

Analysis of Human Capital Based on The Process-Outcome Principle

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Abstract: : The article examines human capital, its manifestation characteristics, and the research findings of foreign scholars in this field. It analyzes the development level of human capital in Uzbekistan and its representation in international indices, comparing these indicators with those of other countries. Key metrics that evaluate human capital as both a process and an outcome have been identified, and general conclusions on the topic have been presented.

Keywords: Happiness index, human capital, knowledge index, ranking, population health, education, knowledge economy index, innovation index, human development index

Introduction

In the “Development strategy of New Uzbekistan for 2022–2026” it is emphasized that in-depth analysis of complex global processes and the results of the country’s development highlights the importance of further improving the well-being of the population based on the principle of “For the dignity of the individual”. This includes transforming economic sectors, accelerating entrepreneurial development, ensuring the unconditional protection of human rights and interests, and fostering an active civil society in the coming years.

The higher education system serves as a critical tool for enhancing human capital and boosting the nation’s competitiveness. In this regard, the esteemed President of Uzbekistan stated: “Improving the quality of education is the sole correct path to the development of New Uzbekistan”.

Thus, identifying the priority directions for systematic reform of higher education and exploring the issue of elevating the process of developing high-quality human capital—characterized by modern knowledge, high moral and ethical standards, and independent thinking—to a qualitatively new stage is of paramount importance.

Literature review

The theoretical aspects of studying human capital development have been advanced by prominent international scholars such as J.Ben-Poret, A.Marshall, L.Thurow, T.Sakaiya, U.Doyzard, G.Becker and T.Schultz.

Among Russian researchers, significant contributions to this topic have been made by I.T.Korogodin, D.A.Shevchenko, A.O.Sergeyeva, M.D.Cherkashin, L.L.Redko, P.V.Solodukha, I.V.Gruzkov, V.N.Gruzkov, A.V.Tkachenko, V.A.Titov, R.I.Kapelyushnikov, I.Remorenko, I.Rozhkov and others, who have conducted extensive scientific studies on this subject.

In Uzbekistan, the theoretical aspects of human capital development have been explored by academics such as K.X.Abdurakhmanov, R.A.Ubaydullayeva, A.Ulmasov, A.Vakhobov,

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G.K.Abdurakhmonova, S.A.Bozorova and others, who have made notable contributions to this field through their scientific research.

Methods

This study employs a combination of qualitative and quantitative methods to analyze the development of human capital as both a process and an outcome. A systematic review of academic literature and international reports was conducted to identify key indicators such as health, education, innovation, and happiness indices. Statistical data from global and national rankings were analyzed to assess Uzbekistan's position and progress in these areas. Comparative analysis was used to evaluate the country's performance against global benchmarks and regional peers. Additionally, policy documents and reform strategies were reviewed to understand the state's efforts in enhancing human capital through healthcare, education, and social development. The findings provide a comprehensive understanding of the current state and future directions for human capital development in Uzbekistan.

Results

The outcome of human capital development lies in the accumulation of its qualitative characteristics. By investing in improving the quality of education and healthcare systems, a state enriches its national human capital, which becomes a key factor in ensuring the sustainable growth of the economy and enhancing its competitiveness in the global market.

As noted by M.A.Giltman and V.V.Pit, "It is common today to characterize human capital based on three primary components: well-being, health and life expectancy, education, and cultural level". These components are considered fundamental elements in the structure of human capital.

In our view, studying human capital development requires applying the "process-outcome" principle to identify the indicators that characterize it as both a process and a result. Health is one of the key elements of human capital, and its condition significantly depends on efforts to improve and enhance it.

In scientific economic literature, health is often studied from the perspective of the absence or presence of diseases. Poor health conditions reduce productivity: physically weak and ill workers are unable to fully realize their human capital. For this reason, organizations invest in the health of their employees, recognizing its critical role in achieving optimal performance.

In 2022, the volume of healthcare services in the Republic of Uzbekistan amounted to 6,384.2 billion UZS, representing 1.8% of the total market services provided. This reflects a growth rate of 111.5% compared to 2021. For comparison, in 2018, the volume of these services was 2,220.0 billion UZS, accounting for 1.5% of the total market services.

As a result of investments allocated to the healthcare and social welfare sectors, Uzbekistan has achieved stable average indicators among CIS countries in terms of the population per physician and the population per hospital bed. A key factor influencing these results is the relatively higher population growth rate in Uzbekistan compared to other CIS countries.

Currently, the number of people per physician in Uzbekistan is 369, compared to 457 in Tajikistan and 197 in Russia. Regarding the population per hospital bed, the figure in Uzbekistan is 213, compared to 224 in Tajikistan and 126 in Russia.

