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THE ROLE OF UNIVERSITIES IN HUMAN CAPITAL DEVELOPMENT IN THE COURSE OF INNOVATIVE DEVELOPMENT OF ECONOMY

Abstract

The article is devoted to the role of higher education in the formation and development of human capital in the conditions of innovative development of economy. In particular, this article reveals the essence of the concept of “human capital” and offers the author's interpretation taking into account the modernization of higher education. The author has shown that the innovative development of the economy largely depends on investment in human capital. Today, the main share of national wealth and the level of development of the country is determined by human capital. The key figure here is an educated, competitive, proactive, creative, and qualified person. Higher education plays the role of an environment where the interests of both society and the individual interact. During the period of active development of innovation, many members of society have to generate new knowledge, and even more people have to use this knowledge. Knowledge is the main environment in which modern society functions and develops. The development of human capital, the improvement of production, and the active introduction of innovations in almost all spheres of human life form the basis for further development of the innovative economy and become the basis for abandoning the country's raw material specialization, which, in turn, contributes to solving problems of health, science and education.

Key words: human capital, innovative economy, human development index, higher education, science, investment, professionalism.

Present changes taking place in social, economic and political life in all the countries of the world have revealed that commonly used authoritarian style of management built on strong hierarchy is doomed to failure and requires fundamental changes. Management mechanisms should be sought not in the modernization of the bureaucratic machine, but in proper use of intellectual resources. Prospects and further development of economy are determined by human activity, motivation. As a result, competencies, skills and knowledge acquired by a person along with innovative culture is an important task of educational institutions.

The key to the development of innovative economy in the Republic of Kazakhstan is human capital. The institutional modernization and new strategies for global competitiveness of our republic, based on institutional changes and innovations, create the demand on the behalf of the state to form and develop a system of innovations. The center of gravity of innovation policy lies in improving the system of higher education as it is one of the main areas where human capital in terms of career development is formed.

Updating the methods of production and transfer of knowledge, the ability to generate them are becoming a determining factor in ensuring the country's competitiveness. Modern research clearly demonstrates that in a knowledge-based economy, the effectiveness of its development is largely determined by the accumulated and fully realized human capital in the country. The ability to manage knowledge, modern technologies of the knowledge management generate in the system of higher education. In modern conditions, knowledge and skills are important factors of economic growth and social progress in the society. The main wealth of any society is people, so the issue of studying the problems of effective use and management of the main productive forces realized in modern conditions in the form of human capital is particularly relevant.

Studies devoted to human capital and its development have been a part of economic science since the 50s of the previous century and have been widely studied by a number of prominent scientists. Originally human capital was defined as the ability of a person to receive income due to investments made into his education and professional development. However, recently a group of experts from the World Bank claimed that investments into human capital are much broader and should include not only investments made into education, but also health, food, apparel and mainly investments made by

the government [1, p. 45]. Great contributions into the studies devoted to human capital were made by the following scholars. Schulz T. W. (1975) who mentioned the role of investments into human capital development. According to him the income received by a person directly depends on the investments, as they change the structure of the investments [2, p. 85]. Another prominent economist Becker G.S (1964) suggested a definition close to the one widely used today. Becker in his work “Human Capital: A Theoretical and Empirical Analysis” distinguished three main types of investments made into human capital: education, motivation and professional skills [3, p. 112].

However, the world economic science has not developed a comprehensive theoretical and methodological approach to the definition of innovative human capital management in the context of modernization of higher education in terms of its impact on improving the competitiveness of the system of higher professional education in the international educational space. It is the problem of developing fundamentally new approaches to human capital management in the context of innovative development of economy that becomes especially important as a result of the proven fact that human capital plays a crucial role in the development of any organization and the country as a whole.

A prior condition for the successful development of any state is resources and today in the world of tough competition and rapid technological development human capital takes the first place as it determines the dynamics of innovative development of the country. Well-developed human capital forms the basis of knowledge economy. Knowledge economy requires a new type of employees, the one who is educated, astute, initiative, creative and skilled in his professional field. A human being is not just a worker, but the subject of the political life of his country. Today the key role belongs to a man, who provides his country with the most valuable thing-information.

