



**Interaction between
universities and business
community as a factor
of socio-economic
development of the region**

INTERACTION BETWEEN UNIVERSITIES AND BUSINESS COMMUNITY AS A FACTOR OF SOCIO-ECONOMIC DEVELOPMENT OF THE REGION

INTERACCIÓN ENTRE UNIVERSIDADES Y COMUNIDAD EMPRESARIAL COMO FACTOR DE DESARROLLO SOCIOECONÓMICO DE LA REGIÓN.

ABSTRACT

In recent years, the system of higher education in Russia is in a state of dynamic, and not always consistent, transformations. The business sector is faced with the problem of inadequate preparedness level of university graduates, in connection with which employers have to invest additional funds in the professional growth of future employees. Thus, frequent changes in demand in the labor market require universities to organize activities for interacting with the business environment. This paper examines the main problems on the partnership between universities and business community, and also develops a model of effective interaction between higher education institutions and the business sector. The implementation of this model will allow not only to achieve individual results of the activities by the participants of the partnership, but also helps to ensure a synergistic effect that has a positive impact on the development of territories.

KEYWORDS: higher education, strategic partnership, education and business cooperation, regional development, partnership model, university.

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RESUMEN

En los últimos años, el sistema de educación superior en Rusia se encuentra en un estado de transformaciones dinámicas, y no siempre consistentes. El sector empresarial se enfrenta al problema del nivel inadecuado de preparación de los graduados universitarios, en relación con el cual los empleadores tienen que invertir fondos adicionales en el crecimiento profesional de los futuros empleados. Por lo tanto, los cambios frecuentes en la demanda en el mercado laboral requieren que las universidades organicen actividades para interactuar con el entorno empresarial. Este documento examina los principales problemas de la asociación entre las universidades y la comunidad empresarial, y también desarrolla un modelo de interacción efectiva entre las instituciones de educación superior y el sector empresarial. La implementación de este modelo permitirá no solo lograr resultados individuales de las actividades por parte de los participantes de la asociación, sino que también ayudará a garantizar un efecto sinérgico que tenga un impacto positivo en el desarrollo de los territorios.

PALABRAS CLAVE: educación superior, asociación estratégica, educación y cooperación empresarial, desarrollo regional, modelo de asociación, universidad.

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PROBLEM STATEMENT

During the last decade there was a gradual change in the conditions of functioning of higher educational institutions in the country's economy. Introduction of innovations in production and, as a result, frequent changes in the demand for personnel in the structure and terms of training require the universities to form strong bilateral ties with the business environment, since educational institutions themselves are not fully able to quickly adapt to changing market signals. Lack of such connections attracts not only the problems concerning the formation of the competencies of graduates, but also the problem of employment in the Far Eastern region of Russia. Entrepreneurial business sector has to develop its own programs for young professionals to adapt to their own needs, which requires additional resources and time. Therefore, today, the issue of formation of the partnership mechanism between the system of higher educational institutions and business structures, which will provide the conditions necessary for a university to respond to market demands in order to promote the innovative development of the region, is relevant.

The main goal of this work is to develop a partnership model for institutions of higher professional education and business structures as a factor in the socio-economic development of the region. To achieve the goal, the methods of logical-structural analysis, synthesis, systematization and stratification were used.

MATERIALS AND METHODS

Forms of development of partnerships between universities and business community structures, their prospects and problems are revealed in the results of scientific research by Baturina O.A., Bushueva M.A., Gresko A.A., Karpukhina E.A., Kelchevskaya N.R., Masyuk N.N., Smirnova A.Yu. Solodukhina K.S., Shevchuk E.V., etc. To implement the study, the

following methods were used: abstract-logical, monographic, graphic, methods of analysis and synthesis, deduction and induction. This made it possible to obtain scientifically based and reliable results and on the basis of them to formulate conclusions and concrete proposals.

