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HUMAN CAPITAL AS A VECTOR OF MODERNIZATION OF THE ECONOMY OF KAZAKHSTAN

The topic proposed for consideration in this article is very relevant and meets the challenges facing Kazakhstan on the way to a new growth model in the conditions of global competition. The purpose of the study is to actualize the consideration of the concept of human capital in the context of its national development in the Republic of Kazakhstan. Successful modernization is represented by further improving the quality of human capital: the growth of human productivity, the use of its talents, knowledge, competencies and other potential capabilities that allow to integrate into the national economic system and bring the desired positive effect.

The scientific and practical significance of the work consists in concretizing ways to improve the quality of human capital in the process of the third modernization of Kazakhstan. The methodological basis of the study was the work of political economics classics and modern researchers of human capital. In work on the basis of the retrospective analysis of the formation of the concept of human capital, the transition from a narrow interpretation of this concept to the modern, broader one is shown. The value of the work lies in the fact that the possibilities are extended and indicators of the use of the category «human capital» in the formation of the state policy of Kazakhstan are indicated. This study can be useful to industry and government theorists and practitioners using human capital indicators in planning, analysis and evaluation.

Key words: human capital, modernization of the economy, concept, state policy.

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Адами капитал – Қазақстан экономикасын жаңғыртудың векторы

Осы мақалада қарастыруға ұсынылатын тақырып өте өзекті болып табылады және жаһандық бәсекелестік жағдайларында жаңа өсу үлгісін қалыптастыру жолында Қазақстан алдына қойылған міндеттерге жауап береді. Зерттеудің мақсаты – Қазақстан Республикасындағы ұлттық даму контекстінде адами капитал тұжырымдамасын қарастыруды өзектендіру. Табысты жаңғырту адами капиталдың сапасын одан әрі жақсарту арқылы қамтамасыз етіледі: адамның өнімділігін арттыру, оның талантын, білімін, құзыреттілігін және ұлттық экономикалық жүйеге интеграциялануға және қажетті оң нәтиже беретін басқа да әлеуметтік мүмкіндіктерді пайдалану.

Жұмыстың ғылыми-практикалық маңыздылығы Қазақстанды үшінші модернизациялау үдерісінде адам капиталының сапасын жақсарту жолдарын нақтылау болып табылады. Зерттеудің әдіснамалық негізі саяси экономика классикасының және адами капиталдың заманауи зерттеушілері болып табылады. Адами капиталдың тұжырымдамасын қалыптастырудың ретроспективті талдауы негізінде осы тұжырымдаманың қазіргі заманғы, кеңірек түсініктемесіне өту. Жұмыстың құны Қазақстанның мемлекеттік саясатының қалыптасуы кезінде «адам капиталының» санатын пайдалану мүмкіндіктері кеңейтіліп, көрсетілуіне байланысты. Бұл зерттеу индустриалды және мемлекеттік теоретиктер мен практиктерге адами капиталдың көрсеткіштерін жоспарлау, талдау және бағалауда қолдануға пайдалы болуы мүмкін.

Түйін сөздер: адам капиталы, экономиканы жаңғырту, тұжырымдамасы, мемлекеттік саясаты.

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Казахстан, г. Алматы, e-mail: t_sokira@mail.ru**Человеческий капитал как вектор модернизации экономики Казахстана**

Тема, предложенная для рассмотрения в данной статье, весьма актуальна и отвечает задачам, стоящим перед Казахстаном на пути к новой модели роста в условиях глобальной конкуренции. Цель исследования заключается в актуализации рассмотрения концепции человеческого капитала в контексте национального его развития в Республике Казахстан. Успешное проведение модернизации представляется за счет дальнейшего улучшения качества человеческого капитала: роста производительности человека, использования его талантов, знаний, компетенций и других потенциальных способностей, позволяющих встроиться в национальную хозяйственную систему и принести искомый положительный эффект.

Научная и практическая значимость работы состоит в конкретизации путей улучшения качества человеческого капитала в процессе Третьей модернизации Казахстана. Методологической базой исследования послужили труды политэкономических классиков и современных исследователей человеческого капитала. В работе на основе ретроспективного анализа становления концепции человеческого капитала, показан переход от узкого трактования данного понятия к современному, более широкому. Ценность работы заключается в том, что расширены возможности и указаны индикаторы использования категории «человеческий капитал» при формировании государственной политики Казахстана. Данное исследование может быть полезным отраслевым и государственным теоретикам и практикам, использующим индикаторы человеческого капитала в планировании, анализе и оценке.

