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INTERNATIONAL EXPERIENCE OF HUMAN CAPITAL DEVELOPMENT

The article describes the basic concepts of human capital in the interpretation of different authors, describes the experience and shortcomings of the formation and development of human capital in the countries of the Organization for Economic Cooperation and Development.

We need to speed up the creation of our own advanced education system that includes citizens of all ages. In the Message of the President of the Republic of Kazakhstan the head of state to the people, one of the priorities of solving strategic directions and tasks should be a constant inclination to change the main priorities of educational programs and the development of the ability to acquire new knowledge.

Keywords: *human capital, OECD, education, innovations, innovation economy, investments, productive forces, international experience , new economy, Kazakhstan.*

Кілт сөздер: *адам капиталы, ЭҚҰД, білім, инновациялар, инновациялық экономика, инвестициялар, өндірістік күштер, халықаралық тәжірибе, жаңа экономика, Қазақстан.*

Ключевые слова: *человеческий капитал, ОЭСР, образование, инновации, инновационная экономика, инвестиции, производительные силы, международный опыт, новая экономика, Казахстан.*

JEL classification: 015

Introduction. The future directions of the world economy are currently determined by the nature of the countries' transition to a new stage of development of productive forces: from the industrial stage, where large-scale mechanized machine production dominated, to the postindustrial one, where services, science, education, etc. will dominate. Production processes, of course, will retain their significance, but its economic efficiency will be determined primarily using highly qualified, trained personnel, new knowledge, technologies and management methods.

Thus, the way of production and transfer of knowledge and, in fact, the man himself – his intellectual potential comes to the fore.

During the years of independent development in Kazakhstan, a number of economic and social reforms were carried out; as a result, the country was brought to the leading positions in the CIS from a crisis, including the standard of living of the population, the economy is becoming more and more socially oriented. Today there are tasks of a higher order: the approval of a healthy lifestyle and the development of medicine, an increase in the life expectancy of the population. In this regard, the President of the Republic of Kazakhstan

provides 5 clear indicators of the disclosure of the potential of Kazakhstanis: high-quality educational system;the health of the nation; the development of Kazakh culture; revision of social packages of civil servants; increased attention to citizens with disabilities [1, 2].

Achievement of these goals is associated with solving problems of raising the standards of quality of life of the population and the formation of human capital.

Literature review. Most scientists, researchers believe that human capital is the most valuable resource of society, much more important than natural or accumulated wealth. Already, in all countries, human (intellectual) capital predetermines the pace of economic development and scientific and technological progress. The corresponding public interest in the education system as the basis to produce this capital is increasing.

Thus, scientist A. Smith wrote that "an increase in productivity of useful labor depends primarily on increasing the worker's dexterity and skills, and then on improving the machines and tools with which he worked".

K. Marx noted: "labor, which has the value of higher, more complex labor compared to average social labor, is a manifestation of such a labor force, the formation of which requires higher costs, the production of which requires more working time, and which has therefore a higher cost than simple labor. If the cost of this force is higher, then it manifests itself in higher labor and materializes, therefore for equal periods of time in relatively higher costs" [3].

Applying the concept of "human capital" at present, one should understand the role of social institutions, find out not only social parameters, but also carry out an economic analysis of the influence of social factors on the economy.

Human capital refers to the knowledge, skills and abilities of a person that contribute to the growth of his productive power. Human capital, as defined by most economists and scientists, consists of acquired knowledge, skills, motivations, and energy that human beings are endowed with and which can be used for a certain period to produce goods and services.

According to A.I. Dobrynin, "human capital is a complex category of social reproduction, having a systemic structural and functional organization" [4].

S.A. Dyatlov believes that "the most important properties of a living human person are the ability to work and the ability to consumption, included in the structure of the performance of human forces"[5].

Human capital is the main factor of the innovation economy.

Agreeing with the opinions of the authors, it can be said that human capital is an aggregate of knowledge and skills that are used to satisfy various needs of a person, society, economy, i.e. includes tools of intellectual and managerial labor.

Main part. In world practice, there is often a growth in the value of a company when management is replaced. It follows that in modern business human capital is highly valued in the form of knowledge, skills, creative abilities and work culture.

