting the objectives set by the Leuven Communiqué as just much as Erasmus-type studies or practical workplace

experiences. This study aims at investigating the Erasmus-type mobility.

In order to meet the set objectives, the budget for Erasmus programme was considerably increased in the EU budgetary cycle of 2014-2020. The budget for Erasmus was about €2 billion in 2014, whereas in 2020 it will amount to almost €3.5 billion (EC 2015, p.11). Hungary considers objectives formulated in the Leuven Communiqué as priorities. According to the objective set by the Ministry of Human Capabilities of Hungary, 20% of those graduating from higher education institutions should have spent a study or training period abroad by 2023 (Palkovics 2016). The Campus Mundi Programme also contributes to achieving the above objectives and HUF 9.2 billion is allocated from the EU funds to enhance the internationalisation of higher education in the period between 2016 and 2021. This amount includes HUF 5.7 billion allocated for scholarships in order to promote non-degree mobility studies and traineeships abroad (Tempus Public Foundation 2018).

A very specific situation has emerged. Although the resources for mobility scholarships are guaranteed, students' mobility intentions have not increased. In order to utilise the increasing resources, over 6,000 Hungarian university students should spend study or training periods abroad on the Erasmus scholarship in 2020. However, the outbound mobility rate has been around 4,000 students for ten years. The Erasmus quota available for Hungary considerably exceeds the number of those actually aspiring to travel abroad on Erasmus (Tempus Public Foundation 2015, p. 5).

The Hungarian higher education is facing major challenges in boosting student mobility to the required level. The topic of this research study is closely related to this problem, since this study aims at identifying the institutional factors that have a hindering or facilitating effect on promoting students' partial mobility studies abroad in European countries. If the system of effect factors can be identified, then realistic possibilities can be explored for influencing these factors in the short term and meeting the set mobility objectives. First, this study provides a review of the available literature on the factors influencing student mobility. Then the cultural dimensions and their effects are addressed. Also, international student mobility in Europe is presented. Finally, the hypotheses that are tested and summarised in the last part of this study are formulated. The database used for testing the hypotheses was compiled from the secondary sources (Eurostat, European Social Survey, etc.) where a cross-sectional analysis of EU-28 and Erasmus programme countries was performed.

FACTORS AFFECTING MOBILITY

Factors affecting mobility may be both facilitating and hindering. As for their effect mechanism, they may exert their effects at personal, institutional and national levels.

Factors hindering student mobility are mostly lack of adequate information (Vossensteyn et al. 2010; Bartha et al. 2017) or lack of financial resources (Eurobarometer 2009; Bryla & Ciabiada 2014). Although the level of grant has considerably increased over the past years, financial constraints continue to be leading barriers to mobility. Another potential barrier to mobility is deficiencies in foreign language skills (Vossensteyn et al. 2010; Hauschildt et al. 2015; Bartha et al. 2017) and lack of motivation (Wächter & Maiworm 2008; Vossensteyn et al. 2010; Hauschildt et al. 2015). Apart from these factors interpreted at an individual level, there are also hindering factors related to particular higher institutions or even to the higher education system of a particular country. Teichler et al. (2011) investigated the student mobility of thirty-two countries participating in the Erasmus programme and reported that the regulatory frameworks of particular countries significantly affect students' mobility patterns. They are as follows: the availability of mobility windows, geographical and language preferences, the process of credit recognition and the standard of services. The recognition of credits awarded abroad is a general problem (Bracht et al. 2006; Souto-Otero et al. 2013; Bartha et al. 2017). A similar concern is that curricula are not harmonised and students on partial study mobility face major challenges when they attempt to find courses provided by host institutions that can be recognised by their home institutions (Kehm 2005).

Teichler et al. (2011) highlight three major facilitating factors: financial facilitators (available in different forms provided by scholarship programmes), curricular-related facilitators (mobility windows, double and joint degree programmes and the language level of education) and personal facilitators (the standard of provided services). The latter are also emphasised by Kelo, Rogers and Rumbley (2010), potential benefits including perspectives in the labour market revealed by several surveys (for example, EC 2014). After conducting a survey among Brazilian students and lecturers, Oliveira and Freitas (2016) classified facilitating factors into three groups: personal, education and career-related motivators. According to Engel (2010), Erasmus students from Central and Eastern European countries seem to profit more from participating in the programme than their peers from Western Europe. A facilitating factor can be the participation experience itself. The conducted surveys (for example, Gallup 2011) support the evidence that participants who have already been on mobility abroad tend to apply for the programme again. Golob and Makarovic (2018) highlighted the importance of students' international networks built in the course of the programme and their facilitating effects.

Azmat et al. (2013) describe pull and push factors in their model. Pull factors include attractive forces, knowledge level, cost level, geographical closeness of the country and the institution, and the level of the organisational support. The standard of education in the

home country/institution, demographic factors, income factors and family background belong to push factors.

These facilitating and hindering factors can be perceived in a particular institutional environment. The existing formal and informal rules can motivate individuals on the one hand, but on the other hand may place barriers and restrain them from formulating their intentions and making decisions. The opinion of the immediate environment (family members, friends, reference points) is also of determining importance. Impact factors of mobility aspirations and decisions are personal skills (communication skills, language skills), demographic specificities (gender, age, field of study, family background), personal attitudes (to the international environment and mobility) and the information obtained (possibilities).

