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Mobility of Teaching and Research Staff: Determinants and Post Factum Effects

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Abstract

This paper reports the findings of a study investigating higher education institutions (HEIs) in Romania and the motivations lying behind the decision of undertaking professional mobilities in academia. Although professional mobilities are known to be a frequent practice in various fields of activity, the teaching and research mobilities of academics distinguish themselves among the mobilities of all sectors, deserving a special attention. In this context, our study investigated the incentives and deterrents of undertaking academic mobilities in Romanian HEIs. It divided the determinants of undertaking mobilities into those leading to mobilities and the others slowing them down. Results have shown that the desire of expanding professional experience has the highest influence on teaching and research staff's decision to undertake a mobility, while insufficient funding explains mobilities drop-off, as it is the factor of highest influence on people's decision of not undertaking mobilities. The study also analysed the mobility post factum implications for the academic community. The development of research networks and career enrichment were the main benefits of academic mobilities indicated by study results. In this sense, most study participants reported that they developed their network to do research during the mobilities and they have also managed to enrich their professional careers thanks to these mobilities.

Keywords: mobilities, determinants of undertaking mobilities, higher education, teaching staff, academic networking, professional career.

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Introduction

This paper reports the findings of a study conducted with research and teaching staff of Romanian universities (234 participants) and discuss the benefits of academic mobilities and the factors influencing the undertaking of such mobilities.

To this end, the study considers that a mobility is as a fixed period (at least, 2 days, excluding the travel days) when a teacher/researcher works in another location (the same or a different employer) in the same field of activity (university, research institute, etc.) performing work duties similar to those carried out at the institution of origin. The criteria for indicating what we mean by 'mobilities' in this study are detailed in *Table 1*.

The maximum length of a mobility differs from one institution to another by program and type of activity. There are mobilities lasting a few days, and mobilities exceeding a year or more. Initially, the Labour Code adopted in 1950 included five options for employee mobilities (Țacu, 2015; Law no. 3/1950 – Updated Labour Code): temporary change of job within an organization; permanent transfer of an employee to another place; employee delegation; employee posting; temporary work duties.

Now, a mobility is a 60-day delegation if the employer remains the same, and only the employee's workplace is modified (Law no. 3/1950 – Updated Labour Code). If both an employer and an employee's locations are changed, then a mobility is called a posting (an employee "is ceded" to another employer) (Law no. 3/1950 – Updated Labour Code). When a delegation exceeds 60 days, it is turned into a posting (Law no. 3/1950 – Updated Labour Code).

According to the Alexandru Ioan Cuza University Regulation on selection, organisation and conduct of Erasmus+ teaching and training mobilities, a teaching mobility could last between, at least, two days up to, at most, 2 months, excluding the travel days (The Alexandru Ioan Cuza University Regulation on selection, organisation and conduct of Erasmus+ teaching and training mobilities with countries included into the KA103 Program, 2021). The length of one mobility in case of Mobility Projects for experienced diaspora researchers is one week (Information package. Mobility projects for experienced diaspora researchers, 2021). The European Commission set a period of 2 consecutive days for the mobility projects of students and staff in the educational and training sectors, excluding the travel days (Mobility projects for students and staff in the educational and training sectors, 2021).

Table 1. Mobilities: considered criteria

| No | Criterion | Explanations |
|----|-------------------|---|
| 1. | Period | Fixed, at least, two days (excluding the travel days) |
| 2. | Location | Work performed in another location |
| 3. | Employer | The same or another employer |
| 4. | Field of activity | The same field of activity |
| 5. | Work duties | Similar to those performed in the institution of origin |

Literature review

International mobilities of teaching staff and students is a multidimensional phenomenon as the states and universities are stimulated to promote international initiatives, with potential academic, social, cultural and economic benefits for those getting involved in such programs (Chiteng Kot, 2014; Chiteng Kot, 2016). In this sense, studies investigated educational and social experiences abroad, international academic integration, *push-pull* factors determining students travelling abroad (Shafaei *et al.*, 2016), as well as international mobilities of teaching staff (Yonezawa and Shimmi, 2015; Yonezawa *et al.*, 2016), considering the high number of incentives for exchange programs (Altbach and Teichler, 2001).

Some studies report that international mobilities for teachers not only enrich their personal experience, but also provide a set of benefits to academics in the countries of origin and in host countries (Green and Mertova, 2014). It is expected that teachers will play even a more important role in developing cooperation between research-intensive and teaching-focused universities in a more and more interconnected environment (Markova *et al.*, 2016).

