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Matching Curricula with Labour Market Needs for Higher Education: State of Art, Obstacles and Facilitating Factors

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Abstract

Improving the matching in between educational curricula and labour market demands is one of the Recommendations formulated for Romania in 2013 by the European Commission with respect to the reform of higher education system. Why do we need an increasing education-job match? Theoretical background points to increasing career perspectives, increasing productivity, motivation or earnings for individuals and increasing competitiveness and output for the economy. Nonetheless, when we aim to meet the demands of an economy developed in low added value sectors, we implicitly whiteness a ceiling in the development of human capital on the medium and long run. Do crises or legal requirements lead to an increasing education job-match? Which are the graduates’ competences that have to be improved? How the role of career counselling and guidance services could be improved? What is the state of the partnership universities-trade unions-employers in order to improve the quality of skills and their match with labour market demands? These are the questions to which the paper aims to provide answers derived from a quantitative-qualitative methodology run on 140 representatives of labour market stakeholders under the project \textit{POSDRU 86/1.2/S/52422 – Management of matching educational system with labour market demands}.

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1. Introduction, aims and methodology

Crisis affected strongly employment in Romania, but also through the entire EU, youth being the most vulnerable to the effects of economic cycles, both unemployment and NEET witnessing increasing trends. Not only crises is to be blamed, the causes are complex covering institutional causes related to the specific architecture of educational and training systems, labour market institutions and characteristics, structural causes, etc. (Kogan, Muller, 2003, Muller, 2005). The success in reducing education-job mismatch depends on how education system and labour market are coordinated. (Shavit, Muller, 1998). Moreover, increasing the matching of educational supply to labour market needs is one of the country Recommendations formulated by the European Commission in 2013.

Our paper aims to provide answers to some actual research and policy questions regarding the current state of the partnership universities-employers’ organizations, as well as how the coordination between educational system and labour market stakeholders can be improved. In order to reach this objective we employed on the one hand a scrutiny of the main theoretical references, as well as an empiric research based on a quantitative-qualitative methodology. We run 16 focus groups at national and regional level with representatives of labour market and educational stakeholders. The focus groups gathered 140 participants from universities, chambers of commerce, trade unions, employers’ organizations, students and alumni, sectorial committees, public services for employment, large enterprises. Also, at the end of the focus groups, each participant filled a questionnaire on labour market trends and their anticipation, occupations specific to higher education graduates and their evolutions during the near future. Data collected were analysed with methods specific to qualitative and respectively quantitative approaches.

2. Theoretical developments

Higher education aims to prepare young people to become highly productive and successful on the labour market. Performance of individuals in their working life is closely linked with the process of acquiring competences. Significant theories see education as investment in human capital (Smith, 1776; Becker, 1964; Mincer, 1974). Such theories are focused on the supply side. On the other hand, the job competition model approaches the demand side, underlining the role of occupational characteristics in explaining productivity (Thurow, 1975). Both these major theoretical approaches lack the understanding of the role played by the interaction between the two sides of the labour market – demand and supply.

From the point of view of labour supply, human capital theories refer to skills of workers as a specific form of capital in which individuals make investments. Furthermore, knowledge and abilities of workers determine their productivity level on the labour market. From this perspective, human capital includes not only schooling, but also a variety of personal abilities and characteristics, attitudes and work related values. However, in theory, differences in earnings are mostly explained by level and quality of education. Becker shows that human capital of a worker increases his/her productivity in all tasks. Therefore, human capital appears as a one-dimensional concept. A further completion of this view is the theory of Gardner (1993) that sees human capital as a multi-dimensional concept. Different dimensions refer to different type of skills. Another interesting approach is the view of Schultz (1971) who considers that human capital represents the capacity of individuals to adapt to new and challenging situations. This model of thinking is especially useful considering the changing nature of the economic and labour environments. Moreover, studies show that observable measures of human capital – such as level of education – act as proxy measures for abilities needed in the production process.