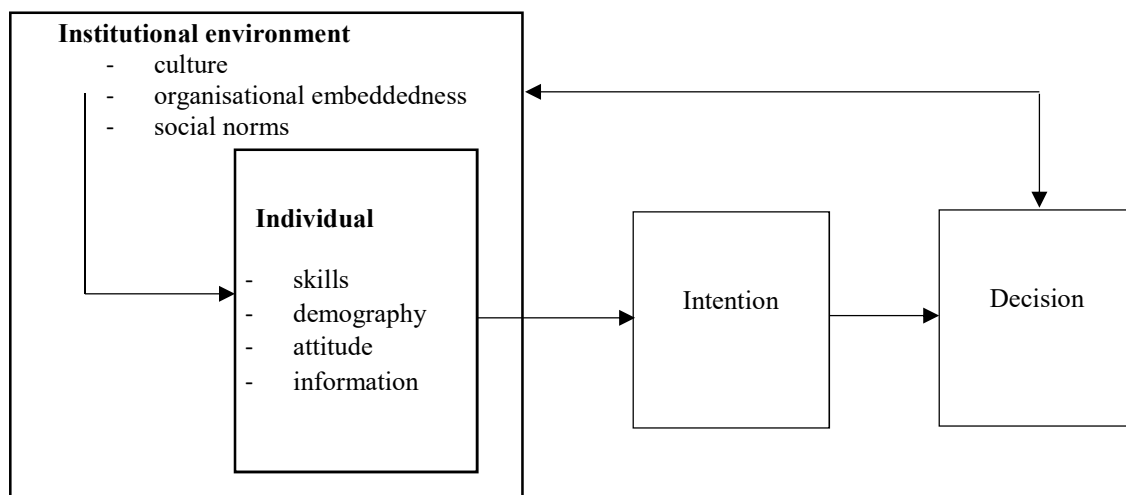
This study uses aggregated data (data are not broken down to individual level) and investigates the relationships between the institutional environment and the decision-making process.

CULTURE AS AN IMPACT FACTOR

The conducted empirical surveys reveal that one of the main hindering factors of mobility is fear of an unknown environment, of the unknown and fear of making changes (for example, Klahr & Ratti 2000; Sanchez et al. 2006). Since we are of the opinion that the cultural factor depends on cultural values, this study addresses the influence of this factor on student mobility activities. The measurement of culture frequently used in a business context is linked to the Hofstede cultural dimension and the Globe project. This study applies the Hofstede dimensions used for

international comparisons because their values are relevant to all countries under investigation and are available for public use. Hofstede dimensions are defined as follows (Hofstede Insights 2018):

1. Power distance expresses the degree to which the less powerful individuals in lower hierarchical positions accept and expect unequal power distribution.
2. Individualism versus collectivism expresses whether the identity is based on an individual or whether the identity is defined by a group to which an individual belongs.
3. Masculinity versus femininity expresses the degree to which gender roles are separated from each other and the degree to which social cohabitation is based on material success, heroism, achievement, and competitiveness; feminine societies on the other hand are characterised by striving for consensus.
4. Uncertainty avoidance expresses the degree to which unknown situations, unpredictable and unorthodox development of events threaten and make society members uncertain; in societies with high uncertainty avoidance, traditions and customs play a crucial role, which results in low openness to change;
5. Long-term versus short-term orientation expresses the degree to which societies prefer to maintain a forward-looking, innovative and pragmatic approach rather than an approach built on traditions and old convictions; this dimension is often presented as a normative approach versus a pragmatic approach;
6. Indulgence versus restraint: in indulgent societies more emphasis is placed on the relatively free enjoyment of life; whereas in restrained societies emphasis is placed on the suppression of instincts and strict social norms.



Source: own elaboration

Figure 1. Decision model of student mobility abroad

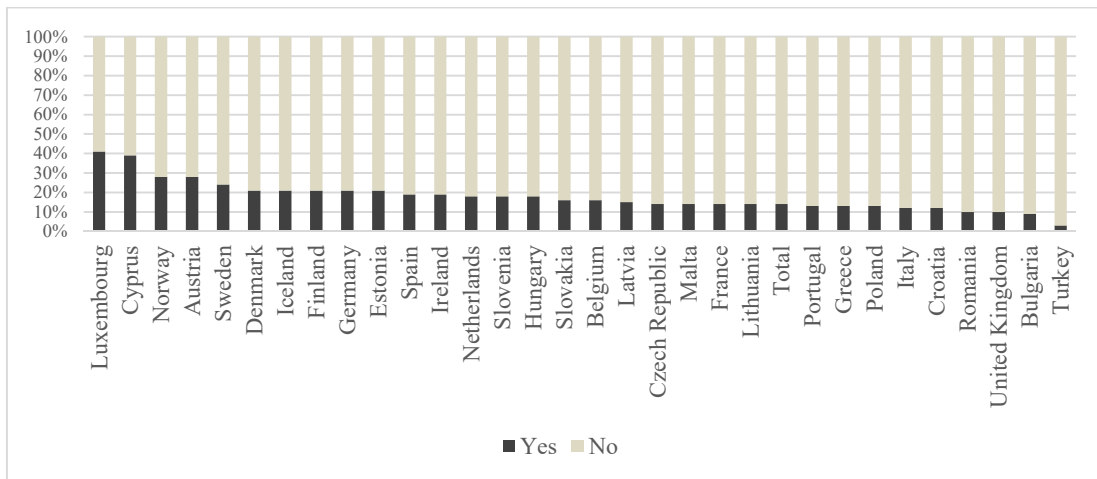
Other cultural elements (partners, European institutions, confidence in European values, and community activities) that are indirectly measured by the Hofstede dimensions may also affect mobility. The findings of the European Social Survey are used for testing the effects of these elements (ESS 2016).