International mobility should be seen as an opportunity and encouraged both by university management and higher education teaching staff. Marginson and Van der Wende (2009) argue that the over-generalised enthusiasm towards academic mobilities stems from an older hypothesis regarding the internationalisation of universities, voluntary transfer of intellectual capacities and contribution of knowledge transfer to innovation and competitiveness at national level (Marginson and Van der Wende, 2009).

Benefits of international academic mobilities include better academic competences and mutually beneficial exchanges of experience. For that reason, universities often support international mobilities, irrespective of their type, role and length. Most universities adopt well-established methods stimulating academic mobilities, such as research and teaching mobilities.

Institutional support for teacher mobilities is increasing, while public funding programs have become a key element in the provision of institutional and organisational support for academic exchanges of experience (Burns, 1993).

Exchange of experience programs for teachers are a key tool for promoting teaching mobilities, especially when linked to policies strengthening the cooperation capacity of universities, as well as their ability to compete on the international market (Heitor, 2008; Heitor *et al.*, 2014).

Researchers studying teacher mobilities within exchange programs tend to focus on cultural and personal experiences, and on the interaction of decisional and motivational factors modelling academic mobilities (Hoffman, 2009; Pherali, 2012). The mobility period provides access to a new academic environment, other ideas and peers, and the opportunity to improve the quality of teaching, research, and cooperation with the academic community (Hirsch *et al.*, 2015).

Development of professional relations through joint research, and the opportunity to meet colleagues having expertise in areas of research are the benefits provided by a mobility (Bettmann and Prospero, 2012). Many times, teachers re-analyse the premises of their research after a period spent abroad (Kim, 2009). This period could give to teachers the opportunity to reassess their own activity, re-examine their career path (Hallett and Eryaman, 2014) and get engaged in promotional activities (Teichler, 1998; Teichler, 2015).

Such mobilities may expose teachers to different work conditions, career perspectives and promotional and remuneration conditions (Yan *et al.*, 2015). Although it is believed that mobility programs are seen as beneficial to teachers and institutions, Melin (2005) outlines the negative effects of international mobilities linked to such difficulties encountered upon return as barriers in implementing innovative ideas, which are contrary to the existing cultural and institutional rules (Melin, 2005). Other researchers underlined other features of government-run programs, such as negative perception of teachers and universities, lack of institutional support, not being proper instruments for change, and difficulty of assessing program efficiency (Bauder, 2015; Perna *et al.*, 2014).

The study of Patricio *et al.* (2018) showed that exchange programs for teachers provide important horizon broadening mechanisms, helping them assimilate new teaching methods and leading to further changes in their academic conduct (Patricio *et al.*, 2018). The same authors underline that these programs also promote new cooperation methods for the research community (Patricio *et al.*, 2018). Higher education teaching staff taking part in exchange programs describe their multiple benefits: the chance to experience a different academic environment, opportunity to study new teaching methods, access research resources and collaborate internationally. As suggested by Andújar *et al.* (2015), spending a long time at a host institution is beneficial for the teaching staff taking part in exchange programs, helping them integrate more easily into the host institution, design and plan the changes to be made into their own research and teaching (Andújar *et al.*, 2015).

Motivation for taking part in exchange programs was mainly related to the personal desire of participants to earn international experience and develop their careers as it is believed that professional development gained during a program

could bring to participant's career benefits upon their return to home universities. Individual motivation for undertaking a mobility is generally intensifying by informal encouragement provided by peers who have already been on a mobility (Bolli and Schläpfer, 2015). Plus, formal encouragements are sometimes given by heads of departments upon the return home of participants. Formal encouragement provided by departments plays an important role in strengthening personal motivation and facilitating mobilities. Organisational and administrative support put into practice by decreasing the teaching load during a mobility has been essential for overcoming the challenges of practical and organisational nature appearing in the implementation of a mobility (Patricio *et al.*, 2018).