RESEARCH RESULTS

Under the conditions of high rates of progress in technology and science, an integral part of the regional economy is the development of its innovative potential in accordance with modern global challenges, which will ensure a significant improvement in the standard of living of the population in the region and growth in market position.

In recent years in the Russian Federation, preconditions have also been made for the transition to innovative entrepreneurship contributing to further economic growth and development. The formation of information activity and the global informatization of the economy have significantly influenced the principles of organizing the activities of companies. This creates the need to establish a close cooperation between the academician and university sector and industrial production in order to create high-tech and knowledge-intensive industries through the introduction of technological, and also scientific and technical developments [1, V.9, p.31].

In modern economic conditions, universities not only play the role of a supplier of qualified personnel and a distributor of knowledge, but are also an integral part responsible for the development of new technologies, materials and products necessary for business sector in the region. The partnership between universities and the business sector of the economy stimulates the transformation of knowledge and innovation into the real economy.

According to official statistics of the Primorsky Territory, for the period from 2010 to 2016 the number of organizations performing research and development in the region varies from 47 in 2010 and 2012 to 52 in 2011, while there are significant changes in the structure of these organizations by sectors of activity [2]. During the study period, entrepreneurial organizations performing research and development completely disappeared in the region, while in 2010 they accounted for a quar-

ter of all organizations engaged in research and development activities, which is clearly shown in Figure 1. In addition, there are positive trends in the structure of organizations towards higher professional education institutions [3].

Figure 1 (See Annexes)- The structure of organizations of Primorsky Territory that carried out research and development, by sectors of activity for the period of 2010-2016 [3].

In addition to the problem of the low level of research and development implementation in the business sector, there is still an acute problem of the inability of universities to prepare practice-oriented personnel. Helping to improve the image of both sides, to increase their investment appeal, and also competitiveness in the market environment, respectively, it is a partnership between universities and the business sector that is able to solve this problem, because the state authorities cut off from participation in the needs of the market research, cannot accurately formulate the training requirements for higher education institutions. Therefore, it is more efficient to provide the right to participate in the issue on what specialties the students should be prepared, to companies and organizations as the consumers of human resources [4].

Despite the obvious need for mutual cooperation between the system of higher education and the business community, there are a number of problems that hinder the fruitful functioning of the partnership, which are presented in Figure 2.

Figure 2 (See Annexes)- The main problems of partnership of the system of higher education and the business community

First of all, this is a human factor which implies the "backwardness" of representatives of higher professional education institutions from economic changes, when the teaching staff does not want to meet the requirements of the business sector, assuming that the main function of a university is exclusively to conduct research. This view can be explained by the habit of financing activities only at the expense of the state and the unwillingness to independently search for the possibility of earning money [4].

In addition, universities that are ready to cooperate with the business community are often characterized by an insufficient speed of making management decisions, what, in addition to bureaucratization, is affected by the resistance of the planning and financial and accounting departments of universities that are not interested in the final result.

It is obvious that the main role in the development of the interaction system between higher education and business sectors is assigned to the university management which should ensure the organization of clear and systematic activities in making management decisions that are necessary for entering into contracts with companies.

The next problem facing the entrepreneurial sector is the discrepancy between the period of training of specialists, which takes 4-6 years, with the actual need for the participation of specialists of a particular discipline in a company. But this problem is solved by early employment of students in the last years of study, while ensured with flexible working hours by an employer.

Also, universities do not always fully use marketing and advertising technologies to announce their capabilities in the market for services and research and development, which forces entrepreneurs to contact other commercial organizations in order to obtain advice or expertise necessary to conduct effective business.

The system of higher vocational education still provides mainly academic, rather than applied education, which is a serious obstacle for the employment of graduates in large companies that require a high level of professionalism from their staff. But even with a desire to provide applied education, not all universities have the opportunity to acquire new equipment that is necessary for teaching new technologies. The modern technical base of higher education does not always correspond to the one with which industrial enterprises and businesses are equipped.

