



# American Journal of Financial Technology and Innovation (AJFTI)

ISSN: 2996-0975 (ONLINE)

VOLUME 3 ISSUE 1 (2025)



PUBLISHED BY  
E-PALLI PUBLISHERS, DELAWARE, USA

## Research on the Path of Enterprise Economic Innovation and Development under the Background of Digital Economy

Changxia Mu<sup>1,2\*</sup>, Fuqiang Guo<sup>1</sup>, Polonik Irina Stepanovna<sup>1</sup>

### Article Information

**Received:** November 04, 2024

**Accepted:** December 09, 2024

**Published:** February 03, 2025

### Keywords

*Digital Economy, Enterprise Economy, Innovation and Development*

### ABSTRACT

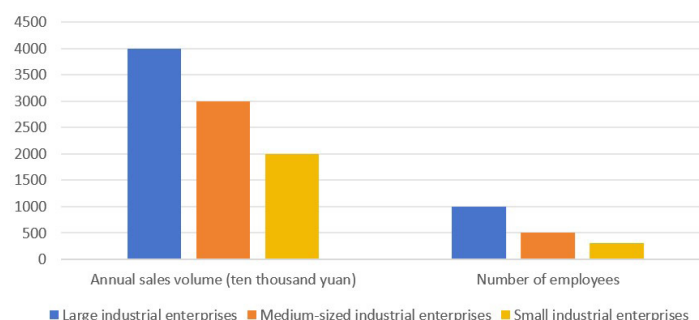
The development of the digital economy is in full swing, becoming the backbone of promoting economic development, which brings severe challenges to enterprises but also brings new opportunities for development. Under this background this paper introduces the digital economy under the background of the achievements of industrial economies, such as by strengthening the development of enterprise economy in the development of innovation path and make digital economy enterprise economy under the background of digital organization, and through the relevant research found that enterprise economy is facing development difficulties, so this paper discusses the digital economy under the background of realistic problems, such as the lack of standardization enterprise economy, enterprise economy lack of digital transformation concept, digital talent, enterprise economic management mode lag and management supervision mechanism. Finally, according to the research on how to develop the innovative development path of enterprise economy under the background of the digital economy, the relevant countermeasures and suggestions for the innovative development of enterprise economy under the background of digital economy are put forward. For example, strengthening innovative paths for the development of key core technologies in enterprise economy and constructing digital organizational forms for enterprise economy in the context of digital economy, hoping to provide effective suggestions for the transformation of enterprise economy to digital economy and the realization of innovative development.

### INTRODUCTION

The intervention of digital economy brings peoples cognition of enterprise management to a new height. Under this opportunity, many enterprises begin to take measures one after another to realize the digital transformation of enterprise management. Among them, the relationship between enterprises and enterprises and the relationship between enterprises and users are the two key levels of the digital transformation of modern enterprises. Based on this change, the operation and management of modern enterprises has gradually entered a new stage of development. According to the Measures for Statistical Classification of Large, Small and Medium Enterprises issued by the National Bureau of Statistics in 2017, the classification is mainly based on the number

of employees and sales of employees: large industrial enterprises usually have 1000 or more employees with an annual sales of at least 400 million yuan; sales and small industrial enterprises are characterized by no more than 300 employees and sales of no more than 20000 yuan (Cao Baichuan, 2023) See Figure 1 Classification method for large, small and medium-sized enterprises. Therefore, this paper will pay attention to the challenges and coping strategies faced by the enterprise economy in the era of digital economy, and discuss how to make better use of digital technology to optimize resource allocation, improve production efficiency and innovation ability, so as to promote the development of industrial economy to the direction of higher quality, more efficient and more sustainable.

