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SUCCESS FACTORS OF UNIVERSITY-BUSINESS COOPERATION: CASE-STUDY OF EU EXPERIENCE

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Abstract

At the level of the European Union, the driving forces for the development of cooperation between higher school and business are creation of a consortia of companies, higher education institutions, research centers and educational institutions within the framework of the economic development strategy “Europe 2020”; creation of a European platform for dialogue between higher education institutions and business – the University-Business Forum – which contributes to development of local and regional interaction mechanisms; financing of projects aimed at the development of students' competencies demanded by the labor market; priority financing of cooperative scientific research projects. In the presented research paper, the authors turned to studying the experience of organizing the process of cooperation between higher school and business in countries of the EU at the local level. A case-study study of successful projects of cooperation between higher school and business in Germany and Austria was carried out using three methods (semi-structured interviews, observation and analysis of documents), which ensured the validity of the results obtained. The study revealed the success factors for implementation of cooperation projects, which include: involvement of business associations in creation of institutions of cooperation of higher school and business; formation of a single proposal in the field of interdisciplinary research; ensuring the solution of interdisciplinary scientific research and educational tasks of higher school in cooperation with business. Based on this, it was concluded that development of a model of cooperation based on the principles of client focus and long-term relationships is necessary.

Keywords: Case study, higher school, university-business cooperation, UBC.

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1. Introduction

The development of innovative economy is facilitated by strategic links between representatives of higher education and business, which are formed in the process of their interaction. The growing interest in cooperation between higher school and business is due to the economy being in need of highly qualified personnel and applied research. The business community is in need of graduates of higher school who possess relevant knowledge and work experience, of additional education programs for their employees, they also need to solve the interdisciplinary research problems. This aims higher school at building close relationships with business in the spheres of development of training and retraining programs for specialists and transfer of knowledge and technology.

2. Problem Statement

Interaction of higher school and society, which is represented by various organizations interested in transfer of university knowledge and technology, is commonly referred to in the world science and practice as the "third mission" of universities (Görason, Maharajh, & Schmoch, 2009). The accomplishment of the "third mission", namely the formation of the ability of higher school to generate and use knowledge outside of the academic environment (Howard & Sharma, 2006) has been realized almost since the appearance of such a social phenomenon as higher school. New is the way in which the interaction of higher school with the outside world is organized.

The interaction of universities with the external environment receives a lot of attention in the countries of the European Union. Thus, the "Europe 2020" European growth strategy is aimed at improving the competitive ability of the EU economy and provides for increased investment in education, contributes to improving higher school's interrelations with the labor market, improving the quality of education, developing students 'skills necessary for their professional development, adapting graduates to their first the workplace (Ptak, 2014). In the framework of one of strategies initiatives – "Innovation Union" – the development of cooperation between higher school and business is supported through creation of "Knowledge Alliances". These alliances are consortiums of companies, higher school units, research centers and educational institutions that are united to create interdisciplinary educational programs, taking into account the requirements of employers and innovative systems, as well as new educational approaches. Also, the European Commission initiated the creation of the University and Business Forum (University-Business Forum) – a European platform designed for dialogue between representatives of higher school and business community. In the EU, priority funding is provided for cooperative research projects, as well as funding within the framework of the Erasmus+ program for projects aimed at developing those competencies of students, which are in demand in the labor market.

3. Research Questions

The reasons listed above have led to accumulation of significant positive experience in the EU in the field of cooperation between higher school and business. In this regard, the following research question was raised: what are the success factors for the development of cooperation between higher school and business in the EU?

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4. Purpose of the Study

The purpose of the study is to analyze successful examples of interaction of higher school and business in the EU countries, and also to highlight the key factors contributing to the successful formation and development of cooperation between universities and enterprises.

5. Research Methods

The study is based on the case-study method of successful examples of cooperation between higher school and business in the EU. The study was conducted on the base of the Hochschule Mittweida (Germany) and the Vienna University of Economics and Business (Austria).