Ключевые слова: человеческий капитал, модернизация экономики, концепция, государственная политика.

Introduction

The existing problem of the need to further develop the sustainable development of Kazakhstani society in the conditions of global competition, limited resources, constant digitalization of the economy, leading to the disappearance of some and the creation of fundamentally new industries, require more modern approaches for their implementation. In order to solve it, the third modernization of the economy was proclaimed in Kazakhstan. Human capital (Cheka) was the central vector in modernization.

At present, in the advanced countries of the world, it has become almost universally accepted to consider the Cheka as the basis of the state, society and economy. In the modern postindustrial society of the leading states of the world, the life and creative potential, human capabilities are the core of all socio-economic processes. In the development of political decisions in the context of designated challenges, it is extremely important to appeal specifically to the modern interpretation of the Cheka.

Undoubtedly, the future of Kazakhstan at this stage depends on accelerated technological modernization of the economy, cardinal improvement and expansion of the business environment, macroeconomic stability, as noted in the Address of the President of the Republic of

Kazakhstan [Nazarbayev NA, 2017: 3]. However, it is not feasible without using all the diversity and wealth of the Nation's Cheka and its competitive advantages. According to the World Bank, based on the study of the economies of 192 countries, 55 percent of economic growth is determined directly by human capital.

Above stated circumstances determine the relevance of the topic and are determined by the general interest and the need to study this category, despite the fact that it has a rich tradition of research for more than three centuries. In its development, it went through several stages of development, but it differs insufficiently exhaustive content, it requires clarification and adaptation to the modern realities of the development of the economy of Kazakhstan.

As an object of research, we have defined the historically established concepts of the Cheka. The subject of the study are the criteria of the Cheka.

The aim of the study is to actualize the review of the concept of the Cheka in the context of its national development.

Research hypothesis: the interpretation and content of the concept of the Cheka has a rich tradition of study, but at the present stage of the development of the economy of Kazakhstan, it is necessary to clarify and specify the criteria for its content.

Materials and methods

In the solution of the private task, which we have identified in the article, aimed at achieving the goal of updating the concept of the Cheka as applied to the modern stage of modernizing the economy of Kazakhstan, the current international experience in the development and application of this concept is being analyzed. In the process of solving this problem, a retrospective analysis of the different views of scientists on the Cheka was given in various literary sources over the last three centuries.

The methodological basis for the study was both general scientific and special methods of scientific knowledge. Priority was given to the use of content analysis.

Literature review

In the process of solving the task, a retrospective analysis of various existing conceptual views and views of scientists on the Cheka was carried out. The basis for the substantiation was the works of many authors, considered by us in connection with various historical stages. The works of foreign scientists S.W. Petty, G.S Becker, T. W. Schultz, J. Mincer, R. Collins, J.J. Heckman and others. The countries of the near abroad are the works of A.G. Aganbegyan, V.I. Marcinkiewicz. Among domestic authors, the basis for reasoning was Zh.G. Zhanbirova, Sh.M., Kantarbaeva, Z.Zh. Tursynbekova.

Results of discussion

The concept of the Cheka for several centuries has developed its way mainly in Western economic science. At each stage of its advancement, an approach was developed reflecting the system of views characteristic of the existence at that time of scientific economic schools. Therefore, it can be rightly noted that the development of the concept of the Cheka in economics is a process of accumulating knowledge and scientific views that do not reject the legacy of economic thought, but rather a process of evolution, the synthesis of the achievements of various scientific schools, the accumulation of ideas and views on man, in the economy and social production.

Scientists, our contemporaries, make attempts to synthesize these more than three-century scientific views, isolating conceptual bases from them. We will retrospectively analyze and, in our opinion, consider the most significant results of research at

various stages of the formation and development of the concept of the Cheka.

It is known that the pre-industrial stage of the concept formation, which lasted until the beginning of the XIX century, was characterized by the agrarian way of the economic system and the traditionalist nature of social relations. During this period, the man and his knowledge were not recognized by economists [Petty 1899 (1691)] as a special, specific production asset, however they did not deny his monetary value. The knowledge, abilities and labor competencies of a person were considered not as an asset, but rather as personal qualities of a person. Often a person was persecuted for striving for knowledge, for dissent, up to deprivation of life. The state and the church guarded their monopoly on knowledge, controlled university education, which was mostly theological in nature. The population, in its bulk, remained illiterate. The then existed production system of production, basically practiced the transfer of professional skills and competencies from father to son [Castel 1995].

