HUMAN CAPITAL DEVELOPMENT IS THE BASIS OF SOCIETY'S DEVELOPMENT

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Abstract. This article highlights the impact of human capital development on the socio-economic life of the country. Improvement of Human Capital addresses a country's most important resource: its own people. Improvement of human capital benefits individuals and their country and leads to improved sustainability for the future. For many years, economists only used Gross Domestic Product (GDP), now acknowledged to be inadequate without supplemental measures, to gauge a country's overall value. There is now a recognition that many variables contribute to a country's worth, which make accurate measurement difficult. Looking beyond GDP by focusing on human capital, researchers, policymakers, government officials, and students can understand what elements impact human capital and how they might improve it in order to increase economic growth and well-being.

Keywords. Human capital, human skills, investment, GDP, HCI.

INSON KAPITINI RIVOJLANTIRISH JAMIYAT TARAQQIYOTINING ASOSIDIR

Iskandarova Dilafruz Ikrom qizi
Toshkent davlat iqtisodiyot universiteti
"Inson resurslarini boshqarish"kafedrasi assistenti

Annotatsiya. Ushbu maqolada inson kapitali rivojlanishining mamlakat ijtimoiy-iqtisodiy hayotiga ta'siri yoritilgan. Inson kapitalini o'lchash mamlakatning eng muhim resursiga: o'z xalqiga murojaat qiladi. Inson kapitalining yaxshilanishi jismoniy shaxslar va ularning mamlakatiga foyda keltiradi va kelajak uchun barqarorlikni yaxshilashga olib keladi. Ko'p yillar davomida iqtisodchilar mamlakatga umumiy baho berish uchun faqatgina YaIMni o'lchash yetarli emasligini e'tirof etgan Hozirgi vaqtda ko'plab o'zgaruvchilar mamlakat qiymatiga hissa qo'shishi tan olingan, bu esa aniq o'lchashni qiyinlashtiradi. Inson kapitaliga e'tibor qaratish orqali YaIMdan tashqari tadqiqotchilar, siyosatchilar, hukumat amaldorlari va talabalar inson kapitaliga qanday elementlar ta'sir qilishini va ular iqtisodiy

o'sish va farovonlikni oshirish uchun uni qanday yaxshilashi mumkinligini tushunishlari mumkin.

Kalit so'zlar. Inson kapitali, inson ko'nikmalari, investitsiyalar, YaIM, IKI.

РАЗВИТИЕ ЧЕЛОВЕЧЕСКОГО КАПИТАЛА – ОСНОВА ПРОГРЕССА ОБЩЕСТВА

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Аннотация. В данной статье освещается влияние развития человеческого капитала на социально-экономическую жизнь страны. Измерение человеческого капитала касается самого важного ресурса страны: ее людей. Улучшение человеческого капитала приносит пользу отдельным людям и их стране и ведет к повышению устойчивости в будущем. В течение многих лет экономисты признавали, что измерения одного только ВВП недостаточно для определения общей стоимости страны.В настоящее время признано, что на стоимость страны влияет множество переменных, что затрудняет точное измерение. Сосредоточив внимание на человеческом капитале, помимо ВВП, исследователи, политики, государственные чиновники и студенты могут понять, какие элементы влияют на человеческий капитал и как они могут его улучшить, чтобы ускорить экономический рост и процветание.

Ключевые слова. Человеческий капитал, человеческие навыки, инвестиции, ВВП, ИЧК.

Introduction

A person and his skills, knowledge, experience and skills have become the main factor of the well-being of any society and the economic development of the state. Because the development of human capital is a necessary condition for the development of innovative economy, knowledge economy, investments, global information systems, the latest technologies and new forms of business.

Among the various characteristics that make up human potential, human capital represents the characteristics that affect the change of income, in this respect, human capital includes the knowledge, practical application and skills of the worker, accumulated on the basis of special education, vocational training and production experience.

Human capital refers to the intrinsic productive capabilities of human beings. These capabilities can be increased through investment in things such as education, on-the-job training, and health. Human capital is viewed as an asset that generates a flow of services, most often measured as earnings, although broader measures of output are also used [1].

