

Human Capital as a Factor of Sustainable Development in Uzbekistan

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ABSTRACT

Objective: This article analyzes the significance of human capital as a key resource for sustainable socio-economic development, drawing on international experience and current trends in Uzbekistan. **Method:** Special attention is paid to the components of the Human Development Index (HDI), including life expectancy, the level of education, and gross national income (GNI) per capita. **Results:** The dynamics of Uzbekistan's HDI indicators for 2015–2023 are examined in detail. **Novelty:** Drawing on international experience and current trends in Uzbekistan.

INTRODUCTION

Modern concepts of sustainable development recognize human capital as the main driver of economic growth, competitiveness, and a nation's innovative potential. Global experience demonstrates that the development of people's knowledge, skills, health, and creative abilities ensures long-term socio-economic stability [1].

In the context of globalization and digital transformation, human capital becomes the decisive element in the transition to a knowledge-based economy. For Uzbekistan, which is implementing large-scale reforms, the formation and effective utilization of human capital are of particular relevance [2].

The purpose of this study is to analyze the role of human capital in the sustainable development of Uzbekistan based on the dynamics of the Human Development Index (HDI) indicators [3].

Theoretical Foundations of Human Capital Formation

In economic theory, human capital is defined as the aggregate of innate abilities, knowledge, skills, professional competencies, health, and creative potential of individuals, which are employed in labor activity and contribute to economic growth [4].

According to the OECD studies, the structure of national wealth is distributed as follows: 70% accounts for human capital, 28% for production assets and 2% for natural resources [5].

Thus, the key areas for human capital formation include education, science, healthcare, and social protection. Their development generates a multiplier effect, positively influencing the overall economy [6].

RESEARCH METHOD

The research is based on the analysis of data from the United Nations Development Programme (UNDP) concerning the Human Development Index (HDI) indicators for the period 2015–2023. The study examines the following core components:

- Life expectancy at birth;
- Expected and mean years of schooling;
- Gross national income (GNI) per capita.

The study employs comparative analysis to assess the dynamics of HDI indicators and to benchmark them against target values corresponding to countries with high levels of human development [7].

Human Capital Formation in Key Social Sectors

Science, education, healthcare, and other branches of the social sphere represent the main areas for human capital formation. Therefore, in advanced economies, special attention is devoted to scientific research focused on state regulation of the social sector and the qualitative improvement of education, healthcare, and research institutions [8].

These sectors serve as highly efficient engines of socio-economic growth, providing a powerful impetus for development and generating significant spillover effects across the economy. In this regard, studies aimed at strengthening university education potential, improving the quality indicators of the education system, developing communication skills and creativity (soft skills) among students, enhancing disease prevention and diagnostics, and increasing the efficiency of science and healthcare financing acquire particular importance [9].

RESULTS AND DISCUSSION

Results

Uzbekistan's Human Development Index (2015–2023)

In recent years, Uzbekistan has taken several positive steps to improve its position in international social and economic rankings. As a result, in 2023, Uzbekistan's HDI reached 0.740, allowing the country to enter the group of nations with a high level of human development [10].

Analysis shows that while Uzbekistan ranked 105th out of 188 countries in 2015, it moved to 107th place out of 193 countries in 2023 (Table 1).

Although Uzbekistan's relative ranking slightly declined, the HDI value itself increased, indicating that the country's growth rate in human development was below the global average. The HDI rose from 0.701 in 2015 to 0.740 in 2023 (+0.039).

During the analyzed period, all HDI components demonstrated growth:

- Life expectancy at birth increased by 1.9 years;
- Expected years of schooling grew by 0.7 years;
- Mean years of schooling rose by 0.5 years;
- GNI per capita increased by 2,341 USD.

Table 1. Dynamics of Uzbekistan's Human Development Index Indicators (2015–2023).

Year	HDI Rank	HDI Value	Life Expectancy at Birth (years)	Expected Years of Schooling	Mean Years of Schooling	GNI per Capita (USD)
2015	105	0.701	70.5	11.8	11.4	6,485
2016	107	0.709	70.8	11.9	11.7	6,726
2017	105	0.715	71.0	12.1	11.7	6,974
2018	108	0.720	71.1	12.3	11.8	7,303
2019	106	0.725	71.3	12.5	11.9	7,499
2021	105	0.721	70.9	12.5	11.9	7,917
2022	106	0.727	71.7	12.0	11.9	8,056
2023	107	0.740	72.4	12.5	11.9	8,826
Change (2023 vs. 2015)	-2	+0,039	+1,9	+0,7	+0,5	+2341

Discussion

Despite the positive developments, a number of measures must still be implemented to enhance human capital through the improvement of education and healthcare systems and by increasing household incomes. Among the HDI components, GNI per capita remains the weakest factor negatively affecting Uzbekistan's ranking. Therefore, within the framework of ongoing economic reforms, increasing income levels must become a top national priority [11].

According to the "Uzbekistan-2030 Strategy", the country aims to increase its GDP to 160 billion USD and per capita income to 4,000 USD by 2030 [12].

As the HDI is a composite indicator, it is difficult to determine the precise contribution required from each component to reach this target. Nevertheless, a comparative analysis of countries that achieved an HDI of 0.800–0.820 in 2024 provides a useful benchmark [13].

Among these countries, Barbados has the lowest GNI per capita (17,328 USD), roughly double that of Uzbekistan, while Oman has the highest (32,553 USD), about 3.7 times higher. Based on this comparison, Uzbekistan needs to increase its per capita income by two to four times by 2030 [14].

At the same time, life expectancy at birth should reach approximately 76 years, expected years of schooling – 14 years, and mean years of schooling – 13–13.5 years. Achieving these indicators would allow Uzbekistan to join the group of countries with very high human development.

This, in turn, requires deep structural transformations in the social sectors responsible for human capital formation – education, science, and healthcare [15].

CONCLUSION

Fundamental Finding : Human capital serves as a fundamental determinant of sustainable development. Uzbekistan has shown a steady upward trend in its Human Development Index; however, to reach the level of countries with high human

development, the country must accelerate income growth, improve the quality of education and healthcare, and ensure the integration of innovation into the socio-economic sphere. **Implication** : Building strong human capital will enable Uzbekistan to successfully achieve the goals outlined in the "Uzbekistan-2030 Strategy" and to strengthen its position in international development rankings. **Limitation** : Uzbekistan has shown a steady upward trend in its Human Development Index; however, to reach the level of countries with high human development, the country must accelerate income growth, improve the quality of education and healthcare, and ensure the integration of innovation into the socio-economic sphere. **Future Research** : To reach the level of countries with high human development, the country must accelerate income growth, improve the quality of education and healthcare, and ensure the integration of innovation into the socio-economic sphere.

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