

Building bridges between higher education and the business environment for regional development in the South-East Europe

Mircea Untaru¹

*Even if the tertiary education system is being improved, the employment rate of the freshly graduates is still not balanced with the labour market. The general objective of the present study is to integrate this matter as an influence factor of regional development in South-East Europe. The methodology regards three specific objectives, pursuing the establishment of key points in improving the sustainable connection between higher education and the business environment. First, a literature review is made for the debate basis. Second, an analysis for creating such bridges is pursued empirically through a case study at West development region level, in Romania. Third, the case study is exemplified by an analysis of educational institutional development through European projects. The results target the development of a methodology for creating bridges between the two environments. Keywords: European projects, regional economic analysis, interdisciplinary tertiary institutions, qualitative human resource formation, empirical analysis
JEL Classifications: A23, I25, R58*

¹**Mircea Untaru**, Lecturer at the Department of Economics, "Ioan Slavici" University of Timisoara, Romania, mircea.untaru@andestm.ro

1. Introduction

The matter concerning the creation of future human resources formation by the higher education institutions (HEIs) has been debated at various levels. However, the analysis of the employment rate of the freshly graduates of the higher education system in South-East Europe still proves that an effective resolution has not yet been implemented.

In this view, the present study creates a new approach by analyzing global macro and microeconomic milestones in the creation of a common ground for HEIs and the business environment. Following a comparative analysis of the connection between the higher education systems of eighteen countries and their related business environments a series of different methodologies, methods and instruments enhancing such bridges has been identified. The main milestones in the harmonization of the two environments regard the varied higher education systems themselves, the interdisciplinary institutional development of HEIs and the social feature of the connection.

II. The higher education – business environment relation. Literature review

At global level, we can identify different economic backgrounds of countries, which influence positively or negatively the implementation of a sustainable higher education system. It might seem a vicious circle, as the national economic status influences the education and the last one, provides the future human resources according to the type of the influence itself. For example, in developing countries from Africa, Asia, Latin America and The Caribbean, there is an urge for specialized human capital. Also, the financial pressures which contribute to that also create challenges like updated programs and curricula, the increase of the institutions' quality to be part of the global lists of universities, lack of a research environment or increase of the rate of students completing the academic programs (Rena, 2010). In an intermediate economic developed country, such as Sweden, the

internationalization academic system still represents an issue due to a lack of systematic approach.

According to Svensson and Wihlborg (2010), the cultural differences are not taken into consideration and the globalized features of higher education are considered general knowledge. This situation is considered to require a curriculum approach. Analysing higher education systems at European level, we can also differentiate them upon national economic backgrounds. At the level of strong economies such as England, one of the main concerns is leadership of universities at global level (Middlehurst et al., 2008). Other developed countries like The Netherlands, started identifying in 1991 the political influence at the funding level, stressing the need for stronger inter and intra institutional relationships at HEI level (Goedegebuure and Westerheijden, 1991). Nowadays, they represent an example of best practice in the relationship between the HEIs and economic institutions through their balance between the theoretical and empirical from the curricula as well as the high rate of graduates employed in the field of their major. In parallel, in South-East European countries HEIs continue to increase their level of qualitative integration of Bologna system. This system is an example of best practice transfer. According to Zgaga (2003), in South-East Europe Bologna system is seen as a process for institutional development at all levels: the HEI accession possibility to European standards, joining research traditions with cultural diversity through staff mobilities, ease of student mobilities (eg. Erasmus programme for study and internships), modernization of curricula, support for lifelong learning as well as compatibilization of the national systems with the European one.