Universities that do not have sufficient material base, have the risk of facing the problem of the mismatch between their opportunities and the necessary ones for fulfillment of orders from the business structures at a high level.

Another problem may be a discrepancy between the goals and missions of universities and business community, when the desire or need to publish the results of research conducted on the basis of an enterprise may contradict the company's internal policy or to some extent threaten the reputation of the enterprise.

In modern economic conditions, the goal of the activity of a higher education system still remains more social than economic. To change the orientation of the functioning of universities, it is necessary to change the management paradigm to one that is based on the priority of economic development that entails social. The formation of a balanced labor market achieved by harmonizing the interests and needs of business structures and universities, promoting research results and introducing new innovative technologies, will lead to the economic development of territories, growth of the region's competitiveness, and, as a result, to the realization of socially significant goals of educational activities.

Currently, there are various forms of interaction between regional universities and enterprises [5], which influence two main areas of regional development: research activities and human resources in the region.

Figure 3 shows the model of interaction between the business sector of the economy and institutions of higher professional education, which is systematized according to the main directions of regional development in the context of two main possible forms of partnership: "Supplier - Consumer" and "Mutually beneficial cooperation".

The "Supplier-Consumer" partnership form involves the implementation of the interaction of the two elements of the model through the exchange of services or innovative products from a "supplier" solely to be funded by "a buyer". In most cases, suppliers are institutions of higher vocational education supplying the entrepreneurial sector with qualified personnel, educational services and scientific, technical and technological developments.

Figure 3 (See Annexes)- Model of partnership between universities and the business sector of the economy

But cases of reverse interaction are not excluded, when universities acting as buyers invite professional practitioners from outside to obtain the necessary information for the student community through paid courses and trainings. The main advantage of this partnership is the increase in revenues for the scarce items of financial activity of universities through the provision of services financed by business sector. The main disadvantage is the possible discrepancy between the graduates' professional competence and employers' requirements. To solve this problem, universities and entrepreneurs do not need to limit themselves to using only this partnership model.

We understand the joint activities of universities and business community structures under the form of the partnership "Mutually beneficial cooperation" within the framework of this work involving the exchange of intellectual, human and material and technical resources to achieve common goals by participants. To ensure maximum efficiency and fruitfulness of such cooperation, both stakeholders need to adapt themselves in time to the needs and features of their partners. This form of partnership is built at a high level of mutual trust and often requires business structures to actively participate in the organization of the educational process, which is expressed in the design and implementation of educational programs, as well as in attracting "practitioners" to teaching.

One of the most common ways of mutually beneficial cooperation is student practice which involves organizing a system of interaction between the university and the main practice bases, that is, companies where students are given the opportunity to perform work according to their profile. An organization that provides access for students of older years to their workplaces can evaluate the work of non-graduated yet specialists, thereby insuring themselves against risk to get a "cat in a bag", according to the results of the student's educational process. A university, in turn, fills a gap in the practice oriented education provided, and sometimes receives material returns. Many Russian universities practice the system with contracting and directing students to organizations in order to gain practical skills by them, the essence of the system is the following: an organization puts students on a payroll to practice, pays

their salaries, and deduct a small amount to the university.

On the other hand, participants should not only concentrate on the development of bilateral relations, but also intensify involvement of a larger number of parties in the interaction process, such as financial and credit organizations, government structures, various non-commercial institutions, and the media.

It is obvious that one of the most important guidelines in the activities of universities should be a focus on making business development forecasts, however, this does not find practical application in many areas of the Russian Federation, including in the Primorsky Territory. Therefore, one of the forms of interaction that could change the current situation can be holding regular joint conferences and seminars. The main purpose of such events should be to determine the prospects and main problems of the business, as well as to discuss the requirements for the system of higher education and qualification of personnel.

Another form of effective interaction between universities and business community structures can be pilot projects for the creation of business schools initiated in the western part of the Russian Federation, the implementation of which is possible only under the condition that the management of an educational institution and a business entity is really interested in long-term mutually beneficial partnership.

