

INNOVATION SCIENCE AND TECHNOLOGY

ISSUE 7, PART 1 / JULY 2026

 Acceptance of papers



**Acceptance of
papers**

Published monthly



Topics

economics,
technology, social
sciences



EDITOR-IN-CHIEF:

Mirzaliyev Sanjar Makhmatjon ugli

DEPUTY EDITOR-IN-CHIEF:

Makhmudov Nosir Makhmudovich
DSc., Prof., Academician

DEPUTY EDITOR-IN-CHIEF:

Ochilov Bobur Bakhtiyor ugli – Senior
lecturer at TSUI

THE SCIENTIFIC-POPULAR ELECTRONIC
JOURNAL **"INNOVATION SCIENCE AND
TECHNOLOGY"** HAS BEEN REGISTERED
UNDER THE NUMBER **C-5669633** BY THE
AGENCY FOR INFORMATION AND MASS
COMMUNICATIONS (AOKA) OF THE
REPUBLIC OF UZBEKISTAN, EFFECTIVE
FROM OCTOBER 9, 2024.

CONTACTS

Phone: **+998 50 737 87 88**

Website: <https://ist-journal.uz>

Email: innovationist2025@gmail.com

The scientific electronic journal "Innovation Science and Technology" has been included in the list of scientific publications recommended for the publication of main scientific results of dissertations for the award of PhD and DSc degrees in economics and technical sciences, in accordance with the Resolution No. 370 of the Presidium of the Higher Attestation Commission of the Republic of Uzbekistan, dated May 8, 2025.

Editorial board:



Sharipov Kongiratbay Avezimbetovich,
Doctor of Technical Sciences (DSc), Professor



Abdurakhmanova Gulnora Kalandarovna, Doctor of
Economic Sciences (DSc), Professor



Cham Tat Huei,
Doctor of Philosophy (PhD), Professor (Malaysia)



Muhammad Imran Sadiq
Doctor of Philosophy in Economics (PhD), Professor,
Malaysia



Ahmed Aziz Ismail
Doctor of Technical Sciences (DSc),
Professor (Egypt)



Lee Chin
Doctor of Philosophy in Economics (PhD), (Malaysia)



Asongu Simplice
Doctor of Philosophy in Economics (PhD), Cameroon



Rui Dang
Doctor of Chemistry (DSc), Professor, China



Zahoor Ahmed
Doctor of Philosophy in Economics (PhD), Turkey



Shujaat Abbas
Doctor of Philosophy in Economics (PhD), Russia



Tina A Coffelt
Doctor of Philosophy in Educational Sciences (PhD),
USA



Abdikarimova Dinara Rustamxanovna
Doctor of Economic Sciences (DSc), Professor

Kurbonbekova Mohichehra Turobjonovna
Doctor of Economic Sciences (DSc), Professor

Alimardonov Ilkhom Muzrabshokovich
Doctor of Economic Sciences (DSc), Professor



Razakova Barno Sayfieva
Doctor of Philosophy in Economics (PhD)



Khasanov Sarvar Ulugbek ugli
Doctor of Philosophy in Economics (PhD)



Kholikova Rukhsora Sanjarovna
Associate Professor (PhD)

CONTENTS

PLATFORM MIDDLEWARE-MANAGEMENT: FROM RESOURCE CONTROL TO INTERACTION COORDINATION IN DIGITAL SERVICE ECOSYSTEMS.....	8
Ilgor Abdullayev	
APPROACHES TO IMPROVING KNOWLEDGE EXCHANGE PROCESSES IN INDUSTRIAL CLUSTERS.....	16
Mamadaliyev Anaxon Ziyodillayevich	
IMPROVING EXPENDITURE ACCOUNTING IN HIGHER EDUCATION INSTITUTIONS	21
Islom Ergash ugli Khonimqulov	
MANAGEMENT OF FOREIGN EXCHANGE AND CONCENTRATION RISKS IN THE OPERATIONS OF COMMERCIAL BANKS	26
Qurbonov Ilhom Jumaqulovich	
WAYS TO IMPROVE THE USE OF NATURAL RESOURCES IN THE DEVELOPMENT OF HEALTH SERVICES.	29
Sobirov Kayum Xamraevich	
REGIONAL BANKING MARKET TRENDS FOR RETAIL DEVELOPMENT	33
Salamov Islom Tashqazaqovich	
REFORMS UNDERTAKEN IN THE REPUBLIC TO INCREASE PRODUCTION CAPACITY AT FOOD INDUSTRY ENTERPRISES	37
Gulmatov Sunnatillo Nurillayevich	
PROSPECTS FOR USING ISLAMIC FINTECH TECHNOLOGIES IN SMALL BUSINESS FINANCING IN UZBEKISTAN	44
Toshxo'jayev Abduqodirxon Abdulmansurxon ugli	
ADAPTIVE CONCEPT OF HUMAN CAPITAL MANAGEMENT: A NEW PARADIGM FOR SUSTAINABLE ECONOMIC GROWTH	51
Dinora Qudrat qizi Yusubboyeva	

