



# POVERTY REDUCTION BY ATTRACTING INVESTMENTS IN HUMAN CAPITAL

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## ABSTRACT

The article covers issues of reducing the level of poverty in the economy by attracting investments in human capital. In addition, the relationship between human capital and economic growth was studied. In the analytical part of the article, the analysis of the human capital index of the Republic of Uzbekistan and the assessment of the human capital index by region was carried out. The main goal of this article is to develop scientific proposals and practical recommendations aimed at reducing the level of poverty in the economy by attracting investments in human capital.

**KEYWORDS:** *poverty, investment, HCI, economic growth.*

## INTRODUCTION

Based on research conducted by the World Bank in 2020, only 16% of modern economic growth is dependent on the development of physical capital, 20% on natural capital, and the remaining 64% is dependent on innovation that relies on human capital<sup>1</sup>.

Based on the conclusion of experts, innovative goods and services are developing five times faster than the market for traditional goods in the global market. Up to 40% of the gross national product of highly developed countries is created as a result of the use of efficient information systems. However, meeting this demand will require a high number of highly qualified specialists.

Investment plays a critical role in the socio-economic development of a country, and as such, attracting investment to the economy is prioritized as a key direction in the country's socio-economic development strategy. Regardless of scale, investments are recognized as an important factor in economic growth. Therefore, the country has created favorable conditions for investment, including political stability, a legal framework for foreign economic activity, established infrastructure, convenient geographic location, and abundant mineral and labor resources. Scientific research indicates that investments in human capital are financed by public and private sectors, families, and individuals. In particular, in 2021, there has been a high level of attention paid to investments in human capital.

An example of the focus on human capital investment is demonstrated in the Address of the President of the Republic of Uzbekistan, Shavkat Mirziyoyev, to the Senate and the Legislative Chamber of the Oliy Majlis. The level of preschool education coverage for young children has doubled over four years and reached 60%. The number of kindergartens has increased threefold and exceeded 14,000. This year, admission parameters for higher education have increased 2.5 times compared to 2016, and the level of coverage for higher education among our youth has reached 25% from 9%. For the first time, about a thousand girls from needy families were admitted to higher educational institutions on the basis of special state grants. Additionally, to attract investments in human capital, modern methods are being implemented, such as promoting education and healthcare, increasing literacy, reducing premature death rates, increasing average life expectancy, and lifting people out of poverty.<sup>2</sup>

<sup>1</sup> Human capital index 2020 update: human capital in the of Covid 19

<sup>2</sup> Address of the President of the Republic of Uzbekistan Shavkat Mirziyoyev to the Oliy Majlis, 06.01.2021.



## RESEARCH METHODOLOGY

The methodology used in this study was to study the ways of reducing the level of poverty by attracting investments in human capital, using methods such as analysis, synthesis, comparison, abstract-logical and critical thinking, scientific approbation, and generalization.

## LITERATURE REVIEW

A number of studies have examined the relationship between human capital and foreign direct investment, an important source of external financing for many countries. A study by Bacchetta and Wincoop (2017), found that a one-unit increase in the human capital index was associated with a 2.5% increase in FDI inflows<sup>3</sup>. In our opinion, countries with a high level of human capital will be more attractive to foreign investors due to the presence of a skilled labor force and highly educated population. A study by Goujard and Sztulman (2018), examined the relationship between HCI and FDI in sub-Saharan Africa. They found that a one-unit increase in HCI was associated with a 5.8% increase in FDI inflows, and this association was stronger for countries with higher levels of political stability and better infrastructure.<sup>4</sup>

In addition to direct investment, other forms of investment in HCI, such as venture capital and private equity, have also been linked. A study by Li and Zhao (2018) found that countries with high human capital attract more venture capital investments, especially in high-skill and knowledge-intensive industries<sup>5</sup>. According to the authors, venture capital is attracted to countries with a strong human capital base because they can find the talent they need to build successful companies.

Investment in human capital is critical to economic growth and development. However, investing in human capital alone is not enough. In order for the investment to give the desired results, it must be activated. The following study review research on human capital investment incentives: Laub, (2018), focused in research is the role of incentives in human capital investment incentives<sup>6</sup>. Incentives can take many forms, such as tax credits for firms that invest in employee training, or scholarships and grants for individuals seeking to further their education and skills. Research has shown that incentives can make investments in human capital effective, but they must be carefully designed to ensure they are effective and productive.