Division method of large, small and medium-sized enterprises



**Figure 1:** Classification method of large, small and medium-sized enterprises

<sup>1</sup> Belarusian National Technical University, Minsk, 220013, Belarus

<sup>2</sup> Tianfu College of SWUFE, Chengdu, 610052, China

\* Corresponding author's e-mail: [muchangxiamm@163.com](mailto:muchangxiamm@163.com)

## LITERATURE REVIEW

### Related Theoretical Research and Analysis of Digital Economy and Enterprise Economy

Nowadays, the wave of information revolution is sweeping the world, the digital economy is booming, and the way of production and life is undergoing profound changes. In the enterprise economy, digital economy, as a major outlet in the new era, has attracted a lot of attention. However, the development of digital economy in the enterprise economy is still relatively simple, so this leads to a series of problems in the current enterprise economy. How to use the power of digital economy to make the development of enterprise economy reach another height will be the main goal of enterprise economic development in the future. In this regard, this paper will make relevant theoretical research on digital economy and enterprise economy through literature analysis method, case analysis method and comparative demonstration method.

### Research Status of Digital Economy at Home and Abroad

Data from the Research Report on the Development of

digital economy has further achieved reasonable growth in volume. In 2022, the scale of digital economy reached 50.2 trillion yuan, with a year-on-year nominal growth of 10.3%, which has been significantly higher than the nominal GDP growth rate of the same period for 11 consecutive years. The proportion of digital economy in GDP is equivalent to the proportion of the secondary industry in the national economy, reaching 41.5%. At the same time, in keeping with the trend of global trade, China actively carries out foreign investment activities and participates in international market competition (Chen chen, 2023). Overseas investment enterprises join and constantly seek ways of value growth to seek long-term sustainable development. Figure 2 shows the flow of foreign direct investment in China over the years. Due to the low level of science and technology in the early stage, the productivity of enterprises is low, and there is no obvious competitive advantage compared with similar foreign enterprises. However, there are still many enterprises carrying out transnational investment, hoping to learn and accumulate foreign advanced production technology through overseas direct investment, and enhance their own value and enhance their international competitiveness.



**Figure 2:** Chinas foreign direct investment

At present, the United States, Japan, Germany and other countries are vigorously developing the digital economy. In 2020, the US digital economy will dominate the national economy, both in terms of scale and proportion. As a digital economy first countries, the us government attaches great importance to the innovation of digital technology research and development, continuous investment in artificial intelligence, chip, semiconductor and other scientific research activities, actively launch digital chip ERI plan, JUMP plan, etc., from the Internet of things, cloud technology and other new areas of network threat, efforts to digital infrastructure, quantum information science and technology of international strategic cooperation, with the UK, Japan, Poland and other countries have signed a cooperation agreement. In 2021, the Information Technology and Innovation Foundation (ITIF) released a report, showing that the

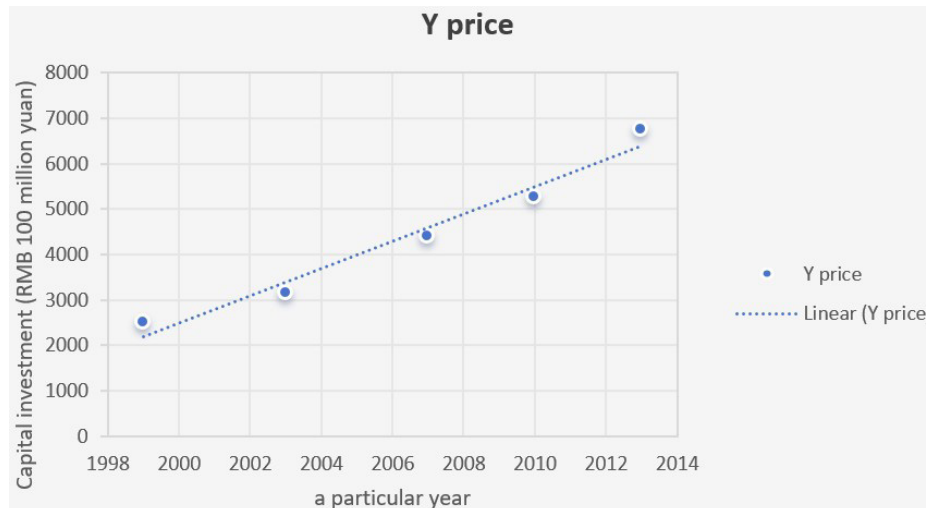
United States pays attention to the construction of the digital system, attaches importance to the development of the digital economy, constantly deploys national strategies, and dominates the layout of key areas of the digital economy. The Japanese government put forward the concept of “Society 5.0”, which aims to rely on scientific and technological innovation to boost social change, and use technology to solve the social problems caused by aging. Since 2020, Germany has been accelerating the discussion of “digital” issues. In May 2020, Chancellor Angela Merkel stressed the importance of digital sovereignty and reducing the degree of digital dependence on foreign countries (Yueshu, 2022). In January 2021, Germany released the Federal Government Data so that the value of data can effectively respond to the epidemic and stabilize economic growth. In February 2021, Germany and France jointly formulated