Echopractic management creates conditions for the development of human capital: small teams, participatory management, continuous personnel training, labor culture, high competence and responsibility of each (Figure 1).

Numerous and many years of theoretical studies have not only proved that man is the main productive force of any economy, having a significant impact on growth rates, productivity, incomes and its other parameters.

The knowledge possessed by professionals is the subject of intense global competition. This means that the formation of human capital (the organization of labor and the creation of conditions for the growth of its productivity; the improvement and expansion of employees' competences, the improvement of the quality of life, etc.) remains a key issue of the state policy of any country. Not only the employees themselves and their employers, but also the top managers of the company must constantly think about what knowledge and competencies are needed today, what will be useful in the future, how to maintain, improve and apply them.

Methods of scientific knowledge have become both general scientific and special scientific principles in the studied field of science.

Studies by international experts show that the presence of creative people capable of thinking in critical situations, competently presenting their ideas, as well as a high level of education in general, do not always automatically lead society to sustainable growth and prosperity. For stable development, it is important to learn how to rationally use existing skills, to take care of them from obsolescence, exhaustion, inconsistencies with practical tasks, and to constantly pay attention to other factors of economic progress.

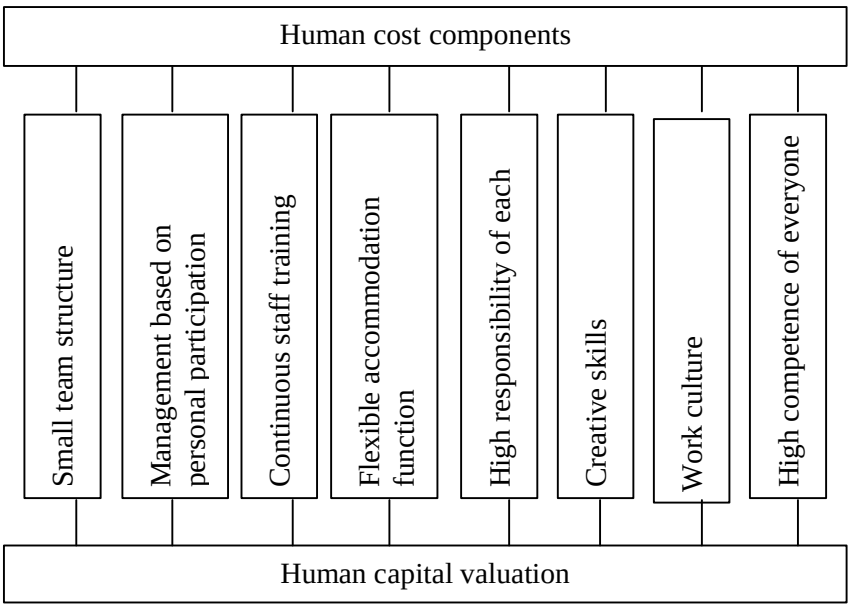

Figure 1. **Components of the cost of human capital***

**Ccompiled by the author on the basis of the studied literature Thomas Clarke[6]*
Data are at the end of each year

Among the ways to resolve this contradiction in foreign countries used a variety of approaches: from traditional to mediated. Experience of the Organization of Economic Cooperation and Development countries (Australia, Austria, Belgium, Canada, Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Japan, Korea, Luxembourg, Mexico, Netherlands, New Zeeland, Norway, Poland, Slovakia, Portugal, Spain, Sweden, Switzerland, Turkey, the United Kingdom, the United States, Chile, Estonia, Israel, Slovenia) are one of the best examples of the formation and development of human capital.

Table 1

OECD member countries*

Member countries	Date of entry	Member countries	Date of entry
1	2	3	4
Australia	7 June 1971	Mexica	18 May 1994
Austria	29 September 1961	Nederland	13 November 1961
Belgium	13 September 1961	New Zealand	29 May 1973
Great Brittain	12 April 1961	Norway	4 July 1961
Hungary	7 May 1996	Poland	22 November1996