In our opinion, from an institutional point of view, in order to develop sustainable connections with the business environment, HEIs require an interdisciplinary structure and management. The more varied the fields of expertise of a HEI, the more dynamic the

institution is in the business environment (eg. different faculties, entrepreneurial departments, staff training, research centers, simulation facilities etc.). In addition to complexity, HEIs are also targeted towards quality management. From a global perspective, according to the quality management needs in Indian HEIs, the purpose is seen from a business perspective (Murad and Rajesh, 2010). The students are considered to be clients. Their services are fostered through staff training and development, leading in the end to student's choice and certain autonomy. Another approach regards staff's involvement in setting institutional policy priorities (eg. working groups) in quantifiable key points. This idea is also found in an Estonian study case, where the division between traditional and modern affects at institutional and curricula levels (Tomusk, 1996). However, in the end, education is not seen only as a job market opportunity but self-development possibilities at individual level as well (Van Bragt et al., 2007). HEIs are seen as publicly accountable for national/regional development. The education level represents a welfare indicator for poor regions. This public accountability is also identified at US level, fact which stresses the general validity of the education system as economic development factor (Zumeta, 2011). This is also completed at scientific level by HEIs as research sources (Teichler, 2003). In addition to adequate management, a study over 257 professors from a Spanish university, underlines the importance of academics' knowledge and attitude regarding the transnational education approaches (in this case, the European one). The analysis concluded as a first minus the language barrier. Thus, English economic courses were recommended not only for individual purposes but also for a better integration of students in the international business environment (Jose Fernandez Diaz et al, 2009). In relation to public accountability, Florea and McNamara Horvat (2009), in their study comparing Romania and the US systems, identify the need for social order and social equity in the accession of students

to higher education. The main issues stressed are grounded by equal opportunities and the widening of the participation. The study supports the admission exams, considering the students as an individual social class. Also, in grounding these tests, they underline the creation of elites. In comparison but much earlier in time, Weinstein (1975) argues the equality and expansion brought by the transit from elite to mass higher education. He supports the existence of hard and soft vocationalism. Here, the situations correspond to matching the educational content with the student skills and, on the other hand, the identification of the most valued abilities on the labour market. We believe that these two matters are keys in the higher education-business environment relation. The existence of vocational training is needed as a complementary and/or short term alternative for higher education. This side has two main roles. On the one hand, it contributes to the achievement of the higher education-business environment relation's positive social effects such as: equity (Mora, 1997; Cabrito, 2001), individual development and social integration of disadvantaged groups (Tjomsland, 2009). On the other hand, vocational training solves on short/medium term student's choice between working and studying (Hung et al., 2000; Pinna, 2009). Moreover, the specialization features allows additional interdisciplinary competences for already highly qualified human resources. Nevertheless, vocational training is not the connection itself with the business environment. A knowledge network, between universities and businesses is required (Kessels and Kwakman, 2007). In this context, the identification of vocational training's position in this network must be clearly identified in order to avoid its replacement with higher education (Perellon, 2003).

The main findings previously described can be identified also partially at regional levels. These elements have a strong influence in regional development and therefore, contribute to the establishment of regional policy development. Research regarding higher education

must include firstly its role in regional socio-economic development (Kivinen and Rinne, 1998). In this case, South-East European regions are majoritary under Objective 1 Convergence guidance. Thus, the higher education – business environment relation is important to be analysed for the national regional convergence policies. The global differences found among the national levels regarding the different education systems and their business connections also appear at regional levels. Comparing two analysis of Bio Bio region in Chile (OECD, 2010) and Berlin city-region (OECD, 2010), we can observe the immigrant graduates difficulty in integrating on the labor market (Berlin) and its source; the absence of harmonized education systems with the labor market. Another explanatory factor is the existence of public/private higher education and the funding policy debates (Ansell, 2008; McLendon et al., 2009; Ehrenberg, 2006; Marginson, 2007). However, at South-East European level European funding for HEIs is provided in different fields of expertise. Not only these funds are for educational development but they also assure the education-business connection, enabling HEIs to develop at interdisciplinary levels.