One important development of the human capital theories is the idea that different types of human capital exist: general, firm-specific and task-specific human capital (Gibbons, Waldman, 2004). In the same time, Becker (1964) distinguishes between general and specific human capital. Such approaches are very beneficial for understanding the links between education and labour market or between labour supply and demand. General human capital includes skills and competences that may be transferred from one sector to another, from one firm to another and from one job to another. Developing the general human capital represents the main goal of the education system. In contrast with the general human capital, specific human capital refers to knowledge and skills that are less transferable across domains in the process of job mobility. Specific human capital is developed mainly through education, training and work experience. In other words, one important research question is referring to the role of the education system in providing general and specific human capital.
From the point of view of labour demand, Thurow (1975) theory shows that individuals compete for jobs based on their training potential costs. The implication of this theory is that individuals tend to overinvest in formal education in order to reduce the training costs and increase their chances of being selected by employers. As the distribution of employment opportunities depends by the distribution of training costs perceived by employers, individuals are interested in acquiring higher level of formal education. Moreover, due to the fact the probability of obtaining jobs is determined by the relative training costs, individuals aim also to develop specific human capital. In this way, they need to act for reducing the further training costs and increase their chances to jobs with higher wages. On the other hand, the job matching theory stresses on the worker-firm match that is seen as an “experience good”. According to this theoretical model, individuals remain in jobs in which their productivity is high and leave jobs in which register low productivity. This means that each worker is associated with a distribution of productivities in relation with all potential jobs. Also, from the employer’s point of view, each job is associated with a distribution of potential employees. In this context, the problem remains to obtain optimal assignments of workers to jobs. Also, workers who experience a better match in a job receive higher rewards in terms of wages (Jovanovic, 1979).

All the theoretical models presented above show that in order to enjoy the benefits of education individuals need to be aware of the changing nature of the labour market and to acquire and maintain competences needed in the world of work. Both scholars and human resources experts agree that higher education system is an important place for competences acquiring. However, many studies underline the fact the lots of competences developed during the years of higher education are not very useful on the labour market, while others are not developed adequately. Labour economics use a wide range of statistics for understanding the match between competences that are acquired within the education system and those needed on the labour market: unemployment rate, rate of vacancies, skills need and skills gap. Such indicators point to different kinds of mismatches between competences held by workers and those required by the employers, as well as to imperfect information on the labour market and inadequate recruitment mechanisms.

Different studies underline the existence of different skills that are insufficient developed within the higher education programs. These skills depend by the economic and social context to which the study refers. For example, in developed economies in which many higher education graduates are prepared for managerial and entrepreneurial positions, skills such as innovative thinking and entrepreneurship need to be better developed by the higher education institutions. Multiple studies showed that managerial skills are developed more at the workplace and less in university and post-university studies. On the other hand, universities need to adapt their curricula to the developments of the economy, including the emergence of the knowledge economy. Nowadays, graduates have to be equipped with the ability of resolving problems with creativity. Also, they need to be well prepared to work with new technologies. The ways in which universities may act in order to adapt the educational process to the requirements of the economy include a variety of methods and initiatives. Some good examples include partnerships with companies, firm survey for assessing the skill need, internships, exposing students to lectures held by experts and professionals outside the university, etc.

Studies analysing the way different skills are required on the labour market represent an emergent research area in the field of labour economics. Recent results show that discipline-specific competencies and generic competencies are very important for graduates looking for employment. Holding stronger discipline-specific competencies provides graduates with better chances of becoming employed in their own field of study. This means that they will receive higher wages as against those who work in a mismatched job. On the other hand, by holding stronger generic competences, graduates have higher chances of becoming employed outside their own field of study. In such jobs, generic competences help individuals to adapt to tasks and requirements that they are not familiar with. One interesting approach distinguishes between internal labour market and occupational labour market (Eyraud, Marsden and Sylvestre, 1990). This division is related with institutional rules that regulate access of individuals to skilled jobs. Field of study plays a minor role in the allocation of graduates in jobs in case of internal labour market as it lacks occupational specificity. On the other hand, the occupational labour market is characterized by the fact that discipline-specific competences acquired in education are strongly linked with those required by employers. Both internal and occupational labour markets can be found in one country and their weights vary across countries. Gangl (2001) analysed features of the European labour markets in order to classify them. United Kingdom
and France are the main representatives of internal labour markets, while Netherlands, Austria and Germany stay for occupational labour markets. Conclusions of the analysis indicate that in internal labour market countries low level of generic competences is associated with lower wages, while in occupational labour markets lack of discipline-specific competencies is associated with a wage penalty.

3. Main results

The general context of the study was one significantly marked by the crises and its consequences. Thus, only 11.4% of those participating to the focus groups considered that we have already passed through the crises in 2014, while the large majority of 84.3% considered we are still under profound restructuring and ongoing economic crises. Moreover, 49.3% of the participants anticipated that the crises will run for at least 2 year ahead and 19.3% could not anticipate its end.

Moreover, the general image of the educational system, irrespective of level of education under scrutiny is a negative one, with the quality decreasing continuously during the last two decades. Both the educational process and the new cohorts face the same decrease of quality, and all the stakeholders emphasized on it. This perception has significant effects: teachers have lower credibility and students invest less in education and usually combine education and work by missing lessons and school.

