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**A NEW APPROACH TO THE BRAIN DRAIN:
THE DIASPORA OPTION**

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Abstract:

Scientific networking is the most accessible way a country can deal with the brain drain phenomenon. Scientific networks are beneficial for the donor country and a good alternative to return migration. Diaspora's members offer valuable information, advice or financial support from the destination country, without being necessary to return.

This article aims to investigate Romania's potential of turning brain drain into brain networking, using evidence from the medical sector. The attitude of medical doctors working abroad towards scientific networks is investigated. The research design include a questionnaire and in-depth interviews.

The conclusions suggest that Romania could possibly benefit from the diaspora option, through an active implication at institutional level and the implementation of a strategy in this area.

JEL Codes: F22, J21, J24, O15

Keywords: brain networking, scientific network, diaspora option, brain gain, medical sector

INTRODUCTION

Literature on medical brain drain evolved over the past 60 years, from the early stage, with scholars highlighting the neutral effect on source countries, sometimes even benefic, through the second phase, with the emphasis on the negative impact on donor countries and finally to the new economics of brain drain theory, accepting both the beneficial and detrimental effects on the country of origin.

Recent literature identifies several options that, under specific circumstances may turn the brain drain into brain gain: return option, diaspora option and remittances.

This study aims to tackle the emigration of physicians from the beneficial perspective, investigating Romania's potential of turning brain drain into brain networking.

1. LITERATURE REVIEW

The first papers investigating the brain drain phenomenon (Bhagwati and Hamada, 1974, McCulloch and Yellen, 1977, Miyagiwa, 1991, Haque and Kim, 1995) described it as a closed process, leading to a human capital loss for the country of origin and to a human capital gain for the country of destination.

Nowadays, it is seen as a circular process (Carrington and Detragiache, 1998, Docquier and Marfouk, 2005, Dumont and Lemaître, 2005, Beine et al., 2006, Docquier and Rapoport, 2011), this new approach emphasizing the possibility of positive effects in the country of origin: return migration, scientific networks or remittances.

Return migration is considered an important transmitter of technology and tacit knowledge between economies (Davenport, 2004). However, offering incentives for returning is only possible with investments in infrastructure and salaries. This is an option which was implemented successfully by new industrialized countries (NICs) or fast-growing developing economies like India or China (Charum and Meyer, 1999). In the absence of financial resources for investments, a much more reliable source of brain gain for the country of origin is the diaspora option.

Scientific networks enable the transfer of technology, know-how and socio-professional contacts, from the destination to the origin country. Scientific networks can exist either in virtual (Internet networks) or real form (scientific forums, exchange programs) (Hunger, 2003).

Some of the intellectuals may not want to return, either due to the lack of incentives offered in the country of origin or due to personal factors such as settling their personal life abroad. However, they may still be concerned with the situation in the country of origin and may want to contribute to its development. With the development in the communication and technology, the distances between countries are not perceived as barriers against scientific collaboration any more. So far, many countries adopted strategies in setting up scientific networks. A classification of them include five categories: student/scholarly networks, local associations of skilled expatriates, expert pool assistance through the Transfer of Knowledge Through Expatriate Nationals (TOKTEN) program of the UNDP and intellectual/scientific diaspora networks (Meyer and Brown, 1999).

2. RESEARCH DESIGN

This study aims to investigate Romania's potential of turning brain drain into brain networking using evidence from the medical sector. Research design include a questionnaire and in-depth interviews conducted among Romanian physicians (trained in Romania) with an international work experience (currently working abroad or those who worked abroad and returned in Romania).

The socio-demographic characteristics of the respondents are presented below. The mean age of respondents is 33.02 years (Standard Deviation=7.473), 51.1% declared they are not married, 24.4% married with children, 20.00% married without children and 4.4% divorced. A number of 34 men and 56 women filled the questionnaire, among them 26 general practitioners and 64 specialists. The distribution by age and gender is represented in Table 1.

TABLE 1: DISTRIBUTION BY GENDER AND AGE

	Respondent's age (grouped)					Total
	24 or less	25-34	35-44	45-54	55 or above	
Respondent's gender Female	2	44	8	0	2	56
Male	0	22	6	6	0	34
Total	2	66	14	6	2	90

Source: Author's calculations using SPSS

Most of the respondents left Romania at the early stage of their career (distribution by gender and status on the labour market before leaving could be seen in Table 2).