In addition to the above forms of interaction, it is necessary to pay due attention to the formation of endowments, the introduction of which into practice is actively discussed by the university community [6].

An endowment is understood as the transfer by a business structure of funds to a university, which in turn invests them in stocks or securities to receive annual interest that can cover part of the operating expenses of an educational institution [7].

Despite the bright prospects for creating endowments, one should not rely on the great enthusiasm of business structures and the receipt of substantial profits by universities, which are also often reluctant to allow business to intervene in the financing of univer-

sities. This form of cooperation implies the existence of joint control over the targeted expenditure of invested funds on educational and research programs.

However, the ability of a university to attract additional non-state investments through the endowment fund directly depends on the fulfillment of a number of conditions by educational institutions [8]:

Firstly, an educational organization should have substantial experience of functioning and the presence of a large number of graduates in demand in the market, including employed in the largest companies in the region.

Secondly, it is the presence of specialties of various directions corresponding to the demand and sectoral structure of the regional economy, as well as additional and innovative educational programs.

Thirdly, an educational institution should be characterized by a high level of informational openness and active interaction with private companies on various aspects of activity;

Fourth, the university should actively implement a marketing policy to promote educational services to the market in order to attract sponsors and employers.

The introduction and operation of the endowment mechanism in the region solves the tasks of long-term financing of higher professional education institutions [9].

Cooperation between higher professional education institutions with enterprises of the real sector of the economy contributes to the improvement of the process of training specialists through the joint development of educational programs, relevant requests of the employer, and also through the organization of student practices in partner companies.


In addition, one of the prospects for such a partnership is the possibility for universities to work to identify new market needs and to create flexible, innovative, short-term additional educational programs for training and retraining of employees of enterprises. Orientation of new curricula to the changing labor market will ensure that graduates' competencies will correspond to the requi-

rements of their qualifications, and the creation of coordinating councils or centers for interaction with companies at universities in organizing the training of personnel and students will solve the problems of the quality of educational services in the region.

Despite the obvious advantages of the partnership for all its participants, today there are a large number of universities that are not interested in establishing two-way communication with the business sector. The manifestation of such passivity and non-participation in interaction with business structures puts such universities in a vulnerable position. They lose additional sources of financial investments and lose their prospects for participation in international scientific and educational cooperation, but the most important negative effect is to reduce the possibility of successful employment of graduates, which leads to an outflow of potential applicants.

CONCLUSIONS

Constant development, working out and implementation of new productively working forms of cooperation between the higher professional education system and private companies allow not only to modernize the educational process, but also to ensure its compliance with the requirements of the labor market for graduates, and thereby increase the efficiency of the educational process. As the study showed, most of the existing types of partnerships between universities and the business community are a promising, and most importantly a long-term way of attracting additional non-state funding by the university.

Collaboration between business companies and universities can be a new impetus for the development of innovation and economic growth. The key to the effective partnership of the education system with the business sector of the economy is the focus of all stakeholders on the highest priority goals of cooperation. At the same time, cooperation between universities and the business sector is realized only through a long preparatory work and a detailed discussion of possible options for mutually beneficial relations by all interested parties. 

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ANNEXES

The structure of organizations that carried out research and development, by sectors of their activity

