



## Promoting innovation in the private economic sector in emerging economies: China's experience and policy implications for Vietnam

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### Abstract

Innovation creates new momentum in economic growth, enhancing the competitiveness of an enterprise and a country. China is emerging as a leader in innovation within the East Asian region, where superiority in the number and coverage of patents, particularly due to the notable advancements of the private economic sector fueled by the rise of digital technology. Vietnam is heavily dominated by small and medium-sized enterprises and thus suffers from the lack of economies of scale in R&D, and innovation works. The article discusses the economic factors that encourage innovation and summarizes China's strategic planning and policies for fostering innovation within the private sector, offering recommendations for Vietnam.

**Keywords:** Innovation, private economic sector, small and medium-sized enterprises, Chinese experience

### Introduction

Innovation encompasses the invention or discovery of new technologies and the diffusion or adoption of existing technologies and practices which enable firms to pursue new production methods and strategies (Cirera et al., 2021)<sup>[3]</sup>. Innovation can be technological or non-technological. OECD and Eurostat (2018)<sup>[12]</sup> in Oslo Manual 2018 defines two main types of innovation as follows:

1. Product innovation is "a new or improved good or service which is significantly different from the firm's previous goods or services and has been introduced to the market." This includes the addition of new functions, the improvement of existing functions and user convenience. "Relevant functional characteristics include quality, specifications, reliability, durability, economy in use, affordability, convenience, availability, and ease of use."
2. Business process innovation is "the introduction of a new or improved business process applied to one or more business functions that are significantly different from the previous business processes of the enterprise and has been put into use by the enterprise".

Simultaneously, the OECD and Eurostat (2018)<sup>[12]</sup> in Oslo Manual 2018 outlines six functional categories to identify and differentiate various types of business process innovation as follows:

1. Innovative methods for manufacturing products or providing services;
2. Innovations in distribution and logistics;
3. Innovations in marketing and sales activities;
4. Innovations in the provision and maintenance of information and communication systems;
5. Innovations in management and operation;
6. Innovations in product development and business processes.

Innovation drives new economic growth, boosts product and business competitiveness, and enhances industry and national performance within the context of the global economy, significantly influenced by the fourth industrial revolution. China stands out for its superiority in the number

and coverage of patents in East Asia, especially the outstanding achievements of the private economic sector with the rise of digital technology, especially in e-commerce, digital financial technology (fintech), and services supported by mobile applications. Therefore, it is necessary to understand the factors that promote innovation in the private economic sector and China's experience in planning and implementing strategies and policies to encourage innovation at the macro level.

### Methods

The research method used in this article is desk research. The author analyzes the factors promoting innovation in the private economic sector in China and their experiences in planning strategies and policies to encourage innovation. The author mainly analyzes and synthesizes information, figures, and data collected from secondary sources from articles in prestigious scientific journals, and domestic and foreign electronic information sites.

### Research results

#### 1. Factors driving innovation in the private sector in China

The factors driving innovation in the private sector are diverse, of which economic factors have shown their crucial role in driving innovation in the private sector in China. It is mainly related to the requirements from the promotion of market demand, intellectual property issues, the desire to improve the creative autonomy of enterprises, the desire to escape dependence on the policy environment, and the desire to expand the scale and improve the management efficiency of enterprises.

##### ▪ Innovation comes from market needs

The impact of market competition on enterprise innovation in China is linked to the need for increased capacity competition. Market competition forces enterprises to participate in a "battle" to survive or be eliminated. In particular, in China, the existence of many state-owned enterprises and large-scale private enterprises makes it very difficult for small and medium-sized private enterprises to participate in such a competitive market, and it is also

difficult to rely on market competition methods to make profits in business activities. These have created a driving force for enterprises to innovate (Liao et al., 2014). In such a fiercely competitive market, through an innovation path, enterprises can build product image, gain consumer trust, and as a result, capture more market share. Business innovation is a crucial method for enterprises to improve their competitiveness and market position in the current period (Liu, 2019).

▪ **Innovation comes from intellectual property issues**

The fundamental foundation of innovation is based on existing knowledge. Enterprises in China rely on their knowledge and actions to create valuable intellectual products and achievements to contribute to the market for which they are registered intellectual property rights. The value of innovation is determined by whether consumers feel inspired by the creativity of an enterprise and whether they are willing to pay for the copyright of that innovation. Therefore, in relation to the issue of market demand, intellectual property has brought certain promoting effects to promote innovation of enterprises in China (Zhang et al., 2019)<sup>[17]</sup>.