Prior studies show that resources, joint participation, and timing are the key for the efficient implementation of professional development schemes using mobility programs (Andújar *et al.*, 2015; Desimone, 2009; Patricio *et al.*, 2018). These programs become more efficient if they are accompanied by resources aimed at supporting, upon return, the participants' effort to change the research practices of home universities. The funding of these subsequent programs could be made by national agencies or universities, and programs could be managed by exchange programs beneficiaries to create more favourable conditions for implementing the changes and practices learned to develop universities, which could develop more modern and internationalised practices. It would be highly beneficial that the professors who failed to set for themselves a long-term strategy got involved in the experience exchange mobilities, so that their individual and academic career goals be connected to those of future institutional development (Patricio *et al.*, 2018).

As found by Altbach and Teichler (2001) twenty years earlier, internationalisation is a key element for the future, higher education has never been so internationalised since the foundation of universities in medieval times (Altbach and Teichler, 2001). Academic internationalisation includes policies and practices adopted by educational systems and institutions, or even individuals, in order to cope with the global academic environment (Altbach and Knight, 2007). The motivation of universities to internationalise through mobility programs includes such benefits as commercial benefits, knowledge accumulation, academic curricula improvement through international content, etc. Specific initiatives, such as affiliates, cross-border cooperation, programs for foreign students, study programs in English belong to internationalisation strategies (Altbach and Knight, 2007).

Altbach and Teichler (2001) observed that international agreements between universities, student mobilities abroad and teacher exchange programs are an inevitable result of the twentieth century knowledge economy when higher education benefitted from a set of factors promoting internationalisation, such as: growing global academic market for teachers and students; the use of English language in teaching and research at international level; distance learning and use of the Internet in research and teaching; tendency of academic institutions to establish partnerships with foreign institutions, creation of *off-shore* campuses,

franchising educational programs and degrees; harmonisation of study programs, courses, credits, methods for assessing and measuring academic progress.

Altbach (2002) noted that most students and teachers, who carried out mobilities, were not traditionally officially sponsored, being mostly self-motivated or motivated by the efforts made by their universities, personal initiative playing a bigger role in this sense (Altbach, 2002). Still, many authors reported that student and teacher mobilities have become in the last decade a common academic practice, with the participation of millions of people yearly (Altbach, 2002; Altbach and Knight, 2007; Altbach and Teichler, 2001). Although mobilities used to be offered only to the best ones, the growth and diversification of study programs made them so popular that mobility undertaking was included among evaluation indicators used by HEIs to assess their staff's and students' level of performance.

Exchange programs and educational exchange programs agencies are the main catalysers for developing international mobilities for teaching staff, helping people and institutions become more aware of the importance paid to mobilities and international education through the provision of resources for individual mobilities, higher academic exchange flows and stronger academic and administrative support (Altbach and Teichler, 2001).

Also, the same authors underline the high contribution of academic exchange agencies which: intermediate and provide support to match the needs of public and private funders; disseminate information on efficient academic and administrative support for undertaking mobilities; set priorities for the beneficiaries of funding, study and career levels, periods for mobilities abroad, exchange positions, included countries, etc. (Altbach and Teichler, 2001).

Among the most experienced institutions, programs, and countries in international exchange, we may find: The Institute for International Exchange (IIE), founded in 1919, German Service for Academic Exchange (Deutscher Akademische Austauschdienst [DAAD]), founded in 2025, as well as the *Fulbright* Program, founded in 1948 by the American Government. The initiatives of the European Union (EU), the Socrates and funding the Erasmus Programs, turned out to be a key success of European policies. The Socrates Program supports innovation, cooperation, and exchange among different educational fields, being essential for building strong links for academic exchange and curriculum innovations in higher education. The Erasmus Program is an emblematic mobility program of the European Union, funding annually a high number of mobilities for students and teachers in Europe. EU set up the Erasmus Program in 1987, being an extraordinarily complex initiative, especially in its current form (Erasmus+).

The Erasmus+ Program provides many types of mobilities (mobilities for undergraduate and graduate students, mobilities for teachers, mobilities for internships in vocational fields and in volunteering, etc.) and strengthens the link between education, mobility inside the EU and social inclusion (Cairns *et*

al., 2018). With millions of exchanges since 1987, the Erasmus Program plays a key role in the European academic environment, providing to its participants international and multicultural experiences and higher employment opportunities (Cairns *et al.*, 2018).

For this reason, some authors give high importance to stimulating participation in exchange programs (Souto-Otero *et al.*, 2013). They suggest growing the funding for mobilities and the number of beneficiaries, and a higher emphasis on personal development, building new relationships, without losing the older ones (Souto-Otero *et al.*, 2013).

