

Human Capital and Social Capital Theories: Theoretical Foundations, International Experience, And the Development Model of Uzbekistan

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Abstract: This article provides a scientific analysis of the theoretical and methodological foundations of human capital and social capital theories, as well as their impact on economic growth, labor market efficiency, and institutional development. The study examines and compares classical approaches to human capital developed by T. Schultz and G. Becker, Paul Romer's endogenous growth model, and social capital concepts proposed by P. Bourdieu, J. Coleman, and R. Putnam, revealing their interconnections and complementary nature. Based on international practice, the influence of human and social capital on national competitiveness is substantiated through indicators such as the Human Capital Index (HCI), years of schooling, life expectancy, social trust, and civic engagement. Particular attention is paid to the role of education quality and health investment as key drivers of sustainable economic development. Using the example of Uzbekistan, the article discusses priority areas including investment in education and healthcare, increasing youth and female participation in the labor market, the role of the mahalla institution in shaping social capital, and the importance of collective participation mechanisms in strengthening social cohesion. The findings highlight that the integrated development of human and social capital is a crucial factor for inclusive growth and long-term socio-economic transformation in Uzbekistan.

Keywords: Human capital; social capital; endogenous growth; labor productivity; education quality; health capital; civic engagement; institutional efficiency; labor market; gender equality; mahalla institution.

Introduction: In the economy of the twenty-first century, the competitiveness of countries is determined not by the availability of natural resources or physical capital, but primarily by the quality of human capital and social capital. Under the conditions of a knowledge-based economy, the level of education, innovative capacity, health status of the population, as well as the degree of trust and cooperation within society have become decisive factors of sustainable economic growth [1].

Human capital theory evolved during the transition from classical economic thought to institutional and endogenous growth models. G. Becker and T. Schultz interpreted expenditures on education and healthcare not as consumption, but as investment, demonstrating that human capital plays a key role in ensuring economic growth [2][3]. Within the framework of

endogenous growth theory, P. Romer and R. Lucas viewed human capital, knowledge, and research and development activities as internal sources of technological progress, proving that sustainable economic growth can be achieved through targeted investments in education and innovation [4].

The concept of social capital, in turn, has shown that economic relations are not limited solely to market mechanisms. It emphasizes that trust, social norms, and social networks exert a strong influence on economic efficiency and development outcomes [5]. In the context of Uzbekistan, the issue of human capital and social capital is of particular importance, as demographic growth, a high proportion of youth in the population, and the presence of the mahalla institution play a defining role in shaping the national development model.

Research Methods

This study employs a set of scientific research methods based on a comprehensive and systematic approach. In particular, the theoretical analysis method is used to examine the stages of formation and development of human capital and social capital theories, as well as their impact on economic growth and social development, drawing on relevant academic literature.

The comparative analysis method is applied to compare human capital development indicators across international practice, the countries of the Commonwealth of Independent States (CIS), and the Republic of Uzbekistan, with the aim of identifying common patterns and distinguishing features.

Within the framework of statistical analysis, official data from the World Bank, UNDP, ILO, and the State Statistics Committee of the Republic of Uzbekistan are used to analyze the dynamics of key human capital indicators. Trends and long-term tendencies are identified and interpreted. In addition, the institutional analysis method is employed to assess the impact of government policies, national development strategies, and sectoral reforms on human capital development, and to evaluate their effectiveness from a scientific perspective.

Results

Human Capital Theory: Classical and Contemporary Approaches

Human capital theory occupies a special place in the development of economic thought. Its emergence was initially associated with the need to explain the qualitative aspects of labor within the framework of classical economic theory. In the second half of the twentieth century, this theory evolved into an independent scientific field, interpreting human knowledge, skills, health, and experience as strategic resources of economic growth.

One of the scholars who laid the scientific foundations of the human capital concept was Theodore Schultz, who viewed investments directed toward individuals—such as education, healthcare, and professional training—not as consumption but as long-term investments. Using examples from agricultural economics and the economics of education, Schultz scientifically substantiated that investments in human capital increase labor productivity and accelerate economic growth rates [3].

This approach was further developed by Gary Becker, who analyzed human capital as a key factor enhancing competitiveness in the labor market. Through empirical analysis, he demonstrated that the level of education, professional skills, and work experience have a direct

impact on wages, labor productivity, and overall economic efficiency [2]. Thus, classical human capital theory explained economic growth primarily at the microeconomic level, focusing on individuals and firms.