The study included the following approaches:

- semi-structured interviews with representatives of higher school, business entities, organizations that provide cooperation between higher education institutions and businesses (a total of 15 respondents participated in the interview);
- observation of subjects of cooperation activity during the events aimed at solving common problems (in total 3 observation subjects were examined);
- analysis of the documentation of subjects of cooperation.

Methodological triangulation provided by the study allowed to increase validity of the results obtained.

To form a sample of the objects for study, a theoretical sampling strategy was used. The samples for interviews and observations were collected by snowball principle. Because of the limited length of the article only separate cases are described here.

After the field studies, a transcript of the interviews and observation protocols was made.

6. Findings

The study made it possible to identify factors contributing to the increase in the efficiency and effectiveness of cooperation between higher school and business in the EU.

Development of independent institutions engaged in information and communication support for cooperation between the education services market and the labor market.

As an example of such an institution, an Austrian consulting company called “3s” can be cited. 3s creates innovative products and services that can link the educational and research activities of higher school with the demands of the labor market. The competencies of 3s are:

- advising enterprises, organizations, educational institutions, government bodies, local government bodies on education and employment issues;
- development and management of information resources aimed at popularizing relevant information on the labor market and the education market;

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- development of communication channels and interaction of subjects of the education market and the labor market;
- conducting studies in the field of competence, educational programs, labor relations.

3s develops the following areas of activity aimed at the cooperation between educational institutions and employers:

- forecasting development of the labor market and the competencies demanded by it, the structure of employment and unemployment based on the data from online and offline surveys of employers (examples: a study of career and educational strategies of graduates of pedagogical education institutions, development of educational programs for the needs of the Ministry of Internal Affairs);
- analysis of demand for educational programs on the basis of an independent study of satisfaction of graduates and employers; a study of demand for educational programs among applicants; studies of the framework conditions necessary for successful introduction of new educational programs (examples: a study of a graduate's personal recall of the learning process and connection with practice, an expert comparison of an educational program graduate's chances on the labor market versus those of graduates of a similar program);
- development of recommendations for harmonization of national and European education systems based on the results of international comparisons; development of an in-country and international network of partners in education and employment (examples: conducting international surveys of enterprises on additional education of employees, research on the development of European strategies, framework conditions and concepts of vocational education, studying the impact of continuing education strategies on the higher education system);
- promoting harmonization of educational programs and professional competencies (examples: development of a system of information about professions, development of a European vocabulary of knowledge and competencies);
- development of approaches to formalization of knowledge obtained in the course of non-formal and informal education (examples: structuring the experience of validation of competencies gained in the course of working abroad, compiling a database of validation tools, testing validation methods);
- analysis of the demand for professions and counseling in the field of competence (examples: landscape research of all levels of education in the field of nanotechnology, formation of an education strategy for a region);
- ensuring and developing the quality of education (examples: collecting quality assurance tools in the field of vocational education).

Participation of associations of organizations in creation of institutions of interaction between labor market and education market.

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For example, in Austria, there is the Institute of Research and Development of Vocational and Technical Education, which was created by the Austrian Federal Economic Chamber and the Federation of Austrian Industry. In the process of its research work the Institute has an opportunity to communicate with representatives of business community and industry (members of these organizations). Due to the direct connection with the real sector, it accumulates labor market data on the market demand for certain competencies, on the application of labor market regulation policy, and on the state of the labor market.

The key areas of the Institute's work are:

- development of vocational guidance online platform "Computer of informing about professions", which offers a mechanism for the selection of a suitable profession, consisting of 8 steps. Tools developed especially for self-analysis, self-organization, goal setting, as well as useful advice pools at each stage of career guidance allows one to have an easier path from self-determination to the realization of one's professional ideas. The platform provides information on about 1400 professions: the profession description (in video format too), fields of work, means of labor, work environment, functional responsibilities, supposed employers;
- development of the online platform "Qualification Barometer AMS", which provides objective information about qualifications which are popular on the labor market, about trends on regional and national labor markets. The results of the analysis are the tables in the context of professions and qualifications in each of the studied professional areas.