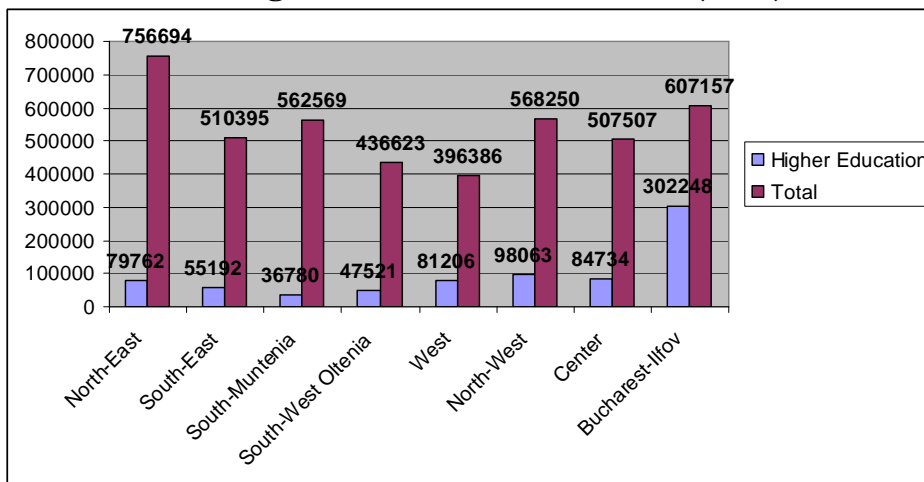
III. Regional development through the higher education – business environment relation in West development region in Romania

At national level Romania has been divided into 8 development regions in order to receive structural funds for the Objective 1 of the European Cohesion Policy. In this view, regional convergence represents one of the most important national objectives. In forward, we will analyse briefly the connection between higher education and the business environment in West development region in order to identify possible sectors which could better include the freshly graduates on the labor market. Even though the analysis is made by statistical comparison of the two areas, its results are important in order to stress the main areas for HEIs interdisciplinary development.

Firstly, from the point of view of number of enrolled students in the West region, we can observe in Figure 1 that in 2007 its place at national level was the fourth, along with Bucharest-Ilfov, North-West and Center. However, considering the fact that Bucharest-Ilfov can be considered a city-region, then West region remains the third.

Figure 1

Number of students per development region in their total regional number of students (2007)



Source of data:

<http://www.insse.ro/cms/files/statistici/Statistica%20teritoriala%202008/rom/Tabel35.htm>

From the point of view of the graduate number², West region is again on the fourth/third place, along with Bucharest-Ilfov, North-East, North-West and Center. This time the difference between West and Center regions is insignificant.

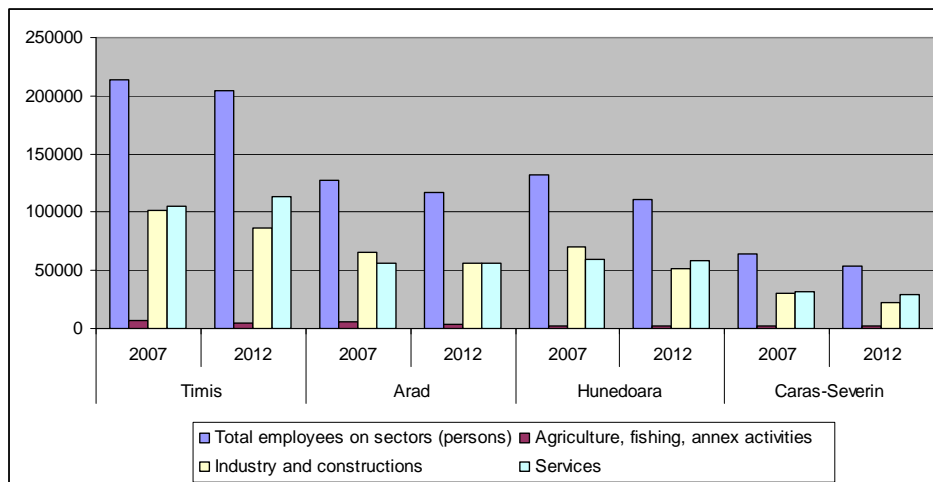
Concluding the two facts regarding students in West region we can observe the consequent behaviour at student level in completing the academic programme. According to the national statistic bulletins,