Tracing the milestones of the history of technological progress in western countries, it is noticeable that cities emerged in the areas comfortable for production and trading during the industrial period. However, today economic centers are located in the places where high technologies are and these areas are universities.

Education is a key component of human capital, which sets itself two aims: intellectual development of the person and production of highly-qualified labour.

Modern universities face a big challenge as it is not enough to use innovative approaches when managing university personnel, but the whole process of teaching and learning must change. In the State of the Nation Address of the First President of the Republic of Kazakhstan Nursultan Nazarbayev from October 5, 2018 it was highlighted that prosperity of the whole nation largely depends on stable income and high standard of living. Education plays a paramount role in human capital development. Many attempts have been made to change the mode of learning at the university, but it must be admitted that there have been no significant changes, which can be explained by the fact that they are mostly guided by principles of classical rationality. According to this principle a human being as an object of management, not a subject. However, at present new principles of post-classical scientific rationality do not separate the subject of management from the object [5].

The meaning of the new approach lies in the fact that people who face certain problematic issue take part in finding solution to this problem (management). The principles of classical science (with its subject-object opposition and orientation to objective-true knowledge) are unacceptable in this case, it is necessary to make a transition to post-non-classical scientific rationality [5], which focuses on the ordinary person with his value orientations, involved in the management processes.

Training highly competitive future specialists who would act as innovators and bring positive changes into the development of economy is possible when a concept of intersubjective training is implied. The concept is aimed at teaching students to use knowledge gained in the course of studying various subjects in real situations which they will definitely face in their both professional and personal lives. It will also increase their personal competitiveness, self-esteem and the ability to participate in production processes with greater impact. Graduates of such universities, armed with a new theory, knowledge and skills, will use them in production and become a living advertisement for a promising university, the management of which is innovative.

The problems of development of innovative culture of society from the philosophical point of view is inextricably linked with the processes of development of social institutions and the processes of formation of innovative culture among society members. The development of innovation culture is provided primarily by the participants ‘ understanding of the essence of innovation processes and

their role in these processes. Therefore, nowadays it is very important to educate “innovators”, which is a primary task of the national education system, because “the basics of innovative culture should be obtained while getting higher and postgraduate education...” [6].

Within our research we tend to refer to the term innovative human capital by which we understand highly competitive specialists possessing entrepreneurial skill. The key element of innovative human capital is a professional who has deep understanding and expertise to create new products or services and is able to render them to final clients. The essence of innovations is reflected by the results of activities.

The conceptual aspects of innovative human capital management can be defined as a special type of management activity aimed at the formation and development of human creative potential in an unstable internal and external environment of the organization, characterized by a high degree of uncertainty and risk. The methodological foundations of human capital management, based on the priority of innovation, should maintain the continuity of the relationship of innovations in human capital management with management technologies in the past and a full-fledged connection with the future, with the management system that is formed thanks to the permanent flow of innovations. The existing values and norms of the organization’s human capital management that are relevant to modern conditions should be recorded. This is necessary in order to identify the continuity between what is recognized as a tradition in human capital management and innovation, and to highlight the differences between them. At the same time, it is necessary to address those innovations that can become the source of new technologies and new institutions. Understanding the values that have already developed traditionally, and the values that can develop due to innovation, is a complex task of our research, innovative management of human capital on the example of the system of higher professional education.

Education is the main area of investments in human capital, since it requires significant amount of time and strenuous efforts. According to Becker, when making decisions about investing in education, students and their parents compare the expected marginal rate of return on such investments with the return on alternative investments [3]. Owing to the theory of human capital, investments in education have become considered as a source of economic growth, no less important than conventional investment.

T. Schultz, J. Kendrick, E. Denison and a number of other researchers have quantified the contribution of education to economic growth. It was stated that during the XX century, the accumulation of human capital outstripped the rate of accumulation of physical capital. Thus, E. Denison, having analyzed the economic growth of the United States in 1929–1982, concluded that the determining factor for increasing labour productivity is education. According to him, the increase in per capita income in the United States during the post-war period by 15–30% was only due to an increase in the educational level of the labour force [4].

