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## **On the main factors affecting the imbalance of supply and demand in the market of educational services of higher education**

The article is devoted to the problems of developing the training of transport and communication complex specialists and new approaches to solving this problem. Principles of formation of demand and supply in the market of educational services of higher education and labor market requirements to the professional level and the volume of highly skilled labor are given. The peculiarities of the transformation in the market of educational services of higher education are revealed through the formation of demand in the labor market for the preparation of a certain number and nomenclature of specialists in the necessary specialties and areas of university education. The reasons for the imbalance in the market of educational services of higher education and the labor market are analyzed. The tasks of the higher school are defined - which foresee the possibility of imbalance on the basis of studying the forecast of trends in demand and supply trends in the labor market and the market for higher education educational services and fulfill the role of a peculiar regulator in the interaction of these markets.

*Keywords:* graduates, education, services, labor market, specialty, qualification, entrant, highly skilled labor, vocational education, demand, supply, university system.

The mission of higher education as a regulator of supply and demand in the labor market and the market for higher education educational services did not attract the necessary attention of researchers in this field.

A number of authors believe that the main mission of the higher school is to ensure the continuity of culture, the introduction of progressive elements of market economic culture in the public consciousness, economic practice, as an indispensable condition for the renewal of society and socio-economic relations [1]. The author substantiates the opinion that the mission of the higher school in the new conditions is to develop such human capital that will ensure not only economic but also socially sustainable development of the state, its regions and world civilization [1]. There is an opinion that the mission of your school as a training of personnel for the economy, is transformed into a sphere created by the state for human development, satisfaction of the intellectual needs of the individual. A number of authors are inclined to believe that the mission of higher education is the driving force of social progress and prosperity [2].

The stated positions are legitimate, and the high school missions noted will be fulfilled, but only under one indispensable condition - if a person, a person who has received higher professional education, can realize himself fully in his professional work corresponding to his specialty. The possibility of this realization is ensured first of all by the demand for it by the labor market, that is, the supply of jobs. It is the need of the labor market in the specialists of this or that specialty that should contribute to the formation of the market for higher education educational services through higher education.

In this regard, underestimation of the mission of higher education as a regulator of supply and demand in the labor markets and educational services of higher education leads, on the one hand, to the emergence of «Chartered unemployment» in the person of graduates who have not found workplaces, and on the other hand, Other specialties demanded by the labor market.

The requirements of the labor market to the professional level and the volume of highly skilled labor (ie supply) are transformed in the market of higher education educational services through the formation of the labor market demand for the preparation of a certain number and nomenclature of specialists in the required specialties and directions of university training. This process is realized through the system of competitive selection (admission entrance examinations) from among those wishing to get higher education (the offer of universities to applicants to get higher education) of those who can study at the university in their level of pre-university training (the demand for entrants).

On the other hand, the demand for education on the part of entrants is manifested by their choice of the type of education: the level of education (bachelor, graduate, master), forms of education (full-time, correspondence), specialties. At the same time, the offer of educational services of the university system is expressed by the number of places and specialties for each institution that is «limited».

If the demand for higher education services exceeds the supply of student places, then the situation arises of a high competition of entrants for admission to universities. If the demand is less than the supply, then there is a phenomenon of shortage in universities of applicants and the possibility of dismissal of the teaching staff and training and support staff.

Graduates of higher education establish the supply of highly skilled labor in the labor market. If the supply exceeds the demand for jobs, then there is the phenomenon of unemployment. If the supply is lower than demand, the labor market is in short supply in a highly skilled labor force, which can negatively affect the development of the economy.

It should be noted an essential feature. In the real estate market there is a demand of buyers and the supply of goods. In the phenomenon under investigation, demand and supply are manifested twice in the relationship between higher education institutions, both with the system of the market for higher education educational services, and with the labor market system. At the same time, the labor market demand for skilled labor is transformed into job offers by employers. The supply of labor created and prepared by the university system is transformed in the labor market by the demand for jobs from employers.

Demand for educational services provided by higher education to applicants is transformed by universities into their offer to become a student for the chosen specialty.