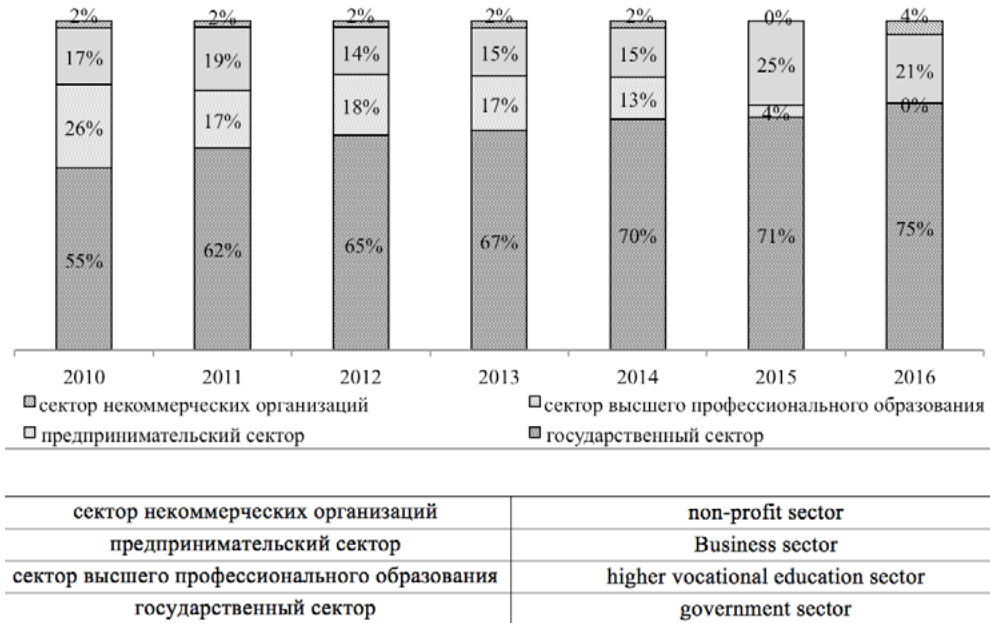


Figure 1 - The structure of organizations of Primorsky Territory that carried out research and development, by sectors of activity for the period of 2010-2016 [3].

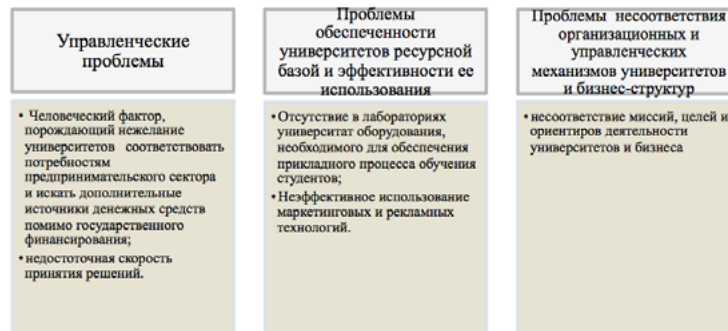


Figure 2 - The main problems of partnership of the system of higher education and the business community

<p>Управленческие проблемы</p> <ul style="list-style-type: none"> Человеческий фактор, порождающий нежелание университетов соответствовать потребностям предпринимательского сектора и искать дополнительные источники денежных средств помимо государственного финансирования; недостаточная скорость принятия решений 	<p>Managerial issues</p> <ul style="list-style-type: none"> The human factor that generates the reluctance of universities to meet the needs of the business sector and to look for additional sources of funds in addition to government funding; insufficient decision making speed
<p>Проблемы обеспеченности университетов ресурсной базой и эффективности ее использования</p> <ul style="list-style-type: none"> Отсутствие в лабораториях университета оборудования, необходимого для обеспечения прикладного процесса обучения студентов; Неэффективное использование маркетинговых и рекламных технологий 	<p>Problems of providing universities with a resource base and the effectiveness of its use</p> <ul style="list-style-type: none"> The absence in the laboratories of the university of equipment necessary to ensure the applied process of teaching students; Inefficient use of marketing and advertising technologies
<p>Проблемы несоответствия организационных и управленческих механизмов университетов и бизнес-структур</p> <ul style="list-style-type: none"> несоответствие миссий, целей и ориентиров деятельности университетов и бизнеса 	<p>Problems of inconsistency of organizational and management mechanisms of universities and business community structures</p> <ul style="list-style-type: none"> mismatch of missions, goals and objectives of universities and business community

