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Z.T Gaibnazarova

*Tashkent State Technical University named after Islam Karimov, Uzbekistan, Tashkent, Olmazorskiy rayon, Universitetskaya ulitsa, 2, zumrat59@rambler.ru*

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## THEORETICAL AND METHODOLOGICAL DEVELOPMENT OF HUMAN CAPITAL AND DETERMINING ITS EFFECTIVENESS

Gaibnazarova Zumrat Talatovna

Doctoral student of the department «Corporate governance»  
Tashkent State Technical University named after Islam Karimov

PhD, Associate Professor,

E-mail: [zumrat59@rambler.ru](mailto:zumrat59@rambler.ru)

**Abstract:** The article considers the definition, nature, types and types of human capital, the emergence of the concept and socio-economic category of «human capital», individual, corporate and national human capital, as well as the narrow and broad definition of human capital and the historical development of countries and civilizations in the context of human capital. Based on the analyzes and results, conclusions are given on the definition of human capital as one of the significant elements of the new economic system, and ensuring the effectiveness of its formation will create conditions for profitable activities, and, as a result, the socio-economic, scientific, technological and resource-ecological development of our countries. The development of human capital should be the main strategic goal of the state.

**Key words:** human capital, innovation, intellectual potential, entrepreneur, innovation product, innovator, investment

## ИНСОН КАПИТАЛИНИНГ НАЗАРИЙ-УСЛУБИЙ РИВОЖЛАНИШИ ВА УНИНГ САМАРАДОРЛИГИНИ АНИҚЛАШ

Гаибназарова Зумрат Талатовна

Ислом Каримов номидаги Тошкент давлат техника университети «Корпоратив бошқарув» кафедраси докторанти, иқтисод фанлари номзоди, доцент

E-mail: [zumrat59@rambler.ru](mailto:zumrat59@rambler.ru)

**Аннотация:** Мақолада инсон капиталининг таърифи, табиати, турлари ва кўринишлари, «инсон капитали» тушунчаси ва ижтимоий-иқтисодий категориясининг пайдо бўлиши, индивидуал, корпоратив ва миллий инсон капитали, шунингдек, инсон капиталининг тор ва кенг таърифи ҳамда инсон капитали контекстида мамлакатлар ва цивилизацияларнинг тарихий ривожланиши каби муаммолар кўриб чиқилган. Таҳлиллар ва натижалар асосида инсон капитали - янги иқтисодий тизимнинг муҳим элементларидан бири эканлиги ва унинг шаклланиш самарадорлигини таъминлаш эса даромадли фаолият олиб бориш учун шароит яратиши, натижада давлатимиз ижтимоий-иқтисодий, илмий-техникавий ва ресурс-экологик ривожланишини таъминлаши ҳақида хулосалар чиқарилди. Инсон капиталини ривожлантириш давлатнинг асосий стратегик мақсади бўлиши керак.

**Калит сўзлар:** инсон капитали, инновация, интеллектуал салоҳият, тадбиркор, инновацион маҳсулот, инноватор, инвестиция

### Introduction

The concept of human capital and its theory arose in the second half of the 20th century as a response of economic science to the challenges of the time, to the formation of an innovative economy, post-industrial and information societies, in which the role of

specialists and workers of intellectual labor has grown tremendously, and the role and share of unskilled labor, on the contrary, decreased.

The process of replacing physical and natural capital with human capital in the national wealth of developed countries, the overwhelming prevalence of investment in human capital over investment in physical capital-are characteristic and prevailing processes of the second half of the 20th and 21st centuries for developed countries of the world, as well as rapidly developing countries of the world.

Currently, in the theory and practice of human capital, individual, corporate, and national human capital are distinguished.

Individual human capital is an accumulated stock of special and special knowledge, professional skills of an individual, allowing him to receive additional income and other benefits compared to a person without them.

Corporate human capital is the individual and special human capital accumulated by the company in comparison with competitors, know-how, intellectual capital, and special managerial and other intellectual technologies, including computer and information technologies that increase its competitiveness.

National human capital is part of the innovative (creative) workforce, accumulated competitive and high-performance knowledge, an innovative system, intellectual capital and innovative technologies in all spheres of life and the economy, as well as quality of life, which together ensure the competitiveness of the country's and state economies in world markets in the context of globalization.