The offer of educational services by the university system is limited by its demand for the number of entrants prepared on the level of their pre-university education to the consumption of these services. The state of the market of educational services for higher education largely depends on the state of the labor market. The peculiarity of higher education services, expressed in a considerable duration of the technological process of training specialists, is manifested in the relationship between the labor market and the market for higher education educational services. The labor market makes demands on the level and quality of training specialists and the nomenclature of specialties now, and the market for higher education educational services can realize these requirements after a rather long period, caused by the training of relevant specialists (4-5 years). The market of higher education educational services is rather inertial and conservative in relation to a more dynamic labor market, especially in the context of the development of the innovation economy and social changes.

The labor market regulates the correspondence of the supply and demand of not only the workforce, but also jobs. The market of educational services of higher education, due to the above features of the university system, is not always able to respond adequately to changes in labor demand by the labor market. Interests of entrants and interests of employers do not always coincide. The number of those wishing to obtain higher education may not coincide with the number of places offered in the higher education system. Demand for educational services in the specialties may be more and less than the proposed student places in universities. The number of graduates of higher educational institutions by specialties may not correspond to the number of relevant jobs in the labor market [3].

Moreover, the peculiarity of the products of the university system in the form of a highly skilled workforce ensures the progressive scientific, technical and socio-economic development of society, and affects the state of the labor market. The university system should ensure not only staffing of the developing economy, but also advance its personnel development. Otherwise, stagnation may occur or it may be necessary to attract foreign skilled labor.

Thus, there may be an imbalance in the market of higher education educational services and the labor market. And one of the tasks of higher education is to anticipate in advance the possibility of imbalance on the basis of studying the forecast of trends in demand and supply trends in the labor market and the market for higher education educational services and fulfill the role of a different regulator in the interaction of these markets.

The reality of this situation is indicated in the first information material of the Career Center published by the Association of Higher Education Institutions of the Republic of Kazakhstan in 2002. Thus, the structure of the educational services market in 1996–1997 academic year is characterized by the following indicators: in 682 educational institutions of vocational education 554.2 thousands of people, 50.6 % of them in higher education. In the academic year 2001–2002, 694,700 pupils and students are enrolled in 745 educational institutions, including 12.4 % in vocational schools, 24.2 in colleges, and 63.4 % in universities. With the reduction of students in vocational schools by 9.6 thousand, and in colleges by 9.5 thousand, the number of students increased by 159.9 thousand people. It is noteworthy that with the increase in the number of full-time students in this period by 72.1 thousand people (33–5 %), the number of part-time students has increased by 90,000 (41.7 %). The average number of students per university was established in the number of

2,5 thousand people. In 2001, Kazakhstani universities produced 64.6 thousand people, and in 2002 this number was 73.8 thousand [4].

From year to year, the number of people wishing to acquire professions in the field of education, economics and law is growing. First of all, this affects the staffing of industries that are currently experiencing an acute need for technical specialists. Over time, young people who have received unclaimed professions lose their acquired knowledge and, as a result, become professionally unsuitable. The possibility of retraining, retraining also requires considerable financial costs. Meanwhile, this problem risks affecting the future, when the country will be deprived of high-quality specialists, and for a number of specialties to experience a deficit, exacerbated in the conditions of economic growth.

In the system of planned economy, the state assumed the responsibility to distribute graduates for work in different branches of the national economy. Problems in the employment of young professionals did not exist. Now, in connection with the new economic conditions, most enterprises ceased to exist or became private property. Organizations formed on a commercial basis try not to admit university graduates into the staff, exposing the same conditions: at least 5 years of service or the availability of additional skills. In addition, more and more developing enterprises are rapidly moving to new equipment, and are introducing modern technologies that most students know only by hearsay.

Caught behind the labor market, graduates resort to the help of employment centers, where at the moment there is a fierce competition. Due to the useless search for work, the young specialist, instead of realizing his hopes and opportunities, receives moral and psychological dissatisfaction.

This situation causes a change in the interaction of such market mechanisms as price, demand, supply.

The imbalance of supply and demand in the market of educational services of higher education is caused by factors of an economic rather than an organizational nature.

At the same time, the state of supply and demand in the market for educational services of higher education is also significantly influenced by economic factors, in particular prices for educational services, since not all entrants are able to pay the proposed price, and vice versa, there are quite wealthy individuals who are able to pay a high price for awarding a prestigious or in the long term highly profitable specialty. Since educational services are quasi-public, the price of educational services is also important for the state, since it is connected with the possibility of budget financing in the form of state grants and loans for the purchase of educational servants of higher education.

