

ECONOMIC CONDITIONS, DIRECTIONS AND FORMS OF ORGANIZATION OF INNOVATIVE ACTIVITY IN THE SCIENTIFIC AND EDUCATIONAL AREA

¹ Kilicheva Feruza Bishemovna, ² Turmanov Tokhir Makhmarajabovich,

¹ Candidate of Philology, Associate Professor, Tashkent Institute of Irrigation and Agricultural Mechanization Engineers, Uzbekistan

² Senior Lecturer, Department of "Organization and management of water resources", Tashkent Institute of Irrigation and Agricultural Mechanization Engineers. Tashkent, Uzbekistan.

Abstract. *Innovative principles of management of the higher education system involve the implementation of a full innovation cycle: from the acquisition of new knowledge to their commercial implementation in specialized markets. New knowledge obtained in the course of carrying out fundamental and exploratory research should be implemented in the scientific and educational fields of activity, since the sustainable development of the education system depends on how effectively the acquired knowledge and the accumulated intellectual potential are used in educational and scientific and technical activities.*

Keywords: *education system; innovation; knowledge, economic conditions.*

1. INTRODUCTION:

The current stage of the historical development of the world community is characterized by the acceleration of scientific, technical and social progress, the large-scale dissemination of new ideas and technologies, so the reproduction of knowledge carried out on an innovative basis is having an increasing influence on the rate of economic growth. The innovation dynamics of the Uzbek economy, set by the top leadership of the country, is largely determined by the formation of its new structure, an increasingly important place in which is occupied by the scientific and educational sphere, which is largely due to the strengthening of the positions of its most effective institutions - higher education institutions.

For the formation of a development strategy oriented no longer towards recovery, but towards expansive dynamics, Uzbekistan cannot have any other way than the formation of an economy based on knowledge, an economy of an innovative type. This circumstance, in combination with the potential for innovation in the economy of the scientific and educational sphere, determines the special positioning of this socio-economic system in the country's macroeconomic system: in order to produce the necessary innovations for the economic system, the scientific and educational sphere itself must objectively integrate modern innovative and information technology. The latter is directly related to the improvement of methods, technologies, and mechanisms for managing the innovative development of the scientific and educational sphere.

This is fully confirmed by international experience, which actively demonstrates that modernization of the education system based on innovation is impossible without prior determination of the main priorities of state economic policy that set the main direction of the vector of control actions on the educational environment.

There is no doubt that the scientific and educational sphere in general and higher education in particular, due to its special position in society, is not so much the goal of innovation as the condition for sustainable innovative development of the economy of any country.

The leading countries of the world have achieved success in the field of scientific and technological progress due to the intensive development of the sphere of education, science and technology. The success of knowledge-intensive production, scientific, technical and social progress are increasingly determined by the qualitative characteristics of the national education system, the adequacy of the training of highly qualified scientists and specialists to the requirements of the emerging neo-economy. In the context of globalization, only countries that have a highly efficient education system that meets the modern requirements for innovative economic development can enter the ranks of developed countries in the modern world.

Practically in all developing countries that demonstrate high rates of economic growth, the priority areas of state support are education and raising the level of literacy of the population, the training of highly professional specialists, and the development of high-tech industries based on high technologies.

In a highly competitive market economy that is substantially modernizing (becoming increasingly characteristic of modern Uzbekistan), the scientific and educational sphere, realizing social and economic functions in the

development of the individual and the progressive development of material production, is represented by subjects of competitive business relations aimed at generating not only social and economic effect.

At the same time, a 50% increase in the number of students in the country over the past 10 years was due to the median groups of the population. In addition, the popularity of higher education has increased, both among young people and in other age groups.

Therefore, studies of this orientation are now becoming important both theoretically and practically - with the aim of systematizing the principles and methods of managing innovation in the education system, as well as ways to improve the economic mechanism for the reproduction of educational services, since it is the underestimation of the transition to a market economy in Uzbekistan the importance of developing a scientifically based and practically approved national concept for the strategic management of scientific development o-educational sphere resulted in the substitution of analysis, prognosis and course corrections reform of this sector of the economy "point" and modernization of the mechanical compilation of international experience.

At the same time, the issues of strategic management of the higher education system, objectively including the management of innovations in this area, is a problem widely discussed in the world [1-3]. The diversity of concepts and practical approaches to managing the modernization of the education sector in Uzbekistan and foreign countries based on innovations is due to significant differences in the organizational structures of education systems, their legal foundations, as well as the traditions established in each country and the current paradigm of managing the economy as a whole. At the same time, in this issue the general trends are quite clearly visible, the main ones being decentralization and democratization of management, expanding the autonomy of higher educational institutions with a simultaneous increase in their involvement in solving problems of the socio-economic development of society, moving towards incorporating market models into higher education organization of management and financing of the educational process.