The stage of the beginning of mass training, is observed by researchers in the XIX and first half of the XX centuries. It is at this time that the prerequisites for the birth of the concept of the Cheka are formed. However, this process was quite long and difficult. And even though the authoritative economists of the period under consideration, such as A. Smith, who discusses «the useful abilities of man» and K. Marx, who claims to be a man and knowledge as the most important in the future components of the productive forces, etc., opinion and attitude to the person and his knowledge did not change significantly.

At the enterprises, cruel exploitation was observed. Labor was considered by employers as an organic, easily replaceable machine analog. Using the situation of labor redundancy and the prevalence of unemployment, they set low wages and at the same time increased labor standards and burdens. The simple ability to work of an employee was valued, and not his talent, abilities and knowledge. Therefore, care for the employee was determined not by strategic investments in its development, but, at best, in social assistance, for example, in the construction of factory settlements [Rosenberg, Birdzell 1986].

Meanwhile, in this period, mass education is gradually developing. However, investments in education did not immediately become part of the investment strategy. In the post-Soviet space by the 1920s and 1930s, literacy and education began to be recognized as an important factor in the

country's economic development, and therefore, it was possible to observe an increase in interest in the economic evaluation of the effectiveness of investments in people [Strumilin 1966], economists have already distinguished capital and current costs for the employee, however, on the whole, the proper development of the Cheka theory did not continue. The reasons for this situation lie in the planned economy and in the fact that education was free, there were no labor and human capital markets [Didenko 2015].

In Western Europe and the United States, the situation developed in a different way. The development of industry and technology, the emergence and use of on-line production, the transition to innovative entrepreneurship, required employers to use new combinations of factors of production, including knowledge, social and innovation activity, and the commercialization of innovations [Schumpeter 2008 (1934)]. And, finally, at the end of the 19th and the beginning of the 20th centuries, we are witnessing the beginning of the formation of vocational training institutes that are gradually becoming the objects of state regulation, providing the needs of the economy in skilled workers.

The next, late industrial stage is rather short, but important for the development of the Cheka, is in the 1960-1970s. During this period, another technological breakthrough took place, but, most importantly, the core of the Cheka theory was formulated.

In the 1960s, in the face of growing international competition and high energy prices, the US and other industrial countries faced the problem of finding internal factors of sustainable growth and progressive social and economic development. The traditional investment of capital in natural wealth, physical means of production, technology, finance in themselves were no longer able to guarantee sustainable economic and social growth in the long term. To ensure technological breakthrough, new forms of ownership, as well as awareness of intangible factors of production, primarily the Cheka, were needed. As a result, the conceptual value of the worker and the various aspects of his knowledge and skills as a factor of the country's competitiveness, sustained economic growth and growth of personal well-being were finally embodied in conceptually tangible forms.

Throughout the world, the development of the Cheka theory is associated with the names of the economists of the Chicago School who are followers of the theory of methodological individualism

[Blaug 1992: 209]. This Nobel laureate G. Becker [Becker 1962], T. Schultz [Schultz 1960; 1961] and J. Mincer [Mincer 1958; 1962]. In their opinion, individuals accumulate knowledge, being driven primarily by the desire to maximize utility while meeting a stable set of preferences in the field of education and enlightenment. The theorists proposed a whole research program that scientifically justifies investing in people.

To the investments in the Cheka, these authors already at the earliest stage of development included the following its constituent criteria [Schultz 1961]:

- 1) expenses for medicine, health and nutrition;
- 2) professional development at the workplace, organized by employers;
- 3) the system of education of different levels, in particular the school, as well as the primary, secondary and higher professional;
- 4) additional public education programs for adults.

The developed paradigm of the Cheka by the economists of the Chicago School is still one of the most productive not only in modern economic science, but also in the field of public administration.

In the United States, the need for skilled labor increased with the growth of industrial production, while the possibilities for investing in the Cheka remained insufficient due to the underdeveloped system of state support for additional and basic education, which «required large investments of resources» [Schultz 1960: 571], and high cost of medical services. The basic costs of education and medicine fell on the shoulders of the population and employers and began to be viewed as a common human capital. Investments in additional education began to be attributed to investments in specific human capital.

The division of the Cheka into a general and specific one became the basic feature of the theory of the Cheka [Becker 1962; 1993], which determined the way for subsequent research. It was found that the bonus to workers with a more developed specific Cheka, as well as the practice of co-investing in a specific Cheka, are reflected in greater employment stability for such workers (Oi 1962). Investments in a company-specific set of knowledge and skills produce additional profit not only for employers, but also for workers (Becker 1993).