1	2	3	4
Germany	27 September 1961	Portugal	4 August 1961
Grace	27 September 1961	Slovakia	14 December 2000
Denmark	30 May 1961	Slovenia	21 July 2010
Israel	7 September 2010	USA	12 April 1961
Ireland	5 June 1961	Turkey	2 August 1961
Iceland	5 June 1961	Finland	28 January 1969
Spain	3 August 1961	France	7 August 1961
Italy	29 March 1962	Cheech	21 December 1995
Canada	10 April 1961	Chili	7 мая 2010
Korea	12 December 1996	Switzerland	28 September 1961
Latvia	1 July 2016	Sweden	28 September 1961
Luxembourg	7 December 1961	Estonia	9 December 2010
Italy	29 March 1962	Japan	28 April 1964

**Compiled by the author based on the literature studied [7]. Data are at the end of each year*

Experts of the Organization for Economic Cooperation and Development conduct research in the field of human capital on an ongoing basis and using a variety of research methods and apparatus. Such works are very promising and relevant in the framework of the entire research topics of this international organization. Their results confirm the close relationship between economic growth, innovation, and the quality of human capital [7].

The results of the research of the Organization for Economic Cooperation and Development clearly show that innovations can steadily develop with the presence and support from the state of other economic factors:

– skilled labor, people able to invent and adapt to the market and the needs of society, new technologies;

– a favorable business environment in which investments in technology and intellectual capital are supported, as well as "experiments" of companies with new ideas and business models;

– an effective system for the creation and dissemination of knowledge through the mechanisms of human resource development, investment in the infrastructure of the knowledge economy;

– a wide range of tools that stimulate the innovative activity of companies.

Even though the positive correlation between the quality of human capital and income, productivity and economic growth has long been proven in theory and practical measurements, the general and deep context of presenting (and studying) human capital development issues in conjunction with innovations and technologies is only beginning to be seen.

The most important areas of human capital development were formulated by experts of the Organization for Economic Cooperation and Development in a review of the strategies for developing competencies back in 2012 and included important areas.

In terms of developing the necessary skills, emphasis was placed on the development and use of such approaches and tools as constant monitoring of the demand for different competencies; consideration of regional specifics; motivation for applying the knowledge gained in practice; state assessment of the quality of education at all levels; ensuring equal access to education for all segments of the population; motivating employers to invest in additional employee training; conducting a soft migration policy, etc.

To increase the effectiveness of the use of skills, researchers of the Organization for Economic Cooperation and Development recommended the following measures:

– motivating companies – it is mandatory to include personnel development measures in their business strategies;

– reducing migration barriers;

– promoting the development of high value-added industries;

– promoting the teaching of modern entrepreneurship in universities[8].

The main objectives of all these efforts are related to the elimination of the lack of competencies necessary to maintain sustainable economic growth, as well as the development of education at all levels.

There are a few reasons that allow us to expect a positive return from the development of human capital for the economy and society as a whole: the higher the level of education of workers, the more active technological progress is, the public's susceptibility to innovation increases [9].

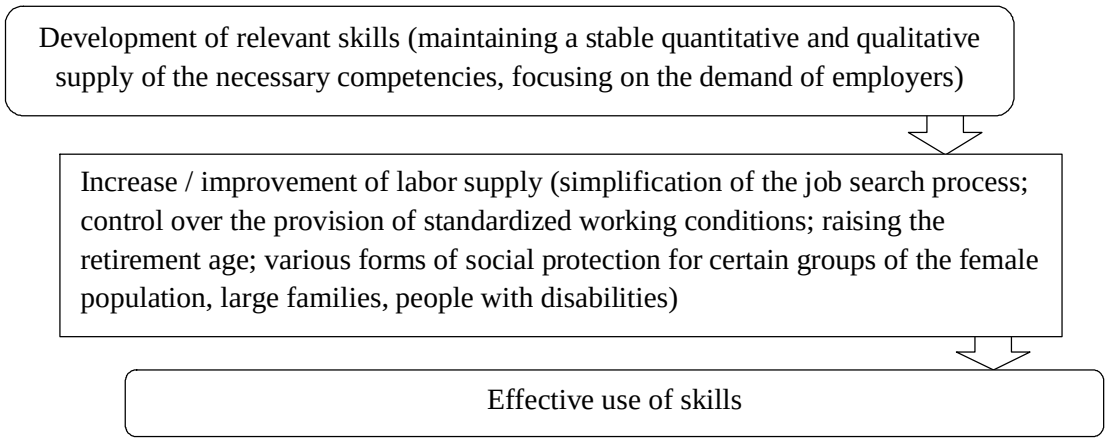

Figure 2. **The most important areas of human capital development***

**Compiled by the author based on the literature studied [8]*
Data are at the end of each year

The more stable the social sphere (education, health care, etc.), the higher the productivity of workers can be, the longer they can remain engaged.

