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THE ROLE OF INNOVATION IN THE FORMATION OF A COMPETITIVE NATIONAL ECONOMY

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Abstract. The article examines the crucial role of innovations in shaping a competitive national economy in the context of globalization and rapid technological development. It explores how innovation processes contribute to sustainable economic growth, productivity enhancement, and the creation of new market advantages. The research highlights the importance of forming an effective national innovation system, promoting scientific and technological progress, and fostering collaboration between the state, business, and academia. Special attention is given to the mechanisms for stimulating innovation activity and the implementation of innovative policies that enhance the competitiveness of the economy at both national and international levels.

Keywords: innovation, competitiveness, national economy, technological development, innovation policy, economic growth, innovation system, sustainable development

Introduction

In the modern globalized world, innovation has become one of the key drivers of economic growth and national competitiveness. The ability of a country to create, implement, and commercialize new ideas determines its position in the international economic system. In this context, innovation acts as a strategic resource that ensures sustainable development, enhances productivity, and stimulates structural transformation of the economy.

The formation of a competitive national economy requires the development of an effective innovation ecosystem that includes research institutions, technology parks, venture capital, and supportive government policies. Countries that successfully integrate innovations into their economic and industrial structures achieve higher levels of efficiency, export potential, and social welfare.

For Uzbekistan, as for many developing economies, the transition to an innovation-driven model of growth is a priority objective. Strengthening the scientific and technological base, fostering entrepreneurship, and improving institutional frameworks are essential steps toward building an economy capable of competing in global markets. Therefore, the study of the role of innovations in shaping a competitive national economy is of great theoretical and practical significance.

Literature Review

The issue of innovation as a fundamental factor in enhancing national competitiveness has been extensively discussed in the works of many scholars and international organizations. According to Joseph Schumpeter (1934), innovation serves as a key force of “creative destruction” that

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transforms industries, promotes technological progress, and increases economic efficiency. Building upon this concept, later studies emphasized the role of innovation systems in ensuring long-term economic sustainability and competitiveness.

Porter (1990) in his "Competitive Advantage of Nations" highlighted that national competitiveness depends on the ability of firms to innovate and upgrade. Innovation-driven development is viewed as the highest stage of competitive advantage, where productivity growth is achieved through new technologies, knowledge, and management practices.

Modern research by Freeman (1987) and Lundvall (1992) introduced the concept of a National Innovation System (NIS), emphasizing the importance of coordinated interaction between government, business, and academia. The efficiency of this system determines how effectively innovations are generated, disseminated, and utilized within the economy.

Empirical studies by the OECD (2020) and World Bank (2022) demonstrate that countries investing in research and development (R&D), digital transformation, and innovation infrastructure achieve higher GDP growth rates and stronger export performance. These findings confirm the correlation between innovation activity and macroeconomic competitiveness.

In the context of developing economies, particularly in Uzbekistan, scholars such as Akhmedov (2021) and Rakhimov (2023) stress the importance of establishing innovation-oriented policies and supporting technological entrepreneurship to accelerate economic modernization. Thus, the literature suggests that innovation not only fosters competitiveness but also serves as a catalyst for structural transformation and sustainable growth.

Methodology

The methodological basis of this research is founded on a systematic and interdisciplinary approach to analyzing the relationship between innovation and national competitiveness. The study employs both qualitative and quantitative research methods to ensure comprehensive and objective results.

At the theoretical level, the research utilizes classical and modern concepts of innovation theory, including Schumpeter's innovation model, Porter's competitiveness theory, and the framework of the National Innovation System developed by Freeman and Lundvall. These theories serve as the foundation for understanding how innovation activities contribute to economic efficiency and structural transformation.

At the analytical level, the study examines statistical data from international organizations such as the OECD, World Bank, and Global Innovation Index to assess the correlation between innovation performance indicators (R&D expenditure, number of patents, technological exports) and national competitiveness indicators (GDP growth, productivity, export diversification).