Another area of focus is the role of public policy in stimulating investment in human capital. Government can play an important role in creating an enabling environment for investment in human capital. This includes policies that promote education and health, such as subsidies for education and health, soft loans, tax credits, import incentives, or support for research and development that leads to new innovations and technologies also, supporting measures.

Attracting investments in human capital is the process of attracting financial resources to improve the skills and knowledge of employees, as well as to develop their intellectual and physical abilities. The topic of attracting investments in human capital is becoming more and more relevant in the rapidly changing economic situation and the increasing competition in the labor market. In the foreign literature, many studies have been conducted on the problems of attracting investment in human capital, including: Casey & Burchinson (2017), conducted a scientific study on how capital investment affects the financial results of companies<sup>7</sup>.

## ANALYSIS AND RESULTS

The formation and development of international market relations prompted a new assessment of labor. For the first time, classical economists tried to scientifically approach and analyze the productive abilities of a person, their formation and efficiency of use, to quantitatively record the inputs spent on a person and to calculate the return from them.

Human capital formation increases the process of economic growth, and economic growth increases the process of human capital formation. There is a cause and effect relationship between human capital and economic growth. The figure below shows the relationship between human capital and economic growth (Figure 1).

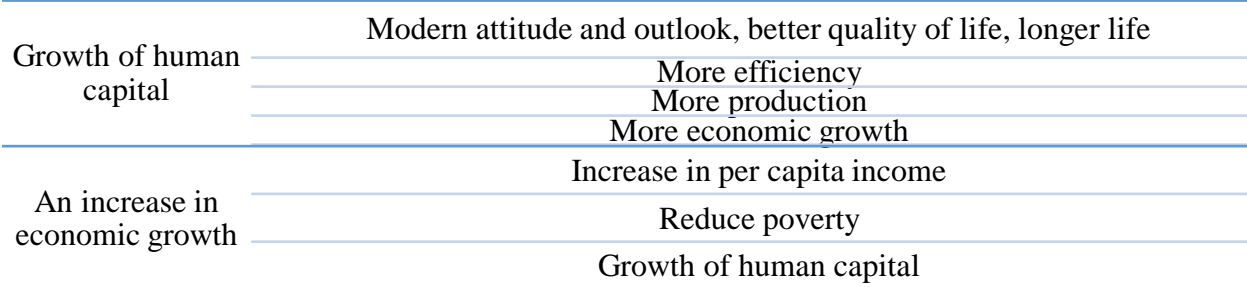
<sup>3</sup>Bacchetta, M., & Wincoop, E. V. (2017). The human capital channel of FDI: Evidence from Switzerland. *Journal of International Economics*, 107, 122-141.

<sup>4</sup>Goujard, A., & Sztulman, A. (2018). Human capital and FDI: The case of sub-Saharan Africa. *World Development*, 105, 222-239

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<sup>7</sup> Casey, A., & Burch, S. (2017). Investing in people: Financial impact of human resource initiatives.



**Figure 1. The relationship between human capital and economic growth<sup>8</sup>**

The concept of human capital appeared in the 17th century. It was first used by William Petty in 1676, comparing the loss of arms to the loss of human life in war.<sup>9</sup> William Petty showed that wealth and its sources include land and rent, capital and profit (interest) from it, as well as income of one or another type depending on people's work, skills and health. According to the scientist, the amount of human capital is estimated by the salary capitalization of the employee throughout his life.<sup>10</sup>

According to a new analysis by the World Bank Group, the COVID-19 pandemic is threatening the gains made in health and education over the past decade, which could hit the poorest countries particularly hard. Analyzes show that before the pandemic, most countries achieved stable growth in the formation of human capital in children. This indicator has the highest result in low-income countries. However, despite this progress, and until the impact of the pandemic began to be felt, a child born in a normal country could hope to achieve only 56 percent of the potential level of human capital, given full education and health care.

Due to the pandemic, the majority of children (more than 1 billion) did not go to school, and the loss of an average of six months of education meant for education resulted in significant economic losses.