Considering the conducted literature review, we have formulated the following hypotheses:

H1. The desire of expanding professional experience has the highest influence on the decision of teachers and researchers to undertake a mobility.

H2. Insufficient funding has the highest influence on academic's decision of reducing mobilities undertaking.

H3. During mobilities, most respondents have developed their networking for carrying out research.

H4. After having completed a mobility, employees have enriched their professional careers.

Methodology

The main aim of this study is to identify the factors influencing the undertaking of a mobility in the European Union by teachers and researchers.

To collect data, we sent around 4000 emails to teachers and researchers working in Romanian higher education, requesting them to complete an anonymous on-line questionnaire. The response rate was 5.85%.

$$\text{Rate of response} = (234 / 4000) \times 100 = 5.85\%$$

The data were collected between 09.01.2021 and 02.03.2021 from academics (N=234) employed in 12 Romanian universities. *Table 2* presents the distribution of respondents within universities participating in the study.

Table 2. Distribution of respondents within universities participating in the study

| University | Frequency | Percentage (%) | Valid percentage (%) | Cumulated percentage (%) |
|--|-----------|----------------|----------------------|--------------------------|
| The Bucharest Academy of Economic Studies | 10 | 4.27 | 4.27 | 4.27 |
| Alexandru Ioan Cuza University of Iași | 68 | 29.05 | 29.06 | 33.33 |
| Technical University of Timișoara | 16 | 6.84 | 6.84 | 40.17 |
| Babeș-Bolyai University of Cluj | 61 | 26.07 | 26.07 | 66.24 |
| Ion Mincu University of Architecture and Urban Planning | 1 | 0.43 | 0.43 | 66.67 |
| Grigore T. Popa University of Medicine and Pharmacy of Iași | 1 | 0.43 | 0.43 | 67.09 |
| University of Agricultural Sciences and Veterinary Medicine of Cluj-Napoca | 1 | 0.43 | 0.43 | 67.52 |
| West University of Timișoara | 6 | 2.56 | 2.56 | 70.09 |
| University of Bucharest | 13 | 5.56 | 5.56 | 75.64 |
| Technical University of Bucharest | 23 | 9.83 | 9.83 | 85.47 |
| Gheorghe Asachi Technical University of Iași | 6 | 2.56 | 2.56 | 88.03 |
| Technical University of Cluj-Napoca | 28 | 11.97 | 11.97 | 100.00 |
| Total | 234 | 100.00 | 100.00 | |

Therefore, respondents from 12 Romanian universities took part in the final study. Most responses were collected from the Alexandru Ioan Cuza University of Iași (68 responses, 29.05% of the sample), followed by the Babeș-Bolyai University of Cluj (61 responses, 26.07% of the sample), and the Technical University of Cluj-Napoca (28 responses, 11.97% of the sample). The sample comprises teachers (91.88%) and researchers (8.12%) from Romanian higher education.

Most respondents are aged 36-45 (107 people, 45.73% of the sample). The interval 46-55 years comprises 73 people, 31.20% of the sample. The age over 56 was reported by 38 respondents (16.24%), and over 26-35 years by 16 respondents

(6.84%). In the final sample, there were 122 males (52.14%) and 112 females (47.86%). More than half of the respondents completed a PhD program (125 people, 53.42%), 106 having completed a post-doctoral program (45.30%), and 3 a master program (1.28%). The sample included more married (179, 76.50%) than single respondents (55, 23.50%). A third of the respondents had no children (29.06%), 82 of which, with one child (35.04%), 76 with 2 children (32.48%), and 8 with 3 children (3.42%).

This paper presents just a few of the variables and results included into the larger initial study. Codification was needed to simplify the subsequent presentation of results. Research variables and the scales were adapted using the following studies: Borza *et al.*, 2019; Bunduchi *et al.*, 2019; Cremers, 2011; Giurgiuca *et al.*, 2018; Green *et al.*, 2009; MORE Study, 2010; Turnea, 2017.

To analyse the teaching and research mobilities, the respondents needed to have undertaken a mobility to any state of the EU, except Romania, during their academic career. This filter for participant teachers and researchers included into the study was clearly specified in the message sent for data collection.

SPSS software, version 20.0 was the tool used for data analysis. Cronbach's Alpha coefficient was calculated to assess scale reliability and internal consistency of research instrument. Cronbach's Alpha coefficients were higher than 0.7 threshold: 0.815 for the 29-items scale measuring determinants of undertaking mobilities, respectively 0.878 for all questionnaire items.