INTERNATIONAL STUDY AND TRAINING MOBILITY

The Youth on the Move (Gallup 2011) study conducted by the Gallup Organisation provides data for mapping international student mobility. The study interviewed over 30,000 young people aged 15-35 about their intentions regarding mobility for internship or study. Although the survey was conducted in the early 2010, a similar extensive and comprehensive data collection on all Erasmus programs has not been conducted since then. According to the survey, one in seven of the sampled young people had participated in mobility abroad for

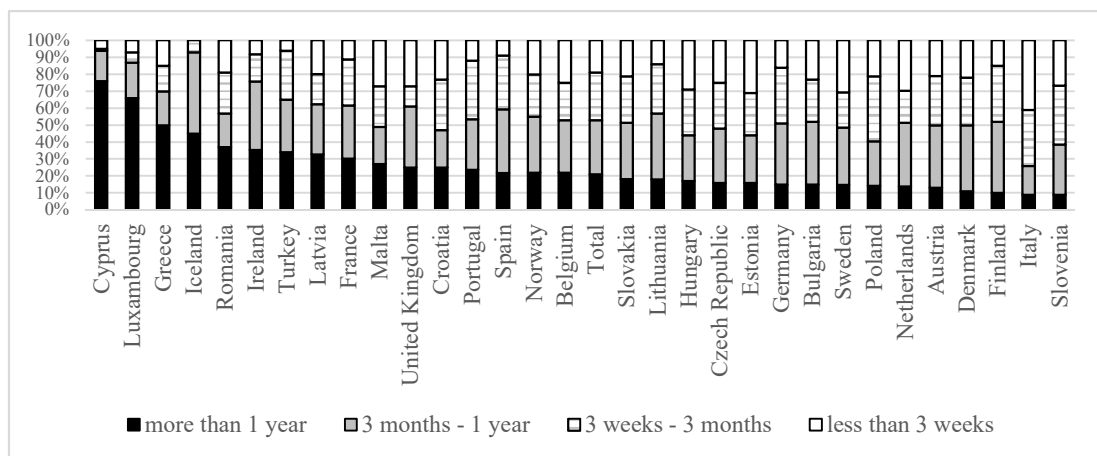
education or training purposes. The study revealed significant national differences. The lowest proportion of the sampled students reporting that they participated in mobility abroad for education purposes (Figure 2) was found in Turkey (3%), followed by Bulgaria (10%). The highest mobility was observed in Cyprus and Luxembourg (above 40%).

The length of the stay abroad also varied across the surveyed countries, as shown in Figure 3. Respondents from Cyprus (76%) and from Luxembourg (66%) stayed abroad for more than one year. As for the mobility abroad lasting more than three months, responses given by the young people from Iceland showed high statistical figures, with 48% of the respondents with mobility experience reported staying abroad for more than one year and another 48% reporting that their studying mobility abroad had lasted between three months and a year. The proportion of young people staying abroad for less than three weeks was the highest in Italy (41%). Italian respondents who spent more than one year abroad amounted only to 9% of all Italian mobility participants.



Source: Gallup 2011

Figure 2. Have you stayed abroad for learning or training purposes?



Source: Gallup 2011

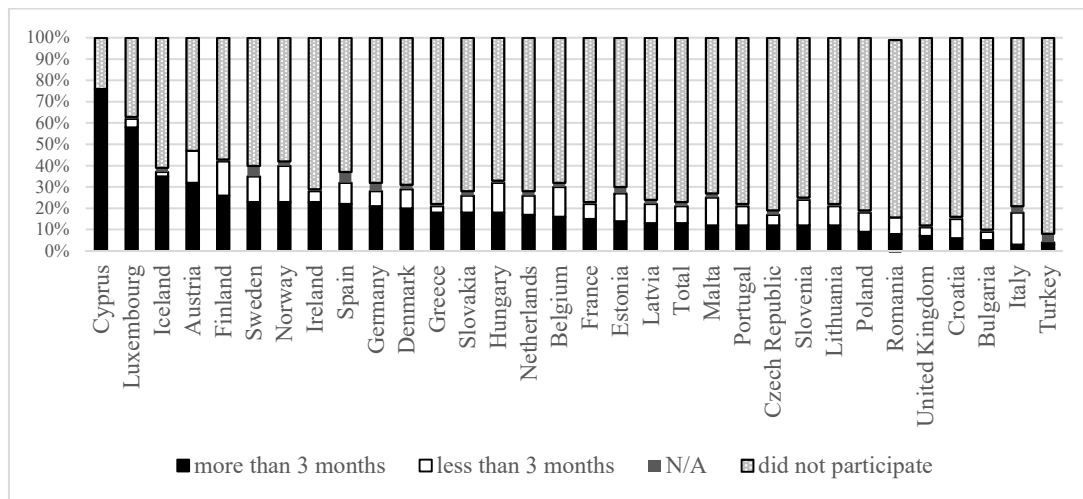
Figure 3. How long did your mobility last?

According to the Gallup survey, the mobility of students studying in higher education institutions is the highest, since 23% of them participated in programmes for study or traineeship purposes. Figure 4 shows participation by country: the proportions of students who had not chosen a foreign institution was the highest in Turkey, since 92% of young people did not spend any time abroad at all and only 3% of them stayed abroad for more than three months. The highest mobility data were observed in Cyprus, where only 24% of respondents did not join international mobility and 76% stayed abroad for a period longer than three months. In several countries the proportion of mobile students who stayed abroad for a short period is higher than the average, for example, Norway (17%), Finland (16%), Austria and Italy (both 15%).