A retrospective cut of the trends in the development of the scientific and educational sphere in Uzbekistan showed that the current state of this sector of the country's economy is already characterized by developing modernization processes, including the introduction of new ideas and scientific and educational technologies, during which changes are made in the structure and functions of the education system, in the content and technology process of learning and research. Considered from the outlined positions, the problem indicates the need to improve the methods of system management of the processes of interrelated and mutually coordinated with macroeconomic determinants of the dynamics of the scientific and educational sphere as a socio-economic system in the direction of stimulating its creative functions.

Contradictions and problems both within the education system and in macroeconomics in general initiate an increased interest of researchers to the analysis of the processes of functioning and development as separate segments of this sphere, in particular, in the context of individual regions (territories, which is connected with the regionalization of economic life, individual educational institutions) and their complexes, regional clusters, which include research and educational institutions, etc.), as well as its entire functional subsystems.

It seems relevant to clarify the system functions of the innovation potential of the scientific and educational sphere in the system of the national economy. As part of these functions, it is necessary, first of all, to single out a specific system and structure-forming function.

Firstly, the innovative potential of the education system is, on the one hand, part of the innovative potential of the country's economy as a whole, which makes it interconnected with macroeconomic determinants (including the innovative strategy of the Uzbek economy), on the other hand, integrates potentialities in itself "innovation support" of economic entities, which, by virtue of their functioning as elements of one system (within the region's borders or the country's economic system as a whole), has etsya in synergies from the introduction of innovations in the last frontier.

The specificity of the innovation potential of the scientific and educational sphere as the most important factor-resource of the economy (national and regional) forms the second plane of manifestation of its systemic and structure-forming role associated with the spread of innovations on the intra, interregional and global innovation markets, which allows to increase the competitiveness and investment attractiveness of the national (and regional) economies, develop interregional and intercountry relations and relations.

No less important system function of the scientific and educational sphere, realizing and producing innovations, in the regional economy is self-organization, characterized by manifestation of functional stability in non-equilibrium states. It should be borne in mind that disequilibrium is the same fundamental property of economic systems as equilibrium, allowing you to determine the free choice of optimization synthesis from a whole range of possible directions of regional development. If the equilibrium state is a necessary condition for the stationary existence of a region, then the non-equilibrium state is an essential moment of transition to a new state in which the mesoeconomic system acquires a higher level of organization and productivity. It is in a situation when the economic system loses its functional stability that self-organizing processes of forming new efficient structures arise that require investments. Acquiring a stabilizing position in the new conditions of functioning, the economic system thus passes its equilibrium states as intermediate stages on the trajectories of non-equilibrium self-organization [2].

In other words, the scientific and educational sphere as a socio-economic system that performs its specific functions in the economy (which can be differentiated into two large groups: educational and scientific-innovative) is a special “ensuring” economic development in general, the producer of which is new. knowledge accumulating in human potential, and innovations focused on commercialization or the creation of the country's fundamental scientific potential. In this context, as research shows, the education system of our country does not fully meet the needs of the modernizing development of society. An example, in particular, is the sphere of humanitarian training of specialists: the rupture of the systemic links of the humanitarian, natural science, technical and technological components of higher education largely determines the inadequate qualifications of human resources.

The problems of higher education, aggravated and brightly highlighted in Uzbekistan due to the necessity and, at the same time, the difficulties of transition of the economy to an innovative development trajectory, are not unique national problems and should be considered in the global context of transforming the institutional foundations of innovative development of the scientific and educational sphere ideas of the Bologna process) in the conditions of the information society and the globalization of politics and economics [3].

In other words, global changes in society and the economy, associated with the need to reorient to the innovative path of development, necessitate the development of more efficient methods of organizing and managing the scientific and educational sphere as the most important component of the macro and mesoeconomy operating in market economy conditions.

The main macroeconomic determinants of the formation of new mechanisms and tools for managing innovations in scientific and educational activities are mainly determined by the fact that in the context of globalization, fundamentally new entities (such as the new economy, post-industrial economy, network economy, global market, global investment operators) and phenomena (global competition, global networks, etc.), defining the positions of national states, the strategy for the development of innovative and investment institutions here, actors and macroeconomic agents.

Within the “new economy” sector, 5% of France’s GDP and 8% of US GDP are produced. However, in our opinion, just as it is incorrect to identify a “new economy” with a narrow, limited business sector only with an Internet business, the second extreme is just as wrong: the idea of a “new economy” as a separate, isolated business education, »Over the traditional economy and subordinate to some pure, refined (ultra-transparent, non-inertial, super mobile) principles of functioning [3,4].