#### **Literature review**

The very creation of the theory of human capital went from the lowest level to the highest-from individual human capital to national. Theory of individual human capital was created by Theodor Schulz (Nobel Prize in Economics for 1979) and Gary Becker (1992).

A significant contribution to the development of a general theory of development and human capital, in particular, was made by Simon (Semen) Kuznets (1971 Nobel Prize), who was the first to introduce the concept of GDP into economic theory and practice. Among all the necessary and sufficient development factors, Simon Kuznets singled out the accumulated national human capital as the primary level. And he argued that there is a certain threshold value of accumulated national human capital, without which a transition to the next technological structure of the economy is impossible.

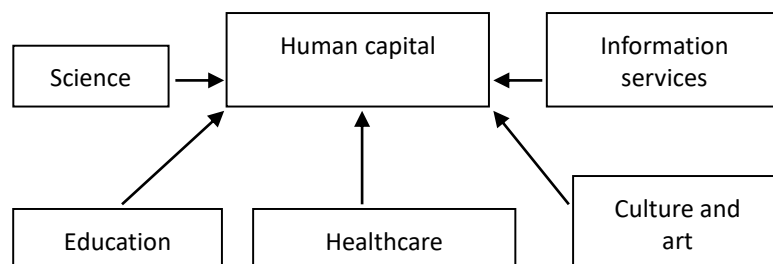
He defined the human capital of the enterprise as a combination of skills, knowledge and skills of the staff. As an investment in workers, Becker took into account the costs of education and training. Becker appreciated the cost-effectiveness of education, primarily for the employee himself. He defined additional income from higher education as the difference between the income of those who graduated from college (taking into account lost income) and workers with secondary general education. According to Gary Becker, human capital is a combination of innate abilities and acquired knowledge, skills and motivations, the effective use of which helps to increase income and other benefits. G. Becker transferred the concept of human capital to the level of organization.

The concept of human capital is a natural development and generalization of the concepts of the human factor, human or labor resources, intellectual capital and social capital, but human capital is a broader economic category.

### Research methodology

There are several definitions of human capital: narrow, expanded and wide. As already noted, the socio-economic category of «human capital» was formed gradually. And at the first stage, only investment in special education (a narrow definition of human capital) was included in the composition of human capital. Sometimes human capital in a narrow definition is called educational human capital.

At the second stage, the composition of human capital (expanded definition) was gradually included (including the World Bank experts in assessing the human capital and national wealth of the countries of the world) investments in upbringing, education, science, in people’s health, in information services, in culture and art (Fig. 1).



**Fig.1. Sources of accumulation of human capital**

At the third stage of development of the socio-economic category of human capital, investments were added to components that ensure people’s safety (highlighted from the quality of life of the population due to their particular importance), to training an effective elite, to the formation and development of civil society, and to improving the efficiency of institutional servicing of human capital , as well as investments in improving the quality of life of the population and in the inflow of capital from outside to a given country or region (Fig. 2).

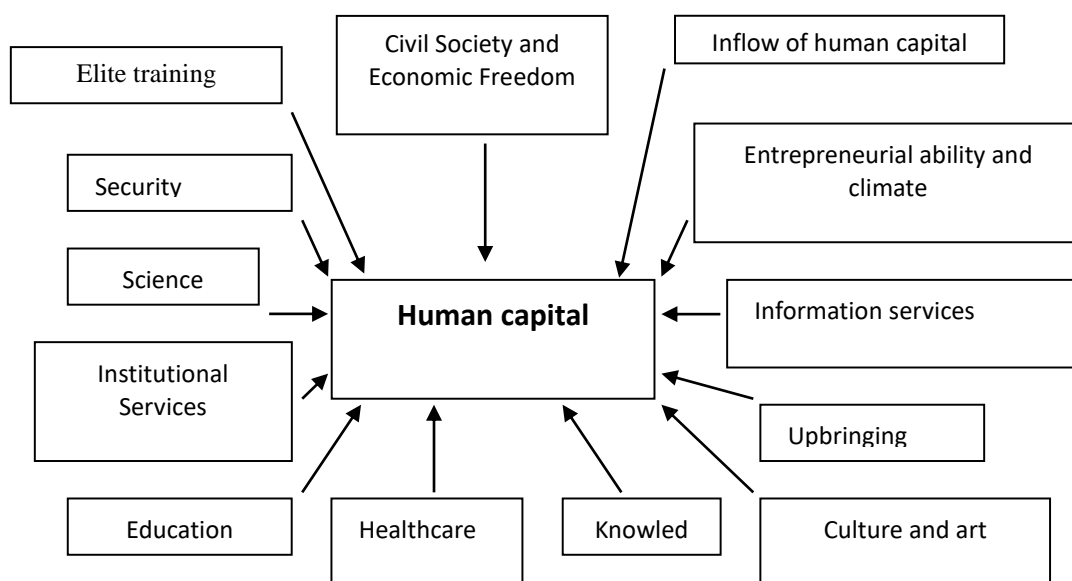
The basic components of human capital are the mentality of the people (traditions and culture of the population, including attitudes towards work, family, law-abidingness, which have historically been influenced by religion, the degree of economic freedom and living conditions), the quality of education, health, and accumulated knowledge (level development of science and the competitiveness of accumulated knowledge), competition and economic freedom, as well as the rule of law, security of business and citizens.

