

ASSESSMENT OF THE REGION INCLUSION IN UNIVERSITY ACTIVITIES (ON THE EXAMPLE OF PRIMORSKY KRAI)

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ABSTRACT

The city students are one of the sources of the regional environment development: they are active users of all spheres of the regional economy and services. This implies a two-way relationship between the university and the region: the development of the city and the region largely depends on the influx of students, and the number of students depends on the development of the region. To characterize this connection and effectively adapt the university to the goals and objectives of the region, it is necessary to assess the inclusion of the region in the university development by performing the following roles: the region as human capital provider, the region as a customer of university services, the region as a consumer of human capital, and the region as a university investor. During the study, an algorithm was developed to assess the inclusion of the region in the university activities, which was tested on the higher education system of the Primorsky Territory. Thus, it was concluded that the region roles are changing, as they form the environment in which universities operate.

Keywords: University activities. Regional development. Adaptation. Inclusion. Interconnection.

AVALIAÇÃO DA INCLUSÃO DA REGIÃO NAS ATIVIDADES UNIVERSITÁRIAS (A EXEMPLO DE PRIMORSKY KRAI)

EVALUACIÓN DE LA INCLUSIÓN DE LA REGIÓN EN LAS ACTIVIDADES UNIVERSITARIAS (EN EL EJEMPLO DE PRIMORSKY KRAI)

RESUMO

Os estudantes da cidade são uma das fontes do desenvolvimento ambiental regional: são usuários ativos de todas as esferas da economia e dos serviços regionais. Isso implica uma relação de mão dupla entre a universidade e a região: o desenvolvimento da cidade e da região depende em grande parte do fluxo de alunos, e o número de alunos depende do desenvolvimento da região. Para caracterizar esta conexão e efetivamente adequar a universidade às metas e objetivos da região, é necessário avaliar a inclusão da região no desenvolvimento universitário desempenhando as seguintes funções: a região como provedora de capital humano, a região como cliente de serviços universitários, a região como consumidora de capital humano e a região como investidora universitária. Durante o estudo, foi desenvolvido um algoritmo para avaliar a inclusão da região nas atividades universitárias, o qual foi testado no sistema de ensino superior do Território de Primorsky. Assim, concluiu-se que os papéis da região estão se alterando, pois constituem o ambiente em que as universidades atuam.

Palavras-chave: Atividades universitárias. Desenvolvimento regional. Adaptação. Inclusão. Interconexão.

RESUMEN

Los estudiantes de la ciudad son una de las fuentes del desarrollo del entorno regional: son usuarios activos de todos los ámbitos de la economía y los servicios regionales. Esto implica una relación bidireccional entre la universidad y la región: el desarrollo de la ciudad y la región depende en gran medida de la afluencia de estudiantes, y el número de estudiantes depende del desarrollo de la región. Para caracterizar esta conexión y adecuar eficazmente la universidad a las metas y objetivos de la región, es necesario evaluar la inclusión de la región en el desarrollo universitario desempeñando los siguientes roles: la región como proveedora de capital humano, la región como cliente de servicios universitarios, la región como consumidora de capital humano y la región como inversionista universitaria. Durante el estudio, se desarrolló un algoritmo para evaluar la inclusión de la región en las actividades universitarias, que fue probado en el sistema de educación superior del Territorio de Primorsky. Así, se concluyó que los roles regionales están cambiando, ya que forman el entorno en el que operan las universidades.

Palabras-clave: Actividades universitarias. Desarrollo regional. Adaptación. Inclusión. Interconexión.

