

STARTUPS AND INNOVATIVE ENTREPRENEURSHIP

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Abstract. This paper examines the role of startups and innovative entrepreneurship in promoting sustainable economic growth and digital transformation. It explores the theoretical foundations of startup development, the importance of innovation-driven entrepreneurship, and the contribution of startups to employment creation, technological advancement, and economic competitiveness. The paper also analyzes international experience and reviews Uzbekistan's recent reforms aimed at developing the startup ecosystem, venture financing, innovation infrastructure, and digital entrepreneurship. The findings suggest that strengthening venture capital mechanisms, expanding innovation infrastructure, supporting technology-based startups, and enhancing collaboration among government, academia, and the private sector are essential for fostering an innovation-driven economy and ensuring long-term sustainable development.

Keywords: startups, innovative entrepreneurship, startup ecosystem, innovation, venture capital, digital economy, entrepreneurship, technology commercialization, digital transformation, economic growth, Uzbekistan.

In the twenty-first century, the transition of the global economy to an innovation-driven stage of development has made startups and innovative entrepreneurship one of the key drivers of economic growth. Scientific and technological progress, the expansion of the digital economy, and the rapid development of information and communication technologies have created favorable conditions for the emergence of new business models across all sectors of the economy. This transformation has also changed the nature of small businesses and private entrepreneurship, making innovation-based entrepreneurship an essential factor in sustainable economic development.

The term *startup* originates from the English expression "*start up*" and refers to a business venture established on the basis of an innovative idea or technology with significant potential for rapid growth. Unlike traditional small businesses, startups are primarily based on advanced technologies, digital solutions, scientific research, and innovative products or services. Their main objective is to develop competitive products or services within a short period and successfully commercialize them on a large scale.

The economist Joseph Schumpeter identified innovation as the principal driving force of economic development. According to his theory, economic growth is generated

through the introduction of new technologies, new products, new markets, and new methods of business organization. Today, Schumpeter's theory is widely recognized as one of the fundamental theoretical foundations of startup development. Subsequently, Peter Drucker defined innovative entrepreneurship as the process of identifying opportunities and transforming them into successful business ventures through innovation and effective management.

The main characteristics of innovative entrepreneurship include the introduction of new technologies, the creation of high value-added products and services, the effective utilization of intellectual property, the commercialization of scientific research results, operation under conditions of high uncertainty and risk, the attraction of investment, and strong potential for entering international markets.

The economic significance of startups is substantial. First, they create new employment opportunities. International experience demonstrates that a considerable share of highly skilled jobs is generated by innovative companies. Second, startups enhance economic competitiveness, accelerate digital transformation, and contribute to increasing the production and export of high-value-added goods and services. Third, by commercializing scientific research outcomes, startups strengthen the integration of science, technology, and industry, thereby promoting innovation-led and sustainable economic development.

In international practice, globally recognized companies such as Apple, Microsoft, Google, Amazon, Airbnb, and Uber all began as small startups before evolving into leading multinational corporations. These examples clearly demonstrate how innovative ideas, combined with a favorable business environment, can create significant opportunities for economic growth and global competitiveness.

In recent years, the development of innovative entrepreneurship has also become one of the priority areas of state policy in Uzbekistan. Comprehensive reforms have been implemented to develop the national startup ecosystem, expand innovation infrastructure, encourage youth entrepreneurship, and establish a venture capital market. In particular, a support system for startup projects has been created through the development of IT Park Uzbekistan, the Agency for Innovative Development, business incubators, accelerator programs, and technology parks.

As of the end of 2024, the number of IT Park residents exceeded 2,800, employing tens of thousands of highly qualified professionals. The steady growth in information technology service exports indicates that innovative entrepreneurship is becoming one of the new drivers of Uzbekistan's economic growth. At the same time, hackathons, innovation competitions, grant programs, and business acceleration initiatives are regularly organized to promote startup culture and entrepreneurial skills among young people.

From the perspective of small businesses and private entrepreneurship, startups play an important role by integrating traditional business activities with digital technologies and introducing innovative products and services. Sectors such as e-commerce, financial technology (FinTech), agricultural technology (AgriTech), educational technology (EdTech), healthcare technology (HealthTech), logistics, and artificial intelligence-based solutions are among the fastest-growing areas of the modern economy.

Specific measures are also being implemented to promote innovative entrepreneurship in the Kashkadarya region. These include training young people in digital technologies, financing innovative business ideas, establishing IT centers, and organizing vocational courses in modern professions. In addition, higher education institutions have introduced startup competitions and practical programs aimed at developing entrepreneurial projects. These initiatives contribute to creating an innovation-friendly environment and establishing new businesses that generate high added value within the region.

Despite these achievements, startups continue to face several significant challenges. These include the underdevelopment of the venture capital market, limited mechanisms for commercializing scientific research, relatively low levels of private investment, high financial risks associated with innovative projects, and a shortage of highly qualified human resources. Addressing these challenges requires stronger cooperation among government institutions, the private sector, research organizations, universities, investors, and entrepreneurs. Looking ahead, further development of innovative entrepreneurship in Uzbekistan requires improving venture financing mechanisms, encouraging private investment, strengthening intellectual property protection, expanding startup ecosystems within universities, developing digital infrastructure, and enhancing the innovative and digital competencies of the population. These measures will create favorable conditions for sustainable innovation-driven economic development.