As specific features of higher education educational services, it was pointed out that their price was quite high.

For example, the price of annual training of specialists enrolled for training in the state educational grants and loans was in 2012–2013 academic year, depending on specialties from 194.3 thousand tenge to 293.7 thousand tenge. In the 2014–2015 school year, the average cost of training was 260 thousand tenge, and in 2015–2016 academic year it is envisaged by a budget of 326 thousand tenge. And prices have a clear growth trend.

The Ministry of Education and Science of Kazakhstan approved the state educational order for training specialists with higher education for the 2017-2018 academic year. A total of 31,702 grants were allocated. Priority was given to specialties of technical and technological direction — 12 593 grants. The pedagogical direction received — 5 000 grants, and agricultural and veterinary specialties — 2 690 grants. Do not miss the attention of medical specialties, the state allocated 3,000 grants for them.

Setting a single price for all universities only at first glance create equal conditions. In fact, the costs associated with training specialists at universities are objectively different due to the significant difference in climatic conditions. In the North, the Center and the East of Kazakhstan they are significantly higher than the Southern regions.

The dynamics of the growth of the contingent of students in universities indicates that the demand for higher education's educational services is continuously increasing. Consequently, the law of demand in the market of educational services of higher education is deformed by the influence of non-price factors - «the number of buyers», «income», «expectation». The growth in the number of students in universities (the number of buyers) has an objective basis. First and foremost, the society and employers need a highly skilled workforce for the development of the economy and production, especially in the conditions of the development of scientific and technological progress and innovative economy. Moreover, despite the fluctuations in the structure of demand for specialties, thanks to state regulation in the form of the allocation of state educational grants and loans, the greatest interest of buyers (entrants) is caused by prestigious, in the future highly paid specialties in the areas of jurisprudence and economics. For example, in the group of these specialties in

2013 the competition remained, as in previous years, very high — 25.6 entrants for 1 place. Less prestigious were specialties that ensure the development of innovative economy through the creation of high technology products, the development of information technology. The competition of applicants in these areas of training specialists in 2013 was 4.7 entrants for one place on government order. Compared to the previous years, it has slightly increased, but it remains 5.5 times lower than the competition of entrants for a group of specialties in the economic and legal areas.

Less interesting for entrants in this period are technical specialties. However, with the prospect of developing industrial production, they are becoming more attractive and the higher school is ready to create such services.

In general, due to macroeconomic stabilization and development of the economy of Kazakhstan, which is currently observed, there is a trend in revenue growth. The growth of incomes, as is known, is accompanied by an increase in demand for goods of the highest category. As educational services of higher education are of the highest category, one should expect demand for these services, all other things being equal [5].

At the same time, there is objectively a phenomenon of reducing demand for higher education educational services, since some of the population is not able to pay the price of higher education. To some extent, the factor of expectation caused by the long term of training and the expected income that the buyer of services may have in the future or the expectation of a decline in the price of services affects the demand reduction. In addition, the complexity of comparing the aggregate of costs for higher education and lost earnings, and the future benefits, which is reflected in the high level of earnings after higher education, is important, especially in the context of «unemployment with a diploma». The factor of waiting caused by this affects the relative decline in the level of demand for higher education's educational services.

There are other factors that also affect the level of demand, increasing or decreasing it: the change in the structure of the economy caused by the development of services, the technical re-equipment of industrial production based on new technologies and the development of high-tech production, the impact of taxes in the higher education system and state subsidies.

It can be noted that one of the features of higher education educational services is a relatively high price caused by production costs associated with the payment of highly qualified faculty and the operation of the educational, scientific and industrial base, infrastructure, including social.

One of the fundamental laws of the development of society - the law of the exaltation of needs - determines that each satisfied need creates not only conditions, but also the possibility of satisfying a new higher demand. With respect to higher education educational services, this means updating the content of the specialty training material or creating new specialties that are in demand in the developing labor market. Both are connected with the additional costs of operating new training and laboratory equipment, more qualified personnel of the teaching and teaching and support staff [6].

Demand for higher education is constantly growing, the number of buyers of educational services is growing, and, as already shown, changes in the structure of educational services (vocational-technical school, college, university) occur in the direction of increasing the proportion of people wishing to obtain higher education.