From figures 1 and 2 it follows that human capital is a synthetic and complex socio-economic category at the intersection of various disciplines and sciences: economics, psychology, sociology, computer science, history, medicine, pedagogy, philosophy, political science and others.

The core of national human capital is made up of the best and world-class competitive experts who determine the growth and efficiency of the use of knowledge and innovations, the effectiveness of the entrepreneurial resource, the size and effectiveness of the innovative sector of the economy.

The accumulated national human capital in its broad definition is the share of the innovative economy and its support in the overall economy of the country. This approach allows us to quantify the national human capital through the use of integrated country international indicators, which, on the one hand, simplifies the calculations, and on the

other, makes them more reliable.



**Fig. 2. Sources of the formation of national human capital in a broad definition**

At all levels of human capital - individual, corporate and national - it is based on special, specific knowledge, skills and technologies that determine the competitive advantages of human capital of the appropriate level. And also, the composition of human capital also includes additional qualified labor resources, quality of life, tools and technologies that ensure the realization of the competitive advantages of national human capital, the effective functioning of human capital as an intensive factor in innovation, intellectual work and development.

### **Analysis and results**

National wealth of a country is a combination of accumulated reproduced, national human and natural capital of a country in terms of value.

The composition of national human capital includes, in addition to national components, corporate and individual human capital, as well as human capital of households.

National human capital is formed through investments in upbringing, education, culture, public health, in improving professionalism, living standards and quality of life of the population, in science, knowledge and intellectual capital, in entrepreneurial ability, in information support and security of citizens, in economic freedom in its international definition, in the toolbox of intellectual labor, in the environment of functioning of human capital as a factor in the development of the economy and society.

Human capital as a stock of knowledge, skills, experience can not only accumulate in the process of investing, but also materially and morally wear out.

The integrated return on investment in human capital in an effective state increases with time. Human capital is an intensive development factor, and the law of diminishing returns does not apply to it with a correctly chosen strategy for the development of human capital, economy, statehood, and civil society.

Human capital is an intensive synthetic and complex productive factor in the

development of the economy and society, including creative labor resources, an innovative system, high-performance accumulated knowledge, professional information systems, and tools for intellectual and organizational work, quality of life and intellectual activity that ensure the effective functioning of human capital.

The dominance of corruption and crime devalues knowledge, suppresses the creativity and creative energy of people, and reduces the quality, efficiency and accumulated value of human capital. Turns synergy into a negative development factor, into its brake.

For example, in a criminalized and corrupt country, human capital cannot function effectively by definition. Even if it is «imported» external high-quality human capital, secured by its inflow. It either degrades, getting involved in corruption and other counterproductive schemes, or «works» inefficiently.

Currently, on the basis of the theory and practice of human capital, a successful development paradigm of the United States and leading European countries is being formed and improved. Based on the theory and practice of human capital, Sweden, which had lagged behind, modernized its economy and regained its leadership position in the global economy in the 2000s. Finland, in a historically short period of time, has managed to move from a mainly raw material economy to an innovative economy.

All this took place not because the theory and practice of human capital realized a kind of magic wand, but because it became a response of economic theory and practice to the challenges of time, to the challenges of the innovative economy emerging in the second half of the 20th century, to the challenges of its highest stage - the economy knowledge, as well as venture science and technology business.