a new European industrial strategy, stressing the need to strengthen industrial and digital sovereignty. In order to further promote the industrial innovation and development of Germany, Germany has continuously strengthened the policy layout of digital economy, promoted the digital transformation of manufacturing industry, and laid the foundation for building a high-end manufacturing power

### Research Status of Enterprise Economy at Home and Abroad

The development of enterprise economy in China began very early. In 2007, enterprises in our provinces appeared obvious industrialization, especially the industrial scale of the six central provinces, far higher than the degree of industrialization of other provinces, as high as 18.5%. The overall industrial structure of Chinese enterprises is biased to heavy and chemical industries, especially in energy, steel and chemical industry. With electric power and steel as the pillar industries, and most of the resource-based industries, the overall framework of China's

industrial enterprises has been formed. The development of large and medium-sized industrial enterprises cannot be separated from financial support. Statistics show that from 1999 to 2013, the investment in research and experimental development of these enterprises showed a steady growth trend. During this period, the capital expenditure increased from 249.9 billion yuan in 1999 to 674.4065 billion yuan in 2013, an increase of 649.4165 billion yuan, an annual growth rate of about 26.72%; compared with 2012, the R & D expenditure in 2013 increased by 12.55%. For example, among the six central provinces, Shanxi Province spent 15.16 billion yuan on industrialization in 2008, which is far from the first Henan province, and is located in the middle of the six central provinces. According to the survey data, the proportion of scientific research activities of large and medium-sized industrial enterprises in Shanxi Province is relatively high, which is higher than 1.57% of the national average level, and shows a trend of increasing year by year (Jianjun & Dan, 2022). Figure 3 Capital growth of industrial chart In the evaluation of enterprise economic performance



**Figure 3:** 1998 Capital growth trend of industrial enterprises in 2014

in foreign countries, Germany pays special attention to the use of enterprise solvency indicators to evaluate enterprise benefits. They believe that the level of debt repayment ability not only shows the ability of economic and financial management of enterprises, but also directly reflects the economic and financial situation of enterprises and the ability of the enterprises to operate. Maintaining the solvency is more important than making profits. The eight main indicators to evaluate the economic benefits of enterprises in Germany include self-owned capital ratio, liability ratio, self-owned asset compensation rate of fixed assets, long-term capital compensation rate of fixed assets, cash ratio, quick ratio, current ratio and debt turnover period (borrowed capital / year total cash flow). Each of these eight indicators is related to solvency, and the latter six directly measure either long-term or short-term solvency.