ADAPTIVE CONCEPT OF HUMAN CAPITAL MANAGEMENT: A NEW PARADIGM FOR SUSTAINABLE ECONOMIC GROWTH

Dinora Qudrat qizi Yusubboyeva

PhD, Associate Professor

Urgench State University named after Abu Rayhan Beruni

E-mail: dinorayusubboeva@gmail.com

ORCID: 0009-0001-6058-7208

Abstract: This article analyzes contemporary approaches to human capital management and develops the theoretical and methodological foundations of an adaptive management concept aimed at ensuring sustainable economic growth. The study identifies the limitations of traditional human capital management models under the conditions of the modern economy and substantiates the need for a new adaptive approach driven by labor market transformation, digital technologies, innovation, and demographic change. The author proposes the Adaptive Human Capital Management Concept (AHCMC) and systematizes its structural components, management principles, and implementation mechanisms. Furthermore, the study substantiates the priority directions for applying the proposed concept in the regions of Uzbekistan and highlights its scientific and practical significance for promoting sustainable economic growth, improving labor productivity, and enhancing regional competitiveness.

Keywords: human capital, human capital management, adaptive management, adaptive concept, sustainable economic growth, labor productivity, digital transformation, innovation development, strategic management, regional development, institutional transformation, human capital policy, competitiveness.

INTRODUCTION

The structural transformations taking place in the global economy, rapid digital transformation, the accelerated development of artificial intelligence technologies, changing dynamics of the global labor market, and increasingly complex demographic processes have created the need for fundamentally new approaches to human capital management. Under the conditions of modern economic development, the competitiveness of countries and regions is determined not by natural resources or production capacities but by the quality of human capital, its adaptability, innovative potential, and the effectiveness of management systems.

Although numerous state programs aimed at developing human capital have been implemented in recent years, existing human capital management models have largely been designed for stable economic conditions and are insufficiently adaptable to rapidly changing external environmental factors. The emergence of the digital economy, the transition to a green economy, the creation of new occupations, and the changing demand for competencies in the labor market have made the application of adaptive approaches to human capital management an increasingly important issue.

International experience demonstrates that, in economically developed countries, human capital management systems are continuously improving through lifelong learning, innovation-driven activities, the development of digital skills, rapid adaptation to labor market demands, and data-driven management principles. However, most existing studies have focused on individual components of human capital management, while the issue of integrating these components into a unified adaptive conceptual framework has not yet been sufficiently explored.

In Uzbekistan, the development and effective utilization of human capital have also been identified as one of the key priorities of state policy. Ongoing reforms aimed at modernizing the education system, improving healthcare, promoting employment, supporting innovation, and advancing the digital economy are facilitating the transition of human capital to a qualitatively new stage of development. At the same time, significant regional disparities remain in the effectiveness of human capital management, labor resource utilization, and innovation performance. This necessitates the development of an adaptive concept of human capital management that takes regional characteristics into account.

The objective of this study is to develop an adaptive concept of human capital management under the conditions of sustainable economic growth, improve its theoretical and methodological foundations, and

substantiate its practical applicability across the regions of Uzbekistan. The study analyzes contemporary trends in human capital management, systematizes the fundamental principles of adaptive management, and proposes the structural components and implementation mechanisms of the **Adaptive Human Capital Management Concept (AHCMC)**. This concept is considered a new theoretical and methodological approach aimed at improving the effectiveness of human capital management, strengthening regional competitiveness, and ensuring long-term sustainable economic growth.