The successful development of innovative entrepreneurship largely depends on the maturity of a country's startup ecosystem. A startup ecosystem can be defined as the integrated network of institutions, organizations, stakeholders, and infrastructure that support the creation, development, financing, and commercialization of innovative businesses. This ecosystem includes government agencies, higher education and research institutions, business incubators, accelerators, technology parks, venture capital funds, commercial banks, investors, mentors, and entrepreneurs themselves.

The experience of developed countries demonstrates that an effective innovation ecosystem is one of the key factors ensuring sustainable economic growth. For example, Silicon Valley in the United States, Israel's innovation clusters, and the innovation ecosystems of South Korea, Singapore, and Estonia illustrate how well-developed

innovation infrastructure has facilitated the creation of thousands of successful startups. In particular, close cooperation among scientific research institutions, private investors, and government support organizations has significantly accelerated the commercialization of innovative products and technologies.

Today, the number of so-called "unicorn" startups—companies with a market valuation exceeding USD 1 billion—continues to grow worldwide. According to CB Insights, by the beginning of 2025, there were more than 1,200 unicorn startups globally, with a combined market valuation exceeding USD 4 trillion. The majority of these companies are located in the United States, China, India, and the United Kingdom, operating primarily in the fields of artificial intelligence, financial technology, e-commerce, healthcare, and cybersecurity.

The venture capital market plays a crucial role in the development of innovative entrepreneurship. Venture capital serves as an important source of financing for startups that possess innovative ideas but lack sufficient financial resources. Unlike traditional bank lending, venture capital investors are willing to accept higher levels of risk by investing in promising business ventures in exchange for potential returns as these companies grow. Globally recognized venture capital firms such as Sequoia Capital, Andreessen Horowitz, and Accel Partners have played a significant role in the development of hundreds of leading technology companies.

In the era of the digital economy, new directions of innovative entrepreneurship are rapidly emerging. Technologies such as Artificial Intelligence (AI), Machine Learning (ML), blockchain, the Internet of Things (IoT), cloud computing, Big Data, and robotics have become the core areas of activity for modern startups.

In particular, the number of startups based on artificial intelligence technologies has increased dramatically in recent years. According to forecasts by PwC, artificial intelligence could contribute up to USD 15.7 trillion to global gross domestic product by 2030. This projection highlights the enormous growth potential of innovation-driven entrepreneurship in the coming years.

The adoption of AgriTech in agriculture, HealthTech in healthcare, FinTech in financial services, EdTech in education, GreenTech in environmental protection, and Industry 4.0 technologies in manufacturing is creating new opportunities for small businesses. These technological developments not only improve economic efficiency but also promote the rational use of resources, reduce production costs, and enhance the quality of products and services.

In recent years, Uzbekistan has consistently implemented state policies aimed at promoting innovation and entrepreneurship. Several national programs have been introduced to expand the digital economy, increase IT service exports, and support innovative initiatives among young entrepreneurs. As a result, the number of modern

IT companies has grown steadily, while the digital services market has experienced rapid development.

According to IT Park Uzbekistan, IT service exports exceeded USD 900 million by the end of 2024, and the number of export-oriented resident companies has continued to increase. These achievements confirm Uzbekistan's growing position as one of the leading exporters of IT services in Central Asia.

Furthermore, higher education institutions are expanding opportunities for the commercialization of research by establishing innovation laboratories, technology centers, and startup hubs. University-based initiatives such as Startup Garage, Business Incubator, and Innovation Center play an important role in developing entrepreneurial skills among students, facilitating meetings with investors, and supporting the commercialization of innovative products.

Looking ahead, the following strategic priorities are essential for further developing innovative entrepreneurship in Uzbekistan:

- developing the venture capital market and attracting private investment;
- improving mechanisms for the commercialization of scientific research;
- expanding the network of technology parks and business incubators throughout the regions;
- strengthening innovation-oriented education in higher education institutions;
- supporting startups based on artificial intelligence and digital technologies;
- and promoting the production of export-oriented innovative products.

Thus, startups and innovative entrepreneurship have become integral components of the modern economy. Their development contributes to increasing economic competitiveness, generating high value-added products and services, creating new employment opportunities, utilizing scientific potential more effectively, and strengthening the country's position in global innovation rankings. Therefore, improving support mechanisms for innovative entrepreneurship, developing modern innovation infrastructure, and widely adopting international best practices remain strategically important for Uzbekistan's long-term sustainable economic development.

Conclusion. In conclusion, startups and innovative entrepreneurship are among the key drivers of innovation-led economic development, digital transformation, employment generation, export expansion, and the enhancement of the competitiveness of small businesses. Consequently, comprehensive government support for this sector, further improvement of the investment climate, and continuous development of the national innovation ecosystem remain essential prerequisites for achieving sustainable and inclusive economic growth in Uzbekistan.