To accelerate innovative development in the Republic of Uzbekistan, widely introduce innovations and technologies across all sectors of the economy, and advance human capital, science, and innovation, Uzbekistan adopted the Innovation development strategy for 2022–

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2026. The primary goal is to rank among the top 50 countries in the Global innovation index by 2026.

This year, Switzerland holds the 1st position in the index, followed by South Korea in 6th, China in 11th, Russia in 47th, Belarus in 77th, Armenia in 80th, Kazakhstan in 83rd, Azerbaijan in 93rd, Kyrgyzstan in 94th, and Tajikistan in 104th place. These indices represent a set of indicators characterizing the reproduction of human capita.

Table 1

Global innovation index rankings for developed and CIS countries

(2022 year)		
Place in the world	Countries of the world	Rating
1	Switzerland	67.6
2	USA	63.5
4	Great Britain	62.4
8	Germany	58.8
11	France	56.0
51	Russia	33.3
80	Belarus	26.8
81	Kazakhstan	26.7
82	Uzbekistan	26.2
106	Kyrgyzstan	20.2
111	Tajikistan	18.3

According to the results of the 2023 Global innovation index, Uzbekistan maintained its 82nd position among 132 countries, consistent with its ranking in 2022. Within the group of lower-middle-income countries, Uzbekistan ranked 10th out of 37 states. In the Central and South Asia region, Uzbekistan secured the 4th position out of 10 countries. The country achieved high rankings in indicators such as “Gross capital formation” (6th place), “Labor productivity growth” (6th place) and “Graduates in science and engineering” (12th place).

Another key indicator assessing the quality improvement of human capital is the Human development index (HDI). According to the “Concept for comprehensive socio-economic development of the Republic of Uzbekistan until 2030” the country aims to raise its ranking in the HDI from 105th to 40th place.

It is worth noting that Uzbekistan’s new development strategy outlines tasks that can positively impact the Human development index (HDI). These tasks include increasing per capita income by 1.6 times (Goal 21 of the development strategy), raising the preschool education coverage rate to 80% (Goal 38), increasing higher education coverage to 50% (Goal 46), and improving the quality of medical services (Goals 55–64). Achieving these target indicators in the Development strategy will increase the HDI from 0.726 to 0.820 and transition Uzbekistan from the category of “countries with high human development” to “countries with very high human development”.

Since the dawn of humanity, individuals have aspired to happiness. From a philosophical perspective, as noted by Al-Farabi, ultimate happiness can only be attained through reason and intellect. One of the qualitative and quantitative indicators reflecting the level of human capital

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development in a country is the national happiness ranking, measured by the World happiness report.

The World happiness report is an international research project that measures the happiness index of populations across various countries. Factors such as per capita GDP, health, social security, freedom to make essential life decisions, generosity, and the absence of corruption all play a crucial role in assessing the quality of life in different nations.

According to many scholars, the comparison of countries based on various criteria should not rely solely on national income but instead focus on happiness indicators. Therefore, measuring the level of happiness requires a systematic evaluation of how people feel during the studied period.

According to the 2023 World happiness report, Uzbekistan ranked 54th among 137 countries with a score of 6.014. This represents a slight decline from its 53rd position in 2022, when the happiness index was 6.063.

Despite this change, Uzbekistan continues to maintain strong performance among CIS countries. In comparison, Kazakhstan ranked 44th, Kyrgyzstan 64th, Russia 70th, Turkmenistan 75th and Tajikistan 80th.

Globally, Finland retained its position as the happiest country in the world for the sixth consecutive year with a score of 7.80. The next positions were held by Denmark (7.59), Iceland (7.53), Israel (7.47) and the Netherlands (7.40).

Changes in Uzbekistan's happiness index reflect the dynamics of the country's economic and social development. Key factors influencing happiness include income levels, healthcare, social support, employment, and the level of corruption. Uzbekistan's position in the ranking demonstrates the impact of ongoing reforms and their influence on the well-being of the population.

To further improve Uzbekistan's happiness level, it is necessary to strengthen measures in areas such as ensuring economic stability, enhancing the quality of social services and intensifying anti-corruption efforts. Additionally, advancing human capital through improvements in public health and education remains a critical priority.

Conclusion

In conclusion, we identified the indicators characterizing human capital development as both a process and an outcome. According to these indicators, the Republic of Uzbekistan ranks 53rd in the Global health index, 59th in the national health expenditure ranking, 86th in the Global knowledge economy index, 82nd in the Global innovation index, 100th in the Human development index and 53rd in the World happiness report ranking.

Therefore, it is essential for the state to adequately finance the healthcare and education systems. Only individuals with knowledge and a healthy lifestyle can continuously and sustainably develop their human capital. Together, these factors enhance physical, intellectual, and moral capacities, enriching human capital with new dimensions and making it more effective and impactful.

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