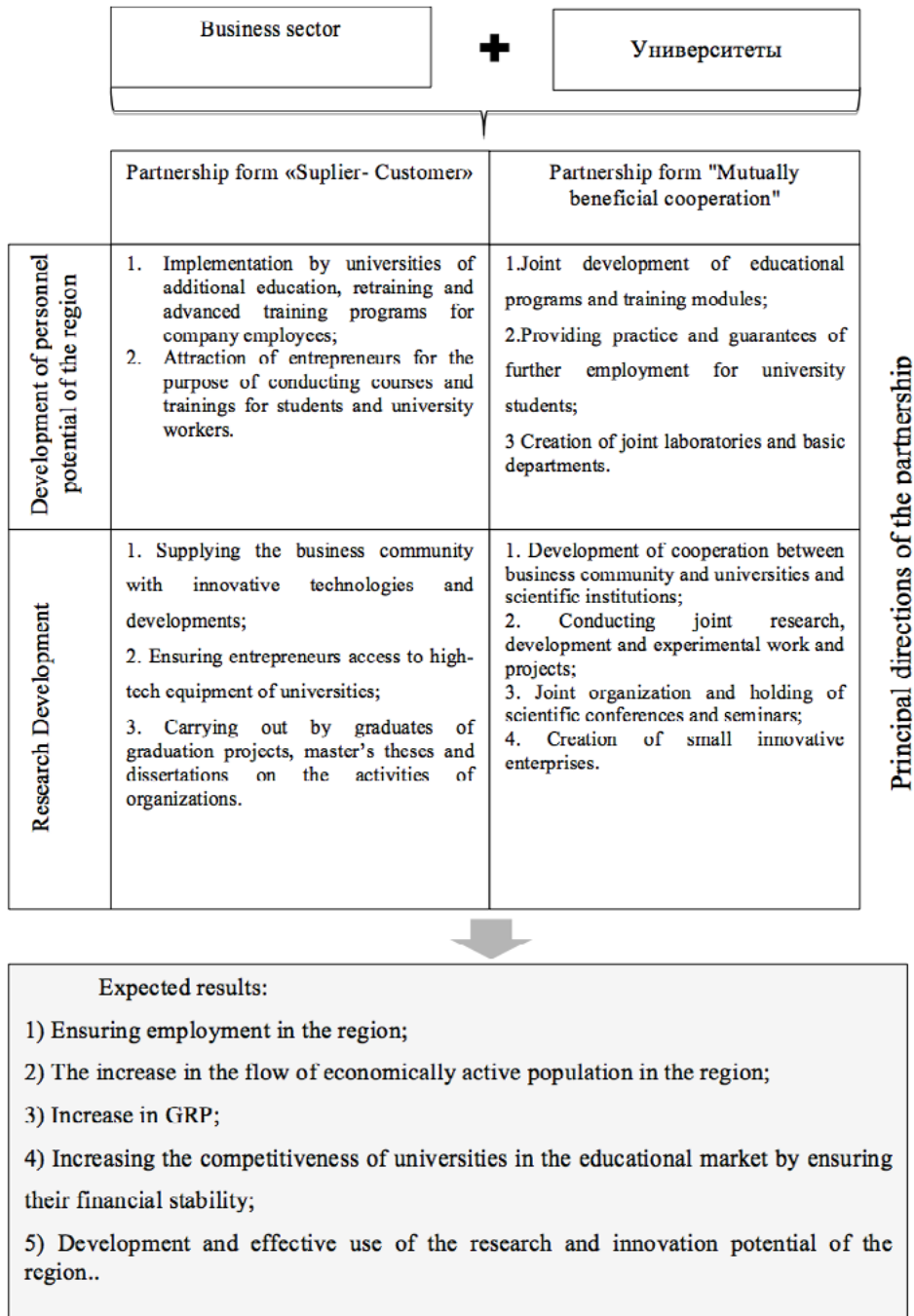


Figure 3 - Model of partnership between universities and the business sector of the economy