In the context of the globalization of the world economy, in the conditions of free flow of any capital, including human capital, from country to country, from region to region, from city to city in the face of intense international competition, the accelerated development of high technologies of human capital, is the main intensive competitive factor in the development of those countries of the world that carry out advanced investments of high-quality human capital, organize and finance its inflow into the country, create better working conditions and Life Span leading specialists in the world and the country.

The choice of human capital as the main factor of development for a developing country literally dictates a systematic and integrated approach to the development of a concept or development strategy for both human capital itself and the overall development strategy of the country. It requires linking with them all other strategic planning documents.

An analysis of the processes of scientific and technological development shows that human capital, the cycles of its growth and development are the main factors and drivers for generating innovative waves of development and cyclical development of the world economy and society. Gradually accumulated knowledge. On their basis, education and science developed. A layer of highly professional scientific, technical, managerial and, as a whole, intellectual elite was formed, under which another breakthrough in the country's development was made. Moreover, the level and quality of national human capital determines the upper bar in the development of science and economy. And without raising the quality of national human capital to the level required by an innovative economy, the



quality and ethics of labor, it is impossible to jump into an innovative economy and, especially, into a knowledge economy.

At the same time, the share of unskilled labor in the GDP of developed and developing countries is becoming less and less, and in technologically advanced countries it is already vanishingly small. Any work now in a civilized country requires education and knowledge.

The driving force behind the development of human capital and an innovative economy is competition in all activities. Competition forms and selects the best specialists, the most effective management, improve the quality of human capital. Competition encourages entrepreneurs and management to create innovative products and services. Free competition, economic freedom in its international definition are the main stimulants and drivers for the growth of quality and competitiveness of national human capital, the growth of knowledge production, the generation of innovations and the creation of effective innovative products.

### **Conclusions and recommendations**

At a certain historical stage, Western civilization won the global historical competition with older civilizations precisely due to the faster growth and development of human capital, including education, in the middle centuries. At the end of the 18th century, Western Europe surpassed China (and India) by one and a half times in per capita GDP and doubled in terms of population literacy. The latter circumstance, multiplied by economic freedom, and then democracy, became the main factor in the economic success of Europeans, as well as the United States and other Anglo-Saxon countries.

In Japan, adhering to centuries of isolationist politics, there has always been a high level of human capital, including education and life expectancy. In 1913, the average number of years of adult education in Japan was 5.4 years, in Italy - 4.8 years, in the USA - 8.3 years, and average life expectancy - 51 years (approximately, as in Europe and the USA). In our country, these indicators were equal: 1-1.2 years and 33-35 years. Therefore, Japan in terms of starting human capital was ready in the 20th century to make a technological breakthrough and become one of the leading countries in the world.

In the developed countries of the world, at the end of the 1990s, about 70% of all funds were invested in human capital, and only about 30% in physical capital (Table 1). Moreover, the state makes the bulk of investments in human capital in the advanced countries of the world. And this is precisely one of its most important functions in terms of state regulation of the economy.

**Table 1.**

#### **Change in the structure of total capital in Western countries and Japan**

Year	1800	1860	1913	1950	1973	1997/98	The beginning of the 21st century
Physical capital	78-80	77-79	67-69	52-53	43-44	31-33	20
Human capital	20-22	21-23	31-33	47-48	56-57	67-69	80

It should be noted that it is much more difficult to accurately determine the economic efficiency of investing in human capital than investing in physical capital, since the return on human capital can appear both in monetary and non-monetary forms. In addition, analyzing the return on human capital, two elements can be distinguished:

- Consumer, taking place in the event that the process of obtaining education in itself

will benefit a person;

- Investment, when the effect will bring investment in human capital.

Thus, human capital is one of the significant elements of the new economic system, and ensuring the effectiveness of its formation creates the conditions for profitable activities, and, as a result, the socio-economic, scientific, technological and resource-ecological development of our country. The development of human capital should become the main strategic goal of the state, therefore it is currently developed by Decree of the President of the Republic of Uzbekistan «The Concept of Development of the Higher Education System of the Republic of Uzbekistan until 2030», which includes a number of important provisions on the formation and development of human capital at the state and regional levels.

The ideas embodied in the theory of human capital have had a significant impact on the economic policy of the state, the public's opinion on such investments has changed, in which they have learned to see investments that provide a long-term production effect. This led to the rapid development of the structure of education and training of personnel in all countries of the world, attracting large investments in various areas of public life, in health care, education, science and technology.

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