Results

Descriptive analysis

Table 3 presents the determinants of undertaking mobilities, descending sorted by mean value.

Top 5 determinants for undertaking a mobility are: the desire to broaden professional experience (Mean = 4.69 out of 5); personal agenda of professional goals (Mean = 4.36 out of 5); access to internal and external research facilities (Mean = 4.23 out of 5); academic *networking* (Mean = 4.20 out of 5), and research prospects (Mean = 4.19 din 5).

Social integration in the host country - with an emphasis on quality of life, healthcare system, educational system, political stability, etc. (Mean = 2.78 out of 5), career opportunities in the new location (Mean= 2.25 out of 5), as well as salary and other financial incentives during mobility (Mean = 2.62 out of 5) were not important incentives for undertaking a mobility.

Table 3. Determinants for undertaking a mobility

| Mobility determinants | Code | N | Minimum | Maximum | Mean | Standard deviation |
|--|-------------|-----|---------|---------|------|--------------------|
| Desire to broaden professional experience | EXPERPROF | 234 | 1 | 5 | 4.69 | 0.587 |
| Personal agenda of professional goals | APERSONALA | 234 | 1 | 5 | 4.36 | 0.854 |
| Access to internal and external research facilities of a mobility | FACILCERCET | 234 | 1 | 5 | 4.23 | 0.961 |
| The desire to grow my networking | NETWORKING | 234 | 1 | 5 | 4.20 | 0.948 |
| Research prospects | PERSPECTCAR | 234 | 1 | 5 | 4.19 | 0.959 |
| Opportunity to work with renowned experts | LEXPERTI | 234 | 1 | 5 | 4.18 | 1.069 |
| Good work conditions in the host country | COND TARAG | 234 | 1 | 5 | 3.29 | 1.179 |
| Personal reasons | DMPERS | 234 | 1 | 5 | 3.15 | 1.211 |
| Job satisfaction in the home country | SATISF | 234 | 1 | 5 | 3.14 | 1.130 |
| Advancement opportunities in the home country | AVANSARE | 234 | 1 | 5 | 3.07 | 1.236 |
| Beneficial programs provided by management | PAVANTAJ | 234 | 1 | 5 | 3.02 | 1.239 |
| Social integration in the host country (quality of life, healthcare system, educational system, political stability, etc.) | TARAGAZDA | 234 | 1 | 5 | 2.78 | 1.233 |
| A salary and other financial incentives during a mobility | SALARIULSF | 234 | 1 | 5 | 2.62 | 1.221 |
| Career opportunities in the new location | OPORTCAR | 234 | 1 | 5 | 2.25 | 1.164 |

Note: the scores range from 1 (lowest) to 5 (highest).

Table 4 shows the determinants that prevented respondents undertake several mobilities, sorted in descending by mean value. As respondents needed to have a minimal mobility experience (at least, one teaching/research mobility), the

determinants slowing down mobilities have been linked to barriers to undertaking several mobilities.

Table 4. Determinants slowing down the undertaking of several mobilities

| Determinants slowing down a mobility | Code | N | Minimum | Maximum | Mean | Standard deviation |
|---|------------|-----|---------|---------|------|--------------------|
| Insufficient funding | FININS | 234 | 1 | 5 | 3.44 | 1.323 |
| Obtaining funding | OBTFIN | 234 | 1 | 5 | 3.43 | 1.293 |
| Life-work balance | ECHILPP | 234 | 1 | 5 | 2.89 | 1.237 |
| Administrative barriers | BARADMIN | 234 | 1 | 5 | 2.85 | 1.259 |
| Bottlenecks at work in the home country | BLOCAJEM | 234 | 1 | 5 | 2.78 | 1.349 |
| Family and personal relations maintenance | FAMILIA | 234 | 1 | 5 | 2.76 | 1.385 |
| Childcare arrangements | COPII | 234 | 1 | 5 | 2.71 | 1.544 |
| Personal reasons | FMPERS | 234 | 1 | 5 | 2.66 | 1.288 |
| Cost and quality of host country accommodation | QCOSTCAZ | 234 | 1 | 5 | 2.42 | 1.148 |
| Partner's permission | PERMISPART | 234 | 1 | 5 | 2.09 | 1.141 |
| Property ownership (flat, house etc.) | LOCPROPR | 234 | 1 | 5 | 1.99 | 1.074 |
| The thought that nothing feels like home | GANDACASA | 234 | 1 | 5 | 1.88 | 1.104 |
| Language | LIMBA | 234 | 1 | 5 | 1.84 | 1.087 |
| Changes at the partner's workplace | SCHMPART | 234 | 1 | 5 | 1.77 | 1.017 |
| Culture, religion and traditions in mobility destinations | CULTURA | 234 | 1 | 4 | 1.58 | 0.826 |

Note: the scores range from 1 (lowest) to 5 (highest).

