

# EDULEARN<sup>15</sup>

7TH INTERNATIONAL CONFERENCE  
ON EDUCATION AND NEW LEARNING  
TECHNOLOGIES

BARCELONA (SPAIN)  
6TH - 8TH OF JULY, 2015



# CONFERENCE PROCEEDINGS



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# UNIVERSITY-BUSINESS INTERACTION MODELS: THE EXPERIENCE OF DEVELOPED AND DEVELOPING COUNTRIES

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## Abstract

The article presents the results of surveys of employers on the interaction of education and business. The basic directions of cooperation and obstacles to successful cooperation are declared. The article presents the main problems specific to developing countries in the model of University – Business cooperation, as well as possible ways to overcome them on the basis of the experience of developed countries.

Keywords: University, business, survey, cooperation, interaction models.

## 1 UNIVERSITY – BUSINESS COOPERATION SURVEY

University-business interaction has been and remains one of the main factors in the development of human capital of any economy. On the one hand, the interaction between business and education allows training for specialists on demand, on the other hand, it enables graduates to find jobs according to their education. In this connection the task of finding and shaping the forms and mechanisms of cooperation remains up to date, taking into account the interests and capacities of all stakeholders (government, business, society, individual citizens and social groups). It is obvious that joint efforts in the long run will lead to improving the quality of human resources, labour productivity, improving the country's competitiveness in the global market.

Broad research of University – Business cooperation topics was carried out in a survey conducted in countries EMCOSU (Bulgaria, Hungary, Poland, Slovenia, and Spain) provided by University of Ljubljana (Slovenia) under European Commission with the participation of Russia (Petrozavodsk State University) in 2014 as part of established consortium of universities [1].

Besides EMCOSU countries the analyses also included responses of employers from several other countries and regions that were involved in the large scale survey in the framework created by a consortium of universities. Among the countries the survey was focused to Croatia, Czech Republic, Slovakia and Italy with additional regions comprising several countries: continental, ex-YU countries, Scandinavia and Russia.

The goal of the survey was to identify the various forms of University – Business cooperation, as well as to identify factors that contribute to the development of interaction between the system of education and business. In addition, aspects related to the expectations of universities and enterprises on cooperation were studied. The survey identified the main trends in the development of the education system in both developed and developing countries.

Currently, many countries are actively developing the mechanisms of interaction of education and business; there is still room for improvement in terms of more effective communication, legal support and better integration of the various stakeholders. In some sectors, such as information and communication technology, already there is a long tradition of cooperation with universities and other industries are still lagging behind due to national and disciplinary restrictions.

## 2 SURVEY RESULTS

The researchers found that the drivers and barriers for cooperation of higher education and business is an important area for study. At that time, as the number of drivers (such as increased employment of graduates, the modernization of curricular, technology transfer and financing) can be classified according to the particular beneficiary (e.g., university, students, community), a number of barriers traditionally classified as a barrier to the companies: the problem of assessing the effectiveness, communication between research and cultural differences, etc.



Obstacles in the interaction between business and the education system in terms of the companies are seen as following: business needs are not put on a par with the mission and strategy of the university, there is a time gap between the speed of functioning of the institutions, the university does not have the required expertise or infrastructure to the needs of business, bureaucracy, financial limitations.

For example, among the obstacles to cooperation are also distinguished different motivations and values. The activities of research groups at universities and technology centres are far from the needs of the business. For companies the most important is the emergence of patents for commercial use, but the priority for the university is publication of research results. There is currently no market orientation in the research activities of the universities. The researchers' work is measured by the number of publications, what they do, rather than practical use [1].

Companies are often more included in research and teaching at universities in almost all EU countries. During the cooperation with the universities, they are also looking for opportunities to interact with students as their potential future employees in the form of the mobilization of students in their own environment and making presentations to students on career development activities.

The expectations of employers with respect to knowledge and skills of graduates are following. Graduates must be competent in a wide range of areas, including both general and specific skills and technical capabilities in the field of computer technology and Internet use. Among other competencies demanded allocate capacity to effectively use the time and opportunity to work productively with others. Most graduates are highly skilled in these areas, in particular in the use of computers and the Internet, but there is some shortage of such competencies as required mastery of specialization in the field or discipline and the ability to perform the job well under pressure.

The main problem for developing countries, which was revealed in a survey of employers, is the following. Employers do not have enough information about what skills should be expected from graduates, and educational institutions, in turn, also have little information about what skills and competencies most in demand by employers.

### **3 EXPERIENCE OF DEVELOPING COUNTRIES**

Surveys were also conducted in other countries and regions that have been involved in large-scale survey. Among the survey was focused in Croatia, Czech Republic, Slovakia and Italy, with additional regions, consisting of several countries of the former Yugoslavia, Scandinavia and Russia.

The analysis of the survey results revealed that developed and developing countries are characterized by similar trends. For example, the interaction of education and business (industry) is carried out in the following areas: training of qualified specialists, planning objectives and outcomes of education, design and development of educational programs, the creation of an innovative environment through the integration of science and business, development and introduction of new educational technologies to achieve the required results of education, development of new assessment procedures for education and qualifications and many others.

The Russian community sees the interaction between universities and business in the following areas [2]: identification of relevant lists of competencies of graduates on the basis of forecasts of technological development, designing basic educational programs, the creation of innovative educational and research environment, the introduction of new ways of learning.

Most employers in the EU are cooperating with universities in the field of student mobility, which is usually done in the form of practical training and internships. This mode of cooperation has been ranked in the majority of countries that were part of a large-scale survey, with the exception of the Czech Republic, Slovakia and Scandinavia, where it occupies the third place, as well as Bulgaria and countries of the former Yugoslavia, where the most common means of cooperation activities with the universities is adult training and short courses.

Participation in the activities of the companies on the development of curricula most commonly used in the Czech Republic and Slovakia, as well as quite often in Bulgaria, Croatia, Scandinavia, Spain, Italy and the former Yugoslavia, but less often in Russia. The least common activities of university and business cooperation, reported the company in all countries and regions, with the exception of Italy, is the mobility of scientists.

It is interesting to note that in all countries and regions of the employers see the greatest benefits from the interaction of universities and business in the development of competences of students, demanded by the labour market.

#### **4 CONCLUSIONS**

Interaction between universities and business - is not only a process of rapprochement and communication of various separate areas of activity, it is a form of coupling their interests and at the same time one of the objective tendencies inherent in the innovative development of the economy, which is considered as the peculiarities of the functioning of the economy in the spheres of science, education and industry, and other trends that are characteristic for the innovation economy. Among the results expected at the regional level by the interaction of universities and business to the fore the development of human capital and high-tech industry, stimulating the development of new forms of entrepreneurship, increasing the degree of commercialization in the field of research and development, an increase in tax revenues to the regional budget.

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