Additionally, intellectual property rights are also the cause of promoting and enhancing the innovation capacity of enterprises. The application and integration of human intelligence into enterprise operations facilitates ongoing adaptation and innovation within the organization. It creates an environment that encourages knowledge exchange and sharing among employees. As a result, they become more adept at receiving and interpreting new information, which fosters the creation of new intellectual property. In this way, the knowledge-sharing mechanism has created a forum for the flow of knowledge, bringing new knowledge and methods to the enterprise's innovation capacity. The accumulation and application of intelligence can increase the birth of subsequent intellectual products (Jing, 2020). Simultaneously, it encourages enterprises to have higher levels of creativity with those copyrighted intellectual property techniques (Zhang et al., 2019)<sup>[17]</sup>. With such an operating mechanism, intellectual property issues have become one of the driving forces for enterprise innovation in China today.

▪ **Innovation comes from the desire to improve creative autonomy**

The technological gap between enterprises and dependence on imported technology and components are the causes of many disadvantages for enterprises in China today. These limitations are gradually transformed into a driving force that promotes innovation in Chinese private enterprises, particularly in the science and technology sector of creative autonomy. Based on receiving and attracting modern technical advances, private enterprises are gradually transforming themselves towards creative autonomy to narrow the gap in technology. Private enterprises will gradually be able to improve mainstream science and technology and change the unfavourable situation of importing components relying on technical and technological innovation (Yu, 2018)<sup>[16]</sup>. Enterprises use scientific research and production cooperation to solve crucial scientific problems in production innovation, achieve the latest scientific and technological achievements,

cultivate competitive production advantages, and promote high-tech production processes (Hong, 2018)<sup>[5]</sup>.

The need to reduce dependence on imported technology also encourages private enterprises to promote innovation and autonomous research on techniques in each key industry, especially energy-saving and waste-reducing techniques, which support enterprises to shift from a process of mainly simulating technology to autonomous innovation (Zhao and Wu, 2018)<sup>[18]</sup>.

▪ **Innovation comes from the desire to escape dependence on the policy environment**

State-owned enterprises have significant advantages over private enterprises' capital and mechanisms under the current policy system in China. These conditions give state-owned enterprises an advantage in many investment competition activities. Investment barriers for private enterprises have increased due to limitations and shortages in capital sources and investment approval procedures, hindering their development (Chen, 2017)<sup>[2]</sup>.

Additionally, small and medium-sized enterprises still face many difficulties in leveraging market competition methods for technological innovation compared to large state-owned and private enterprises. Furthermore, many national and provincial innovation support plans or funds in China for state-owned and large-scale private enterprises. China has not done in-depth research on enhancing the innovation capacity of small and medium-sized private enterprises in the current context (Liao et al., 2014). Although the National Economic and Trade Commission of China has established some management and support activities for small and medium-sized enterprises, these mechanisms are not unified and unmandatory. There is also a lack of necessary support for this type of enterprise in local areas of China, mainly due to the incomplete legal system. These have created a huge gap in the survival environment among different types of economics and for small and medium-sized enterprises (Liao et al., 2014).

The above situation is the point that motivates private enterprises, especially small and medium-sized private enterprises, to actively promote innovation (Liao et al., 2014) to improve the competitiveness and position of enterprises in the market (Liu, 2019), improve the capacity of private enterprises to participate in investment (Chen, 2017)<sup>[2]</sup>, and overcome the limitations of the current institutional environment (Liao et al., 2014).

▪ **Innovation comes from the desire to expand the scale and improve the management efficiency of the enterprise**

Private enterprises in China, due to the influence of the traditional economic environment, are often small in scale in the early stages of development and have limited capital, so their organizational and operational mechanisms are built and operated based on bloodline, family, locality, and close relationships to be able to organize activities based on its small capital scope. These have brought significant effects in reducing business costs. However, it also causes the management model of private enterprises to be centralized, and it is also the cause that can lead to unscientific or incorrect decisions, bringing potential consequences to the enterprise. Moreover, when business power is overly concentrated in one person, it becomes challenging to establish a scientific and effective business management

model. The success or failure will rely completely on the qualities and working style of the enterprise once it is personalized.