LITERATURE REVIEW

The development of an adaptive concept of human capital management has become one of the most significant research directions in modern economics. Globalization, digital transformation, the rapid advancement of artificial intelligence technologies, and structural changes in the labor market have created the need to adapt human capital management systems to new socioeconomic conditions. Consequently, in recent years, both international and domestic scholars have extensively investigated adaptive mechanisms of human capital management, the improvement of strategic management systems, and their role in ensuring sustainable economic growth.

P. Drucker, in his modern management theory, identifies knowledge and human resources as the most important strategic assets of organizations. According to the author, under the conditions of a knowledge-based economy, management systems should be capable of continuously adapting to change while fostering the intellectual potential of employees [1].

M. Porter emphasizes the critical role of human capital and organizational adaptability to external environmental changes in creating competitive advantage. According to his theory, innovation capacity and a highly skilled workforce are fundamental determinants of the long-term competitiveness of any economic system [2].

P. Senge, through his concept of the **Learning Organization**, argues that the ability of organizations to engage in continuous learning, renew knowledge, and adapt to environmental changes constitutes one of the fundamental principles of effective human capital management [3].

D. Teece develops the theoretical foundations of adaptive management through the concept of **dynamic capabilities**, demonstrating that an organization's ability to reconfigure its resources in response to environmental changes represents a key source of strategic advantage [4].

K. Schwab argues that the Fourth Industrial Revolution, characterized by artificial intelligence, automation, and digital technologies, is fundamentally transforming labor markets and human capital management systems. He emphasizes the growing importance of adaptive competencies and lifelong learning within contemporary management practices [5].

E. Brynjolfsson and A. McAfee scientifically substantiate that technological transformation in the digital economy is fundamentally reshaping labor market requirements, thereby necessitating the development of new competencies in human capital management [6].

OECD experts identify lifelong learning, professional retraining, innovative thinking, and the development of adaptive skills as essential determinants of sustainable economic growth within modern human capital management systems [7].

The World Bank's reports on human capital development emphasize that human capital management should be developed through the integrated advancement of education, healthcare, labor market institutions, and governance systems [8].

The studies of the Uzbek scholar Q.X. Abdurahmonov provide a comprehensive analysis of human capital development, the efficient utilization of labor resources, and the economic mechanisms of human capital management. The author argues that investments in human capital constitute a strategic driver of economic growth [9].

A.V. Vahobov, in his research, examines regional economic development, institutional reforms, and the role of the human factor in economic progress. He emphasizes that improving human capital management systems is essential for ensuring sustainable regional development [10].

The analysis of the above-mentioned scholarly literature demonstrates that, although considerable attention has been devoted to human capital development, its effective utilization, and strategic management, insufficient attention has been paid to developing an adaptive concept of human capital management under the conditions of sustainable economic growth, systematizing its structural components, and integrating them into regional development strategies. In particular, there remains a lack of scientific and methodological approaches capable of integrating labor market transformation, the digital economy, innovation-driven development, and institutional reforms into a unified adaptive management framework applicable to the regions of Uzbekistan.

From this perspective, the **Adaptive Human Capital Management Concept (AHCMC)** proposed in this

study is substantiated as a new methodological approach that integrates contemporary principles of human capital management into a unified conceptual framework capable of adapting to both internal and external environmental changes while supporting the sustainable economic development of regions.

RESEARCH METHODOLOGY

This study employed a systems approach, comparative analysis, scientific generalization, and conceptual modeling to develop an adaptive concept of human capital management. Throughout the research process, contemporary approaches to human capital management, labor market transformation, digital technologies, and innovation-driven development were comprehensively analyzed, and their impact on sustainable economic growth was assessed. The information base of the study consisted of reports published by international organizations, scholarly literature, and official statistical data on Uzbekistan.

ANALYSIS AND RESULTS

Technological, institutional, and demographic transformations occurring in the global economy are creating new requirements for human capital management systems. The development of the digital economy, the widespread adoption of artificial intelligence technologies, the transition to a green economy, and structural changes in labor markets have rendered traditional approaches to human capital management increasingly inadequate for meeting the demands of the modern economy. Consequently, the need to implement adaptive, data-driven, and strategically oriented approaches to human capital management has become increasingly significant.