The strategy of the Organization for Economic Cooperation and Development for the Formation and Development of Human Capital (OECD Skills Strategy) defines the institutional conditions that have contributed to the gradual reduction of the lack of competencies and skills, improving their structure. Among them, such regulatory mechanisms as:

– emphasis on the development of "key" or "general" skills, on the basis of which it is easier to acquire "specialized" competences;

– promoting the creation and maintenance of large-scale information systems that allow students to more easily navigate available educational programs, assess their prospects, and employers understand the essence of the qualifications obtained by students;

– flexible distribution of resources among providers of educational services;

– involvement of employers in the development of strategies for the development of competencies and skills;

– development of labor market management strategies, stimulating workers to actively search for vacancies and long-term employment;

– assistance to increase staff mobility;

– formation of a demand-oriented migration regime, which includes determining the needs of the labor market, monitoring demographic and educational changes among the population (excluding migrants), creating formal channels for attracting labor, simplifying the receipt of work visas, increasing effective border control.

A major challenge for the Organization for Economic Cooperation and Development member countries is improving the academic performance and quality of education in schools. Specialists of this organization suggest using in the

context of the development of the knowledge economy and innovation processes:

– voluminous, flexible curricula that increase the amount of content that students can learn and help students establish links between different blocks of knowledge (in general, this can positively affect their propensity to innovate in the widest context);

– modern educational methods in traditional disciplines, for example, metacognitive pedagogy in teaching mathematics, thanks to which students can improve mathematical thinking by solving complex and unusual tasks [10].

The development of relevant skills should occur at all levels of education. The set of tools, approaches and pedagogical practices that can be used, for example, in universities for the development of student creativity, in the member countries of the Organization for Economic Cooperation and Development is constantly and significantly expanding.

In particular, target ("problem") learning (problem-based learning) implies:

– mastering students of theoretical material;

– obtaining useful, innovative development skills;

– deep learning new knowledge.

A variety of pedagogical models, including, as already noted, metacognitive pedagogy, collective learning, play learning, online laboratories, have proven to be suitable tools for developing logical thinking and creativity among student.

People need to constantly replenish knowledge (throughout life) in order to keep up with global economic and technological changes. According to the Organization for Economic Cooperation and Development, on average, more than 40% of those employed receive the additional education they need to work (including at trainings and with the help of corporate training). To encourage such training in private companies, the Organization recommends that they seek the support of the state. We can talk about financial instruments (providing companies with tax breaks, increasing spending on vocational education, additional training and retraining of personnel), and institutional, organizational, administrative and other levers.

If we consider the competencies necessary, for example, for researchers to successfully commercialize innovations, then, in addition to basic research knowledge and experience, transferable skills should be well developed: business communication, business management, application for grants, etc. e. Only in recent years have the countries of the Organization for Economic Cooperation and Development embarked on the development of entrepreneurial education at all levels.

Support for entrepreneurship (entrepreneurial skills and competencies) in higher education is most often carried out in two directions:

– development of an entrepreneurial way of thinking: self-efficacy, creativity, understanding of risks, managing relationships, etc.;

– providing the knowledge necessary for starting and developing your own business.

One of the important areas of human capital development is investment in the vocational training of workers by employers. Experts point to the need to introduce a variety of measures to support such training, related to the dissemination of information about existing programs, the creation of an appropriate legal framework for their organization and financing, the use of tax incentives, and an increase in the financing of secondary vocational education programs.

The defining characteristic of the global innovation development of investments in human capital is the international mobility of highly qualified specialists, as well as its intensity. This is especially relevant for the development of science and technology, where progress is based on the circulation of knowledge, interaction and partnership between scientists, inventors, engineers.

