

ONLINE PLATFORMS FOR COOPERATION BETWEEN SCIENCE AND BUSINESS SPHERES

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Abstract:

The article is devoted to the analysis of Online platforms for cooperation between science and business. The authors emphasize the high rank of the cooperation of these two communities. This cooperation is one of the key factors in increasing the competitiveness of national economies. Furthermore, the article includes the presentation of the most important barriers to the cooperation. Also, the article contains characterization of two representative online platforms which foster cooperation between the Science and in Business - Virtual Cooperation Platform UMCS Faculty of Economics and Platform INNO-BROKER.

Keywords: collaboration, cooperation, science, business, online platforms, competitiveness, innovation

1. INTRODUCTION

Science and Business are the foundations of sustainable development. Their symbiotic interaction determines the progress of civilization and improvement in the quality of life of the society. Cooperation between the science and business spheres in Poland is unfortunately not sufficiently intensive and effective. This is partly because in the Polish reality there have not yet been developed effective mechanisms that would correlate goals of the two environments, and later implement them in a mutual, coordinated way. However, more and more attempts are made to change the current state. It's reflected, for example, in the projects carried out by universities and business environment units, who invite the entrepreneurs to cooperate. It is expected that the interaction patterns developed during the implementation of such projects will be maintained and may be used and developed also after their completion. Initiatives with great potential, created within these projects, tend to be online platforms for cooperation between researchers, students, entrepreneurs, business environment units and public administration bodies.

This article introduces the analysis of two tools of this type - Virtual Cooperation Platform of UMCS Faculty of Economics and INNO-BROKER Online Platform.

2. BARRIERS TO COOPERATION BETWEEN SCIENCE AND BUSINESS

The main condition for the competitiveness of national economies is their innovativeness. Its level depends on the quality of relation between the three elements-actors: business, science and government (Jasiński 2006). Business sphere reports a demand for new scientific and technical solutions in order to offer innovative products or services to the market. The task of the science environment is to satisfy the business demands for new scientific and technical solutions, resulting from the research and development works, whether commissioned or undertaken on its own. The government, in turn, serves through its policy as an animator and controller of the interaction between science and business spheres.

According to the *the Innovation Union Scoreboard 2014* report, the European countries with the highest level of innovation are Sweden, Denmark and Germany. The lowest position in the ranking occupy: Romania, Latvia and Bulgaria (Hollanders and Es-Sadki 2014). Taking into account the innovation index values, which became the basis for the ranking, it should be noted that the last place occupier, Bulgaria (0.188), is a country almost four times less innovative than leading in the first place Sweden (0,750) (Hollanders and Es-Sadki 2014). One reason for these disparities is the intensity and quality of cooperation between universities and enterprises, varying in different countries of the European Union.

Colleges and universities should provide knowledge through the education processes with a high level of quality and thus fulfil the companies' expectations of their future employees' competences. The potential of universities is huge. They may indeed represent a specific stimulator of economic development, but only if there will be developed coherent and bringing bilateral benefits rules of cooperation between business and science environments (Szwed 2015). For businesses, however, universities do not represent an easy business partner, whose priority is education and scientific activities. Most of them are not the market participants, and therefore effects of cooperating with them are largely unpredictable. However, it is universities, who have access to the latest knowledge and technology and have extensive research facilities, so it would be a huge mistake by businesses' managers to ignore them while creating a network of business partners.

The main barriers to cooperation between science and business environments are discrepancies in their objectives, their perception of the surrounding reality as well as their organization and management methods. Scientists attach much less importance to the value of time than the entrepreneurs do. They tend to generate excessive costs of various activities rather than optimizing them. They are oriented to the creating the "products" of scientific value what often results in a reduction of their utilitarian value. Scientific organizations usually have a highly centralized and formalized organizational structure, in which decision-making processes are long-lasting, weakening system flexibility and adaptability. A major drawback of the universities is often insufficient willingness to cooperate with the business environment, as reflected in the lack of service offerings targeted to external entities and not taking action aimed at identifying their needs (Bromski 2013).

On the other side, among business environment there dominates a well-known belief that "time is money". Effective use of time very often determines the company's competitive advantage and affects the amount of the costs generated by them. A key factor for success in business is to develop a product with an added value appreciated by customers. An obstacle to cooperation is also the fact that entrepreneurs often do not have knowledge of current scientific research capabilities of universities. There is still lack of positive examples of cooperation between science and business spheres, crowned with spectacular successes. This results in businesses discarding scientific research centres as potential partners in the implementation of development projects. A serious barrier to the cooperation of science and business environments is the shortage of resources necessary to fund the implementation of development initiatives by the businesses entities. It should be emphasized that the problem does not only preclude establishing of potential cooperation between partners from both communities, but it also reduces the innovation activities of business entities (Bromski 2013).

Difficulties in initiating and continuing cooperation by entities belonging to the science and business spheres have largely cultural and mental background. Decision-makers responsible for the creation of cooperation networks, both from the Science and Business spheres, are often characterized by their stereotypical perceptions of potential partners. They are distrustful towards each other. They lack a firm belief that this cooperation would bring measurable benefits. This happens partly due to the fact, that both parties have not yet undertaken such a cooperation and they have no experience in terms of its implementation. They express concerns about the final result of cooperation. It should be noted however that such attitudes are met much more amongst entrepreneurs than science representatives. 20% of entrepreneurs in Poland do not know about the possibilities of cooperation with the scientific community, whereas 40% of them have never tried to benefit from the support of research centres. Managers of around 40% businesses do not know how they can make contact with the centres interested in commercializing the results of their research. At the same time it is worth noting that 90% of entrepreneurs, who have collaborated with universities, declare their willingness to carry on with it (Bariery... 2006).