Development of human capital is knowledge materialized in a person and his ability to work effectively, their effective use allows to use the opportunity to significantly improve the standard of living of the population and increase the rate of economic growth. Human capital is a separate economic category,

the main research problem of which is the unique nature of human capital due to the sum of physical and mental abilities of a person, which determines the ability to work.

Effective investments in human capital are central to development, delivering substantial economic benefits in the long term. However, the benefits of these investments often take time to materialize and are not always very visible to voters. This is one reason why policymakers may not sufficiently prioritize programs to support human capital formation. At the 2017 Annual Meetings, World Bank management called for a Human Capital Project (HCP) to address this incentive problem through a program of advocacy and analytical work intended to raise awareness of the importance of human capital and to increase demand for interventions to build human capital in client countries[2].

And in 2018, for the first time, the Human Capital Index was calculated and ranked for 157 countries, but Uzbekistan was not included in this ranking because some of the index components in our country did not meet international standards. And finally, in 2020, Uzbekistan also entered this rating and took 57th place with an index of 0.63.

Literature review

First of all, Adam Smith in "TheWealth of Nations" (A.Smith, 1776) set the stage for the study of human capital. Although he does not use the phrase human capital, he identifies the acquired and useful abilities of individuals as a fundamental source of wealth and economic progress of a country. Writing more than a century later, Alfred Marshall notes in his "Principles of Economics" (Marshall, 1920) the long-term nature of investments in human capital and the family's role in undertaking them. However, Marshall is also credited with delaying the study of human capital due to his reluctance to put it on the same footing as physical capital.

The modern study of human capital coincides with two developments in economics. The first was a resurgent interest in understanding why economies grow. It was apparent to researchers that national output was growing at a much faster rate than the rates of growth of inputs – land, labor, and physical capital (Denison, 1962).

The second development dovetailed with the first – the availability of large datasets that allowed exploration of worker productivity and earnings and how they related to characteristics such as the years of education and age.

Three authors deserve particular note amid the flurry of theoretical and empirical work in the late 1950s and early 1960s. Jacob Mincer (1958) stimulated a vast literature measuring the returns to education. Using census data, he documented the now-classic result that the years of education has an inverted U-shape on the rate of earnings growth. Theodore Shultz focused on the role of education and general investments in human capital in explaining the increased productivity of labor. His monograph "The Economic Value of Education" focused attention on education as a subject worthy of concentrated study by economists, thus beginning the field of the economics of education.

Gary Becker (1964) organized the emerging threads of empirical and theoretical work into a coherent framework that provided a guidebook for future research [1].

Generally, well-educated persons have lower mortality rates; also, child mortality in an educated family is low (Kc and Lentzner, 2010). Women with better education have fewer children as they can easily access birth control facilities (Bongaarts, 2010). It is not hard to assume that education enhances motivation to lead a better life by improving the socioeconomic conditions. Human capital usually captures both the education and health of individuals. Many studies primarily focus on the education because it can be measured more consistently across countries.

Total years of schooling are globally considered as an important input to the human capital calculation. Many countries are focusing on this human capital to evaluate the sustainable development of nations. Especially for the densely populated developing countries, education improvement will increase the level of knowledge as well as the total wealth of these countries. The Inclusive Wealth Report 2018 (Managi and Kumar, 2018) has identified the significantly higher contribution of human capital to total wealth compared to other forms of capital.

Jorgenson and Fraumeni (1989, 1992) develop a very comprehensive method of human capital measurement using the income-based approach. They suggest a new system of human capital accounts by including both market and nonmarket economic activities. In the education-based approaches, educational achievements are considered as proxies for, but not direct measures of, human capital [3].

Also, opportunities for development of human capital and its importance in the development of the economy from foreign scientists E. Mollick, J. Hui, M.Greenberg, E.Gerber, T.Eilon, R.Shaker studied [5].

Research methodology

The impact of the development of human capital on the country's economic growth, that is, on the size of the gross domestic product, is determined by the following formula:

$$Y = F (K, N, H, G, INF)$$

Here:

Y - income, K - physical capital, N - labor, H - human capital, G - gender difference, INF - infrastructure.