² See Annex 1

West region business environment is dominated by the industrial sector. In this view, at intraregional level, the four counties are ranked after their industrial production index : Caras-Sever, Timis, Arad and Hunedoara in 2007. In 2012, the ranking changes : Caras-Sever, Timis, Hunedoara and Arad.³

Figure 2

Total number of employees on economic sectors in 2007 and 2012



Source of data: <http://www.insse.ro/cms/rw/pages/buletinStatJud.ro.do>

From the perspective of employees on economic sectors we can identify Timis county as leader of the number of employees, followed by Hunedoara, Arad and Caras-Severin. At the sectoral structure level, we can observe that the predominant number of employees is found in the service sector, followed closely by the industrial one. In Timis county, compared to 2007 the value increased in 2012 in the service area and decreased in the industrial one. The same change can be observed only slightly in Hunedoara county.

³ See Annex 2

To summarize the intraregional analysis, the main economic sectors with most employees are services and industry. The region itself has both private and public universities, with interdisciplinary structures. In following, the case studied regards the institutional development of a private university, using both own resources and European funding from West development region.

IV. Interdisciplinary development at private HEI level. Case study

The analysed university clusters activities in different fields of expertise. Therefore, the institution is structured on a complexity of elements : the university with two faculties : economics and business administration and engineering, a social and cultural center, a center for lifelong learning, its own publishing house, an academics club, a business incubator, an industrial park and two youth hostels. Although private, the university has developed its activities and infrastructure also through structural funding. The projects developed during 2007 and up to present can subscribe to categories such as lifelong learning, cross-border development, technical research, human resource development as well as cultural projects. In following a brief analysis of a project's structure and objective orientation will be made in order to observe the methods used in a European project for the development of the connection between higher education and the business environment.

The analysed project aimed at enlarging the knowledge, skills of students and academics for cross-border careers. Also, the project aimed at creating economic experts at interdisciplinary level in order to ensure adequate human resources for both higher education and cross-border business environment.

Table 1

Main categories of budgetary lines of the analysed project (€)

Budgetary lines	Lead Partner	Partner 1
Staff costs	13480	32580
Travel and accomodation	18024	23760
External services	34700	17100
Equipment costs	20483	6300
Investment costs	3000	0
Financial costs	0	600
Overhead costs	600	960
Total:	95887	80300

Source of data: Project HUROSTYLE

The target group consisted of the staff of the partner institutions and students aiming both in business and academics careers. The structural funding required from the project aimed mainly at achieving transfer of best practices at cross-border level. Moreover, the public-private partnership encouraged a positive long-term cooperation. The university's business incubator together with the entrepreneurial activities supported by the foreign partner and completed by the team of experts implementing the specific activities of the project provided sustainable results in building long-term bridges between the cross-border higher education and the business environment. As presented in Table 1, the main European funding was requested for exchange at student at staff level. Also, according to project activities these imply visits to economic agents as well as other economic and research institutions. Moreover, cross-border entrepreneurial and academic trainings have been implemented. The external services provide multilanguage features for the project such as trilingual interpretation, training materials, dissemination materials etc.

From another point of view, the project implies the use of a technological and material base including e-libraries and e-platform

along with endowed laboratories for entrepreneurial simulation for both students and business managers. In a nutshell, the European funding aimed mainly at supporting student and academics mobilities and technological bases. In this view, the project supported the higher education – business – research triangle by preparing adequate future human resources for the research and business environment and specializing academic staff.

Conclusions

The sustainable connection between higher education and the business environment implies complex methodologies from both parts. At literature review level, different approaches have been identified mostly from the part of the higher education system. In our study, we stressed several connection instruments. The variety provided by the global education systems showed multiple elements of good practice, which, through regional research, can be implemented at different levels. The institutional development at interdisciplinary level was shown as one of the main methods in connecting with the different activities from the economic sectors. The social feature of higher education opened the door for the identification of vocational training as part of the higher education and also a gate to the empirical, the business environment. The debate for public-private funding also captures the relevance in the matter. However, the public-private partnership proves to be an effective way to enlarge the quality of the higher education-business doors. On the one hand, in South-East Europe, public universities represent excellence at academic and research levels while the private institutions add the institutional mobility of both reaching an equilibrium between theoretical and empirical and achieving high standards at academic and research levels. In addition, this European part, mostly under Objective 1 funding, benefits of extra financial resources for the debated connection.