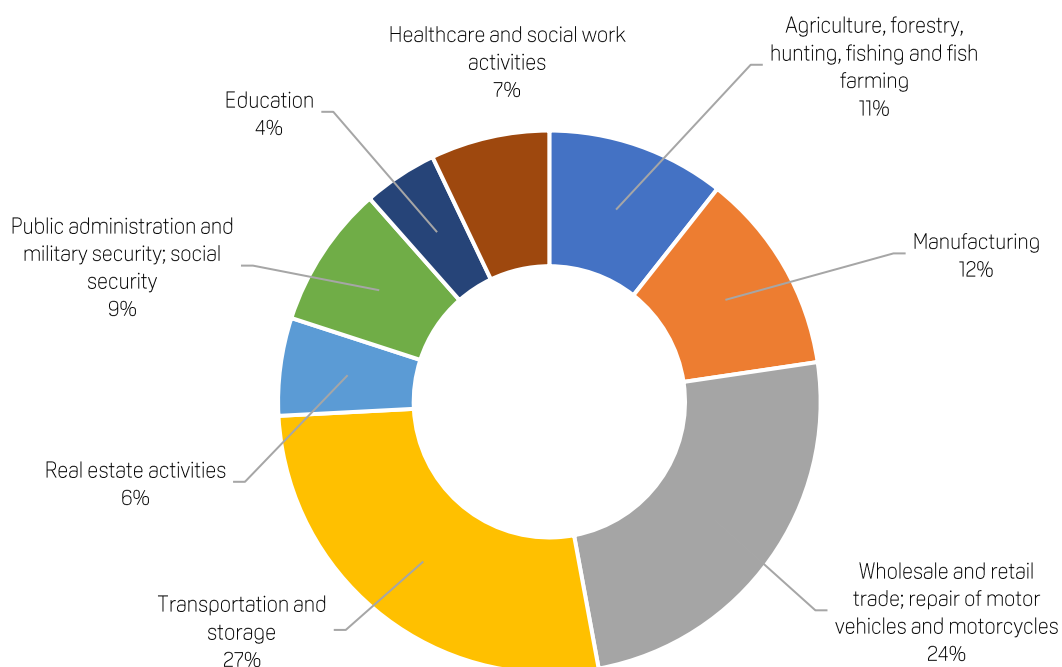
INTRODUCTION

During the period of active transformation of higher education, a special place is occupied by the formation of an effective system of regional universities. Such a need is caused by the global trend of knowledge and skill constant updating – “education through life”. The directions and forms of higher education reformation, the conformity of educational programs to the needs of the local community and the local labor market cause heated discussions, however, the integration of higher education in regional development, the integration of universities in the region activity is no less important (VARKULEVICH; SHUMIK; BATURINA, 2018). Indeed, today along with the process of globalization, the process of glocalization, i.e. strengthening regional differences, instead of their erosion, therefore, the task of the university inclusion in the activities of the region and vice versa becomes especially urgent.

Those universities that cope with all the roles in the region, for example, the employer, the business entity, the center of attraction of students and employees from other countries, the channel for human capital quality improvement, the platform for the development of the regional community, etc., deserve high marks. The organization and implementation of these roles requires combining the efforts and resources of universities, as well as building a strategy through which not only the tasks of the university with respect to the socio-economic situation of the region are realized, but also the tasks of the region through the university forms and tools (LAZAREV; KRIVOSHAPOVA; KRIVOSHAPOV, 2017). In order to make the university-region relationship constant and productive, it is necessary to maintain it at different levels.

The university is one of the largest points of human capital concentration, so it is the basis for the local labor market development. Therefore, it is necessary to improve the education and employment systems so that graduates remain to work at the enterprises of the region and acquire new, better professional characteristics. The region sets the directions and incentives through its specialization to develop the trendiest areas of training at the university. The main industries in the structure of Primorsky Krai GRP are presented on Figure 1.

Figure 1 - The main industries in the structure of the Primorsky Territory GRP, 2018



Source: Federal'naya sluzhba gosudarstvennoy statistiki RF. Struktura VRP po otraslyam ekonomiki po OKVED2 (KDES Red. 2), 2018.