Assuming that the aggregate production function requires constant labor:

$$Y/N = F (K/N, 1, H/N, G/N, INF/N)$$

Based on the above, the following formula is obtained:

$$ypc = FK(I/Y) - bKn + bHhpc + bGgpc + bINFinfpc$$

Here:

ypc = y – n – GDP growth rate per worker, hpc – human capital growth rate per worker, gpc – gender gap growth rate per worker, infpc – infrastructure growth rate per worker, Fi - the marginal product in the

economy with respect to input i, I - investments is defined as the change of the total capital stock over time, bj - the elasticity of the total volume with respect to the input j, and lowercase letters indicate the rate of change.

Statistical model of factors affecting average growth of GDP:

$$ypc = β0 + β1I/Y + β2malelife + β3femlife + β4lifegap + β5PGDP+ β6sanit+ β7pop + ϵ$$

Here:

ypc - average growth of GDP

I/Y = share of gross capital formation in GDP;

malelife = Average annual growth rate of male life expectancy;

femlife = Average annual rate of increase in female life expectancy;

lifegap = average annual growth rate of male to female life expectancy ratio;

PGDP = GDP per capita;

sanit = Average annual growth rate of the proportion of the total population with improved sanitation services;

pop = Average annual growth rate of the total population.

It is worth noting that, according to the results of research, countries that invest the most in human capital and occupy high places in the ranking of Human capital index have very high gross income and income of the population. According to World Bank statistics, the countries with the highest human capital index in the world are listed below (Table 1):

Table 1

Human capital index rating (2020)

№	Country	Score
1.	Singapore	0.88
2.	Hong Kong	0.81
3.	Japan	0.80
4.	South Korea	0.80
5.	Canada	0.80

The Human Capital Index (HCI) is a composite index describing the level of human capital development in countries and regions of the world, issued by the World Bank Group and used as part of the Human Capital Project. The project was originally led by economists Noam Angrist, Simon Jankov, Pinelopi Koujianou Goldberg and Harry Patrinos. Proposed human capital measurement using Global Learning Data survey. The index should be used by countries to analyze problematic issues in their socio-economic policies and to assess their readiness to move to a sustainable development model. The index measures the level of human capital development of the next generation, that is, the calculation of the human capital index includes the following three components (Fig. 1):

1. Survival. This indicator is measured by the mortality rate of children under 5 years of age. This will help determine the quality of the country's health care system, maternal and child health care.

2. School. It is used in conjunction with information about the amount of education a child can receive before turning 18 and what they can learn at school. This is determined by the successful passing of tests based on international standards of schoolchildren in the country. Aggregation of this information allows us to calculate expected years of education adjusted for quality. By adjusting for the quality of education, it can be seen that children in some countries receive less education than children in other countries, even with the same number of years of education.

3. Health. This component uses two indicators to assess the general health status of the country's population: 1) absence of disability among children under 5 years of age; 2) Adult survival rate, defined as the percentage of 15-year-olds who survive to age 60. The first indicator reflects the state of health of a child of primary school age; the second indicator is used today as a measure of the health status of a child born today.
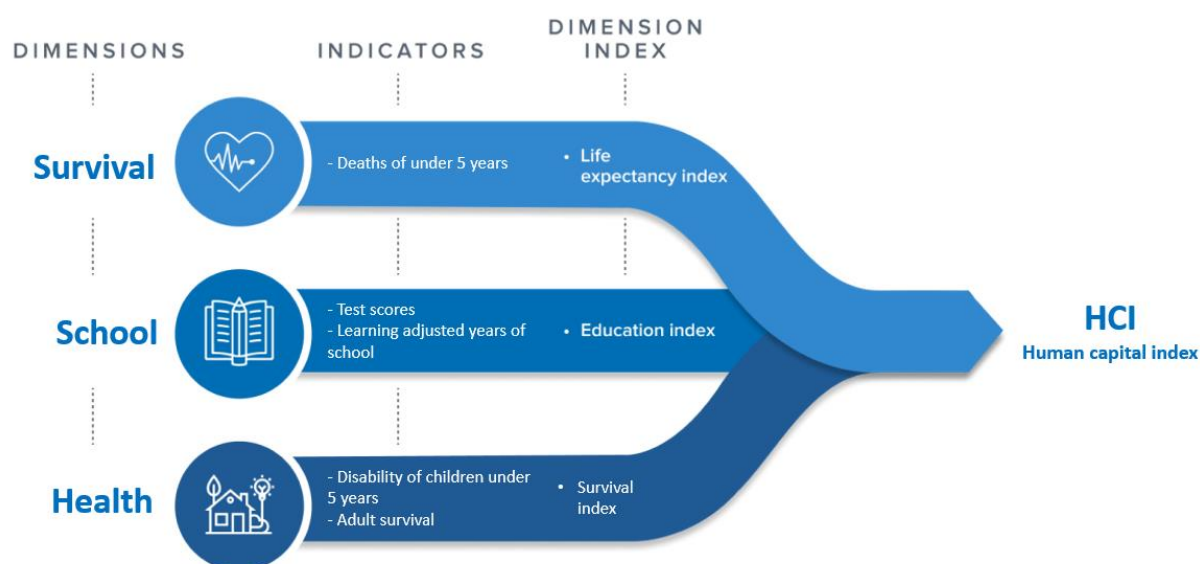