At a later stage, human capital theory became closely integrated with endogenous economic growth models. In particular, Paul Romer interpreted knowledge, innovation, and technology as internal (endogenous) sources of economic growth, emphasizing that human capital serves as the main driver of knowledge creation and diffusion within society [4]. According to this approach, economic growth is not dependent on external factors but develops sustainably through investments in education, research and development, and an innovative environment.

In the economic thought of the Commonwealth of Independent States (CIS), institutional and macroeconomic perspectives on human capital have gained prominence. Scholars such as Alexander Dynkin and Leonid Abalkin assessed human capital as the core of the national innovation system, emphasizing that its quality directly affects a country's technological independence and global competitiveness [6]. Their works analyze human capital in close connection with economic growth, institutional reforms, and state development strategies.

Within the Uzbek economic school, human capital issues are studied in relation to the national labor market, the education system, and sectoral characteristics. In particular, researchers such as Boltaev B., Norkulov Sh., and Khudayberdiev Z. R. have analyzed human capital development in connection with education quality, professional training, sector-specific labor demand, and labor productivity [7][8]. These approaches make it possible to interpret human capital not merely as an economic resource, but as a strategic factor of national development.

Social Capital Theory and Economic Efficiency

Social capital theory makes it possible to explain economic efficiency not only through financial or productive resources, but also through trust, cooperation, collective norms, and social networks. In environments with a high level of social capital, economic relations are based on trust, agreements are reached more quickly, and transaction costs—such as monitoring, verification, negotiation, and risk—are significantly reduced.

Natalia Davidson defines social capital as “a set of resources acquired through social networks” [5]. J. Coleman emphasizes that social capital functions as a mechanism that facilitates economic activity, arguing that trust and mutual obligations increase efficiency in market relations [9]. R. Putnam, in turn, demonstrates

that regions characterized by strong social trust and high levels of civic engagement tend to exhibit higher levels of economic development [10].

In the context of Uzbekistan, the mahalla represents a particularly important institutional form of social capital. Through the mahalla, mechanisms of social assistance, information exchange, mutual trust among residents, community-based monitoring, and collective problem-solving are effectively implemented [11]. This institution acts as a “social capital-producing environment,” though its outcomes may vary across regions.

In densely populated regions such as the Fergana Valley (Fergana, Andijan, and Namangan), mahalla-based social networks tend to be especially active. This can contribute to:

- strengthening “trust capital” in small businesses and family entrepreneurship;
- accelerating job search and employment in informal labor markets through faster information diffusion;
- improving local infrastructure through collective initiatives such as hashar and community projects.

At the same time, excessively closed social networks may create barriers to equal opportunity, meritocracy (fairness, equal access, and the development of individuals’ education, experience, and skills), and open competition. In such cases, informal favoritism or reliance on personal connections may limit economic efficiency.

In the context of Tashkent, social capital is more often manifested through “modern networks,” including professional communities, educational institutions, startup ecosystems, and digital platforms. In this environment:

- business partnerships tend to form more rapidly;
- labor mobility increases through professional and social networking;
- trust-based partnerships supporting innovative projects are strengthened.

Thus, in Tashkent, social capital enhances economic efficiency not only through mahalla structures, but also through professional trust and institutional networks. In industrial and resource-oriented regions such as Navoi and Bukhara, the impact of social capital on economic efficiency is more closely associated with:

- internal discipline within labor collectives;
- cooperation among enterprises, mahalla institutions, and local authorities;

- joint implementation of social projects in education, infrastructure, and vocational training.

In such contexts, stronger institutional trust contributes to greater production stability and lower social risks.

In regions facing complex ecological and social challenges, such as Karakalpakstan and Khorezm, social capital plays a crucial role in ensuring community resilience and social stability. For example:

- neighborly assistance and collective support mechanisms;
- social protection and information exchange through mahalla institutions

help mitigate social risks and reduce the adverse effects of labor migration, poverty, and social vulnerability.

The regional experience of Uzbekistan demonstrates that the impact of social capital on economic efficiency depends on demographic structure, the level of urbanization, economic specialization, and the institutional environment. The mahalla institution serves as a fundamental mechanism for social capital formation, while its effectiveness varies across regions: in some areas it accelerates business activity, whereas in others it plays a dominant role in enhancing social stability and reducing risks.