Uzbekistan participated in a study and scored 62 percent, placing it behind some of its CIS neighbors such as the Republic of Belarus, Russia, and Kazakhstan (table 1)<sup>11</sup>. The sentence also provides additional information about the performance of other Central Asian countries in the same study, with Kyrgyzstan scoring 60% and Tajikistan scoring 50%.

**Table 1. Analysis of human capital index indicators of the CIS countries<sup>12</sup>**

Countries	Components of Human Capital Index 2020						
	States	Probability of survival of children under 5 years old	Expected quality results from the duration of primary education	International test results	Quality results expected from secondary education	The viability of the older generation	HCI (Human capital index) 2020
Uzbekistan		0.98	12.0	474	9.1	0.87	0.62
Russia		0.99	13.7	498	10.9	0.80	0.68
Tadjikistan		0.97	10.9	391	6.8	0.87	0.50
Kazakhstan		0.99	13.7	416	9.1	0.87	0.63
Kyrgyzstan		0.98	12.9	420	8.7	0.85	0.60

According to the data of the table, our country showed a higher result compared to the neighboring countries, but it lags behind Kazakhstan according to some indicators. Also, our country ranks second among the CIS countries after the Republic of Belarus and Russia. In these studies, the quality of education and health care, life expectancy, and education of a person from birth are covered. The human capital index is in the range from 0 to 1, and the value approaching 1 shows how well today's young generation will be formed in the future as a mature person, a qualified professional staff.

<sup>8</sup>Human Capital Formation in India NCERT Solutions for Class 11 Indian Economic Development September 28, 2019.

<sup>9</sup>William Petty —Treatise of taxes and contributions, 1662.

<sup>10</sup> Петти В. Экономические и статистические работы / Петти В. Том 1. – М.: Соцэкгиз, 1940. - С.156.

<sup>11</sup>The Human Capital Index 2020 Update: Human Capital in the time of Covid-19.

<sup>12</sup> It was prepared based on the author's research.



Investment has a special place in the socio-economic development of the country. Based on scientific research, it should be noted that investments in human capital are financed by the public and private sectors, families and individuals. If the effect of state-directed investments in human capital is determined by the country's economic growth, it is evaluated according to the positive result of a number of quality indicators, such as the increase in labor productivity of employees, profit (income) from activities in economic entities. The effectiveness of investment in human capital in the family is evaluated by the increase in education and business ability.

The human capital index was calculated for the first time in 2018 by the World Bank, including 157 countries. The measurement index is [0;1], and it is evaluated according to 5 different contents. The index is calculated using data from the World Bank. The table below shows the average indicators of the human capital index by region.

**Table 2. Evaluation of human capital index by region, 2020<sup>13</sup>**

Human capital index indicators	East Asia and the Pacific Ocean	Europe and Central Asia	Latin America and the Caribbean	Middle East and North Africa	North America	South Asia	Sub-Saharan Africa
<b>Survival</b>							
Probability of survival to 5 years	0.98	0.99	0.98	0.98	0.99	0.96	0.93
<b>School</b>							
Expected school years	11.9	13.1	12.1	11.6	13.3	10.8	8.3
Harmonized test results	432	479	405	407	523	374	374
<b>Health</b>							
Survival rate from 15 to 60 years	0.86	0.90	0.86	0.91	0.91	0.84	0.74
Healthy growth of children under 5 years old	0.76	0.90	0.85	0.82	-	0.69	0.69
Human capital index 2020	0.59	0.69	0.56	0.57	0.75	0.48	0.40

The human capital index is widely used to assess the future productivity of every child born in the country. According to the 2020 reports of the World Bank, it was determined that a child born around the world will reach 56 percent of his full productivity as a future worker. Importantly, this figure is different for low-income economies than for high-income economies. In the world's poorest economies, only 30 percent of children born today can achieve fertility, while in the richest economies, this figure is 80 percent and more.

In Uzbekistan, the amount of capital of girls is higher than that of boys. The following table shows the amount of gender in the components for each of the components of the human capital index (Table 3)<sup>14</sup>.