The analysis indicates that existing human capital management systems primarily focus on workforce planning, recruitment, and professional development. However, under the conditions of contemporary economic development, human capital management should be regarded not merely as the management of labor resources but as a strategic management system closely integrated with the knowledge economy, innovation-driven development, digital transformation, and institutional reforms. In particular, the rapid pace of external environmental changes requires human capital management mechanisms to be continuously updated and adapted.

Although extensive reforms aimed at developing human capital are currently being implemented across the regions of Uzbekistan, considerable regional disparities remain in educational quality, the availability of highly qualified personnel, innovation performance, and labor productivity [13]. These disparities have a direct impact on the pace of regional economic development [14]. Therefore, rather than applying a single uniform model across all regions, it is essential to develop an adaptive human capital management model that takes into account regional economic specialization, demographic characteristics, and labor market demands.

During the course of the study, the principal differences between the traditional model of human capital management and the proposed adaptive approach were systematically analyzed (table 1).

Table 1

Comparative Characteristics of Traditional and Adaptive Approaches to Human Capital Management

Evaluation Criterion	Traditional Management	Adaptive Management
Management objective	Utilization of existing resources	Continuous development of human capital
Decision-making	Centralized	Data-driven and adaptive
Primary focus	Personnel management	Competency development and innovation
Approach to education	Periodic professional training	Lifelong learning and continuous reskilling
Digital technologies	Limited application	Based on Artificial Intelligence and HR Analytics
Integration with the labor market	Low	High
Performance evaluation	Short-term	Strategic and long-term

The data presented in Table 1 indicate that the adaptive model of human capital management differs fundamentally from the traditional approach. Rather than focusing primarily on managing existing labor resources, the adaptive model emphasizes the continuous development of human potential, the formation of new competencies, and the ability to respond rapidly to the changing demands of the economy. Consequently, adaptive management regards human capital not as a passive factor of economic growth but as a strategic

resource that drives innovation and competitiveness.

Based on the findings of this study, the author has developed the Adaptive Human Capital Management Concept (AHCMC). This concept integrates strategic planning, digital technologies, lifelong learning, innovation-oriented management, and labor market integration into a unified human capital management framework. Its primary objective is to ensure sustainable economic growth by developing highly qualified and innovation-oriented human capital capable of rapidly adapting to changes in both internal and external environments and by promoting its effective utilization [15].

The proposed concept is founded upon the principles of adaptability, continuity, innovation, digitalization, a regionally differentiated approach, and data-driven management. These principles encompass every stage of the human capital management process, forming a continuous management cycle that extends from strategic planning to performance evaluation and ongoing monitoring.

Furthermore, the adaptive concept envisions a new level of cooperation among public administration bodies, higher education institutions, research organizations, and employers. Such collaboration is intended to facilitate the preparation of specialists whose competencies correspond to labor market requirements, promote the practical implementation of research outcomes, and enhance the effective utilization of regional economic potential. As a result, the human capital management system becomes a key strategic mechanism for ensuring sustainable development across all sectors of the economy.

The Adaptive Human Capital Management Concept (AHCMC) developed in this study proposes a flexible, multi-level management system that meets the requirements of the contemporary economy. It interprets human capital management as a continuous development process and provides for the integration of all its structural components into a unified strategic management framework. The principal objective of the concept is to continuously improve the quality of human capital, ensure rapid adaptation to labor market requirements, and develop the competencies required for an innovation-driven economy.

The proposed concept consists of five interrelated strategic components. The first component focuses on human capital formation, emphasizing improvements in education quality, healthcare, professional training, and digital literacy. The second component addresses the effective utilization of human capital, including the enhancement of labor productivity, the development of modern forms of employment, and the formation of competencies aligned with labor market demands. The third component is devoted to innovation-driven development, aiming to strengthen the innovative capacity of human capital through support for research and development, startup ecosystems, and technology-based entrepreneurship. The fourth component encompasses digital transformation, promoting management effectiveness through the application of artificial intelligence, HR Analytics, Big Data, and digital management platforms. The fifth component focuses on monitoring and adaptive management, providing mechanisms for the continuous analysis of environmental changes, performance evaluation, and the ongoing improvement of managerial decision-making (Table 2).