The tables contain the following information:

- the number of vacancies in the last 2 years, based on data from print media and data from the Austrian Labor Market Service (AMS);
- a forecast of the number of people employed by a profession for a four-year period (growth, possible growth, the lack of changes, possible recession, recession);
- the proportion of people employed in a particular profession in a certain professional field (high, medium, low);
- a four-year forecast of demand for professional and general competencies relevant to this professional field (growth, possible growth, no changes, possible recession, recession);
- demand for competencies on the labor market;
- promotion of professions on the national labor market, which includes support of education for the youth, assistance in choosing a profession, assistance in training, preparing documents, preparing for exams, developing educational models, advocating for professions.

Ensuring that there is a continuous open dialogue between higher school and business.

For example, the university initiative uniMind (University meets Industry), created at the main University of Vienna (Austria), is a platform for mutually beneficial transfer of knowledge: from the university environment to "practice" (enterprises, organizations, governments, etc.) new ideas that can give fuel to both business development and personal development are being transferred; from "practice"

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to the university environment – practical tasks, the solution of which will raise students' awareness of the realities of their future profession, as well as contribute to the development of practice-oriented research activities.

The concept of uniMind is based on a four-level model, where a university acts as a link between various dimensions of social and economic life: a person (at the personal level), society (at the social level), enterprises (at the organizational level), economy (at the macroeconomic level). In its activities, uniMind chose conducting workshops (training events involving the transfer of knowledge to participants by drawing them into practical group work) as a tool for connecting the university with 4 levels of social and economic life. These workshops are a platform for their participants to state questions important for them and for them to connect with each other and look for answers to these questions together. The target groups of these events are experts from the practical field (managers and employees of organizations and enterprises who, in the first place, have no academic education), scientists, graduate students, senior students. An important factor for development of this initiative is the establishment and development of personal contacts. It is in the course of personal conversations (quality interviews) with representatives of enterprises that uniMind receives information about market demands, about the competencies of enterprises' employees that need to be developed. The uniMind project has taken important steps to bring universities and enterprises closer together. Thus, in the Austrian academic environment, many scientists share an opinion that business is too far from science to contribute anything to its development. On the other hand, many entrepreneurs consider scientific ideas to be too far from the practice. The uniMind initiative helped to both sides the benefits of teamwork, and also allowed for business and academic communities to start speaking the same language, create close contacts between participants of workshops and to develop interdisciplinary studies.

Creation of specialized departments of higher school responsible for interaction with business.

Thus, MIKOMI is the institute that is responsible for cooperation of the University of Mittweida with small and medium enterprises. The Institute is engaged in the presentation of higher school, which, in turn, has enough competences in areas of knowledge that are interesting to enterprises, has research potential, and has relevant curricula. Before Institute was created, the situation was such that different faculties and departments worked independently with one or the same enterprise or on the same research topic. The Institute formulates a unified solution for the market that is capable of combining the numerous competencies of higher school. Working together with the Institute's partners (chambers, unions and enterprises, as well as with institutions of additional education and counseling) helps to identify current problems of the region. MIKOMI's proposals are aimed at solving practical problems.

The Institute's proposals include the following blocks of events:

1) Events. This direction is being developed in order to identify trends and tendencies in the economy of the region. Such events include dialogues with enterprises that give them an impulse for further cooperation. This block also includes industrial workshops, during which practitioners and scientists from specific fields of knowledge can exchange their opinions, as well as identify problem areas.

2) Modular educational programs. This block includes retraining and advanced training courses both for top management (seminars with issuance of certificates) and for staff without an academic

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education. Separate training courses can be combined into a single program, sufficient for issuing a certificate, which are subsequently counted in the form of credits (credit units) during the undergraduate or master's degree programs. The use of professional experience by students helps to build a "work-based learning" system.

3) Service. The Institute has developed a list of services designed to optimize the daily activities of companies: MIKOMI assists in applying for third-party funds to finance scientific research, develops a technical and economic grounding of projects, conducts market analysis and accompanies projects.

Expansion of the functions of existing divisions of higher school in the field of interaction with business.