Based on the general proposition that time is required for any process [Becker 1965], G. Becker, after his colleagues [Mincer 1958], suggested measuring the number of years spent on training. In a work that became classical [Mincer 1974], the boundaries of the empirical measurement of the

Cheka were broadened (see: [Becker, Chiswick 1966]). Its indicators included, in addition to the number of years of training, the potential experience in the labor market, measured in terms of the number of years of work that have elapsed since graduation, as «a rough but very useful measure of seniority and an indicator of in-service training» [Becker 1993: 393]. Realizing the social importance of the Cheka [Lange, Topel 2006], modern research also studies the social return on investment in education, which is measured not through income differences, but through differences in productivity levels.

The first post-industrial stage, which occurs in the 1980s and the 2000s, is characterized by growing inequality and diversifying the interpretations of human capital. The emergence in this period of new types of jobs, the transition to a new model of the economy was accompanied by a change in the whole society, its social structure. The very notion of «work» was transformed, which was associated with the transition to «information work» [Bell 1999 (1973)]. Nonphysical work has become dominant, new professional groups are emerging, [Lounsbury, Kaghan 2001]. The professional structure of the workforce has been transformed into a sharp increase in specialists and technical personnel [Blau, Duncan 1967; Dunkerley 1975; Porat 1977; Kumar 1978; Routh 1987; Wyatt, Hecker 2006; Anikin 2013a].

Because of the changes that took place, the so-called new middle class, formed from skilled managers and intellectual workers, began to position itself as the most mass group. The new middle class of owners of quality Cheka has gradually become the leading group in the society in which there is an active accumulation of Cheka and its use as a key means of production. In assessing these changes, it can be argued that the professional structure is not only an important structural aspect of the nation's Cheka, it also contributes to the formation of motivation for its growth and preservation, providing the country with a competitive advantage in international markets [Berger, Earle, Sabirianova 2001]. Foreign researchers have shown at the same time that the quality of the development of the Cheka depends, in a number of cases, not so much on institutions as on the qualifications of managers who are responsible for the effectiveness of the integration of new technologies imported into the country [Acemoglu, Aghion, Zilibotti 2006], as well as from the experience gained in the framework of a professional group [Kambourov, Manovskii 2009]. So, according to these researchers, with other things being equal, every five years of work by profession lead to an increase in wages by 10-20%.

Today, the areas of Cheka analysis are actively developing that are alternative to the microeconomic approach associated with assessing the role of professions, organizations and institutions in investing in the Cheka. Begin to develop and macroeconomic studies of the Cheka, which by the 1980s. were formed in a separate scientific direction. Thus, Barro showed that not only the number of years of education in the adult population over the age of 25, but also the ratio of the number of students and teachers, for example, in high school affects the quality of the Cheka [Barro 1991]. P. Romer showed the high importance of the literacy level as one of the important indicators of the Cheka and, consequently, the factors of economic growth [Romer 1990a; 1990b]. Unlike microlevel studies, in macroeconomic studies the choice of indicators of the Cheka available for empirical analysis is very limited. However, despite this, the search for new indicators relating to various aspects of the Cheka has been and continues to the present.

So, already in the 1990's. Research into non-economic factors of economic growth began, based on new indicators of the Cheka (Lee, Lee 1995; Mulligan, Sala-i-Martin 1997). The results of these studies, on the one hand, were a criticism of the traditional indicators of the Cheka, and on the other, an important proof of the role of the socio-demographic and cultural context in determining economic growth. Thus, based on the experience of psychologists, it has been established that school performance indicators contribute more to GDP growth than traditional Cheka indicators, not to mention the role of performance in the growth of personal incomes and productivity of a wide range of professions [Lee, Lee 1995].

The second post-industrial stage (2000-2010) gave us new modern interpretations of human capital and new indicators. Since the early 2000's. the studies that showed the special role of preschool education, the family and other institutions of preschool development of the child were actualized. With the saturation of the labor market, graduates of colleges and universities have become increasingly critical to assess the formal approach to the task of forming competitive skills and competencies, that is, the Cheka that will be in demand by the economy of the future. These studies are associated with the name of Nobel laureate J. Heckmann, who noted the special importance of non-cognitive (socio-emotional) skills in the overall part of the Cheka as a factor determining the position of the person in the labor market and his earnings [Heckman 2000; Heckman, Rubinstein 2001].