**Table 3. Human capital index indicator of the Republic of Uzbekistan<sup>15</sup>**

Components	Boys	Girls	General
Human capital index	0.61	0.63	0.62
Survival up to 5 years	0.98	0.98	0.98
Expected school years	12.1	12.0	12.0
Harmonized test results	475	474	474
School years adapted to study	9.2	9.1	9.1
Adult survival rate	0.83	0.90	0.87
Healthy growth	0.89	0.90	0.89

<sup>13</sup> Worldbank.com

<sup>14</sup>Human Capital Project - September 2020/<https://www.worldbank.org/en/publication/human-capital/brief/insights-from-disaggregating-the-human-capital-index>

<sup>15</sup>[www.stat.uz](http://www.stat.uz)



Taking into account the analysis of the country's human capital, a number of conclusions were reached. Increasing the share of people with high intellectual potential in society, increasing labor productivity in the economy, and significantly reducing the risk of income decline for the next generation. It determines the possibilities of increasing the competitiveness of the economy, increasing labor productivity and overcoming the "poverty trap". The role of human capital in the development of education in Uzbekistan directly depends on how fully and successfully human capital is used, how actively it is spent on its development. Priorities of human capital until 2030, taking into account a number of problems in the field of education, attention should be paid to the following:

1. Increasing enrollment in higher education, which is relatively low in the world.
2. Reducing the share of public spending on education, while increasing the share of the private sector in education.
3. Reduction of gender inequality observed at all stages of the education system, but especially evident in the higher education system.
4. Improving the innovative aspect and quality of state institutions.

Thus, the level of education is important in the structure of human capital. The level of knowledge as a systematic feature implies a qualitative and quantitative indicator of the level of education. The economy of the country has a high speed, flexibility, independent thinking and behavior. It ensures the availability of a wide range of workers who can find work in various fields of activity, from basic scientific research to the creation of new technologies.

Human capital, as the main dominant factor of modern socio-economic development, occupies a leading place in the national wealth of the developed countries of the world. According to the World Bank, the national human capital of the whole world is 66% of the national wealth of all countries. The human capital of the USA and China is 77% of the national capital, Brazil - 74%, and in Russia, this figure is almost 50%. While the countries of the European Union, as well as the USA, Canada and Japan make up only 15% of the world's population, a total of 59% are countries with human capital<sup>16</sup>.

Human capital helps to increase labor productivity and quality in all types of activities. Knowledgeable and experienced specialists determine labor productivity and productivity. Knowledge, quality work, qualifications and experience of specialists play a decisive role in labor productivity.

According to the World Bank's report, the concept of human capital includes consumer spending, family spending on food, clothing, housing, health care, and culture, as well as government spending for these purposes<sup>17</sup>. In the developed countries of the world, about 70 percent of all funds are human capital, and only 30 percent are physical capital<sup>18</sup>.

Many countries (developing and especially countries with high poverty index) are experiencing a crisis in the field of education, which slows down their economic development. According to the available data, schoolchildren of the same age in some countries are several years behind their peers in learning and mastering subjects. The pandemic has exacerbated this situation.

The population of developing countries annually spends 500 billion US dollars, that is, more than 80 dollars per person, on medical care. And the heaviest burden of these costs falls on the poorest sections of the population. The pandemic has caused significant disruptions to essential health services, including routine immunizations and medical care for children<sup>19</sup>.

As mentioned earlier, it is important to use the experiences of developed countries to increase the human capital index and eliminate existing problems. We can cite the example of Singapore among the top countries in the human capital index. Also, the analysis of human capital investment policy of countries such as Japan, China and South Korea helps to identify the existing problems in our country (Table 4).

<sup>16</sup> The World Bank: World Development Indicators

<sup>17</sup> Шестакова И. Г. Человеческий капитал в цифровую эпоху // Научный журнал НИУ ИТМО. Сер. Экономика и экологический менеджмент. 2018. № 1. С.56-63.

<sup>18</sup> <https://mirec.mgimo.ru/upload/ckeditor/files/mirec-2016-4-gorbanev.pdf>

<sup>19</sup> Human capital report// 2020

**Table 4. The amount of expenditure from the state budget of countries with a high human capital index<sup>20</sup>**

<b>Expenditures from the state budget: USD</b>	Singapur (2021)	USA (2022)	Korea (2021)	Japan (2021)	Uzbekistan (2021)	Xitoy 2022
Ta'lim	17.5 billion	722.6 billion	61.1 billion	290 billion	1.5 billion	15.1 billion
Sog'liqni saqlash	8.4 billion	663.9 billion	20.8 billion	300 billion	800 mln	9.2 billion
Bitta bolaga sarflangan ta'lim xarajati	9.700 (2021)	13.187 (2019)	9.055 (2019)	10.200 (2019)	650 (2020)	10.400 (2021)

Singapore is known for its strong education and healthcare systems, which are among the best developed in the world. The Singapore government invests heavily in these areas and consistently allocates a significant portion of its budget to education and healthcare. In Singapore's most recent budget for 2021, the government allocated about 23 percent of its total spending to education and 12 percent to health. Specifically, the government allocated SGD 23.3 billion (about US\$17.5 billion) to education and SGD 11.2 billion (about US\$8.4 billion) to health.