Figure 1. Human capital index indicators

The Human Capital Index's aggregation methodology is determined based on the following account books [4]:

The components of the Human Capital Index (HCI) are combined into a single index by first converting them into contributions to productivity relative to a benchmark of complete education and full health. Multiplying these contributions to productivity together gives the overall HCI:

$$HCI = Survival \times School \times Health$$

Survival is calculated based on: children who do not survive childhood never become productive adults. As a result, expected productivity as a future worker of a child born today is reduced by a factor equal to the survival rate, relative to the benchmark in which all children survive.

$$Survival = \frac{1 - Under5MortalityRate}{1}$$

The benchmark of complete high-quality education corresponds to 14 years of school and a harmonized test score of 625. The relative productivity interpretation for education is anchored in the large empirical literature measuring the returns to education at the individual level. A rough consensus from this literature is that an additional year of school raises earnings by about 8 percent. The parameter ɸ = 0.08 measures the returns to an additional year of school and is used to convert differences in learning-adjusted years of school across countries into differences in worker productivity.

$$School = e^{\phi\left(EcspectedYearsofSchool \times \frac{HormonizedTestScore}{625} - 14\right)}$$

The health indicator includes the following: stunting and adult survival. In the HCI, the estimated contributions of health to worker productivity based on these two alternative proxies are averaged together, if both are available, and are used individually if only one of the two is available.

$$Health = e^{\gamma_{ASR} \times (AdultSurvivalRate - 1) + \gamma_{Stunting} \times (NotStuntingRate - 1))/2}$$

Based on the formulas mentioned above, we calculate the Human Capital Index on a regional scale (Table 1).

Table 1

Human Capital Index 2020, averages by region

Indicator	East Asia and Pacific	Europe and Central Asia	Latin America and Caribbean	Middle East and North Africa	North America	South Asia	Sub-Saharan Africa
1. Survival							
Probability of Survival to Age 5	0.98	0.99	0.98	0.98	0.99	0.96	0.93
2. School							
Expected Years of School	11.9	13.1	12.1	11.6	13.3	10.8	8.3
Harmonized Test Scores	432	479	405	407	523	374	374
3. Health							
Survival Rate from Age 15 to 60	0.86	0.90	0.86	0.91	0.91	0.84	0.74
Fraction of Children Under 5 Not Stunted	0.76	0.90	0.85	0.82	-	0.69	0.69
HCI	**0.59**	**0.69**	**0.56**	**0.57**	**0.75**	**0.48**	**0.40**