In addition, the experience of countries such as Japan, Singapore, and South Korea has confirmed that the rate of investment in education and health, in creating a highly-competitive and skilled human capital, is the most effective strategy for economic development of the state. The relatively rapid progress of Japanese, Chinese, Koreans, and some European developed countries proves the fact that the development of human capital is determined by cultural peculiarities of the majority of the population inhabiting these countries. Thus, the state of the modern education system ultimately determines the development of the country in the foreseeable future.

The stable increase in the share of knowledge-intensive products in the total volume of country’s production leads to an increase in demand for highly-qualified personnel possessing all the necessary skills. As a result, higher education plays a huge role in this process. Educated, skilled and motivated people use capital more efficiently, they are predisposed to initiate innovations, to create new, more advanced forms of production. Besides, increasing the level of education gives a person important advantages such as improving working conditions, wider leisure and consumer choice, it contributes to the increase of his status in society and the ability to obtain satisfaction from self-realization. The person gets more access to interesting and promising work.

There is evident growth in the number of people with higher education all over the world, which confirms the awareness of the role of higher education in the formation of the human capital. One of the ratings measuring the education attainment is the Education index. It is measured by the level of

literacy among adults and the combined primary, secondary and tertiary gross enrollment ratio. The index measures a country's achievements in terms of the level of education achieved by its population by two main indicators:

- 1) adult literacy index (2/3 of the weight);
- 2) index of the total percentage of students receiving primary, secondary and higher education (1/3 of the weight).

These two dimensions of educational attainment are summarized in the final Index, which is standardized as numeric values from 0 (minimum) to 1 (maximum). As it is seen from the table below, countries with the highest index are mainly European countries.

Table 1 – United nations development programme: education index 2019 (countries with the highest index)

Country	Index
1. Germany	0.946
2. Australia	0.923
3. New Zealand	0.923
4. Denmark	0.920
5. Norway	0.919
6. Iceland	0.918
7. Ireland	0.918
8. Great Britain	0.916
9. Finland	0.915
10. Sweden	0.914
Note – Compiled by author on the base of [7].	

However, human capital acquired in the course of higher education provides the graduate not only with certain economic benefits, but also changes the quality and standard of his life. Higher education has a direct impact on improving an individual's economic and social performance. The modern education system focuses on the development of a general cultural level, fundamental knowledge, the ability to learn and personal competence, on the basis of which practical skills are formed. Today, the labour market imposes quite high requirements for the level of training of specialists with a wide range of both professional and personal competencies.

A number of internal and external factors constrain the innovational development in the field of high education.

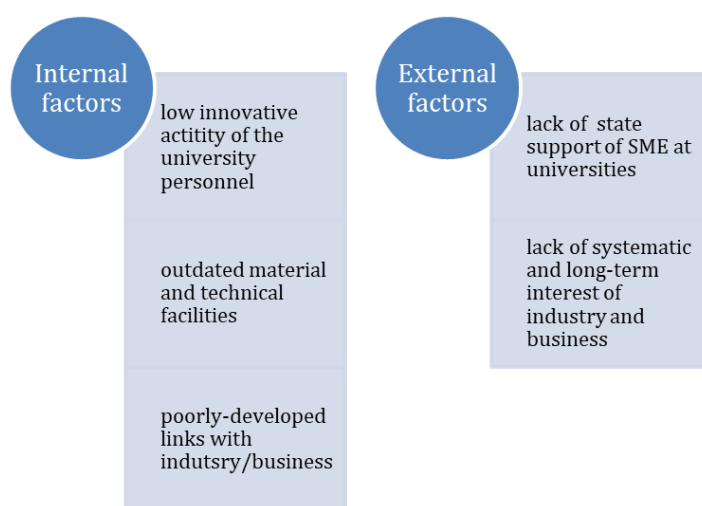


Figure 1 – Factors constraining the innovational development in the field of higher education

Note – Compiled by author on the base of [8].