The study made at empirical level presented an example of best practices of a private HEI developing at interdisciplinary level towards the business and research environments. The methodology created in this study consists of three steps: multiregional analysis at national level for stressing the features of both higher academic and business environments, intraregional analysis for the identification of main economic sectors and the features of employees and finally, the analysis of a private HEI at both own and European funding levels in order to identify the good practices. These last ones consist of the good management of additional funds in implementing activities in extra fields of expertise towards a specific niche of the business environment.

The methodology elaborated in the present study can be used in both research and policy making.

References

- Ansell, B., *University Challenges* (2008), "Explaining Institutional Change in Higher Education", *World Politics* 60: 189–230
- Cabrito, B. (2001), "Higher education and equity in Portugal", *Tertiary Education and Management* 7: 23–39
- Diaz, M., Santaolalla, R., Gonzalez, A. (2010), "Faculty attitudes and training needs to respond the new European Higher Education challenges", *High Education* 60: 101–118
- Ehrenberg, R. (2006), "The Perfect Storm", *Change*, January/February 2006: 46-53
- Florea, S., Mc Namara Horvat, E. (2009), "The Promise and Challenge of Increasing Access to Higher Education: Notes from a Romanian/United States Comparative Analysis", *Higher Education in Europe*, 34/3–4, 481-495
- Goedegebuure, L., Westerheijden, D. (1991), "Changing balances in Dutch higher education", *Higher Education* 21: 495-520

- Hung, F., Chung, Y., Ho, E. (2000), "To work or to continue to higher education? The choice of senior secondary students in Shenzhen, China", *Higher Education* 39: 455–467
- Kessels, J., Kwakman, K. (2007), "Interface: establishing knowledge networks between higher vocational education and businesses", *High Education* 54: 689–703
- Kivinen, O., Rinne, R. (1998), "Methodological Challenges for Comparative Research Into Higher Education", *Interchange*, 29/2: 121-136
- Marginson, S. (2007), "The public/private divide in higher education: A global revision", *Higher Education* 53: 307–333
- McLendon, M., Hearn, J., Mokher, C. (2009), "Partisans, Professionals, and Power: The Role of Political Factors in State Higher Education Funding", *The Journal of Higher Education*, 80/6: 686-713
- Middlehurst, R., Goreham, H., Woodfield, S. (2012), "Why Research Leadership in Higher Education? Exploring Contributions from the UK's Leadership Foundation for Higher Education", *Leadership* 5/3: 311–329
- Mora, J. (1997), "Equity in Spanish higher education", *Higher Education* 33: 233–249
- Murad, A., Rajesh, K. (2010), "Implementation of Total Quality Management in Higher Education", *Asian Journal of Business Management* 2/1: 9-16
- Perellon, J. (2003), "The Creation of a Vocational Sector in Swiss Higher Education: balancing trends of system differentiation and integration", *European Journal of Education*, 38/4: 357-370
- Pinna, C. (2009), "EU–China relations in higher education: Building bridges in global cultural dialogue", *Asia Eur J* 7: 505–527
- Rena, R. (2010), "Emerging Trends of Higher Education in Developing Countries", *Analele Stiintifice ale Universitatii Alexandru Ioan Cuza din Iasi, seria Stiinte Economice*, Numar special: 301-315