Table 2
Structural Components of the Adaptive Human Capital Management Concept (AHCMC) and Their Functions

Strategic Component	Core Elements	Expected Outcome
Human Capital Formation	Education, healthcare, professional training, digital literacy	Development of high-quality human capital
Human Capital Utilization	Employment, labor productivity, competency management	Improvement of labor productivity and workforce efficiency
Innovation-Driven Development	Research and development, startups, innovation	Advancement of an innovation-driven economy
Digital Transformation	HR Analytics, Artificial Intelligence, Big Data, digital platforms	Enhancement of management effectiveness
Adaptive Monitoring	Evaluation, monitoring, analysis, and strategic planning	Ensuring sustainable economic growth

The conceptual model presented in Table 2 illustrates a continuous and integrated system of human capital management. A key feature of this model is that human capital management is interpreted not as a one-time or periodic activity but as a dynamic system that continuously adapts to changes in both the internal and external environment. Although each strategic component performs a distinct managerial function, their integration constitutes the fundamental prerequisite for improving the efficiency of human capital utilization.

Under the conditions of Uzbekistan, the practical implementation of this concept would facilitate the development of a differentiated model of human capital management that takes into account the economic

specialization of regions and the specific characteristics of local labor markets. Developing technical and engineering competencies in industrial regions, expanding knowledge of modern agricultural technologies in agrarian regions, and prioritizing innovation, information technologies, and the creative economy in major urban centers would significantly enhance the efficiency of human capital utilization.

The analysis indicates that implementing the adaptive concept would improve labor productivity, reduce shortages of qualified personnel, stimulate innovation, and strengthen regional competitiveness. Furthermore, the introduction of data-driven management mechanisms would enable the continuous evaluation of government programs aimed at human capital development and their ongoing improvement in accordance with actual economic conditions.

Based on the findings of this study, the Adaptive Human Capital Management Concept (AHCMC) is proposed as a new methodological approach that integrates contemporary theories of human capital management into a unified conceptual framework. The practical implementation of this concept represents an important scientific and practical mechanism for enhancing the effective utilization of human capital, fully realizing regional economic potential, and ensuring sustainable economic growth.

The conducted analysis demonstrates that existing approaches to human capital management are insufficient to ensure sustainable economic growth under the rapidly changing conditions of the modern economy. The Adaptive Human Capital Management Concept (AHCMC) developed in this study introduces a new strategic, adaptive, and data-driven methodological approach to human capital management. By integrating education, healthcare, labor market development, innovation, and digital transformation into a unified management system, the concept enhances the efficiency of human capital utilization.

The scientific novelty of the proposed concept lies in its interpretation of human capital management not as a static process but as an adaptive system that continuously evolves in response to internal and external factors. Such an approach makes it possible to consider regional socio-economic characteristics, respond rapidly to labor market requirements, and support scientifically grounded strategic management decisions.

Moreover, the AHCMC ensures the integration of the processes of human capital formation, utilization, and continuous development. As a result, sustainable functional relationships are established among human capital quality, labor productivity, innovation performance, and regional competitiveness. This not only strengthens the contribution of human capital management to economic growth but also enhances the long-term development potential of regions.

Overall, the findings demonstrate that implementing the adaptive concept of human capital management is one of the key prerequisites for improving the efficiency of labor resource utilization, accelerating innovation-driven development, and ensuring sustainable economic growth in the regions of Uzbekistan. At the same time, the proposed concept may serve as a new methodological framework for supporting strategic decision-making in public administration, regional development programs, and higher education institutions.

The results of this study further indicate that traditional approaches to human capital management are inadequate for ensuring sustainable economic growth under conditions characterized by high uncertainty and rapid change. Digital transformation, the accelerated development of artificial intelligence technologies, structural changes in labor markets, and the increasing demand for new competencies require a fundamental reconsideration of existing human capital management systems. From this perspective, the proposed Adaptive Human Capital Management Concept (AHCMC) represents a new conceptual approach that meets the requirements of the contemporary economy.

The discussion revealed that the effectiveness of human capital management depends not only on education or employment indicators but also on their integration with innovation, digital transformation, and institutional governance. Therefore, human capital management systems should integrate lifelong learning, professional reskilling, labor market monitoring, and data-driven decision-making into a unified strategic mechanism.