An insufficient scale and intensity of cooperation on the Science-Business line is also caused by the limited openness of scientists for such cooperation as well as their limited activity in searching for business partners, with the intention of further cooperation.

In this context it is necessary that government undertakes coherent systems activities, aimed at (Bariery... 2006):

- increasing entrepreneurs' awareness of the possibilities of cooperation with research centres,
- entrepreneurs' education in the field of benefits resulting from cooperation with these centres,
- mobilisation of researchers, focused on initiating and continuing cooperation with businesses,
- creating online platforms for cooperation between science and business environments.

3. ONLINE PLATFORMS AS THE TOOLS TO STIMULATE COOPERATION BETWEEN SCIENCE AND BUSINESS

The need to initiate and continue collaboration between science and business environments urged the creation of online platforms. The platforms function as „contact boxes" between those offering and those seeking competences or a specific type of service. In order to illustrate the functioning of such platforms there will be introduced two representative platforms: Virtual Cooperation Platform of the UMCS Faculty of Economics and INNO-BROKER platform.

The first one allows you to adjust competence profile of a graduate of the UMCS Faculty of Economics to meet the market needs. Between 2009 and 2014 it served as a tool to support the implementation of the „SYNERGY project - shaping the competences of the UMCS Faculty of Economics students by acquiring practical knowledge", which was co-financed by the European Union under the European Social Fund.

This project was aimed at (Twarowski 2014):

- strengthening the practical elements of education, through the adoption and continuation of the UMCS Faculty of Economics cooperation with companies and institutions,
- implementation of practical projects by students in companies and institutions under the patronage of academics,
- organizing internships and work trainings for students,

- conducting classes selected by practitioners,
- better preparing graduates for entering the labour market through specialized training,
- facilitating the students of the Faculty of Economics UMCS contact with potential employers through organizing panel meetings with representatives of companies and institutions, as well as organizing workshops,
- establishment of the Entrepreneurs Council as a consultative body of the Programme Board of the UMCS Faculty of Economics,
- implementation of a system for systematic collecting of information about the level of meeting the needs of employers by the graduate competences.

Thanks to the online platforms, participants in the project were able to:

- notify an intention to participate in the project and in the events organized within the project (conferences, competitions, trainings, workshops, etc.);
- access the database with internships, work trainings and jobs offers;
- contact with potential employers;
- verify their knowledge and skills through interactive competence tests.

Now, after the project completion, the platform functions as a link between potential employers and students or graduates. It does not only enable students or graduates to acquire and improve competencies desired in the labour market, but it also enables employers to find candidates who meet the requirements for future employees. Thanks to that, the platform contributes to the efficient allocation of human resources in a competitive and highly dynamic labour market.

The second of the aforementioned, INNO-BROKER platform, contains a database of universities, individual researchers and independent experts offering possible research and advisory services. Also, the entrepreneurs themselves have the opportunity to submit their demand for a competence or service. This platform was created as part of the project named „*New model of comprehensive meeting the needs of innovative companies - INNO-BROKER*“, which, similarly like the SYNERGY Project, is co-financed by the European Union under the European Social Fund. The aim of the project is to develop strategy and training model for inno-brokers, who will eventually operate in the Lublin macro-region. The main task of inno-brokers is the acquisition of innovative technologies and solutions developed at universities in the region and making them available to entrepreneurs (Inno-broker 2015). The work of inno-brokers is not based on a mere intermediary activity but it also involves an efficient organization of orderly transferring the knowledge to the economy.

INNO-BROKER platform is used to, but not limited to, present the results of the inno-brokers work, i.e. to display the research services offered by both institutions, and the individual researchers. It also comprises a list of current research infrastructure of universities and research institutions, including the characteristics of its usefulness and usability.

The platform can be particularly useful for entrepreneurs who (Inno-broker 2015):

- want to conduct an innovation audit of their businesses in order to implement innovation in the production, process and marketing areas,
- look for new technologies to increase their competitiveness,
- look for foreign partners or buyers for its innovative products,
- intend to implement development projects,
- seek a necessary capital for business development,
- seek patent protection and want to protect their intellectual property,
- look for candidates with a defined competence profile.

4. CONCLUSIONS

Both described online platforms are the tools created to connect Science and Business as well as to stimulate cooperation of those spheres. Despite the common purpose of their existence, the tools are differently specialized. Virtual Cooperation Platform of the UMCS Faculty of Economics is dedicated mainly to students and graduates. It allows adjusting their competence to meet the needs of employers. This is possible thanks to the involvement of local entrepreneurs, who, by sharing their experiences with the platform users, participate in the development of their competency profiles, so they can as much as possible meet the current needs of the labour market. The platform also allows finding jobs, internships or work training places as far as possible adapted to the potential and

expectations of individual users. On the other hand, the platform provides an opportunity for employers to acquire human resources with skills and potential best tailored to their needs. Through the Virtual Cooperation Platform of the UMCS Faculty of Economics is thus achieved one of the goals of cooperation between science and business environments, which is to educate professionals to meet the high demands of the knowledge based economy as well as to find for them an optimal allocation on the labour market.

INNO-BROKER platform associates Science and Business in another aspect. It does stimulate cooperation in implementation of research and development projects as well as creating and implementing innovations in business. As a result, it contributes to the competitiveness growth of individual companies as well as the regional and national economy. It also makes the scientific research utilitarian, since oriented to satisfy the real needs of enterprises.

Presented examples of online networking platforms show that Science and Business can effectively cooperate with each other, overcoming the existing barriers. The positive experiences from such cooperation are an inspiration for other entities and become so-called „good practices". In this case, we can talk about the „snowball" effect, which manifests itself in the fact that one success or achievement attracts other and generates new opportunities (Pastuszak 2014).

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