Top 5 determinants preventing the undertaking of several mobilities comprise insufficient funding (Mean = 3.44 out of 5); obtaining funding (Mean = 3.43 out of 5); work-life balance (Mean = 2.89 out of 5); administrative barriers (Mean = 2.85 out of 5), and bottlenecks at work in the home country (Mean = 2.78 out of 5).

Although the determinants may positively or negatively influence mobility undertaking, we have decided to divide the determinants into determinants leading

to undertaking mobilities and those slowing them down so that the respondents could separate the two categories and give clear scores to each determinant.

Table 5 indicates the activities that have been improved after undertaking a mobility.

Table 5. Post-mobility improvements

| Activity | Code | N | Minimum | Maximum | Mean | Standard derivation |
|---|------------------|-----|---------|---------|------|---------------------|
| Professional experience | IMB_EXPERPROF | 234 | 2 | 5 | 4.54 | 0.675 |
| Access to the international network of experts | IMB_RETEA | 234 | 1 | 5 | 4.23 | 0.929 |
| Access to infrastructure and know-how | IMB_ACCESINFR | 234 | 1 | 5 | 4.12 | 0.991 |
| Career prospects | IMB_CARIERA | 234 | 1 | 5 | 4.11 | 0.999 |
| Networking diversification | IMB_DIVERSIFN | 234 | 1 | 5 | 4.08 | 1.003 |
| Capacity to work in a field | IMB_CAPL | 234 | 1 | 5 | 4.07 | 0.962 |
| Research interdisciplinary | IMB_INTERDISC | 234 | 1 | 5 | 3.87 | 1.131 |
| Publications | IMB_PUBLICATII | 234 | 1 | 5 | 3.85 | 1.169 |
| General recognition as a researcher and teacher | IMB_RECUNOASTERE | 234 | 1 | 5 | 3.71 | 1.172 |
| Personal and family life | IMB_VPERS | 234 | 1 | 5 | 2.97 | 1.193 |
| Work opportunities in the country of origin | IMB_OPORT | 234 | 1 | 5 | 2.78 | 1.285 |
| Labour market opportunities | IMB_OPORTM | 234 | 1 | 5 | 2.55 | 1.153 |
| Patents | IMB_BREVETE | 234 | 1 | 5 | 1.90 | 1.059 |

Note: the scores range from 1 (lowest) to 5 (highest).

Top 5 activities improved after undertaking a mobility: richer professional experience (Mean = 4.54 din 5); easier access to the international network of professionals (Mean = 4.23 out of 5); better access to infrastructure and know-how (Mean = 4.12 out of 5); better career prospects (Mean = 4.11 out of 5), and diversification of *networking* (Mean = 4.08 out of 5).

Validation of research hypotheses

Tables 6 and 7 report the results of one-sample t-test performed for testing H1 hypothesis. Confirming H1, the results in Table 7 indicate the statistical significance of T-test. Moreover, comparing the value 5 (highly important) of the 1 to 5 Likert scale used by research participants to rate the importance of questionnaire items with the mean score (M =4.69 out of 5) of ratings for the variable *the desire of expanding professional experience*, we can conclude that the desire of expanding professional experience is a statistically significant (and most important determinant) of mobility undertaking (M = 4.69; t = -8.133; p < 0.001 < 0.05).

Table 6. Testing H1 hypothesis. One-Sample Statistics

| Item | N | Mean | Standard deviation | Mean standard error |
|--|-----|------|--------------------|---------------------|
| The desire of expanding professional experience has the highest influence on the decision of teachers and researchers to undertake a mobility. | 234 | 4.69 | 0.587 | 0.038 |

Note: the ratings range from 1 (lowest) to 5 (highest).