As a percentage the industry data change slightly for 8 years. The structure of the higher education system in the Primorsky Territory (2018) is represented by 18 higher education organizations, including 1 federal university, 7 regional universities without special statuses and 10 branches. (Kharakteristika sistemy vysshego obrazovaniya Primorskogo kraya available at: http://indicators.miccedu.ru/monitoring/_vpo/material.php?type=2&id=11101, 2018). These universities should provide the business community with highly qualified personnel represented in the region. However, Primorsky Krai occupies 6th place in terms of the tension coefficient at the labor market

(2018) in the Russian Federation and amounts to 0.9. (FEDERAL'NAYA SLUZHBA GOSUDARSTVENNOY STATISTIKI REGIONY ROSSII. SOTSIAL'NO-EKONOMICHESKIYE POKAZATELI OTDEL'NYYE POKAZATELI NAPRYAZHENNOSTI NA RYNKE TRUDA V, 2018g). This indicator as well as the GRP structure has undergone minor changes over several years, which indicates the unwillingness of regional universities to satisfy all the demands of the local labor market, i.e. one of the groups of regional stakeholders.

The bilateral direction of communication between the university and the region is confirmed by the fact that the university, being subordinate to the Ministry of Science and Higher Education of the Russian Federation, adapts to the needs of regional stakeholders. So it is necessary to harmonize the goals and objectives of the university with the goals and objectives of the region. (VARKULEVICH, PASHUK, 2018). Adaptation can take place in different areas. So, the adaptation of the organization business processes can occur, which M.A. Miller, and T.I. Golofast (MILLER, GOLOFAST, 2018) considered through the integration of technological elements into production processes, a timely response and the implementation of adaptive measures.

T.A. Kondratskaya (2019), S. Tsukhlo (2018), I.P. Simikova (2010), V.V. Pibirchenko, O.A. Dedov., E.M. Khomenko, N.I. Shilov (2005) considered the adaptation of enterprises, united by one field of activity through the correspondence of the implemented strategies to opportunities and the active transformation of the internal environment. Zemtsov, V. Barinova, R. Semenova (2019), V.D. Dudka 2011, A. Bakitzhanov, S. Filin (2001), S.V. Doroshenko (2010), A.I. Tatarin (2011). characterize the adaptation of the region through training in new approaches to doing business and households; timely response from the management system; consolidation of the region properties that determine the prospects and trends of its development in certain conditions.

P.V. Ruzanov, T.I. Gordievich (2019) and I.N. Dementieva (2018) describe the adaptation of various population groups by adapting the population to changing or crisis socio-economic conditions through the population standard of living in the region. Based on the analysis of scientific literature, we can conclude that adaptation is aimed at the timely reaction of the studied objects to the changes in the external environment. In this study, the region is included in the activities of the university through certain forms and tools, creating the environment that the university must accept and under which it is necessary to adapt. In this case the adaptation process of the university is closely related to its reaction to the region role, which it plays in relation to the university, and to the external conditions of functioning. Such roles of a region can be the following: human capital provider, university service customer, human capital consumer, and university investor.

MATERIALS AND METHODS

To formulate the characteristics of the region environment, a quantitative assessment is necessary. It evaluates the ways the region activity creates external conditions for the university and the level of the region inclusion in the university activity. In this way, the feedback will be described between the university and the region. The algorithm for assessing the process of the region inclusion in the university is presented on Figure 2.

Figure 2 – Algorithm for assessing the process of regional involvement in the university

Region role	Indicator	Source
Region as human capital supplier	The share of the correspondence of the USE average mark in the university to the USE average mark in the region, %	Monitoring the performance of higher education institutions
Region as university service customer	The share of R&D provided by the university in the total volume of R&D provided by all universities of the region, %	
Region as human capital consumer	The share of enterprises that are the bases of practice with which contractual relations are drawn up in the total number of enterprises of the region, %	
Region as a university investor	The share of the university income from the budget of the Russian Federation subject and the local budget, %	

Source: Search data.

According to Figure 2, the entire algorithm consists of 5 steps. During the first stage, it is necessary to determine what roles the region plays in relation to the university. The second stage is represented by the search for indicators that characterize each role most fully and adequately (table 1). The third stage implies that a ranking of universities is formed on the basis of all the data obtained relative to the roles of the region. The final step is to draw up recommendations to increase the region involvement in the university development.