### Exploration on the Innovation Path of Digital Economy and Enterprise Economy

The development of the digital economy highlights, accelerates the transformation of factors, acceleration of basic reconstruction, optimization and upgrading of driving forces, and integrates innovation and quality, boosting high-quality development with a new attitude. As a new economic form with data resources as the key element, digital economy has promoted the new vitality of the world economy in the world trend of digital sharing. As the international community becomes increasingly connected in cyberspace, countries economic development opportunities and growth depend on the digital world. The digital development of enterprise economy has broad prospects and great potential, and also faces many practical challenges, such as the lack of enterprise digital infrastructure, the lagging development



of enterprise management system, the immature processing of enterprise data elements, and the lack of enterprise digital technical talents. Therefore, it is particularly important to explore the innovation path of accelerating the integration of digital economy and enterprise economy.

## MATERIALS AND METHODS

### The Impact of the Advent of the Digital Economy Era on the Enterprise Economy

The author analyzes the TIMG index from the four dimensions of digital technology (Technology), digital infrastructure (Infrastructure), digital market (Market) and digital governance (Governance) (Guobao, 2021). As shown in Table 1, The index system of the TIMG Index. It is concluded that enterprise economy is an important link to promote the continuous development and progress of social economy, and digital economy is an important link to promote the development and upgrading of enterprise economy.

**Table 1:** Index system of the TIMG Index

Level 1 indicators	Weight	Secondary indicators	Weight	Level 3 indicators
Digital technique Technology	25%	R & D output	1/3	Digital patent scale
				Number of papers published papers in mathematics and computers
		Human capital	1/3	Enrollment rate in higher education
				National digital literacy
		Innovation level	1/3	Innovation activity
				Level of industry-university-research cooperation
Digital infrastructure Infrastructure	25%	Pueblance	1/3	Active fixed broadband users
				Active mobile broadband users
				Mobile phone subscriptions
		Convenience	1/3	International Internet bandwidth per capita
				Mobile rates
				Mobile phone price
		Safety	1/3	Network security index
Digital market Market	25%	Demand side	1/3	Digital consumer scale
				Mobile social media penetration rate
		The supply side	1/3	Number of digital enterprises
				Digital enterprises get the financing scale
		International market	1/3	Export scale of digital services
Digital governance Governance	25%	Digital government	1/3	E-government index
		Economic and social environment	1/3	Business Environment Index
				Degree of intellectual property rights protection
		Political and legal environment	1/3	Digital-related legal regulation construction
				The ICT Regulatory Tracking Index
				Government support

### The Specific Impact of the Digital Economy on the Enterprise Economy

With the advent of the digital economy era, the social labor force is rapidly shifting to economy and society. China is a big agricultural country. Among all the types of social division of labor in China, the primary industry is agriculture, the secondary industry is the traditional manufacturing industry, and the tertiary industry is the service industry. However, with the continuous reform and development of economic society, Chinese economic and social division of labor also slowly shows the trend of “great differentiation” and “great reorganization”. Based on the needs of social development, some agricultural

and industrial producers turn to the tertiary industry; from the detail level, the rise of emerging industries such as electronics, information, biology, new materials, new energy and ocean makes Chinese enterprises in the digital economy era more dynamic. These emerging industries have become the pioneers of leading the era trend of economic development.

The digital economy under the background of enterprise economy gradually present open characteristics, based on big data, artificial intelligence technology innovation enterprise management mode and management idea, on the one hand can effectively ensure that enterprise internal management to strengthen information sharing, through

digital technology to ensure different levels across time and space, and to ensure that the flow of communication departments, reduce information barriers, provide more power for enterprise management. On the other hand, the internal enterprise can use digital technology to exchange information with the external company and timely understand customer needs, so as to improve customer viscosity and enhance customers trust in the enterprise. With the help of digital technology to understand the needs of different customers, enterprises can also predict the market development dynamics based on customer needs, and strengthen product design and targeted marketing, so as to ensure continuous innovation and optimization in decision-making, sales and personalized service in the process of enterprise management, so as to provide consumers with better consumption experience. With the advent of the era of digital economy, the management process and management mode of enterprises have gradually changed. Strengthening the effective application of digital technology can not only realize the innovation and development of enterprises, but also enable the enterprises to maintain the continuous construction of characteristic brands on the basis of enhancing the core competitiveness.