Table 7. Testing H1 hypothesis. One-Sample Test

| Item | Test Value = 5 | | | | | |
|--|----------------|-----|-------|-----------------|---|-------|
| | t | df | p | Mean Difference | 95% Confidence Interval of the Difference | |
| | | | | | Lower | Upper |
| The desire of expanding professional experience has the highest influence on the decision of teachers and researchers to undertake a mobility. | -8.133 | 233 | 0.000 | -0.312 | -0.39 | -0.24 |

Note: p < 0.05.

Tables 8 and 9 report the results of one-sample t-test performed for testing H2 hypothesis. Confirming H2, the results in Table 9 indicate the statistical significance of T-test. The value of T-test and the mean score (M =3.44 out of 5) of the variable *insufficient funding*, indicate that it is a statistically significant, and insufficient funding has the highest influence on academic’s decision of not undertaking mobilities or reducing mobilities undertaking (M = 3.44; t = -17.987; $p < 0.001 < 0.05$).

Table 8. Testing H2 hypothesis. One-Sample Statistics

| Item | N | Mean | Standard deviation | Mean standard error |
|---|-----|------|--------------------|---------------------|
| Insufficient funding has the highest influence on academic’s decision of reducing mobilities undertaking. | 234 | 3.44 | 1.323 | 0.086 |

Note: the ratings range from 1 (lowest) to 5 (highest).

Table 9. Testing H2 hypothesis. One-Sample Test

| Item | Test Value = 5 | | | | | |
|---|----------------|-----|-------|-----------------|---|-------|
| | t | df | p | Mean Difference | 95% Confidence Interval of the Difference | |
| | | | | | Lower | Upper |
| Insufficient funding has the highest influence on academic’s decision of reducing mobilities undertaking. | -17.987 | 233 | 0.000 | -1.556 | -1.73 | -1.39 |

Note: $p < 0.05$.

Tables 10 and 11 report the results of one-sample t-test performed for analysing H3 hypothesis. Confirming H3, the results in Table 11 indicate the statistical significance of T-test. The value of T-test and the mean score of ratings indicate that networking for carrying out research was developed due to mobility (M = 4.08; t = -14.072; $p < 0.001 < 0.05$).

Table 10. Testing H3 hypothesis. One-Sample Statistics

| Item | N | Mean | Standard deviation | Mean standard error |
|---|-----|------|--------------------|---------------------|
| During mobilities, most respondents have developed their <i>networking</i> for conducting research. | 234 | 4.08 | 1.003 | 0.066 |

Note: the ratings range from 1 (lowest) to 5 (highest).

Table 11. Testing H3 hypothesis. One-Sample Test

| Item | Test Value = 5 | | | | | |
|---|----------------|-----|-------|-----------------|---|-------|
| | t | df | p | Mean Difference | 95% Confidence Interval of the Difference | |
| | | | | | Lower | Upper |
| During mobilities, most respondents have developed their <i>networking</i> for conducting research. | -14.072 | 233 | 0.000 | -0.923 | -1.05 | -0.79 |

Note: $p < 0.05$.

Tables 12 and 13 report the results of one-sample t-test performed to analyse H4 hypothesis. Confirming H4, the results in Table 13 indicate the statistical significance of T-test. The value of T-test and the mean score of ratings for *enriched career after having completed a mobility* indicate that professional career improved significantly after undertaking academic mobility ($M = 4.11$; $t = -13.682$; $p < 0.001 < 0.05$).

Table 12. Testing H4 hypothesis. One-Sample Statistics

| Item | N | Mean | Standard deviation | Mean standard error |
|--|-----|------|--------------------|---------------------|
| After having completed a mobility, employees have enriched their professional careers. | 234 | 4.11 | 0.999 | 0.065 |

Note: the scores range from 1 (lowest) to 5 (highest).

Table 13. Testing H4 hypothesis. One-Sample Test

| Item | Test Value = 5 | | | | | |
|--|----------------|-----|-------|-----------------|---|-------|
| | t | df | p | Mean Difference | 95% Confidence Interval of the Difference | |
| | | | | | Lower | Upper |
| After having completed a mobility, employees have enriched their professional careers. | -13.682 | 233 | 0.000 | -0.893 | -1.02 | -0.76 |

Note: $p < 0.05$.

Statistical analysis confirmed the four research hypotheses, as summarised in Table 14.