Small-sized and single enterprises are easily “drowned” in the flow of history in the context of fierce market competition in China today. Meanwhile, large-scale enterprises with comprehensive capabilities are more resilient to the difficulties brought about by the market. Enterprises should focus on innovation to expand their business models, particularly through the group model. At the same time, they must enhance their management methods to improve business efficiency. This approach will help them better withstand competition from both domestic and foreign companies. The enterprises’ scale and innovation capacity are shown as an inverted “U” shaped relationship. The scale expansion of enterprises can promote the invention and innovation of enterprises (Li, 2019a).

Furthermore, innovation in scientific management mechanisms, attracting the use of professional managers, and building a management mechanism that can both stimulate and encourage the labor and creativity of employees and can bind discipline will help enterprises gradually build their value image, bringing a quality environment for the stable development of the enterprise (Pan and Wang, 2013)<sup>[14]</sup>.

## **2. China’s experience in strategic planning and policies to promote innovation**

Innovation has become a strategy and policy recorded in the Chinese Party and State documents. The Communist Party of China has put forward goals, directions, and tasks. Then, the government and localities have actively developed plans and implementation options to realize the Party’s policies. There is also the support of many agencies and organizations to continue promoting economic reform and innovation. China focuses on its position and ranking in the global innovation index. Additionally, Chinese agencies and organizations are actively building an index system to evaluate the innovation index of regions, administrative units, industries and domestic enterprises.

Innovation is an issue that has been of interest to the Chinese Party and State. Since the end of the 20th century, the Chinese government and localities have developed programs, plans and action goals to support China in the ranks of innovative countries (Chen and Yin, 2016)<sup>[1]</sup>. In 1999, the Central Committee of the Communist Party of China, in coordination with the State Council, issued the Decision on enhancing innovation, developing high-tech technology, and implementing modernization, then continued to organize the National Science and Technology Innovation Congress and promulgate related implementation policies. Ever since, the focus on innovation, the development of high-tech technology, and the implementation of industrialization has become a key priority for the Chinese Party and State. This emphasis has generated societal interest and support, fostering an environment conducive to the creation of innovation policies and the establishment of a system for the industrialization of high-tech science and technology. This milestone supports the transition of China’s high-tech manufacturing industry into a new development phase, sparking entrepreneurial activities among many science and technology personnel meanwhile social investment trends

begin shifting towards high-tech manufacturing sectors (Leng, 2009)<sup>[7]</sup>.

The position and importance of innovation policy in China continued to be raised to a new level when it was officially recognized in the documents of the 18<sup>th</sup> and 19<sup>th</sup> National Congresses of the Communist Party of China. The understanding of innovation was previously limited to scientific and technological advancements, emphasizing new technologies, products, models, organizations, and business forms. Since the 18<sup>th</sup> Congress, innovation in China is not only scientific and technological innovation, but it is also a requirement for innovation in all aspects of theory, institutions, culture, social governance, government governance and market management methods must all be innovated (Duan, 2016)<sup>[4]</sup>. Report the 18<sup>th</sup> and 19<sup>th</sup> National Congresses of the Communist Party of China set out the goals and main tasks that China needs to carry out to promote the innovation development strategy. The Communist Party of China aims to increase the contribution of scientific and technological progress to economic growth, join the ranks of innovative countries, clearly identify the direction, key points and strategic tasks of China’s scientific and technological development in the new era, build an economy with an effective market mechanism, and enhance the innovation capacity and competitiveness of the economy.

The 19<sup>th</sup> National Congress of the Communist Party of China outlined several economic missions and emphasized the essentials of innovation. The key approaches for driving this innovation include shifting focus from rapid growth to quality development and prioritizing supply-side structural reforms. Additionally, it aims to promote the simultaneous advancement of various factors such as the real economy, scientific and technological innovation, finance, and modern human resources.