Higher education is not only the training of qualified specialists for the national economy, who can work in the world of technological changes. This is the process of training people who are able to navigate the world of new social technologies that affect the vital interests of themselves and many others. A person who receives a higher education is not only a specialist, but he also develops his human capital, which is being the property of the individual, is at the same time the public domain.

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ЭКОНОМИКАНЫҢ ИННОВАЦИЯЛЫҚ ДАМУ ҮДЕРІСІНДЕГІ АДАМИ КАПИТАЛДЫ ДАМУДАҒЫ УНИВЕРСИТЕТТЕРДІҢ РӨЛІ

Андатпа

Мақала экономиканың инновациялық дамуы жағдайында адами капиталды қалыптастыру мен дамытудағы жоғары білімнің рөліне арналған. Атап айтқанда, бұл мақалада «адами капитал» ұғымының мәні ашылып, жоғары білім беру саласын жаңғыртуды ескере отырып, авторлық түсіндіру ұсынылды. Автор экономиканың инновациялық дамуы көбінесе адами капиталға инвестицияға байланысты екенін көрсетті. Бүгінде ұлттық байлықтың негізгі үлесі мен елдің даму деңгейі адами капиталмен анықталады. Мұнда білімді, бәсекеге қабілетті, ынталы, креативті, жоғары кәсіби біліктілігі бар адам негізгі тұлға болып табылады. Жоғары білім қоғамның да, жеке тұлғаның да мүдделерінің өзара әрекеттесу ортасының рөлін атқарады. Инновацияны белсенді дамыту кезеңінде қоғамның көптеген мүшелері жаңа білімді жинақтауға, ал көптеген адамдар бұл білімді пайдалануға тиіс. Білім – заманауи қоғам жұмыс істейтін және дамып келе жатқан басты орта. Адами капиталды дамыту, өндірісті жетілдіру, адам өмірінің барлық салаларына инновацияларды белсенді енгізу инновациялық экономиканы одан әрі дамыту үшін базаны қалыптастырады және елдің шикізаттық мамандандыруынан бас тарту үшін негіз болады, бұл өз кезегінде денсаулық сақтау, ғылым және білім беру проблемаларын шешуге ықпал етеді.

Тірек сөздер: адами капитал, инновациялық экономика, адами даму индексі, білім беру, ғылым, инвестициялар, кәсіби біліктілік.

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РОЛЬ УНИВЕРСИТЕТОВ В РАЗВИТИИ ЧЕЛОВЕЧЕСКОГО КАПИТАЛА В КОНТЕКСТЕ ИННОВАЦИОННОГО РАЗВИТИЯ ЭКОНОМИКИ

Аннотация

Статья посвящена роли высшего образования в формировании и развитии человеческого капитала в условиях инновационного развития экономики. В частности, в данной статье раскрыта сущность самого понятия «человеческий капитал» и предложена авторская трактовка с учетом модернизации сферы высшего образования. Автором было показано, что инновационное развитие экономики во многом зависит от инвестиций в человеческий капитал. Сегодня основная доля национального богатства и уровень развития страны определяется человеческим капиталом. Ключевой фигурой здесь выступает образованный, конкурентоспособный, инициативный, креативный, обладающий высоким уровнем профессионализма человек. Высшее образование играет роль среды взаимодействия интересов как общества, так и индивида. В период активного развития инноваций многим членам общества приходится генерировать новые знания, а еще большему числу людей – эти знания использовать. Знания есть главная среда, в которой функционирует и развивается современное общество. Развитие человеческого капитала, усовершенствование производства, активное внедрение инноваций практически во все сферы человеческой жизни формируют базу для дальнейшего развития инновационной экономики и становятся основой для отказа от сырьевой специализации страны, что, в свою очередь, способствует решению проблем здравоохранения, науки и образования.

Ключевые слова: человеческий капитал, инновационная экономика, индекс человеческого развития, высшее образование, наука, инвестиции, профессионализм.