A major advantage of the AHCMC developed in this study is its interpretation of human capital management as a dynamic system capable of adapting to changes in the external environment rather than as a static process. This approach enables managerial decisions to be continuously updated based on real-time information, facilitates the development of competencies aligned with labor market needs, and increases the economic returns on investments in human capital. Consequently, the management system becomes capable not only of responding to existing challenges but also of anticipating future economic changes.

International experience likewise confirms the effectiveness of adaptive management approaches. In developed countries, human capital management policies are closely linked to lifelong learning, continuous competency development, support for innovation, and the widespread adoption of digital technologies. Such approaches contribute to higher labor productivity, the development of high value-added industries, and greater adaptability of the economy to external shocks. These experiences further support the necessity of implementing an adaptive model of human capital management in Uzbekistan.

The discussion also demonstrates that applying a single management model across all regions does not

necessarily produce optimal outcomes. Since regions differ in terms of economic specialization, demographic composition, labor market conditions, and innovation capacity, adopting a differentiated and adaptive approach to human capital management is more appropriate. The adaptive concept is particularly valuable because it accommodates the unique developmental characteristics of individual regions.

The scientific significance of this study lies in enriching the theoretical foundations of human capital management with adaptive management principles and developing a conceptual framework that explains their contribution to sustainable economic growth. The proposed Adaptive Human Capital Management Concept (AHCMC) may serve as a scientific and methodological foundation for establishing a modern human capital management model, enhancing regional competitiveness, and improving the effectiveness of public governance.

CONCLUSIONS AND RECOMMENDATIONS

The findings of this study demonstrate that improving the human capital management system has become one of the key strategic factors for ensuring sustainable economic growth under contemporary economic conditions. Digital transformation, structural changes in the labor market, the development of the innovation economy, and increasing global competition require the reconsideration of traditional approaches to human capital management and their improvement in accordance with modern requirements.

Throughout the study, the theoretical and methodological foundations of human capital management were systematically analyzed, and the strengths and limitations of existing management models were identified. The results indicate that adaptability, continuous development, data-driven management, and innovative approaches have become the key priorities of effective human capital management.

The principal scientific contribution of this research is the development of the **Adaptive Human Capital Management Concept (AHCMC)**. This concept integrates the processes of human capital formation, development, effective utilization, and continuous monitoring into a unified strategic management system. The proposed concept envisages a transition from a static model of human capital management to an adaptive and dynamic model capable of responding rapidly to changes in both the internal and external environment.

The findings also demonstrate the necessity of applying a differentiated approach to human capital management that takes into account regional economic characteristics, labor market conditions, and demographic factors. Such an approach promotes the efficient utilization of regional potential, improves the availability of qualified personnel across economic sectors, and enhances the economic efficiency of human capital.

To improve the effectiveness of human capital management, it is advisable to strengthen institutional cooperation among public administration bodies, higher education and research institutions, and employers. Such cooperation will facilitate the development of competencies that correspond to labor market needs, the alignment of educational programs with the requirements of the economy, and the broader implementation of research outcomes in practice.

Furthermore, the wider application of digital technologies, artificial intelligence, **HR Analytics**, and **Big Data** in human capital management will improve the accuracy and responsiveness of managerial decision-making. The implementation of a data-driven adaptive management system will expand opportunities for evaluating the effectiveness of investments in human capital and directing them toward priority areas.

In conclusion, the proposed **Adaptive Human Capital Management Concept (AHCMC)** represents a new methodological approach aimed at ensuring sustainable economic growth through the integration of contemporary theories of human capital management. The practical implementation of this concept will provide an important scientific and practical foundation for improving human capital quality, increasing labor productivity, strengthening regional competitiveness, and ensuring long-term sustainable economic development. Future research may focus on conducting empirical studies across regions, evaluating the effectiveness of adaptive management through econometric models, and analyzing its practical outcomes.