Analysis of J. Heckman and his colleagues showed that investing in non-cognitive skills of the child in the early stages of its development is very important, although at later stages of its development they can compensate for the lack of investment in the cognitive aspects of his Cheka at earlier stages, only this will require large costs [Cunha, Heckman, Schennach 2010]. It has also been shown that the formation of a critical set of competencies occurs up to 10 years [Heckman 2000; Heckman, Carneiro 2003]. It was found that investments in the Cheka at the earliest stage of their investment have a colossal synergistic effect.

The adoption and development of the concept of the Cheka in the last third of the twentieth and beginning of the 21st century as one of the key theoretical paradigms of socioeconomic analysis entailed a whole series of studies devoted to the problem of the Cheka, its accumulation, non-economic factors affecting the return from the Cheka, e. Developing in line with microeconomic logic, by 2010, The theory of the Cheka greatly expanded and included a rich range of indicators of the Cheka. Recently, the accompanying personal resources, which ensure the effective capitalization of the Cheka within the framework of a society, have increasingly come to the forefront. First, we are talking about social capital [Coleman 1988; Augusto Felício, Couto, Caiado 2014], as well as the cultural ones, which included the traditional Cheka [Bourdieu 1986] as one of the elements, as well as a number of deficient competences – the ability to make effective decisions, organize team work in a group or communication, competently build priorities, etc.

At the present stage, within the last decade, the main trend has been the researchers' examination of the essential content of the Cheka in the context of national development. All over the world and in Kazakhstan in particular, today came the realization that in order to reach a new stage of development, that is, to ensure that the Cheka of the nation «has earned» with maximum efficiency, a broader vision of the tasks of the education and health system is needed, a reduction in the inequality of life chances in these areas for children from different backgrounds.

The theoretical formulation of these ideas was reflected in the works of another Nobel laureate, A. Sen (Sen 1983; 1999), which gradually puts forward the problem of integrated human development. It became obvious that countries that have survived or are undergoing transformation processes, including Kazakhstan, need a new concept of the

Cheka [Zhanbirov, Kantarbaeva, Tursynbekova 2012], which would become an effective tool not only for theory but also for active socioeconomic transformations, especially in the conditions of market and state failures.

Within this tradition, the category «human capital» is replaced by a broader concept of «human potential». This interpretation is broader than the classical understanding of the Cheka, since it also provides for the consideration of motivation [Anikin 2013b], value orientations, ideological and behavioral characteristics of a person, affecting its effectiveness as an employee.

Research work of the recent years in the field of Cheka has shown that for the formation of a qualitative Chelyabinsk nation, capable of supporting a technological breakthrough, the state needs to make comprehensive investments in humans [Marcinkiewicz 2005]. Savings and reduction of these costs, as a rule, not only does not increase the state's means for development, but, on the contrary, cuts the possibility of this development, reduces socio-economic growth [Aganbegyan, 2017: 67]. At the beginning of the 21st century, the world science also began to form an understanding that the technological and stable economic growth of the state depends on the accumulated human potential of the working population, corresponding to the new conditions of the social and professional structure, effective institutions and organizations of a new type capable of absorbing and developing advanced technologies, stimulate the building of the Cheka, and also build and maintain new technological breakthroughs and the corresponding management systems.

Conclusion

The success of the third modernization of Kazakhstan's economy entirely depends on how much the Cheka integrates into the national system of motivation, labor culture and institutional conditions. Because of numerous studies conducted within this tradition, it became obvious that there are no single recipes for economic breakthrough and economic development for states. But the main condition must be fulfilled in any case. He is the inclusion of the Cheka as a system-forming factor and the value of society, in public policy, as the leading priority.

The further development of the Cheka can become the defining vector in ensuring the long-term advantage of Kazakhstan in the international arena. We are persuaded by successful examples

of the development of Japan, South Korea, China, Singapore, Taiwan, demonstrating to us examples of the creation of such a Cheka, the use of which enabled them not only to effectively organize and manage modern technologies, but also to develop technologies corresponding to their national specifics [Nelson 2015: 331-332]. These countries managed to create a system for the development of the Cheka on a national scale, based on a modern system of continuing education, vocational training and retraining.

Kazakhstan faces serious challenges today, and if our country does not manage to make the

Cheka a fuel for long-term development, the competitive prospects in the international arena will be irretrievably lost. To realize this task, a modern understanding is needed that considers human capital as a system of rent-forming assets reflecting different facets of a person's personality, the effective formation of which falls on the earliest stages of the individual's development. This approach will provide a more balanced assessment of the effectiveness of reforms and provide an integrated forecast of further changes in the framework of the third technical modernization of the country's economy.

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