RESULTS

After analysis according to the abovementioned algorithm, you can make the following ratings by the selected roles of the region on the example of the Primorsky Territory. According to table 1, over the course of 3 years, the region develops the same environmental conditions for universities as a consumer of human capital through the provision of base practices for students, which indicates the stable cooperation of a certain group of stakeholders with the university.

Table 1 - Region as human capital consumer

Region as human capital consumer			
University	2016	2017	2018
Vladivostok State University of Economics and Service	1	1	1
Far Eastern State Technical University of Fisheries	2	2	2
Maritime State University named after the Admiral G.I. Nevelsky	3	3	3
Far Eastern State Institute of Arts	5	4	4
Primorsky State Agricultural Academy	4	5	5
Pacific State Medical University of the Ministry of Health of the Russian Federation	6	6	6
Far Eastern Institute of Communications	7	7	7
MAX	3,89	3,87	3,66
MIN	0	0	0

Source: Search data.

Over the course of 3 years, the role of the Primorsky Territory as a customer of university services has changed. So in 2016 Vladivostok State University of Economics and Service took the 2nd place, in 2018 it already took the 1st place (Table 2). This indicates the changes in the forms and tools used.

Table 2 - Region as a customer of university services

Region as a customer of university services			
University	2016	2017	2018
Vladivostok State University of Economics and Service	2	2	1
Far Eastern State Technical University of Fisheries	3	3	2
Maritime State University named after the Admiral G.I. Nevelsky	1	1	3
Far Eastern State Institute of Arts	5	5	4
Primorsky State Agricultural Academy	6	6	5
Pacific State Medical University of the Ministry of Health of the Russian Federation	4	4	6
Far Eastern Institute of Communications	7	7	7
MAX	7,19	7,26	4,34
MIN	0,19	0,2	0,2

Source: Search data.

Table 3 shows the annual changes of the region role as human capital supplier in relation to universities during the period from 2016 to 2018, which also demonstrates of the relationship improvement between the region and the university.

Table 3 - Region as human capital provider

Region as human capital provider			
University	2016	2017	2018
Vladivostok State University of Economics and Service	3	1	1
Far Eastern State Technical University of Fisheries	6	6	2
Maritime State University named after the Admiral G.I. Nevelsky	2	3	3
Far Eastern State Institute of Arts	1	2	4
Primorsky State Agricultural Academy	4	4	5
Pacific State Medical University of the Ministry of Health of the Russian Federation	5	5	6
Far Eastern Institute of Communications	7	7	7
MAX	115,25	120,83	104,64
MIN	0	0	0

Source: Search data.

Despite the small values of the indicator characterizing the role of the region as a university investor, the only university that received subsidies from the regional and local budgets for 3 years was the Pacific State Medical University of the RF Ministry of Health.

DISCUSSION

This rating has practical significance in terms of the region environment development description for the development of universities. This environment includes various groups of stakeholders with their needs, interests and goals in relation to the university. They provide incentives for the development of the university, as well as direct and adjust the directions of its activities in accordance with the described roles. For further deeper research, it is also necessary to evaluate the direct relationship between the university and the region, i.e. the inclusion of the university in the development of the region. The basis of the study will be core universities and the universities without any status. Due to the fact that their main task is to be included in the development of the region, through participation in regional problem solution.

CONCLUSION

During the last decade, two-way relationship is of particular importance. This is the relationship between the university and the region, based on the fulfillment of certain roles, which make it possible to adapt the activities of the university to the goals and objectives of regional development through the roles of the region describing the external environment for the university. This is necessary for the development of an effective system of regional higher education, as a point of a significant amount of human capital concentration. The algorithm for assessing the inclusion of the region in the university activities consists of 4 stages of the environment characteristic development in which the university operates. According to the analysis of the Primorsky Territory roles in relation to universities during the period from 2016 to 2018:

- the roles of human capital supplier and the university service customer have undergone changes, as evidenced by the change of these roles in leading university positions, and therefore the forms and tools used in the relationship between the university and the region;
- when they consider the roles of human capital investor and consumer, the rating positions of universities remained unchanged over this period, which indicates the stability of the external environment relative to the leading rating universities.

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