- Svensson, L., Wihlborg, M. (2010), "Internationalising the content of higher education: the need for a curriculum perspective", *High Education* 60: 595–613
- Teichler, U. (2003), "The future of higher education and the future of higher education research", *Tertiary Education and Management* 9: 171–185
- Tjomsland, M. (2009), "Women in Higher Education: A Concern for Development?", *Gender Technology and Development* 13/3: 407-427
- Tomusk, V. (1996), "Recent Trends in Estonian Higher Education: Emergence of the Binary Division from the Point of View of Staff Development", *Minerva* 34: 279-289
- Van Bragt, C., Bakx A., Van der Sanden J., Croon M. (2007), "Students' approaches to learning when entering higher education: Differences between students with senior general secondary and senior secondary educational backgrounds", *Learning and Individual Differences* 17: 83–96
- Weisenstein, W. (1975), "Social purposes in search of higher education, or higher education in search of social purposes?", *Higher Education* 4: 409-428
- Zgaga, P. (2003), "Reforming the Universities of South East Europe in view of the Bologna Process", *Higher Education in Europe*, 28/3: 251-258
- Zumeta, W. (2011), "What Does It Mean to Be Accountable? Dimensions and Implications of Higher Education's Public Accountability", *The Review of Higher Education*, 35/1: 131–148
- * OECD (2010), *Higher Education in Regional and City Development* Berlin, Germany
- * OECD (2010), *Higher Education in Regional and City Development* Bio Bio Region, Chile
- INSSE (2007), Data base, <http://www.insse.ro/cms/files/statistici/Statistica%20teritoriala%202008/rom/Tabel35.htm> Accessed on May 2012

INSSE (2007), Data base,
<http://www.insse.ro/cms/files/statistici/Statistica%20teritoriala%202008/rom/Tabel37.htm> Accessed on May 2012

INSSE (2007), Data base,
<http://www.insse.ro/cms/rw/pages/buletinStatJud.ro.do> Accessed on May 2012

INSSE (2007),
<http://www.insse.ro/cms/rw/pages/buletinStatJud.ro.do> Accessed on May 2012

INSSE (2012), Data base,
<http://www.insse.ro/cms/rw/pages/buletinStatJud.ro.do> Accessed on May 2012

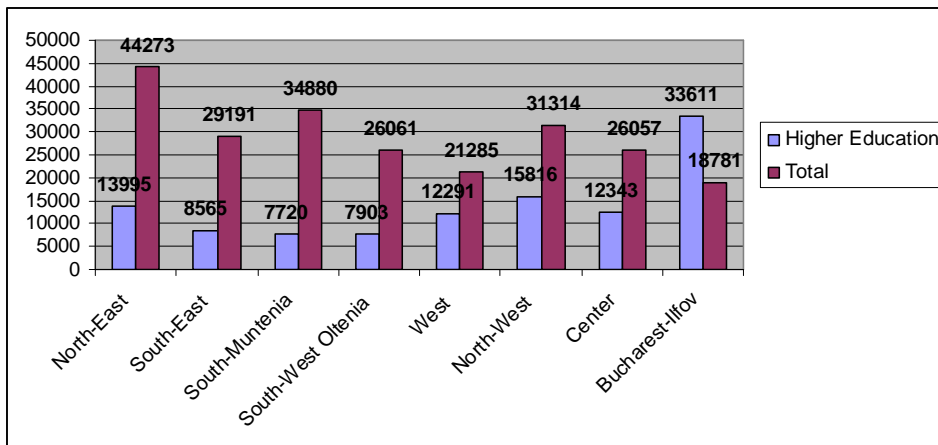
INSSE (2012),
<http://www.insse.ro/cms/rw/pages/buletinStatJud.ro.do> Accessed on May 2012

The Hungarian-Romanian Cross-Border Cooperation Programme, Priority Axis 2. Strengthen social and economic cohesion of the border area, Key area of intervention 2.3 Co-operation in the labour market and education – joint development of skills and knowledge, Action 2.3.1. Cooperation between educational institutions, Project title TRAIN AND WIN IN HU-RO STYLE, Acronym: HUROSTYLE

Annexes

Annex 1

Number of graduates per development region in their regional total number of graduates (2007)



Source of data:

<http://www.insse.ro/cms/files/statistici/Statistica%20teritoriala%202008/rom/Tabel37.htm>

Annex 2

Industrial production index (%) in 2007 and 2012