At the same time, it is hardly legitimate to apply the term “post-industrial system” to the current economies of developed countries [5]: there are certainly elements of post-industrialism and they also steadily reinforce their meaning, however, a modern change has not yet occurred (developed) society continues to remain predominantly "economic" and industrial. It is not by chance that the group of leading countries of the world is officially called the group of “industrialized countries”.

Innovation in the context of globalization is a serious challenge for the established organization. The institutional shell of the NTP should be transformed in the context of globalization of the innovation and financial spheres, and it is actively changing under the influence of organizational capital. Closed fractal groups of intellectuals turn into national academies burdened with hundreds of laboratories, which, in turn, enter into uneasy relations with business and politics, forming nyokrovskie departments of firms and expert councils in power.

But even these new forms of governance for NTP are rapidly losing their legitimacy. The uncertainty of the future makes genetically focused on regular reproducibility of a closed trajectory of the system (governments, corporations, professional communities) seek outside help, beyond the organizational framework. Permanent delegation of risk to new organizational forms could be called this process. Uzbekistan should have time to change the institutional structure of the innovation market.

The future of Uzbekistan depends on how soon the science and technology sector after the transformational recession will receive a new impetus for development and ensure long-term participation in the global innovation process. A real turnaround in Uzbekistan in the priorities of economic development towards high-tech and high-tech industries in the conditions of the "new economy" can bring the country no less income than the export of irreplaceable natural resources.

Thus, the innovative principles of management of the higher education system imply the realization of the full innovation cycle from the acquisition of new knowledge to their commercial implementation in specialized markets. New knowledge obtained in the course of carrying out fundamental and exploratory research should be implemented in the scientific and educational fields of activity, since the sustainable development of the education system depends on how effectively the acquired knowledge and the accumulated intellectual potential are used in educational and scientific and technical activities. At the same time, the main indicators of the successful development of elements of the scientific and educational environment are the following: competitiveness in the markets of professional labor, high-tech products and educational services, quality of education and the ability to fulfill the state order for training specialists and performing research and development. To ensure competitiveness, it is necessary to bring the results of scientific and educational activities to the final product demanded in specialized markets.

In this case, the methodological guidelines for management activities in the system of higher education are the following:

- ensuring the principle of “learning through research” as the basis of academic higher education;
- preservation of orientation towards the development of basic sciences and support of scientific schools;
- The participation of university scientists in solving regional problems in the industrial sector and socio-cultural sphere;
- creating conditions to support and increase the intellectual level of talented youth;
- involvement of highly qualified personnel in the scientific and educational process and the use of unique equipment, etc.

2. CONCLUSIONS:

In accordance with the above, the concept of innovative modernization of the Russian education system provides for both structural and institutional restructuring of professional training and the production of innovative products. In the implementation of this concept, the ways of integrating primary, secondary and higher vocational education should be determined, the development of multi-level education, which is most effectively implemented in regional university complexes whose areas of responsibility are determined by the boundaries of the respective territorial-economic entities.

REFERENCES:

1. Bertalanfi L. Fon. Teorija sistem i sistemnyj analiz. M.: Nauka, 1970.
2. Vladimirov A., Akinfieva N. Sovremennoe obrazovanie: politika vyzhivaniya i razvitiya // Al'ma-mater (Vestnik vysshej shkoly). 2001. № 10.
3. Kornjakov V.I. Vosproizvodstvo kak potok edinoj substancii: zavisimosti, model', obemnye struktury. Moskva; Jaroslavl', 2005. S. 108.
4. Toxirov A., Durmanov A. The development of the education and training system, innovative management and organizational factors. Nauka i sovremennoe obshchestvo: vzaimodeistvie i razvitie – Science and Modern Society: Interaction and Development, 2015, no. 1 (2), pp. 87–89.
5. Durmanov A.Sh., Choriev U.H., Mavlanova X. The content of the education system, modernization of science, education and the integration between production inefficiencies. Nauka i sovremennoe obshchestvo: vzaimodeistvie i razvitie – Science and Modern Society: Interaction and Development, 2015, no. 1 (2), pp. 87–89.
6. Durmanov A.Sh., Nurimova K.I. Innovacionnye tehnologii i metody obucheniya v professional'nom obrazovanii. “Fan, ta#lim va ishlab chikarish integracijasini ahborot kommunikacija tehnologiyalari asosida rivozhlantirish muammolari” Respublika ilmiy-amaliy anzhuman materiallari t#yplami. Karshi, 2012 jil. 97-99-bet.
7. Durmanov A.Sh., D. Yangiboev., K. Muratov. «Konkurentnye preimushhestva na rynke obrazovatel'nyh uslug». “Nauka, obrazovanie i proizvodstvo v obespechenii ustojchivogo razvitiya innovacionnoj ekonomiki” Materialy nauchno-prakticheskoy konferencii(chast' 6) Toshkent-2014 jil. 79-83 b.
8. Durmanov A.Sh. Razvitie predprinimatel'stva i social'nogo partnerstva v Uzbekistane. Ijtimoi hamkorlik-iqtisodi munosabatlarni erkinlashtirish omili mavzusidagi ilmiy-amaliy konferenciya Toshkent-2014 y.135-138 b.
9. Muradov R.A. Water use in conditions of shortage of irrigation water. T.: Journal "Bulletin of Tashkent State Technical University", 2010, № 1-2, p. 164-168.
10. Muradov R.A., Khojiev A.A. The optimal solution of leaching rates with a deficit of irrigation water. Agro Ilm Magazine, 2017, No. 5 (49), pp. 83-84.
11. Muradov R., Khojiev A. The optimal solution to salt washing standards for water shortage. “Agro ilm”, 2016 yil, 75 b.
12. Muradov R.A., Khojiev A.A. Modeling moisture and salt transfer in the initial period of plant development. Magazine Agro ilm, 2018, p. 44.
13. Muradov R.A. Some issues of efficient use of land in WUAs with a shortage of water resources. Sat articles ix international scientific practical conference “Agricultural science - agriculture”, Barnaul, Altai State Agrarian University, 2014, pp. 460-462.
14. Umurzakov, U.P., Ibragimov, A.G., Durmanov, A.S. Development of the organizational-economic mechanism and development of scientific, methodological and theoretical foundations for improving the efficiency of the rice growing industry to ensure the country's food security // Science and Practice Bulletin. Electron. journals

2017. №11 (24). P. 103-118. Access mode: <http://www.bulletennauki.com/umurzakov>. DOI: 10.5281 / zenodo.1048318
15. Durmanov, A., & Umarov, S. (2018). Economic-mathematical modeling of optimization production of agricultural production. *Asia Pacific Journal of Research in Business Management*, 9(6), 10-21.
 16. Tulaboev, A., (2013). Blended learning approach with web 2.0 tools," 2013 International Conference on Research and Innovation in Information Systems (ICRIIS), Kuala Lumpur, pp. 118-122. doi: 10.1109/ICRIIS.2013.6716695
 17. Tulaboev, A., & Oxley, A. (2012). A case study on using web 2.0 social networking tools in higher education. In *Computer & Information Science (ICCIS)*, 2012 International Conference on (1). 84-88.
 18. Tulaboev, A., & Oxley, A. (2010). A pilot study in using web 2.0 to aid academic writing skills. *In Open Systems (ICOS)*, 45-50.
 19. Ibragimov, A. G., & Durmanov, A. S. (2017). Issues of the development of competitiveness and the prospects of specialization in rice farms. *SAARJ Journal on Banking & Insurance Research*, 6(5), 14-19. doi:10.5958/2319-1422.2017.00021.2.
 20. Durmanov, A. Sh., & Khidirova, M. H. (2017). Measures to increase the volume of exports of fruit and vegetable products. *Economics*, (9), 30-34. (in Russian).
 21. Umarov, S. R. (2017). Innovative development and main directions of water management. *Economy and Innovative Technologies*, (1). Available at: <https://goo.gl/eEHSJK>. (in Uzbek).
 22. Durmanov, A. (2018). Cooperation as a basis for increasing the economic efficiency in protected cultivation of vegetables. *Bulletin of Science and Practice*, 4(8), 113-122.
 23. Umarov SR (2017). Features of innovative water management . *TRANS Asian Journal of Marketing & Management Research (TAJMMR)*. Vol. 6, Issue 1, 2017, 45-53.
 24. Umarov S.R., Umurzakov UP (2010) Increasing investment activity portfolio in Uzbekistan. "Water management - prospects of development" // *Collected articles of young scientists*. Rivne, 2010. 128-130 p.
 25. Durmanov, A. S., Tillaev, A. X., Ismayilova, S. S., Djamalova X. S. & Murodov, S. M. ogli. "Economic-mathematical modeling of optimal level costs in the greenhouse vegetables in Uzbekistan", *Espacios*, Vol 40, No 10, pp. 20, 2019.
 26. Tkachenko Serhii, Berezovska Liudmyla, Protas Oksana, Parashchenko Liudmyla, Durmanov Akmal. Social Partnership of Services Sector Professionals in the Entrepreneurship Education. *Journal of Entrepreneurship Education*, Vol: 22 № 4 pp. 6, 2019.