Investments in education include funding for primary, secondary and tertiary education, as well as vocational and training programmes. The government has also launched various initiatives to support lifelong learning and skills development. For example, the SkillsFuture program provides funding and support for people to acquire new skills and knowledge.

In general, investments in human capital can lead to long-term development of the economy and society as a whole. However, it should be taken into account that investments in human capital are long-term and the results may not be felt immediately. In addition, investing in human capital requires significant financial costs and management efforts, which can cause certain difficulties and risks. In this regard, it is important to support foreign and local investments by the state. Incentives are important in supporting investment in human capital. Benefits supporting investment in human capital may include:

1. Tax Incentives: Tax incentives play an important role in attracting investment. These benefits are provided through relevant laws and help investors to reduce their taxes.

2. Tax benefits for investors from investment income: These benefits are important for countries to increase their interest in attracting foreign investments. These benefits help investors reduce their tax burden on investments and income in the country.

3. Financial incentives: Financial incentives play an important role in increasing the interest of investors to increase the country's foreign investment attraction. Financial incentives help investors increase their investment returns.

4. Financial protection benefits: these benefits are given to investors to improve the country's financial protection indicators, for example, to protect investors' financial information, to make financial policy more effective.

5. Investment deductions: These benefits can be given to investors in the form of deductions from the tax base of investment income, tax deductions for investor expenses or other investment deductions.

6. Security benefits to investors: Security benefits to investors play an important role in increasing the attraction of investors for foreign investment. These benefits allow investors to receive investment income in a safe form, and also help to reduce the debt risks of the involved investments.

7. License and development incentives: license and development incentives may be granted to investors to increase the effectiveness of attracting foreign and domestic investment. These benefits will help investors to participate in attracting foreign investments in a safe and rational way, as well as to conduct the investment attraction process in a better and more efficient way.

## CONCLUSION

Investment in human capital refers to additional capital aimed at improving human potential and capabilities. These investments can include a number of directions aimed at education, health care, professional training, scientific research, and improvement of personnel qualifications and potential.

Investments in human capital are essential for the development of the economy and society as a whole. They serve to increase labor productivity, improve education and health of the population, and develop scientific

<sup>20</sup> It was prepared by the author based on internet information



and technical achievements. In addition, investments in human capital can reduce social inequality and poverty, promote social mobility and improve people's quality of life.

Investing in education is one of the most common and important types of investment in human capital. This can include investing in schooling, higher education, vocational training, and more. The higher the level of education and skills of the population, the more opportunities for the development of the economy and society.

Investing in health is also an important investment in human capital. This may include investing in medical equipment, drugs, prevention programs, and more. A healthier population means higher productivity, less absenteeism, and lower patient care costs.

Investing in research is another important investment in human capital. This may include investing in basic and applied research that leads to new technological advances, improved manufacturing processes, and improved efficiency.

In addition, investments in human capital can include employment promotion, small business support, infrastructure development programs and other activities aimed at empowering people and developing the economy.

Investments will help reduce poverty by increasing jobs in the country, improve living conditions, increase the variety of products, increase exports by saturating the domestic market, increase foreign exchange flows, and fill the state budget with funds. This will increase the number of jobs in the country and increase the breadth of production and services. As a result, the country will strengthen its position in the world rankings by strengthening the economy.

In general, investing in human capital is necessary for the development of the economy and society as a whole. They can lead to increased labor productivity, increased education and health, development of science and technology, and reduction of social inequality and poverty. However, investing in human capital requires significant financial and managerial effort, and the results may not be immediately visible. Therefore, it is necessary to carefully plan and implement investments in human capital, taking into account the needs and interests of different groups of the population, ensuring convenience and equality of opportunities for all members of society.

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