The Career Center ZBP (hereinafter – the Center) of the Vienna University of Economics and Business has been the leading career center of Austria for 30 years. The development of the Center's Charter, which defines strategic goals of the ZBP, was attended to by the Rectorate, scientists and employers, which helped to balance the interests of various parties. Thus, the annual ZBP plans are consistent with plans of the university as a whole. The research interests of professors are respected when analyzing the compliance of graduates' competences with the demands of the labor market.

For employers the Center offers the following services:

- informing about the university and its students, about the existing educational programs, their content and directions of change;
- promotion of enterprise vacancies on a specialized online platform, which sends offers of companies' places for practice/work and information about various events arranges in cooperation with companies out to students and graduates. An employer can use the search tools to find candidates according to specified criteria. On the site, as well as in the JobNews magazine published by the Center, about 1600 vacancies are posted annually (traffic on the site is 270,000 people per year);
- establishing direct contact with students and graduates as future job seekers through events like breakfasts with employers, fireplace talks with heads of enterprises, etc;
- formation of positive image of the employer among students and graduates;
- participation in large-scale events of the Center: the Career Calling annual job fair, Meet your job recruiting event (graduates communicate directly with employers, interviews, the Center tracking the candidature process), practice day (spreading contacts of employers offering places for practice);
- work on the practical tasks of the enterprise using forces of university students.

The Center also helps students improve their competitiveness on the labor market by offering:

- free counseling: processing of resumes, development of the trajectory of the university curriculum based on the preferences, goals and abilities of the student;

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- paid consulting: processing of resumes and accompanying documents for a specific employer, a competent description of student's own competencies, building a career plan and a job search strategy;
- coaching: support in career development, search for individual approaches to solving problems related to career building, search for alternatives;
- analysis of potential: conducting tests to identify the strengths and weaknesses of the individual, as well to discover talents;
- training: a study of students' and graduates' preferences regarding their future job functions, preparation of documents for an interview, providing information about the rules of behavior at an interview, about using social networks for job search, preparing for an interview and first meeting with an employer, preparing for the process of selecting candidates (long-term testing of candidates by observation, distribution of individual and group tasks, creating artificially stressful situations).

The analyzed cases allow us to say that the most promising model of interaction between higher school and business is systemic, long-term cooperation based on studying each other's needs. Currently there are two main models of organization of cooperation between higher school and business – linear and interactive – both of which do not fully meet the identified success factors. Thus, linear interaction (Betz, Blackman, Seagal) provides for consideration of enterprises as higher school clients (Mora-Valentín & Ortiz-de-Urbina-Criado, 2009). The emphasis is on supporting visible results of interaction, expressed in the form of patent applications, innovation enterprises organized in cooperation, in the prejudice of obtaining less obvious results of interaction, such as the development of human and social capital. The interactive model presumes networking interaction of representatives of three spheres: government, education and business, which, depending on the goals of cooperation, can create various structures that lead to co-evolution (Etzkowitz & Leydesdorff, 2000). Relations between higher school and business, therefore, contribute to the development of economy and society at the national, regional and local levels, solve socially significant problems (Study on University-Business Cooperation in the US, n.d.; Pavlin, 2016). To provide the economy with high-tech developments, the impulse for interaction comes from government agencies and higher school, followed by transfer of technology to the business environment. The main flaw of the interactive model in comparison to linear one is the loss of interconnection between higher school and business as a manufacturer and customer, which affects the reduction of the market orientation of the cooperation. The combination of the advantages of linear and interactive models will help to find balance between customer focus and mutually beneficial cooperation of the interested parties.

7. Conclusion

Analysis of the EU best practices of organization of cooperation between higher school and business showed that the key factor for success is to ensure the constant open dialogue between the subjects of interaction by creating specialized departments of interaction with businesses in universities or expanding functions of already existing departments, as well as through development of institutions

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engaged in informational and communicational support of cooperation between education services market and the labor market. This is confirmed by other studies too. Thus, according to the European University-Business Cooperation Country Reports, one of the main driving forces for the development of cooperation in the EU is building of trusting relationships and ensuring that common goals are achieved within the framework of cooperation, which will allow to overcome the existing obstacles: insufficient funding, low level of subjects' awareness of each other's capabilities, limited opportunities for small and medium enterprises to take part in cooperation.

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