Factors affecting academic mobility are in a wide range. They include growing demand for higher education throughout the world, heightened expectations regarding the quality of education abroad and future incomes, the implementation of measures for state support of students who will study abroad in national priority areas of development.

Researchers at the Organization for Economic Cooperation and Development have identified a positive effect of academic mobility in at least two areas:

– the intensity of academic mobility and citation indices are directly and proportionally related;

– academic mobility is viewed by scientists as a "circulation of knowledge".

The message of the President of the Republic of Kazakhstan focuses on the development of human capital, which is considered as the basis for modernization. This approach meets modern challenges, because today, in the century of post-industrial development, innovative economy, knowledge economy, the competitive advantage of any state is a high-class specialist, professional.

Conclusion. The message of the Head of state emphasizes that the key priority of educational programs should be the development of the ability to constantly adapt to changes and learn new knowledge. This factor is because modern society inherent rapid changes. Innovation and speed are the main determinants of competitiveness in the modern world. Therefore, the ability to change along with changes in the world are the most significant today, if we do not want to stay in the "backyard of life".

In this regard, it is useful for Kazakhstani managers and experts to study the research methods and recommendations of the Organization for Economic Cooperation and Development specialists in strategic areas of development (diversification in high value-added industries; creating an innovative environment by adapting the existing knowledge and technology in the world; the use of new patterns of development of applied skills, etc.), as well as new approaches to the study and development of personnel innovation economy.

The main management resource is non-financial resources and other traditional resources, and the intelligence of professors, teachers, young scientists with entrepreneurial talent and leadership skills. It is in this way that the corporate culture of a university forms human capital, the development of which determines the economy of knowledge.

Higher education plays an important role in providing professional training to competent and competitive specialists for all sectors of the republic's economy, in integration with science and industry.

To improve the efficiency of human capital and create an innovative economy at the level of the advanced countries of the world, it is necessary to achieve:

– a very high level and quality of human capital through investments in its growth and development;

– high level and quality of life;

– a high level of development of fundamental science;

– a high level of development of applied sciences;

– powerful intellectual centers of technological development in the country;

– a large proportion of the sector of the new economy;

– developed and efficient innovation and venture capital systems supported by states;

– an attractive investment climate and high level of investment ratings;

– diversified economy and industry;

– competitive products in global technology markets;

– effective state regulation of the development of the country;

– the presence of transnational corporations that ensure the competitive technological and scientific development of the country;

– low inflation (below 3-5%).

Thus, the integration of education, science and production, the development of postgraduate education on the basis of modern achievements of science and technology are today one of the priority directions of economic development.

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АДАМИ КАПИТАЛДЫ ДАМЫТУДАҒЫ ХАЛЫҚАРАЛЫҚ ТӘЖІРИБЕ

Аңдатпа

Мақалада әр түрлі авторлардың түсіндіруіндегі адами капиталдың негізгі ұғымдары қарастырылады, экономикалық ынтымақтастық және даму ұйымы елдеріндегі адами капиталды қалыптастыру мен дамытудың тәжірибесі мен кемшіліктері сипатталады.

Бізге барлық жастағы азаматтарды қамтитын озық білім берудің өзіндік жүйесін құруды жеделдету қажет. Қазақстан Республикасы Президентінің Қазақстан халқына Жолдауында стратегиялық бағыттар мен міндеттерді шешудің басымдықтарының бірі білім беру бағдарламаларының негізгі басымдықтарын өзгертуге және жаңа білім алу қабілетін дамытуға үнемі ұмтылу болуы тиіс.

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МЕЖДУНАРОДНЫЙ ОПЫТ РАЗВИТИЯ ЧЕЛОВЕЧЕСКОГО КАПИТАЛА

Аннотация

В статье рассматриваются основные понятия человеческого капитала в трактовке различных авторов, описываются опыт и недостатки формирования и развития человеческого капитала в странах Организации экономического сотрудничества и развития.

Нам необходимо ускорить создание собственной системы опережающего образования, включающей граждан всех возрастов. В Послании Президента Республики Казахстан народу Казахстана отмечено, что одним из приоритетов решения стратегических направлений и задач должно стать постоянное стремление к изменению основных приоритетов образовательных программ и развитию способности к приобретению новых знаний.