According to analyses by the International Labour Organization, societies characterized by high levels of social trust and cooperative norms experience faster information exchange in labor markets, lower transaction costs, and, consequently, higher employment levels and improved labor market efficiency. In Uzbekistan, increased participation and initiative among youth and women in public life—supported by various socio-economic programs—contribute to the expansion of social networks, the strengthening of mutual support mechanisms, and the consolidation of the institutional foundations of social capital.

Discussion

The results of the analysis demonstrate that human capital and social capital are closely interconnected. While human capital forms the “internal capacity” of labor productivity and economic growth, social capital accelerates the transformation of this capacity into tangible economic outcomes through trust, cooperation, and institutional efficiency. For example, according to the World Bank’s Human Capital Country Brief for Uzbekistan, the Human Capital Index (HCI) in 2020 was 0.62, and the expected years of schooling reached 12 years. However, when adjusted for learning outcomes, the learning-adjusted years of schooling declined to 9.1 years, indicating that the key challenge

in human capital development lies not only in educational coverage but also in the effectiveness and quality of education [12].

The results of PISA-2022 further support this conclusion. In Uzbekistan, the average scores of 15-year-old students were 364 in mathematics, 336 in reading, and 355 in science, while only 19% of students reached at least Level 2 proficiency in mathematics [13]. These findings suggest that investments in education (human capital) may yield limited returns in the labor market if they are not complemented by an environment of social trust and cooperation (social capital). Without such synergy, the effectiveness of skill formation and the outcomes of educational reforms may remain constrained.

In Uzbekistan, the mahalla institution and community participation mechanisms play a particularly important role as the institutional “arena” of social capital. According to UNDP materials, within the framework of integrated rural development in the Samarkand, Kashkadarya, and Surkhandarya regions for 2024–2028, 157 mahallas and 21 districts are expected to be covered, with living conditions improved for more than 622,000 residents [14]. In addition, Community Development Plan documents indicate that during 2025–2028, a total of 684 social infrastructure facilities—including schools, kindergartens, and rural healthcare centers—are planned to be rehabilitated or renovated in these 157 mahallas [15]. Such institutional cooperation strengthens the “delivery chain” of human capital investments, linking education, healthcare, and social services more effectively.

At the same time, labor market inclusiveness is also closely related to social capital. According to the World Bank Gender Data Portal, in 2024 the labor force participation rate in Uzbekistan was 39.4% for women and 72.3% for men, indicating a persistent gender gap. This suggests that improving the effectiveness of human capital development requires coordinated policies that integrate education, employment, and local participation mechanisms.

Overall, the findings confirm that human capital and social capital are mutually reinforcing. While human capital enhances labor productivity, social capital ensures trust in institutions and facilitates cooperation. In the context of Uzbekistan, investments in education that are not aligned with the development of social capital may lead to limited reform outcomes. Therefore, strengthening the interaction between human capital formation and social capital institutions is a key prerequisite for sustainable and inclusive socio-economic development.

Conclusion

The analysis conducted demonstrates that human capital and social capital theories constitute an important theoretical and methodological foundation for ensuring sustainable economic growth, social stability, and institutional modernization in Uzbekistan. While human capital—reflected in education quality, professional competencies, health, and labor productivity—acts as an internal driver of economic growth, social capital—expressed through trust, norms of cooperation, civic participation, and social networks—accelerates the transformation of this potential into tangible economic value in the labor market. Thus, expanding educational coverage or improving healthcare indicators alone is insufficient; reforms yield sustainable results only when supported by trustworthy institutions, fair rules, and active civic engagement.

From this perspective, enhancing national competitiveness requires the integration of education, healthcare, and social trust into a unified and coherent “policy package.” In practical terms, this approach involves:

- implementing outcome-oriented governance in education and improving the quality of skills formation;
- strengthening the quality of labor resources through preventive healthcare and improved medical services;
- expanding the participation of mahalla and civil society institutions to reinforce social trust and cooperative norms;
- promoting youth and female employment in order to increase inclusiveness in the labor market.

In conclusion, when investments in human capital are implemented in parallel and in synergy with mechanisms for developing social capital, the effectiveness of reforms increases, transformation processes accelerate, and Uzbekistan’s long-term trajectory of sustainable development is strengthened.

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