ERASMUS + MOBILITY

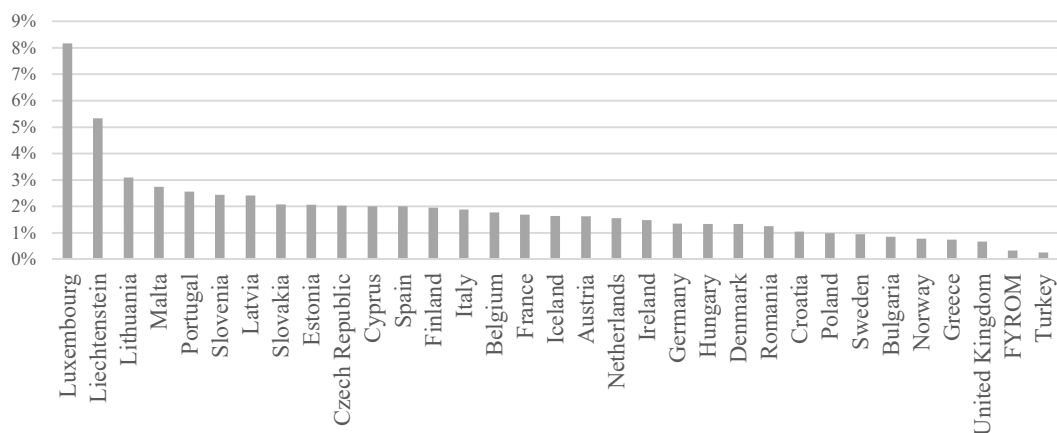
According to the Gallup survey, a large proportion of respondents financed their stay abroad through private funds in England, Austria, Luxembourg, Germany, Spain, Greece and Cyprus (home country). This proportion amounted to more than 70%. The proportion of EU-funded mobility programmes was the highest in Lithuania and Finland (over 30%) (Gallup 2011, p. 35).

Figure 5 shows national differences in student mobility in the framework of the Erasmus+ mobility programme across countries. As in the case of mobility for studying and training purposes, a significant proportion of students who had participated in the Erasmus+ programme were observed in Luxembourg and Iceland and the lowest proportion was seen in Turkey. Although the highest overall student mobility was experienced in Cyprus (see Figure 3), only a small proportion of stays abroad were Erasmus funded.



Source: Gallup 2011

Figure 4. Study or training mobility of respondents with a higher education degree



Source: EB 20171

Figure 5. Erasmus mobility in proportion to all students in 2016

METHODOLOGY

Factors affecting Erasmus-type motilities are very diverse. This study focuses on elements that are linked to the institutional components of the higher education system. Based on the findings in the literature, the following hypotheses were formulated:

H1: Cultural specificities affect the extent of student mobility. The rate of Erasmus partial mobility is higher in countries where:

- a. the power distance is lower (because students may be more proactive);
- b. individualistic values are stronger (because it may be easier for students to leave their environment behind);
- c. feminine values are more characteristic (because these values help promote environmental integration);
- d. uncertainty avoidance is low (because uncertainty in mobility is one of the key barriers, according to the available literature);
- e. long-term orientation is stronger (because international mobility requires a novel and unorthodox approach and may have long-term beneficial effects);
- f. indulgence values prevail (because they contribute to Erasmus experiences).

H2. The quality of higher education is in a positive relationship with student mobility. The rate of Erasmus partial mobility is higher in countries where

- a. the student/teacher ratio is lower in higher education (because of more possibilities and time spent on personal consultations that ease uncertainty);
- b. higher institutions offer higher-quality education (because these institutions attract better and more mobile students and offer better services, which make mobility easier);

H3. The rate of Erasmus partial mobility is higher in countries where the rate of speakers of major European languages (English, German and French) is higher (because courses are mostly offered in these languages);

H4. The level of trust beliefs affects student mobility. The rate of Erasmus partial mobility is higher in countries where

- a. the trust in people is higher (because young people are more willing to leave their comfort zone if they feel that they can rely on others for help);
- b. the trust in European institutions is higher (because Erasmus is a European exchange programme and students usually move within the EU. Thus, young people who have a higher trust in European institutions may tend to be more open to mobility).

H5. The rate of Erasmus partial mobility is higher in countries where community members are more involved in community life (because Erasmus mobility results in meeting new people and building new communities).

The data for testing hypotheses were obtained from the following databases:

- EU Open Data Portal: <https://data.europa.eu/euodp/en/data/dataset/erasmus-plus-2016-annual-report-statistical-annex>. This portal is operated by the Publication Office of the European Union, collects data provided by EU institutions and provides access to open data published by EU institutions.
- Eurostat: <http://ec.europa.eu/eurostat>
- Elsevier-QS University Rankings: <https://www.topuniversities.com/>. QS ranks universities by academic disciplines based on the responses from academic staff and students and on citation data from international databases.
- European Social Survey database: <http://www.europeansocialsurvey.org/>. The design of the European Social Survey began in 1995. It provides detailed data that are used for exploring social values and processes of participating countries. The European Social Survey Organisation is funded by all participating countries, the European Union and EU institutions.
The variables in the analysis were as follows:
 - Dependent variable: the proportion of students participating in mobility studies within the total number of higher education students. This was quantified in the following way: The number of students participating in the Erasmus studies abroad in 2016 was divided by the number of students studying in higher education in 2015.
 - Independent variables:
 1. Power Distance Index (Hofstede): the value is plotted on a scale from 0 to 100. A high value indicates a high power distance;
 2. Individualism/Collectivism Index (Hofstede): the value is plotted on a scale from 0 to 100. A high value indicates the dominance of individualist values;
 3. Masculine/Feminine Index (Hofstede): the value is plotted on a scale from 0 to 100. A high value indicates the dominance of masculine values;
 4. Uncertainty Avoidance Index: the value is plotted on a scale from 0 to 100. A high value indicates high avoidance of uncertainty;
 5. Long/Short Term Orientation Index (Hofstede): the value is plotted on a scale from 0 to 100. A high value indicates the dominance of pragmatic values;
 6. Indulgence/restraint Index (Hofstede): the value is plotted on a scale from 0 to 100. A high value indicates the willingness of people to realise their impulses and desires with regard to enjoying life;
 7. The teacher-student ratio in higher education: (Eurostat data), the number of students attending a higher education institution in 2015 divided by the number of teachers in higher education institution;
 8. Public expenditure on higher education as a share of GDP (as an index of higher education quality): Eurostat data of 2016;

9. Number of universities in the Elsevier-QS ranking list (as an index of higher education quality): indicates the number of universities of a country listed in the ranking (based on teacher and student responses and research publication output in the Scopus database); The higher the value is, the better quality the education system is;
10. The ratio of foreign language speakers: A) it is the ratio of people reporting that they are able to understand English, German or French well enough to be able to follow the news on radio or television in the language (Eurobarometer 2012, p. 31); B) the ratio of people within a society reporting that they are able to speak a language well enough to be able to use that foreign language for communication (Eurobarometer 2006, p. 9)
11. Trust in people: the extent to which people trust other people on a scale from 0 to 10, where 0 means people cannot be trusted at all (European Social Survey);
12. Trust in European institutions: the extent to which people trust European institutions on a scale from 0 to 10, where 0 means that people have no trust in institutions at all (European Social Survey);
13. Community activity: the extent to which people are interested in politics on a scale from 0 to 10, where 0 means that people are not interested in politics at all (European Social Survey).

The unit of analysis in this study was particular countries. Most tests were performed in Erasmus Programme Countries (EU28, Iceland, Liechtenstein, Macedonia, Norway and Turkey). The data of the European Social Survey encompass fewer countries so the number of the investigated units was lower.

IBM SPSS software package was used for performing the regression tests.

FINDINGS

First, this study analysed the relationship between the cultural variables used in the analysis and the variable of the ratio of Erasmus students within the total number of higher education students. The relationship between cultural variables and the outbound rate is insignificant. However, a great majority of cultural variables (individualism, power distance, uncertainty avoidance and indulgence/restraint attitude) are closely related to the country's economic performance, which was calculated based on GDP per capita data measured in purchasing power parities. The relevant literature also investigates the relationship between cultural dimensions and country's economic performance (Hofstede 2001, Cox et al. 2011).

The variable measuring the ratio of outgoing Erasmus students ($r=0.606$, $p=0.000$) correlates with the country's economic performance. The mobility data in the Youth on the move study conducted by the Gallup Organisation (Gallup 2011) also reveal a positive relationship between study or training mobility and the country's economic performance: a higher proportion of young people from economically well performing countries participate in international mobility. This phenomenon can also be observed among higher education students.

Second, after controlling for the per capita GDP of the countries, the measurement of the relationship strength between the two variables was repeated. By eliminating the effect of economic performance from the analysis, significant relationships were observed in five variables. They were as follows: Power Distance Index, Uncertainty Avoidance Index, Long/Short Term Orientation Index, Individualism/Collectivism Index and Indulgence/Restraint Index (See Table 1).

Considering the positive relationship between the power distance and the ratio of outbound people, in countries with a high power distance the ratio of outbound

Table 1
Partial correlation coefficients of cultural variables used in the analysis

	N	Partial correlation coefficient	Significance level
Power Distance Index	30	0.399	0.032
Individualism/Collectivism Index	30	-0.343	0.068
Masculine/Feminine index	30	0.015	0.937
Uncertainty Avoidance Index	30	0.463	0.011
Long/Short Term Orientation Index	30	0.372	0.047
Indulgence/Restraint Index	30	-0.627	0.000

Source: own calculations

people is high. This relationship contradicts the assumption that countries with low power distance have individuals with more initiative and so their student mobility is higher.

The negative Individualism/Collectivism Index indicates that in societies where collectivism dominates the outbound rate is high. In a collectivist society families and groups play an important role in an individual's life; relationships are preferred to tasks; private life and work are closely linked. Thus, the assumption that an individualist society is more mobile must be rejected.

The Uncertainty Avoidance Index, with a positive coefficient, indicates that the higher the index value is, the more students participate in study and training mobility programs abroad. In societies where the Uncertainty Avoidance Index is high, a predictable environment is crucial for its members and the established norms and rules play an essential role in easing the feeling of uncertainty. Planning is important. Knowledge plays a crucial role. People are goal oriented (Hofstede, 2001). The obtained results reveal that these specificities also help in overcoming the challenging situations resulting from international mobility.

The positive direction of the relationship between long-term orientation and the outbound ratio indicates that in societies where people are future oriented and a long-term way of thinking dominates, student international mobility is high. The efforts made are a measure of success; individuals are able to adapt to changed conditions; determination is highly valued. The findings confirm the assumption made in this study.