Additionally, at the 5<sup>th</sup> Plenary Session of the 18<sup>th</sup> Central Committee (October 2015), the Central Committee of the Communist Party of China approved a scheme of seven key directions for innovation, which are: i) cultivating new driving forces for development; ii) expanding new space for development; iii) extensively implementing the development strategy to promote innovation; iv) strengthening the promotion of agricultural modernization; v) building a new production system; vi) building a new development mechanism; vii) innovating and perfecting the method of macro-regulation. The policy of the Communist Party of China is to put forward the issue of innovation at the centre of the country’s development situation, constantly promoting innovation in all aspects of theory, institutions, science, technology, and culture to make innovation permeate all activities of the Party and the State, becoming a popular trend in society. The innovation that the 5<sup>th</sup> Plenary Session of the 18<sup>th</sup> Central Committee of the Communist Party of China aims for is innovation in all aspects, and fields, and is comprehensive (Duan, 2016)<sup>[4]</sup>.

Along with the above overall strategy, aware of the role of the private economic sector, at the 3<sup>rd</sup> Plenary Session of the 18<sup>th</sup> Congress (November 2013), the Communist Party of China issued a decision, which pointed out that the Party encourages non-state enterprises to participate in the reform of state-owned enterprises, cheer the development of enterprises with mixed ownership forms with non-state capital sources; along with equitization, promotes through a

series of reasonable policy measures to encourage the upgrading and transformation of production models.

Based on the spirit, policies and directions established by the Central Committee of the Communist Party of China, the State Council (Central Government) of the People's Republic of China, and localities, agencies and organizations developed policies and plans to implement the innovation goals.

The State Council of the People's Republic of China issued the Outline of the National Long-Term Science and Technology Development Plan (2006-2020) on February 9, 2006. The Outline pointed out that by 2020, investment in social research and development (R&D) should account for 2.5 per cent of China's gross domestic product, and the contribution rate of science and technology. The contribution rate of science and technology to the economy reaches 60 per cent or more, the level of dependence on foreign science and technology decreases to below 30 per cent, the number of authorized patents annually, and the number of cited international scientific articles will be in the top five countries in the world, entering the ranks of countries with innovative models. The next five years will be crucial for China's innovation model. (Chen and Yin, 2016)<sup>[1]</sup>.

In 2016, the State Council of China, in coordination with the Central Committee of the Communist Party of China, issued the Outline of the National Strategy for Promoting Innovation, which provides comprehensive plans and designs for implementing the comprehensive innovation promotion strategy and sets a "three-step" strategic goal (Pan and Wan, 2022)<sup>[13]</sup>: China will join the ranks of innovative countries by 2020, become a leading country in innovation by 2030, and become a world power in scientific and technological innovation by 2050. Ever since, China's economy has shifted from promoting factor development to innovation, and China's industry has transformed from manufacturing to innovation. Chinese enterprises are not only market subjects but also innovation subjects. Innovation capacity is the key to increasing competitiveness in enterprises and upgrading economic development quality (Li, 2019b).

On December 4, 2019, the State Council of China also issued opinions on creating a better development environment to promote private enterprise development reform and pointed out a series of measures to upgrade the strength and innovation of private enterprises in the Chinese economy. The opinions offer requirements for perfecting a fair competitive market, implementing a unified market supervision mechanism with economic sectors, further expanding market input standards, removing hidden barriers to competition, strengthening supervision and inspection in fair competition in bidding, perfecting the banking credit service enterprise system, reducing tax burdens for enterprises, etc. Additionally, the opinions pay special attention to encouraging, calling, and guiding private enterprises to carry out innovative reforms. The Chinese government has shown its support for private enterprises to enhance innovation by creating conditions for them to participate in implementing national development strategies such as the Belt and Road Initiative, encouraging participation in state-run scientific and technological research projects, treating all types of enterprises fairly in technology transfer, scientific and technological innovation, supporting private enterprises to attract foreign talents, etc.

Some innovation plans in specific fields have also been developed and implemented. For example, the "Medium and long-term development plan for the automobile manufacturing industry" was jointly issued by the National Development and Reform Commission, the Ministry of Industry and Information Technology, and the Ministry of Science and Technology of China in April 2017. It put forward the tasks and goals of key development strategies in the development of the automobile manufacturing industry, in which the construction of an innovation system is one of the six top tasks of this industry. For the iron and steel industry, several "Policies for adjusting the production structure of the iron and steel industry" (issued by the State Council of China), "Plan for adjusting and upgrading the iron and steel industry (2016-2020)" (issued by the Ministry of Industry and Information Technology) have been issued, and have also put forward production adjustment plans to create a solid policy basis for improving the standards for eliminating outdated technology of smelters, promoting the development of large-scale equipment, saving energy and reducing waste, improving product quality, optimizing the product structure of the Chinese iron and steel industry.