This phenomenon has an objective basis. The value of the products of the higher education system is constantly growing, since highly qualified personnel, especially in the field of intellectual labor, are the driving force behind all innovative transformations in social production, including in the sphere of technology, organization and management of production processes. The role of a specialist with a higher education in the development of the economy is objectively increased due to the increase in the share of progressive branches in the sphere of high technologies, the automation of production processes associated, as a rule, with high competition of skilled manpower, both mental and physical labor. And this is typical both for the sphere of production, and for the service sector. The fastest rate in the number of employed is the proportion of workers with a predominantly mental labor, especially those engaged in processing information. The main source of growth in surplus value is primarily engineering and management work, while the share of the working class tends to sharply decrease.

The emerging trends in the growth of the value of products, the system of higher education, for the development of society should be objectively reflected in the growing demand for graduates of higher education institutions by employers, and in the higher education system - in the growth of demand for people who wish to obtain higher education.

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### **Жоғары білім беру қызметі нарығындағы сұраныстар мен ұсыныстардың тепе-теңдігіне әсер ететін негізгі факторлар туралы**

Мақалада жоғары білім берудің білім беру қызметтері нарығында және еңбек нарығындағы ұсыныстар мен сұраныстарды ретке келтіруші болып табылатын жоғарғы мектептің міндеті және аумақтағы зерттеушілердің осы мәселе жайлы қажетті пікірлері қарастырылған. Көптеген авторлардың көзқарастары бойынша, жоғарғы мектептің басты міндеті — бұл мәдениеттің сабақтастығының қамтамасыз етілуі, қоғамдық санаға әлеуметтік-экономикалық қатынастар және қоғамның үздіксіз жанаруының шарттары ретінде нарықтық экономикалық мәдениеттің үдемелі элементтерін шаруашылық тәжірибеге енгізу. Авторлар жаңа шарттарда жоғарғы мектеп міндеттері мемлекеттің, сонымен бірге оның аймақтары мен әлемдік өркениетті экономикалық тұрғыдан ғана емес, әлеуметтік-тұрақты дамуын қамтамасыз ете алатындай адамзаттың капиталында дамуымен негізделеді деген пікірді алға тартады. Экономикаға арналған мамандарды даярлау ретінде жоғарғы мектеп міндеті тұлғаның интеллектуалды қажеттілігін қамтамасыз ете алатындай адамның дамуы үшін мемлекет құратын ортаға бейімделеді деген пікір де бар. Авторлар жоғары мектеп міндеті бұл қоғамдық өсу мен өркендеудің қозғаушы күші деген, сондай-ақ осы аталған мәселелерге байланысты жоғары білім беру қызметтері мен еңбек нарығына ұсыныстар мен сұранысты ретке келтіруші ретінде жоғары мектеп міндетін бағаламау, бір жағынан, жоо бітірушілер арасында жұмыс орнын таппаған «дипломы бар жұмыссыз» бейнесіне көшеді, екінші жағынан, еңбек нарығы талап ететін белгілі бір мамандықтар бойынша мамандардың жетіспеушілігіне алып келеді пікірді алға тартады.

*Кілт сөздер:* білім беру қызметтері, еңбек нарығы, сұраныс, мамандықтар, біліктілік, жастүлек, жоғарғы білім, кәсіби білім беру, жоғарғы мектеп, мамандарды даярлау, грант, кредит.

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### **Об основных факторах, влияющих на дисбаланс спроса и предложения на рынке образовательных услуг высшего образования**

Статья посвящена проблемам подготовки специалистов транспортно-коммуникационного комплекса и новым подходам к решению этой проблемы. Приводятся принципы формирования спроса и предложения на рынке образовательных услуг высшего образования, требований рынка труда к профессиональному уровню и объема высококвалифицированной рабочей силы. Выявлены особенности трансформации на рынке образовательных услуг высшего образования путем формирования спроса на рынке труда для подготовки определенного количества и номенклатуры специалистов по необходимым специальностям и областям университетского обучения. Проанализированы причины возникновения дисбаланса на рынке образовательных услуг высшего образования и на рынке труда. Определены задачи высшей школы, которые предусматривают возможности возникновения дисбаланса на основе изучения прогноза тенденций изменения спроса и предложения на рынке труда и образовательных услуг высшего образования.

*Ключевые слова:* образование, услуги, рынок труда, специальность, квалификация, абитуриент, высшее профессиональное образование, высшая школа, дисбаланс, подготовка специалистов, грант, кредит.

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