The last significant cultural variable is the Indulgence/Restraint Index, which shows a relationship of a negative direction. The high value of this index indicates the dominance of indulgence and permissiveness, which is unlikely to promote international student mobility, according to our results. A low index demonstrates that controlled and rigid behaviour is expected and members of such a society tend to be sceptical and cynical (Hofstede Insights 2018). The findings reveal that the assumption of this study related to the indulgence/restraint value must be rejected.

After this, the relationship between institutional variables and the outbound ratio was investigated. A significant relationship between these variables was observed in two cases: the government expenditure on higher education as percentage of GDP (linear correlation coefficient = -0.392, $p=0.036$) and the two variables measuring foreign languages skills. One of them measured the ratio of people who were able to understand English, German or French well enough to be able to follow the news on radio or television in the language. In this case the value of the linear correlation coefficient was $r=0.553$, $p=0.005$. The other variable measured the ratio of people within a society who were able to speak a language well enough to be able to use that foreign language for communication. In this case the value of the linear correlation coefficient is somewhat lower, $r=0.425$,

$p=0.027$. In countries where a higher proportion of the population speaks a foreign language, students are more mobile.

The GDP per capita also affects the relationship between the measured variables. The relationship between the ratio of students who are able to communicate at least in one foreign language and the ratio of students who join international mobility remains after excluding the effect of economic performance (the value of the partial correlation coefficient is 0.343, $p=0.087$). As for government expenditure on higher education, the observed relationship between the two variables also remains significant (the value of the partial correlation coefficient is -0.583, $p=0.001$). The findings provided evidence only to H3 related to foreign language skills.

In order to investigate the effect of trust level on mobility, the European Social Survey database was used in this study. Two questions were involved in the analysis measuring the level of trust in people and European institutions. There was no significant relationship between the two variables in either of them. The variable taken from the database of the third European Social Survey and used for measuring community members' activities did not show a significant relationship with the mobility data of the surveyed counties.

Taking into consideration that the mobility value in Luxembourg is considerably higher than the values of the surveyed country, Luxembourg was considered an outlier, and removed from the sample. But if Luxembourg is removed, the relationships between the cultural variables and the mobility variable becomes insignificant, too. After this, the relationships between variables were visualised with the help of point cloud diagrams. It was found that the surveyed countries could be divided into at least two subgroups which show characteristic differences between variables under analysis. Some countries (Bulgaria, Croatia, Greece, Hungary, Poland Romania, Macedonia and Turkey) do not show the characteristics described in our findings. In other words the described relationships only apply to the rest of the surveyed countries. Next, after grouping countries into clusters, the analysis needs to be repeated by country groups.

SUMMARY

This study focused on investigating the reasons why higher education institutions in general may be failing to meet study mobility requirements, and how this can inform our understanding of the situation with Hungarian universities. One of the possible explanations for this problem in Hungary may be a constellation of institutional factors, especially values and cultural background, that acts as a strong restraining force in situations where students make decisions on participating in Erasmus-type mobility programs. The findings of this study did not confirm the assumption that the Hungarian institutional environment may prevent students from taking part in

mobility activities. Although several impact factors have a significant relationship with mobility ratio (if GDP value per capita is considered), the direction of the relationship contradicts most of the assumptions formulated in the hypotheses after the review of the relevant literature. On the other hand, the findings of this study may suggest that Hungarian cultural and institutional specificities facilitate rather than hinder student outbound mobility, which appears to contradict the observed practice, namely that Hungarian higher institutions find it increasingly challenging to boost outbound student mobility.

Here we evaluate the factors that were found to be significantly correlated with outgoing Erasmus mobility from two aspects. First, it is examined whether the direction of the relationship is similar to that assumed in the hypotheses. Second, it is examined if the correlations calculated in the model were observed in Hungary, in what direction it would shift the Hungarian outbound mobility data. This study identified significant relationships in seven potential impact factors, which are as follows:

1. Power distance is in a weakly positive relationship with mobility, which contradicts the assumptions made in this study, but the results calculated in the model coincide with the low mobility activities of Hungarian students because the Power Distance Index calculated by Hofstede for Hungary is 46, which can be considered to be low on a European level (the model of this study – based on the findings – would assign a lower mobility ratio to Hungary if the power distance were considered).
2. Individualism is in a weakly negative relationship, which also contradicts the assumptions made in this study. Since the Individualism/Collectivism Index score for Hungary is 80, which indicates that Hungary is an individualist society, the model of this study would assign a lower mobility ratio to Hungary if individualism was considered.
3. Uncertainty Avoidance is in medium-strength positive relationship, which also contradicts the assumptions made in this study. The Uncertainty Avoidance Index score for Hungary is high (82). Thus, the model of this study would assign a high mobility ratio if the uncertainty avoidance were considered.
4. Long-Term Orientation is in weakly positive relationship, which coincides with the original assumption of this study. Since the Index score for Hungary is higher than the average (58), the model of this study would assign a higher mobility ratio to Hungary based on long term orientation.
5. Indulgent attitude is in a slightly stronger than average negative relationship (this is the strongest one of all the investigated factors), which also contradicts the assumptions made in this study. Since this Index score for Hungary is low (31), the model of this study would assign a higher mobility ratio for Hungary if the indulgent/restraint attitude was considered.
6. The ratio of public expenditure on higher education is in weak negative relationship, which also contradicts

the assumptions made in this study. Since the public expenditure on higher education is lower than the European average, the model of this study would assign a higher mobility ratio for Hungary if the indulgent/restraint attitude were considered.