From the data in the table above, it is known that the highest rate of first indicator Survival is 0.99 in the Europe and Central Asia region, the lowest index is in Sub-Saharan Africa is equal to 0.93 in the region. North America has the highest score of 523 according to international test answers received from school students. The highest and lowest rates of adult survival are 0.91 and 0.74, respectively, in the Middle East and North Africa also North America and Sub-Saharan Africa.
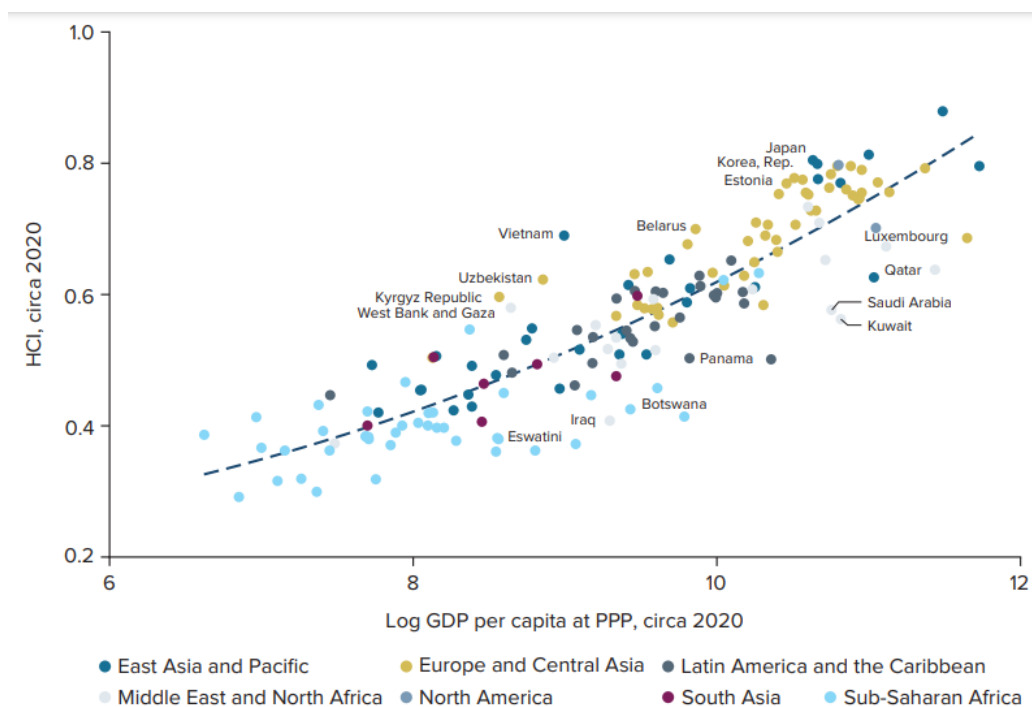

Figure 2. Human capital index by country 2020 [4]

The figure plots country-level HCI on the y-axis and GDP per capita in PPP on the x-axis, in constant USA dollars, for most recently available data as of 2019. The dashed line illustrates the fitted regression line between GDP per capita and the HCI 2020. Scatter points above (below) the fitted regression line illustrate economies that perform better (worse) in the HCI than their level of GDP would predict. Economies above the 95th and below the 5th percentile in distance to the regression fitted line are labeled.

Conclusion

Human capital, which is a set of social relations, corresponds to the society. The development of human capital directly depends on a person's consciousness, morals, spirituality, worldview, socio-economic, political relations, the essence and nature of the social system. Since a person has intelligence, he understands the events in the real world, and manages the world with his scientific thinking, work, and potential. The growth of human capital is influenced by the overall events in the surrounding social environment.

In order to create innovative human capital, every family of the country and the children born in it should be directed to acquire knowledge from an early age, instill in their hearts a desire for science, love for work, and educate them with the latest technologies, world-standard textbooks and manuals. Knowledge ensures the use of all opportunities in society, and skills ensure social development and economic growth. This phenomenon calls for continuous funding of education.

That is, poverty isn't just about not having money.

It should also be noted that, like all cross-country benchmarking exercises, the Human Capital Index (HCI) has limitations. Components of the HCI such as stunting and test scores are measured only infrequently in some economies and not at all in others. Data on test scores come from different international testing programs and need to be converted into common units, and the age of test-takers and the subjects covered vary across testing programs. Moreover, test scores may not accurately reflect the quality of the whole education system in an economy, to the extent that test-takers are not representative of the population of all students. Reliable measures of the quality of tertiary education that are comparable across most economies of the world do not yet exist, despite the importance of higher education for human capital in a rapidly changing world. The data on enrollment rates needed to estimate expected years of school often have many gaps and are reported with significant lags. Socioemotional skills are not explicitly captured. In terms of health, child and adult survival rates are imprecisely estimated in economies where vital registries are incomplete or nonexistent.

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