TABLE 2: DISTRIBUTION BY GENDER AND STATUS ON THE LABOUR MARKET

	Status on the labour market before leaving				Total
	Employed in the private system	Employed in the public system	Unemployed	Student/Resident Physician	
Respondent's gender Female	2	8	0	46	56
Male	8	8	4	14	34
Total	10	16	4	60	90

Source: Author's calculations using SPSS

Main destination countries include: France (30 respondents), Germany (24), UK (10), Spain (10), Belgium (8), Sweden (6) and USA (2). The period of time spent abroad varies from less than one year (44.4%) to more than 4 years (the longest period being 10 years).

TABLE 3: YEARS ABROAD (GROUPED)

	Frequency	Valid Percent
Valid less than 1 year	40	44.4
between 1 and 2 years	18	20.0
between 2 and 3 years	18	20.0
between 3 and 4 years	4	4.4
more than 4 years	10	11.1
Total	90	100.0

Source: Author's calculations using SPSS

Table 4 and 5 present the income received in Romania and in the country of destination. 86.4% of the respondents earned less than 2000 RON in Romania. Only 12 respondents declared their salary in the destination country is less than 2000 EUR (all of them leaved Romania at the early stage of their career, having the status of student or resident physician, earning less than 2000 RON). 10 of them chose as destination country France and one of them Belgium.

TABLE 4: INCOME CATEGORY BEFORE LEAVING ROMANIA

		Frequency	Valid Percent
Valid	Less than 1000 RON	28	31.8
	1001-2000 RON	48	54.5
	2001-3000 RON	2	2.3
	3001-4000 RON	8	9.1
	More than 5000 RON	2	2.3
	Total	88	100.0
Missing	Refused/not answered	2	

Source: Author's calculations using SPSS

TABLE 5: INCOME CATEGORY IN THE DESTINATION COUNTRY

		Frequency	Valid Percent
Valid	Less than 2000 EUR	12	13.6
	2001-3000 EUR	20	22.7
	3001-4000 EUR	30	34.1
	4001-5000 EUR	16	18.2
	More than 6000 EUR	10	11.4
	Total	88	100.0
Missing	Refused/not answered	2	

Source: Author's calculations using SPSS

The gap in the level of payment between the origin and the destination country confirms one more time the influence of the financial aspect in the emigration decision.

3. MAIN FINDINGS

The most accessible way a developing country could turn the brain drain into brain gain is through scientific networking. The aim of this section is to investigate the perception of physicians regarding the importance of scientific networking for the country of origin and their collaboration intentions.

51.1% of the respondents said that during their stay abroad they collaborated (at individual or institutional level) with the country of origin. 64.4% of the respondents consider important or very important for the country of origin to maintain scientific contact with diaspora's members.

TABLE 6: DIASPORA OPTION
Could the country of origin benefit from the contact with diaspora?

		Frequency	Valid Percent
Valid	Strongly agree	36	40.0
	Agree	22	24.4
	Neutral	22	24.4
	Disagree	4	4.4
	Strongly disagree	6	6.7
	Total	90	100.0

Source: Author's calculations using SPSS

However, 73.3% of the respondents appreciate the implication of their country of origin in maintaining scientific networks as unsatisfactory.

TABLE 7. ROMANIA AND DIASPORA
How do you appreciate the scientific relationship between Romania and diaspora?

		Frequency	Valid Percent
Valid	Above average	2	2.2
	Average	18	20.0
	Below average	4	4.4
	Poor	66	73.3
	Total	90	100.0

Source: Author's calculations using SPSS

A percentage of 54.5% of the respondents consider that the contact with Romanian medical doctors already practicing in the destination country had a significant contribution in the decision-making process.

4. CONCLUSION

The aim of this study was to investigate Romania's potential of turning brain drain into brain networking, using evidence from the medical sector. More than a half of the participants in this study mentioned that they collaborated with the country of origin during their stay abroad, which is a positive aspect that could sustain the possibility for Romania of turning brain drain into brain networking. 64.4% of the respondents

considered important or very important for the country of origin the maintenance of scientific contact with diaspora's members and for 54.5% of them, the feedback received from physicians who have already emigrated had a significant importance in the process of decision-making. However, 73.3% of the respondents appreciated as unsatisfactory the implication of their country of origin in maintaining scientific networks.

The conclusion seems very simple: among the medical community the willingness to collaborate exists, but only through an active implication at institutional level, Romania could possibly benefit from the diaspora option. A strategy in this area should take into account the examples of scientific networks from other countries and adapt them to the national context.

Further research in this area includes an analysis of the successful strategies implemented in countries that used the scientific networks as option for turning brain drain into brain gain and the outlining of a strategy for Romania.

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