The quality of the educational process is coupled with the low insertions rates of the graduates and increasing unemployment rates even among higher education graduates. The educational field is influencing mostly the labour market insertion of graduates. There are domains/specializations with higher rates of insertion and higher rates of adequate insertion, and also specializations with less performance in this field. The partnership between universities and employers is one of the factors influencing the final employability of students. Lack of work experiences, low importance to career guidance and counselling both during the studies and after graduation and inadequate expectations of newly graduates with respect to labour market opportunities are among the most impost factors negatively influencing the youth labour market integration.

State of art – general perception. Universities made some steps, developing stages/programs of practice and internships in partnership with employers. So, where the economic sector is represented by some important companies or employers organizations, the education-job match is higher. Where the economic sector is fragmented, the links/partnerships between universities and employer are more difficult to be established.

One of the factors influencing education-job match is the image of the higher education and teachers that are too negatively presented by public opinion, media and decision makers. Other reasons are the inertia and rigidity of education institutions to respond to labour market changes. Nonetheless the quality of the new cohorts and the need to compensate their theoretical lacks as well as the financing policies are other reasons affecting the state of the education-job match. The education is too focused on theoretical aspects and misses the links in between theory and practice, mainly where teachers do not have other work experiences than the educational one. Also, sometimes practice stages are more “on paper”, and there is need to design specific financial incentives for employers to be more involved in the organizing of practice stages.

Main obstacles and ways to cope with. The lack of a general vision is one of the main obstacles affecting the quality of education in the perception of respondents. There is an increasing need of studies and information on what actually the future labour market demands are, both quantitatively and qualitatively (competences needed). A strategic vision on the future economic development is a must in order to identify the development priorities on the medium and long run. Low quality of the pre-university education is one of the obstacles named by the stakeholders affecting the quality of education that needs to address theoretical issues in the detriment of the practical dimensions. Also the motivation of the students is decreasing, the rate of absenteeism being the most important indicator in this respect. The practical competences are supposed to be developed in the laboratories or during the practice stages. When it comes to practice stages, their mandatory duration was mentioned as to low and unappealing to employers in order to stimulate their involvement and interest. Difficulties to attract and involve employers and the lack of fiscal policies supporting their involvement are other important obstacles. Thus universities aimed to benefit as much as possible by the ESF grants, by developing varying projects on increasing information among employers with respect to products and projects developed under license and dissertation examinations, organizing regular meeting with main employers in order to identify their needs and assess their
satisfaction, increasing the duration of practice stages, establishing links with previous alumni, organizing job fairs in universities, etc. Even if they are mentioned as important, career guidance and counselling services are facing multiple difficulties: sub-financing, lack of specialized human resources, lack of reliable information and anticipating studies with respect to labour market demands, etc. Even if difficulties of these services are widely known and recognized, there is no strategic view with respect to their improvement and prioritization.

Is there a partnership in between universities-trade unions-employers? As said before, there are educational fields where this partnership becomes stronger, and there are educational fields, where universities still struggle to find an adequate approach to attract and co-interest relevant employers. What must be emphasized is the general preoccupation to establish, maintain, develop the partnership, thus creating the premises for an increasing quality of education and increasing youth insertion on the labour market.

Needed competences and for who. Opinions on this issue are quite divers and divergent. On the one hand, having a job during the study period could facilitate better information on labour market opportunities, and leads to the acquisition of some practical skills, but on the other hand absenteeism leads to even a lower quality of the theoretical background acquired by students. Communication skills and communication in other languages that English are welcome. Entrepreneurial skills also have to be developed for all fields/specializations. Information on the labour market is limited among students, and also their skills to search for a job and to carry on a job interview, so much emphasize and importance have to be put on counselling and guidance services. Not only students’ competences have to be improved, but teachers’ too. Some of them are lacking the practical competences also, putting too much emphasize on theoretical knowledge and less on how they are relevant in practice. For instance in Romania, legal framework does not allow professionals and experts in a specific area to teach, as usually they do not hold a Ph.D. degree.

4. Crises as an asset

The general perception is that crises lead to an increasing importance of education and qualification in the recruitment process. Employers value more the candidates with required specialization, while students and graduates put more importance on the education-job match in their job searching behaviour.

Important steps have been made in the education-job match, mostly on the universities’ side, but still much have to be done with respect to quality and importance of career guidance and counselling services, attracting and co-interesting relevant employers and employers’ organizations and investing in research and development programs.

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