7. Language skill is in a positive relationship, which seems to self-evident. A lower mobility ratio could be modelled for Hungary based on this factor, as the language skills of Hungarians are way below the European average.

Further analyses showed that if the only outlier (Luxembourg) is excluded from the analyses, the number of significant relationships decreases. The countries under investigation disintegrate into clusters and the relationships between the measured factors differ within particular clusters.

If despite the obtained measurement results we do not wish to reject the original concept, according to which mobility is influenced by institutional and cultural impact factors, it must be assumed that the effect of these impact factors must be measured at individual and institutional levels. First, it can be assumed that the values of mobility participants and non-participants differ, which cannot be addressed by analysing national data. Second, services as well as formal and informal regulations of particular higher education institutions may create a supporting institutional environment, which cannot be measured by using national indicators either. Directions for further research while preserving the original concept would be to measure cultural attitudes of students and compare those participating and not participating in international mobility, and to consider the regulations of higher institutions related to international mobility by collecting primary data.

The conducted analyses may suggest that in the course of promoting the Erasmus programs in Europe, cultural diversities of European countries need to be taken into account. Instead of adopting common communication, promotion and direction strategies, programs taking into account national specificities need to be elaborated. For instance, the Indulgence Index, which measures whether the free enjoyment of life or the suppression of instincts is a social norm, differs greatly across programme countries. Consequently, in cultures where this index value is high, the main emphasis should be laid on the valuable experiences to be gained from the Erasmus programs. In cultures where this index is low, the favourable career perspectives that participation in Erasmus programs has opened should be highlighted.

Similar diversity is experienced in the case of the uncertainty avoidance variable. In countries where the Uncertainty Avoidance scores high, a strong positive motivation force may be an elaboration of clear planning processes and the provision of ready solutions. In countries where the Uncertainty Avoidance Index is low, the provision of a wider range of choices may be a good facilitator.

Acknowledgement

This research was supported by the project nr. EFOP-3.6.2-16-2017-00007, titled Aspects on the development of intelligent, sustainable and inclusive society: social, technological, innovation networks in employment and digital economy. The project has been supported by the European Union, co-financed by the European Social Fund and the budget of Hungary.

This paper is an English summary of a Hungarian study published in Marketing és Menedzsment, Special Issue on mobility, LII, pp. 33-46.

REFERENCES

- AGOSTINI, C. & CAPANO, G. (2013): Education policy: comparing EU developments and national policies. In: Natali, D. -Vanhercke, B. (eds.): Social developments in the European Union 2012 – Fourteenth annual report. European Trade Union Institute (ETUI) - European Social Observatory (OSE), Brussels, pp. 147-180.
- FARA AZMAT, F., OSBORNE, A., ROSSIGNOL, K.L., JOGULU, U., RENTSCHLER, R., ROBOTOM, I. & MALATHY, V. (2013): Understanding aspirations and expectations of international students in Australian higher education, *Asia Pacific Journal of Education*, <http://dx.doi.org/10.1080/02188791.2012.751897>
- BARTHA Z., S. GUBIK A. ÉS RÉTHI G. (2017): A nemzetközi hallgatói mobilitás területi irányai és akadályai a Miskolci Egyetemen (Geographical directions and barriers of international student mobility at the University of Miskolc). *Tér és Társadalom*, 31(4), pp. 181-194. <https://doi.org/10.17649/tet.31.4.2886>
- BOLOGNA DECLARATION (1999): Joint declaration of the European Ministers of Education. http://www.ehea.info/media.ehea.info/file/Ministerial_conferences/02/8/1999_Bologna_Declaration_English_553028.pdf (Downloaded: 19 February 2018)
- BRACHT, O., ENGEL, C., JANSON, K., OVER, A., SCHOMBURG, H. - TEICHLER, U. (2006): The professional value of ERASMUS mobility. International Centre for Higher Education Research, University of Kassel.
- BRYLA, P. - CIABIADA, B. (2014): Obstacles to International Student Mobility: the case of Poland. *Trends Journal of Sciences Research*, 1(1), pp. 12-16. <https://doi.org/10.31586/politicalstudies.0101.02>
- COX, P.L., FRIEDMAN, B.A., & TRIBUNELLA, T. (2011): Relationships among Cultural Dimensions, National Gross Domestic Product, and Environmental Sustainability. *Journal of Applied Business and Economics* vol. 12(6) 2011
- EB (2014): The Erasmus Impact Study. Effects of mobility on the skills and employability of students and the internationalisation of higher education institutions. http://ec.europa.eu/dgs/education_culture/repository/education/library/study/2014/erasmus-impact_en.pdf (Downloaded: 2 March 2018)
- EB (2015): Erasmus+ Programme - Annual Report 2014. http://ec.europa.eu/dgs/education_culture/repository/education/library/statistics/erasmus-plus-annual-report_en.pdf (Downloaded: 19 February 2018)
- EB (2017): Erasmus+ Programme - Annual Report 2016. https://ec.europa.eu/programmes/erasmus-plus/resources/documents/erasmus-annual-report-2016_en (Downloaded: 19 February 2018)
- Engel, C. (2010): The impact of Erasmus mobility on the professional career: Empirical results of international studies on temporary student and teaching staff mobility. *Belgian Journal of Geography*, 2010(4), pp. 351–363. <https://doi.org/10.4000/belgeo.6399>
- ESS (2016): Sampling Guidelines: Principles and Implementation for the European Social Survey. ESS ERIC Headquarters, London. http://www.europeansocialsurvey.org/methodology/ess_methodology/survey_specifications.html
- EUROBAROMETER (2006): Europeans and their Languages. Special Eurobarometer 243. European Commission http://ec.europa.eu/commfrontoffice/publicopinion/archives/ebs/ebs_243_en.pdf
- EUROBAROMETER (2009): Students and Higher Education Reform - Special Target Survey. Flash Eurobarometer Series #260, http://ec.europa.eu/commfrontoffice/publicopinion/flash/fl_260_en.pdf (Downloaded: 2 March 2018)
- EUROBAROMETER (2012): Europeans and their languages. Special Eurobarometer 386. http://ec.europa.eu/commfrontoffice/publicopinion/archives/ebs/ebs_386_en.pdf (Downloaded: 19 February 2018)
- GALLUP (2011): Youth on the move. Flash EB Series #319b. http://ec.europa.eu/commfrontoffice/publicopinion/flash/fl_319b_en.pdf (Downloaded: 10 February 2018)

