

INNOVATIONS AS A DRIVER OF CHINA'S NATIONAL COMPETITIVENESS

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Innovations are crucial for driving commercial and societal advancement, and China's commitment to fostering innovation is evident, first of all, through increased investment in education as well as research and development. Government policies and legal frameworks play pivotal roles in shaping the innovation ecosystem, with China progressively reforming policies to prioritize enterprise-led innovation and international collaboration. International cooperation is vital for enhancing technology transfer and innovation capacity, with China actively engaging in global innovation partnerships to strengthen its competitive edge.

Keywords: innovations; China; education investment; policy environment; international cooperation.

ИННОВАЦИИ КАК ДРАЙВЕР НАЦИОНАЛЬНОЙ КОНКУРЕНТОСПОСОБНОСТИ КИТАЯ

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Инновации имеют решающее значение для коммерческого и общественного прогресса, и стремление Китая содействовать инновациям проявляется, прежде всего, в увеличении инвестиций в образование, а также в исследования и разработки. Государственная политика и правовая база играют ключевую роль в формировании инновационной экосистемы, при этом Китай постепенно реформирует свою политику, отдавая приоритет инновациям под контролем предприятий и международному сотрудничеству. Международное сотрудничество имеет важнейшее значение для усиления передачи технологий и инновационного потенциала, и Китай активно участвует в глобальных инновационных партнерствах для укрепления своих конкурентных преимуществ.

Ключевые слова: инновация; Китай; инвестиции в образование; политическая среда; международное сотрудничество.

Innovations are vital for commercial and societal advancement and involve creating value through new technologies or inventions, enhancing competitive advantage and economic growth [1]. They extend beyond technology to include organizational and transactional improvements, blending local and international knowledge through collaboration [2]. This process reshapes the competitive

dynamics of enterprises globally, influenced by both public and private strategies. As a key measure of a nation's strength, innovations signify China's shift from a follower to a global leader in various fields, highlighting its increased competitiveness and development strategy.

1. Relationship between innovations and national competitiveness

Innovations are crucial for driving economic growth and improving national competitiveness, with technological, managerial, and product innovations significantly influencing a country's economic dynamics and competitive edge. Technological innovation, in particular, serves as a foundation for bolstering scientific, technological, and industrial competitiveness. By adopting new technologies or upgrading existing ones, countries can boost production efficiency, enhance product quality, and upgrade their industrial base to more technologically advanced levels, paving the way for sustainable economic development through a shift towards higher value-added industries.

2. Key factors influencing innovation

Education is the fundamental cornerstone for developing innovative talents, with China's investment in education consistently ranging from 4.11 % to 4.22 % of GDP from 2018 to 2022, indicating its commitment to cultivating innovation through high-quality education. Simultaneously, investment in Research and Development is the primary force behind technological innovations, with expenditure on Research and Development as a percentage of GDP climbing from 2.19 % in 2018 to 2.54 % in 2022. This trend showcases a deliberate increase in investments toward scientific research and technological innovation in China (table).

**China's state financial expenditure on education and research and development investments
as a percentage of GDP (2018–2022)**

	2018	2019	2020	2021	2022
Proportions of state financial expenditure in education in GDP (%)	4.11	4.04	4.22	4.01	4.01
Research and Development investment to GDP (%)	2.19	2.23	2.40	2.44	2.54

Source: [3].

3. Government policy and legal environment

Government policies and the legal environment play crucial roles in shaping the ecosystem for science and technology innovations in China, directly influencing the direction, efficiency, and quality of innovation activities. China has progressively evolved its innovation policies to emphasize the central role of enterprises in scientific and technological advancements. Key policy milestones include the 2012 reform proposals to create an enterprise-led and market-oriented technology innovation system, the “Made in China 2025” strategy focusing on enhancing enterprise innovation and key technology development, and the “13th Five-Year” and “14th Five-Year” plans that further solidify the importance of innovation in national development and stress technological self-reliance. These policies collectively underscore the strategic pivot towards an innovation-driven development model, highlighting the pivotal role of enterprises in China's science and technology innovation landscape.

4. International cooperation and competition

International cooperation is essential for enhancing technology transfer and innovation capacity, with cross-border research and development, international collaborations, and global innovation networks playing key roles in accelerating knowledge and technology exchange, thereby boosting innovation efficiency. Global Innovation Index 2023 highlights Switzerland, Sweden, the USA, the UK, and Singapore as top innovators, with Europe prominently featuring in the rankings. Middle-income countries like China, Turkey, and India have shown remarkable progress in innovation, with India, Moldova, and Vietnam consistently exceeding GDP-based innovation expectations. Notably,

the USA leads in evolving startups into major industry players with 651 unicorns, underscoring its significant impact on the global innovation ecosystem, closely followed by China and India [4].

Innovations are crucial for national competitiveness, especially for China, as it seeks to enhance its global standing through education, supportive policies, and international cooperation [5]. Key to driving economic growth and scientific progress, China's focus on R&D efficiency and strategic technology investments, coupled with its active role in international collaborations, aims to position it as a leader in global innovation. Strengthening R&D partnerships and engaging in international standards development are essential for China to address global challenges and secure a competitive edge in science and technology.

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