Many localities in China have also actively developed plans to respond to the spirit of the Central Committee, organized conferences to promote the spirit of innovation according to the Party Congress documents, introduced policies on entrepreneurship and innovation, and supported private enterprises to innovate. For example, in Hunan Province, on October 26, 2017, the province held a Conference on Report on Development and Innovation of Provincial Private Enterprises, Hubei Province held a Conference on Consultation of Individual Private Enterprises in Hubei Province (October 18, 2017), Qinghai Province held a Conference on Consultation of Individual Private Enterprises (October 17, 2018) all aimed at discussing and introducing the issue of innovation of private enterprises according to the spirit set forth by the Central Committee.

In 2021, Changzhou City also issued a Policy on promoting innovation development<sup>1</sup>. The policy includes provisions on ensuring funds to support science and technology development, cheering enterprises to innovate production chains, and encouraging talents in innovation, especially in areas lacking talent. Based on the provisions on subjects supported by the government, the policy also specifically stipulates funding support for these subjects.

To promote economic reform and innovation, Chinese agencies and organizations are not only focusing on China's position and ranking in the global innovation index but also actively establishing a system of indicators. This system will evaluate the innovation index of administrative units, regions, and various industries and enterprises throughout the country.

Thus, summarizing the process of building and developing innovation strategies and policies of the Chinese Party and State over the past thirty years of development, the author draws some conclusions about the experience of the Chinese Party and State in planning strategies and policies to promote innovation at the macro level as follows:

First, innovation is an issue that the Chinese Party and State have paid attention to early. The Decision to strengthen innovation, develop high-tech technology, and implement modernization, issued in 1999, is considered the moment marking the formation of the innovation policy environment

in China. However, innovation at this stage tends to focus mainly on science and technology (Leng, 2009)<sup>[7]</sup>.

Second, since the 18<sup>th</sup> National Congress, China has positively pursued its innovation-driven development strategy in various fields, including science and technology. The policy of the Communist Party of China is to put innovation at the centre of the country's development, to make innovation a popular trend in society, to constantly promote innovation in all aspects of theory, institutions, science and technology, and innovation culture permeates all activities of the Party and the State.

Third, although China aims for innovation in all aspects and fields and is comprehensive, innovation in science and technology is still considered a pillar in China's national innovation development strategy.

Fourth, according to the policies established by the Communist Party of China, the Central Government, local authorities, domestic agencies, and organizations have actively and unanimously responded by issuing policies, organizing activities, and developing programs and plans to implement the strategic initiative for promoting national innovation.

Fifth, along with the requirement of comprehensive innovation in all fields, considering scientific and technological innovation as the pillar, promoting the role of talent in innovation is the key issue to promote innovation in China. It is both the foundation and the core fundamental factor of innovation. Innovation promotes development, and talent is the one who leads and guides innovation.

Sixth, enterprises in China, especially private enterprises, are both market and innovation subjects. Enterprise innovation capacity is the key issue in increasing market competitiveness and upgrading the quality of economic development (Li, 2019b). Private enterprises rely on their flexibility and autonomy to form the main force for innovation (Xie and Zhou, 2020)<sup>[15]</sup>.

Seventh, the guidelines and policies issued by the Chinese Party and State pointed out the methods, paths and directions for implementing the national comprehensive innovation strategy and innovation in the economic field, including innovation for private enterprises. From a general perspective, the Chinese Party and State have pointed out the orientation for the innovation strategy as fostering the driving force and expanding new space for development, implementing the development strategy to promote extensive innovation, strengthening the promotion of agricultural modernization, building a new production system and development mechanism, innovating and perfecting the method of macro adjustment (Duan, 2016)<sup>[4]</sup>. In the economic field, innovation occurs through several key pathways. These include transitioning from rapid to quality development, implementing supply-side structural reforms as the primary approach, and promoting the simultaneous advancement of real economic factors, scientific and technological innovation, modern finance, and human resources.