- GOLOB, T. - MAKAROVIC, M. (2018): Student Mobility and Transnational Social Ties as Factors of Reflexivity. *Social Sciences*, 7(3), 46, <https://doi.org/10.3390/socsci7030046>
- HAUSCHILDT, K., GWOSC, K., NETZ, N. - MISHRA, S. (2015): Social and Economic Conditions of Student Life in Europe. *EUROSTUDENT V 2012–2015 | Synopsis of Indicators*. W. Bertelsmann Verlag, Bielefeld. https://www.uhr.se/globalassets/_uhr.se/lika-mojligheter/eurostudent/evsynopsisofindicators.pdf (Downloaded: 2 March 2018)
- HOFSTEDE, G. (2001): *Culture's Consequences: Comparing Values, Behaviors, Institutions, and Organizations Across Nations*. Second Edition. Sage Publications, Thousand Oaks CA.
- HOFSTEDE INSIGHTS (2018): National Culture. <https://www.hofstede-insights.com/models/national-culture/> (Downloaded: 2 March 2018)
- KEHM, B. (2005): The contribution of international student mobility to human development and global understanding. *US-China Education Review*, 2(1), pp. 18–24.
- KELO, M., ROGERS, T. - RUMBLEY, L. E. (2010): International student support in European higher education. *ACA papers on International Higher Education*. Lemmens, Bonn.
- KLAHR, S. - RATTI, U. (2000): Increasing engineering student participation in study abroad: A study of U.S. and European programs. *Journal of Studies in International Education*, 4(1), pp. 79–102. <https://doi.org/10.1177/102831530000400106>
- LEUVEN COMMUNIQUE (2009): http://www.ehea.info/media.ehea.info/file/2009_Leuven_Louvain-la-Neuve/06/1/Leuven_Louvain-la-Neuve_Communique_April_2009_595061.pdf (Downloaded: 19 February 2018)
- OLIVEIRA, A. L. - FREITAS, M. E (2016): Motivations for International Academic Mobility: The Perspective of University Students and Professors. *Educação em Revista*, 32(3), <http://dx.doi.org/10.1590/0102-4698148237>
- PALKOVICS L. (2016): A felsőoktatásért felelős államtitkár sajtótájékoztatója a Miskolci Egyetemen a Campus Mundi programról (Press conference of the undersecretary responsible for education on the Campus Mundi programme at the University of Miskolc). http://www.uni-miskolc.hu/hirek/799/sajtotajekoztaton_mutatta_be_palkovics_laszlo_allamtitkar_a_campus_mundi_programot (Downloaded: 19 February 2018)
- SANCHEZ, C. M., FORNERINO, M. - ZHANG, M. (2006): Motivations and the intent to study abroad among U.S. French and Chinese students. *Journal of Teaching in International Business*, 18(1), pp. 27–52. https://doi.org/10.1300/j066v18n01_03
- SOUTO-OTERO, M., HUISMAN, J., BEERKENS, M., DE WIT, H. - VUJIC, S. (2013): Barriers to International Student Mobility Evidence From the Erasmus Program. *Educational Researcher*, 42(2), pp. 70-77. <https://doi.org/10.3102/0013189x12466696>
- TEICHLER, U., FERENCZ, I., WÄCHTER, B., RUMBLEY, L., BÜRGER S. (2011): Mapping mobility in European higher education. Volume I: Overview and trends. Brussels.
- TKA (2017): Növekvő költségvetési források hatékony felhasználása (Efficient use of growing government subsidies). A Tempus Közalapítvány zalakarosi nemzetközi koordinátori találkozásának előadásai, 2017. november 14-16.
- TKA (2018): Campus Mundi project. <http://www.tka.hu/campus-mundi-projekt> (Downloaded: 19 February 2018)
- VOSENSTEYN, H., BEERKENS, M., CREMON, L., BESANÇON, B., FOCKEN, N., LEURS, B., MCCOSHAN, A., MOZURAITYTE, N. HUISMAN, J., SOUTO OTERO, M., PIMENTEL BÓTAS, P., DE WIT, H. (2010): Improving the participation in the Erasmus programme. http://opus.bath.ac.uk/21174/1/improving_the_participation_in_the_erasmus_programme_updated_with_my_name_in_it.pdf (Downloaded: 2 March 2018)
- WÄCHTER, B. - MAIWORM, F. (2008): English-taught programmes in European higher education. *ACA Papers on International Cooperation In Education*. Lemmens, Bonn.