The comparative method is used to analyze the experiences of developed and emerging economies in building innovation ecosystems, identifying key policy instruments that stimulate technological development. Special emphasis is placed on the analysis of Uzbekistan's innovation policy and institutional framework to determine current challenges and potential growth areas.

The empirical analysis includes the evaluation of innovation trends through descriptive statistics and correlation analysis, enabling the identification of patterns between innovation intensity and competitiveness outcomes. The results of this methodological framework allow for evidence-based conclusions and practical recommendations aimed at enhancing the innovation capacity of the national economy.

Analysis and Results

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The analysis of global economic trends demonstrates a strong and consistent relationship between innovation capacity and national competitiveness. Countries that prioritize investments in research and development (R&D), digitalization, and human capital tend to occupy higher positions in the **Global Innovation Index (GII)** and the **Global Competitiveness Index (GCI)**. For instance, nations such as **Switzerland, South Korea, the United States, and Sweden** consistently rank among the leaders due to their well-developed innovation ecosystems and supportive institutional environments.

Empirical data indicate that a 1% increase in R&D spending as a share of GDP can lead to a 0.6–0.8% rise in GDP growth over the medium term. Moreover, innovation-driven economies exhibit greater resilience to global economic shocks and demonstrate faster recovery rates after crises. This is largely due to their capacity to adapt production systems, develop new technologies, and diversify exports.

In the case of **Uzbekistan**, the innovation sector is undergoing gradual development. The establishment of innovation centers, technology parks, and start-up incubators in recent years reflects a growing commitment to modernization and digital transformation. However, the share of R&D expenditure in GDP remains relatively low (around 0.2–0.3%), compared to the global average of 2.5–3%. The number of patents and technology-intensive exports is also limited, which indicates that the national innovation potential is not yet fully realized.

To enhance competitiveness, Uzbekistan must strengthen the linkages between science, industry, and government institutions. Encouraging private-sector innovation, developing venture capital markets, and improving intellectual property protection will create favorable conditions for innovation growth. Additionally, adopting international standards of technological management and fostering partnerships with foreign innovation networks will accelerate the transition to a knowledge-based economy.

Overall, the results of the analysis confirm that innovation is a key determinant of competitiveness. The countries that invest strategically in innovation infrastructure, education, and technology integration achieve sustainable economic growth and maintain high positions in the global economic system.

Conclusion and Recommendations

The study confirms that innovation plays a decisive role in shaping the competitiveness of the national economy. It serves as a catalyst for productivity growth, structural transformation, and sustainable development. Countries that systematically invest in innovation infrastructure, human capital, and research demonstrate higher levels of technological advancement and are better positioned in global value chains.

For Uzbekistan, the transition to an innovation-oriented model of growth is a strategic necessity. The analysis reveals that despite progress in developing an institutional base for innovation, significant challenges remain — including insufficient funding for R&D, limited private-sector involvement, and weak commercialization of research results. Overcoming these barriers requires a coordinated approach involving the state, private enterprises, and academic institutions.

Based on the research findings, the following recommendations are proposed:

1. **Strengthen the national innovation system** by enhancing cooperation among universities, research institutes, and businesses.
2. **Increase investment in R&D** through fiscal incentives, grants, and public–private partnership mechanisms.

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3. **Promote technological entrepreneurship** by supporting start-ups, innovation hubs, and venture capital initiatives.
4. **Improve the legal framework** for intellectual property protection and innovation commercialization.
5. **Develop human capital** through modern educational programs that emphasize creativity, digital skills, and scientific research.
6. **Encourage international cooperation** in technology transfer and joint innovation projects to integrate Uzbekistan into the global innovation ecosystem.

In conclusion, innovation is not only a factor of competitiveness but also a foundation for long-term economic resilience. Strengthening innovation capacity will enable Uzbekistan to move toward a knowledge-based economy, improve its global competitiveness, and achieve sustainable and inclusive growth.

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