Eighth, the policy of developing innovation for specific industries in the economic sector is also given great attention, especially for key economic sectors such as manufacturing, automobile manufacturing, iron and steel, the service sector, etc. Specific policies for promoting innovation in industries are also issued one after another such as the "Medium and long-term development plan Automobile manufacturing industry" (2017), "Plan to adjust

and upgrade the iron and steel industry (2016-2020 period), etc.

Ninth, the Party, the State, and agencies and organizations in China actively develop policies and support mechanisms to promote innovation in all fields, especially for enterprises, including private enterprises, such as building financial support mechanisms or establishing policies and plans to create innovation indexes based on different assessment criteria.

Tenth, the strategies and policies implemented by the Chinese Party and State to promote innovation are generally positive. However, some gaps should be addressed, and mechanisms to ensure proper implementation are lacking. Although China has also established several management and support activities for small and medium-sized enterprises, these mechanisms are not unified and are not mandatory. Due to the lack of mechanisms to ensure implementation, local activities are still biased and discriminatory in fair treatment of intellectual property rights, equal competition in the market, and use of production factors among economic types.

### **Some recommendations to promote innovation in Vietnam in the new context**

From China's experience in promoting innovation, some recommendations for Vietnam can be drawn as follows:

1. Changing in thinking about innovation should be unified from the central to local levels, comprehensive in all fields, and widespread among social entities. Innovation should be identified as one of the focuses throughout activities of the Party, Government, state agencies, enterprises and the whole society associated with digital transformation and the digital economy to create new growth momentum and improve the competitiveness of products, enterprises, industries and countries, and providing products and services of increasingly higher quality, better meeting the needs of life in a digital society.
2. Innovation in science and technology should be identified as a pillar in the national, sectoral and enterprise innovation strategy, and a factor that creates breakthroughs in the qualitative development of businesses and the country. This factor creates a new growth driver, enhancing competitiveness and international integration.
3. The planning of innovation strategies, policies and guidelines must be synchronous and comprehensive from the national to local and specified according to the development requirements of each industry and sector, especially those identified as key sectors of the economy. Moreover, developing a comprehensive set of innovation assessment indicators for each industry and country is highly important.
4. Private sector enterprises are key drivers of innovation and competitiveness for a country's integration. With the disadvantage of scale, since most private economic sector enterprises are small and medium-sized enterprises, it is extremely necessary to formulate policies to encourage private economic sector enterprises to promote innovation to participate deeply in each stage of the global value chain and improve

corporate governance efficiency. Among the policies to support private economic sector enterprises to promote innovation, policies to subsidize and develop the financial and credit market, policies to encourage scientific and technological research and develop the technology market, and policies to train high-quality human resources and develop the labor market are priority policies.

5. In addition to supporting through mechanisms and policies of the Party, Government and local authorities, enterprises, especially those in the private economic sector should actively and proactively innovate. Innovation in technology, governance models, and talent attraction require special attention.

### Conclusion

Vietnam's economic growth and national competitiveness are facing major challenges, requiring the search for new drivers of growth and competitiveness. Accordingly, transforming the development model to focus on innovation is considered one of the urgent solutions. Under the impact of the fourth industrial revolution, with the advantage of being a latecomer, this is a favorable time for Vietnam to accelerate reforms and catch up with technology. Like many countries, Vietnamese private-sector enterprises, especially small and medium-sized enterprises face challenges that hinder innovation. Additionally, the impact of the COVID-19 pandemic has created limitations in strategy, financial resources, and high-quality human resources. There is also uncertainty regarding the needs and benefits of innovation in these enterprises' development strategies. In this context, Vietnam needs to adjust its development goals and give higher priority to innovation policies, focusing on technology dissemination and encouraging more businesses to innovate. This process requires a stronger legal framework and policies appropriate to the technological capacity of the private economic sector and are specific to each industry and sector.

In addition, Vietnam must continue to increase openness and international integration and participate more deeply in regional production networks and global value chains. As a result, promoting a positive innovation spirit in enterprises, especially the private economy sector enterprise. Studying the experience of China, one of the countries leading the world economy in innovation, and improving competitiveness based on innovation is very useful in the process of planning strategies and policies to encourage and promote innovation in Vietnam.

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