

Innovation-Driven Strategy on High-Quality Economic Development

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The positive role of innovation-driven strategy is mainly realized through high-tech markets in China. Therefore, R&D investment should focus on high-tech industries or fields related to the national economic lifeline or strategic industries, such as environmental protection, microchips, and high-end instruments industries in China.

innovation

economic development

innovation-driven development

cluster analysis

1. Innovation-Driven Strategy

Michael E. Porter initially proposed the concept of innovation-driven economic development. He divided national economic development into four stages: factor-driven growth, investment-driven growth, innovation-driven growth, and wealth-driven growth ^[1]. In the first three stages, the national economy grows rapidly, while the fourth stage is the turning point of national economic development, which may lead the national economy into recession.

The key success factor of open innovation-driven companies is building a strategic map and formulating an action plan to measure key drivers. However, here also need to point out that social institutions lack the norms and regulations required by a well-functioning economy ^[2]. The correlation between regulatory and cultural cognitive dimensions is different between factor-driven (or production-driven) countries and innovation-driven countries ^[3]. At the same time, unlimited technology acceleration has a potential impact on the possibility of unrest in a technology-driven society ^[4]. There are still various factors affecting the economic effect of the government's innovation-driven strategy at the national level.

Promoting an innovation-driven strategy requires a higher material and technological foundation. Innovation, higher education, and technology preparation have a positive and significant impact on entrepreneurial activities in innovation-driven countries but not in factor-driven countries ^[5]. An innovation-driven strategy should play the role of social and ecological education in economic development ^[6]. Moreover, it can create a social innovation culture in the atmosphere by cultivating the understanding of creativity, flexibility of change, and innovation resources ^[7].

Making full use of new technologies such as the Internet and intelligent devices gives play to the ease of use and value of information and data. It promotes patent research, technology, and innovation activities ^[8]. The government should seek appropriate measures to support innovation clusters and accelerate regional economic and investment policies and university research ^[9]. These measures will affect the economy, technology, culture, and system.

2. The Relationship between Innovation-Driven Strategy and Economic Development

From the national economic level perspective, Marsiglio Simone ^[10] thought that it is undeniable that the innovation-driven strategy can effectively promote economic growth. The innovation of the national economy is the key factor to stimulate economic growth and enhance competitiveness. Effective national innovation policies and strategies can create conditions for enterprise development and national competitiveness.

Dobrzanski P ^[11] found that even countries with limited innovative capacity need to gradually increase R&D expenditure to achieve innovation-driven growth and economic development. Under normal conditions, the government generally only supports promoting the innovation output of innovative enterprises. In other cases, the government can provide more special R&D subsidies to ensure the effectiveness of innovation policies ^[12]. Due to low productivity, high production cost, limited development capacity, inefficient management structure, limited skills training, and system inefficiency caused by rising labor costs, the international market competition is very fierce. Walsh John Christopher ^[13] considered that only innovation-driven could overcome these competitive challenges.

There are differences between countries in the transition from efficiency-driven to innovation-driven. Developing countries need to pay attention to the impact of social capital and establish an information/feedback collection system to improve the innovation and competitiveness of the market when experiencing various transformation problems ^[14].

There are differences between enterprise innovation and enterprise productivity performance ^[15]. Du Weijian ^[12] holds that government support can only increase the intensity of innovation; the breadth of innovation is insufficient in the case of less competition. So, without innovation, government support does not necessarily improve the innovation probability of enterprises. If competition is insufficient, the breadth of innovation will be insufficient. Therefore, government support will not necessarily increase the innovation probability of enterprises.

3. The Innovation-Driven Strategy and China

In China, the innovation incentive under the government-led economic system can be much more than those under the market-led economy, rather than much less. Government-led may be more conducive to transforming China's economy from a factor- and investment-driven economy to an innovation-driven economy. However, Ji Y. ^[16] put forward that government-led will reduce the initial value of innovation. Since 2011, China's economic growth has been declining rapidly. The average growth rate decreased from nearly 10% in 1979–2010 to 6.7% in 2016, a drop of over 3%. The root cause of the economic slowdown is the lag of deep-seated institutional reform, which is the lack of a system suitable for innovation-driven strategy. By deepening comprehensive market-oriented reform, China must further enhance economic inclusiveness and accelerate its transformation into an efficiency-driven and innovation-driven economy ^[17]. The export-oriented economic model has experienced a development stage driven by factors and investment and has accumulated multiple distortions and structural imbalances. China is undergoing quantity transformation to produce high-quality service and knowledge-intensive products and using locally

designed technologies to meet domestic demand [18]. China needs to move more firmly to the stage of innovation-driven growth.

Since 2012, China's innovation has achieved leapfrog economic development. Nowadays, innovation has become the main driving force of China's economic development; high-tech industries especially have made great contributions [19]. Innovation, which transforms China's economic structure into a more advanced model of technological progress and improvement in technical efficiency, is the main driving force for the growth of the green total factor productivity index in relatively backward areas. Eliminating internal administrative barriers and improving resource and energy efficiency will also help promote the transformation of urban agglomeration development from a factor-driven economy to an innovation-driven economy [20]. From the supply side, it will improve the quality and efficiency of the supply system and promote overall economic development. Wu F. [21] considered that the government should combine the innovation-driven strategy with the patent protection mechanism. Butt Atif Saleem [22] believes through research that China's key to becoming a global innovation power lies in the innovation ecosystem and plays the role of policies in promoting scientific and technological innovation.

Research on the mechanism of China's innovation-driven strategy driving economy. Chen Xiafei [23] studied the effect of innovation performance and economic development from the driving mechanism of innovation performance and explained that implementing an innovation-driven strategy is of great significance to China's economic development. Hutschenreiter [24] studied China's 30 years of economic development, in which the economic growth model left behind social and economic risks and sustainable development problems and pointed out that innovation is the key factor to solving the problem of relying on low-cost and resource-intensive manufacturing. Wonglimpiyarat [25] pointed out that China improves the cooperation among institutions in the innovation system through government intervention policies, especially innovation financing policies, which bring business creation and economic growth. Liang [26] concluded that technological innovation and regional economic coordination could form an interactive development relationship and contribute to high-quality economic development.

In *China's National Innovation-driven Development Strategy Program*, it is argued that the combination of scientific and technological innovation supported by institutional, management, business model, formatting, and cultural innovation will lead to the transformation of development to be reliant on the continuous accumulation of knowledge, technological progress, and improvement in the quality of labor. Additionally, the quality of economic development mainly includes the coordination of economic structure, the improvement in economic efficiency, the degree of economic stability, the improvement in people's lives, and the balance of environment and ecology [27]. The connotation of an innovation-driven strategy is the harmonious role of innovation-driven elements, which aim at economic growth and development. Different stages and levels of economic development need different development impetus [28]. Implementing an innovation-driven strategy to promote the quality of economic development is mainly reflected in the economic effect, economic level, green economy, coordinated economy, and innovation economy [29]. Through the innovation-driven strategy, it is helpful to promote the economic development stage and level, realize the harmony between man and nature and social harmony, and realize the development of circular and green economies [29]. According to the above relationship between the innovation-driven strategy and

economic development quality, the change in economic development quality indicators should be consistent with the effect of the innovation-driven strategy [30], and innovation-driven should also have an impact on social capital formation, household consumption, and net exports of goods and services, whether through direct or indirect effects.

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