Table 14. Results of testing the H1-H4 hypotheses

| Testing method | One Sample T Test | Position in ranking | Result |
|---|--------------------------|----------------------|--------------|
| One Sample T Test Descriptive analysis | t = -8.133 p < 0.001 | Position 1 out of 14 | H1 confirmed |
| One Sample T Test Descriptive analysis | t = -17.987 p < 0.001 | Position 1 out of 15 | H2 confirmed |
| One Sample T Test Descriptive analysis | t = -14.072 p < 0.001 | Position 5 out of 13 | H3 confirmed |
| One Sample T Test Descriptive analysis | t = -13.682 p < 0.001 | Position 4 out of 13 | H4 confirmed |

Discussion

Literature in the field reported that both academic exchange programs, as well as agencies play a key coordinating role in setting priorities for academic exchange programs of higher education institutions and the options established for mobilities of teachers and students. With a central role in the internationalisation and global development of higher education, these agencies manage academic exchange activities, at a time when the number of programs provided by a higher number of institutions has been growing by monitoring international exchanges and stimulating academic mobilities; their contribution to the development of trust in relationships between universities and researchers at international level, and to the reduction of barriers in putting in place mobilities enabling beneficiaries maximise the impact of their acquired international experiences (Altbach, 2002; Altbach and Knight, 2007; Altbach and Teichler, 2001).

The motivation of universities to internationalise through mobility programs relates with commercial advantages, knowledge accumulation and improved academic curricula gained through international content and specific initiatives (such as affiliates, cross-border cooperation, programs for international students, programs in English language) that were implemented by most universities as part of their internationalisation strategy (Altbach and Knight, 2007).

The research required testing of four hypotheses, that were validated. According to the first hypothesis, the desire of expanding professional experience has the highest influence on the decision of teachers and researchers to undertake a mobility. However, international mobilities of teaching staff do not only enrich their personal experience, but also bring a series of benefits to universities in the countries of origin and host countries (Green and Mertova, 2014).

The second hypothesis approves that insufficient funding has the highest influence on academic's decision of reducing mobilities undertaking. According to other studies: institutional support for teaching staff mobilities is growing, and public funding programs have become a key element in providing institutional and organisational support for undertaking academic exchanges (Burns, 1993); most students and teachers who have competed a mobility were not sponsored officially, being mostly motivated by their own initiative, or supported by the efforts of their universities (Altbach, 2002), and exchange and educational exchange programs are the main catalysers for developing international mobilities through the supply of resources for individual mobilities, increasing the academic exchange flows and provision of academic and administrative support (Altbach and Teichler, 2001). Some authors suggest growing financial support for mobilities and a more intense dissemination of mobility benefits (Souto-Otero *et al.*, 2013).

According to the third hypothesis, during mobilities, most respondents have developed their *networking* for carrying out research. While it is expected that teachers in the future will play a more important role in establishing cooperation between research-intensive and teaching universities in a more connected academic environment (Markova *et al.*, 2016), exchange programs for teachers are an essential mechanism for promoting teacher mobilities (Heitor, 2008; Heitor *et al.*, 2014). The period when a mobility is undertaken provides an opportunity to improve the level of research and the networking with the academic community (Hirsch *et al.*, 2015), and such programs promote new collaboration methods of researchers with the academic community (Patricio *et al.*, 2018).

Conclusion

There is no doubt that after having completed a mobility, employees have enriched their professional careers (hypothesis H4). The period when a mobility is undertaken gives access to a new academic environment, new ideas, students and

peers, as well as the opportunity for strengthening the quality of teaching, research and networking with the academic community (Hirsch *et al.*, 2015). This period could offer to teachers the opportunity to assess their activity and their academic career path (Teichler, 1998; Teichler, 2015). Such mobilities could expose professors to different working conditions and professional prospects, especially those related to promotion, remuneration and professional benefits (Yan *et al.*, 2015). Exchange programs for teachers provide important mechanisms for broadening teachers' horizon, helping them assimilate new teaching methods and change their academic conduct (Patricio *et al.*, 2018).

Research limitations and future lines of research

Most determinants in favour and against undertaking mobilities were extracted from the literature in the field. Some of the determinants were reported in the empirical studies that described the used scales, other results were not linked to the scales. Therefore, in our research have been used both the already defined scales for the variables, as well as the newly designed tested scales.

Although the research was designed to be applied to teachers and researchers belonging to the Romanian academic community, as only a few researchers completed the questionnaires, it would be interesting if a future study applied the questionnaire only to researchers for conducting a comparative analysis between the two groups of respondents.

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