REFERENCES

1. Drucker, P. F. (1999). *Management Challenges for the 21st Century*. New York: Harper Business.
2. Porter, M. E. (1990). *The Competitive Advantage of Nations*. New York: Free Press.
3. Senge, P. M. (2006). *The Fifth Discipline: The Art and Practice of the Learning Organization*. New York: Doubleday.
4. Teece, D. J. (2007). Explicating Dynamic Capabilities: The Nature and Microfoundations of (Sustainable) Enterprise Performance. *Strategic Management Journal*, 28(13), 1319–1350.
5. Schwab, K. (2016). *The Fourth Industrial Revolution*. Geneva: World Economic Forum.
6. Brynjolfsson, E., & McAfee, A. (2014). *The Second Machine Age: Work, Progress, and Prosperity in a Time of Brilliant Technologies*. New York: W. W. Norton & Company.
7. Organisation for Economic Co-operation and Development (OECD). (2023). *OECD Skills Outlook 2023: Skills for a Resilient Green and Digital Transition*. Paris: OECD Publishing.

8. World Bank. (2020). *The Human Capital Project 2020 Update: Human Capital in the Time of COVID-19*. Washington, DC: World Bank.
9. World Bank. (2019). *World Development Report 2019: The Changing Nature of Work*. Washington, DC: World Bank.
10. Becker, G. S. (1993). *Human Capital: A Theoretical and Empirical Analysis, with Special Reference to Education* (3rd ed.). Chicago: The University of Chicago Press.
11. Abdurahmonov, Q. X. (2023). *Human Capital: Theory and Practice*. Tashkent: Fan.
12. Vahobov, A. V. (2019). *Regional Economics*. Tashkent: Iqtisodiyot.
13. Statistics Committee of the Republic of Uzbekistan. (2025). *Socio-Economic Situation of the Republic of Uzbekistan: Statistical Yearbook*. Tashkent.
14. United Nations Development Programme (UNDP). (2024). *Human Development Report 2023/2024*. New York: UNDP.

Proofreader: Zokir ALIBEKOV

Layout and Designer: Oloviddin Sobir ugli

2026. № 7

© When materials are reproduced, the INNOVATION SCIENCE AND TECHNOLOGY journal must be cited as the source. Authors are responsible for the accuracy of the information in materials and advertisements published in the journal. Editorial opinions may not always align with those of the authors. Submitted materials will not be returned to the editorial office.

To publish articles in this journal, you may submit articles, advertisements, stories, and other creative materials through the following links. Materials and advertisements are published on a paid basis.

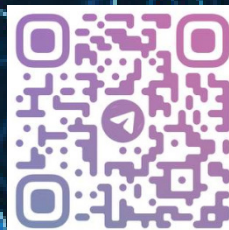
You may subscribe to the journal at any time using the following details. Once subscribed, please send a screenshot or photo of your payment confirmation to our Telegram page @iqtisodiyot_77. Based on this, we will send the latest issue of the journal to your address each month.

“The journal “INNOVATION SCIENCE AND TECHNOLOGY” has been registered by the Agency for Information and Mass Communications under the Administration of the President of the Republic of Uzbekistan from 09.10.2024 under the registration number №390637. License number: C-5669633. PNFL: 30407832680027

Our address: Tashkent city, Yunusobod district, 19th block,
House 17.



**TASHKENT STATE
UNIVERSITY OF ECONOMICS**



Google
Scholar

OPEN ACCESS

ULRICHSWEB™
GLOBAL SERIALS DIRECTORY

**Academic
Resource
Index**
ResearchGate

ISSN INTERNATIONAL
STANDARD
SERIAL
NUMBER
INTERNATIONAL CENTRE

CYBERLENINKA

OpenAIRE

ROAD

LIBRARY.RU
НАУЧНАЯ ЭЛЕКТРОННАЯ
БИБЛИОТЕКА

BASE INDEX COPERNICUS
INTERNATIONAL

Crossref

doi Digital
Object
Identifier

CiteFactor
Academic Scientific Journals

zenodo



Acceptance of articles

Published every
monthly



Directions

Social, economic, political,
technological, scientific



Scopus || Scientific electronic journal specializing in Scopus

CERTIFICATE NUMBER: №390637

**ORDER NUMBER ACCORDING TO
THE LICENSE REGISTER: C-5669633**

CONTACT:



Contact us
+998 50 737 87 88



Telegram channel
t.me/scopus_IST2100



Journal official website
<https://ist-journal.uz/index.php/IST>