### Challenges Faced by Enterprise Economy under the Impact of Digital Economy

With the rapid development of digital economy, its influence on the economic development of enterprises is increasingly significant, thus providing new opportunities for the high-quality development of enterprise economy. It is of great theoretical and practical significance to study how digital economy promotes the endogenous driving force and high-quality development of enterprise economy. Through the analysis of Table 2 of the internalization analysis framework of the digital economy era, (Xiangxiang, 2019) In the context of digital economy, the impact challenges facing the enterprise economy are mainly reflected in the following aspects:

First, The enterprise economy lacks the standardization. At present, Chinas digital economy is gradually developing, it is necessary to pay attention to the economic management of enterprises, which has

a certain impact on the development of enterprise economy and operation quality, and is also very critical to improve the core competitiveness of enterprises. The continuous development of digital economy has brought opportunities and challenges to enterprises. Therefore, only by constantly paying attention to economic management, can enterprises ensure that they can operate efficiently and achieve stable development.

Second, Enterprise economy lacks the concept of digital transformation and digital talents. Through the analysis of the current digital transformation of some small and medium-sized enterprises, we can know that some small and medium-sized enterprises in China are still exploring in the digital transformation, and some other enterprises are in the specific implementation stage. Among them, many small and medium-sized enterprises do not have high enthusiasm for digital transformation and lack the concept of digital transformation. Digital talent is also a key element of the economic transformation and development of enterprises. At present, the supply of digital talents is in short supply, and the competition of enterprises for digital talents is gradually intensifying. Small and medium-sized enterprises have low innovation level, small scale, lack of competitive advantages, which makes the enterprise talent recruitment and talent cultivation face bottlenecks.

Third, The economic management mode in the enterprise has a lag and the management and supervision mechanism needs to be improved. The enterprise economic management mode is too traditional, which affects the improvement of the core competitiveness of enterprises. Enterprise supervision and management mechanism is also an important enterprise development, the improvement of enterprise management supervision mechanism for management has a critical role, but the enterprise management mechanism is not perfect, there are many problems, the discovery of the future and realize the effective supervision of management work affected, and the enterprise did not timely give solutions, enterprise management implementation more difficult, lead to enterprises in the development operation without reliable management reference.

**Table 2:** Internal analysis framework in the digital economy era

Internalization analysis	Conceptualization dimension	Interaction	New classification and new roles	Apply
	The ability of local organizations based on transaction characteristics		Strong ability and complete system: “DC”	Enter the mode of the selection
			Strong ability and incomplete system: “test field”	
	Institutional system of the host country		Weak ability and complete system: "practice platform"	Pathway of knowledge transfer
			Weak ability and incomplete system: “Oviating factory”	

## How to Innovate and Develop the Enterprise Economy under the Background of Digital Economy

First of all, improve the external environment of technological innovation to provide a guarantee for technological innovation. The cooperation between the government and various financial institutions and jointly participating in the technological innovation of enterprises is an important way to promote the technological innovation of major enterprises. The cooperation between the government and financial institutions can not only effectively solve the problems related between science and technology education and economic development, but also lay a good foundation for industrial technology innovation. Secondly, to enhance the advanced level of production equipment, improve the internal environment of enterprises. Each region should continuously increase the number of enterprises engaged in science and technology activities, the number of enterprises conducting research and development activities, the number of enterprises launching new products and the proportion of the establishment of science and technology institutions. When their own technological innovation level meets bottlenecks, they can establish a new internal environment of technology through virtual ways such as external cooperation, so as to improve their own technological innovation level and technological innovation efficiency (Huixin, 2021) The optimal allocation of the internal environment of enterprise technological innovation is the key, following the principle of efficiency priority, scientifically allocating resources, and dynamically adjusting according to the efficiency. Finally, establish and improve the talent incentive system, and increase the investment in technical personnel. The key of scientific and technological innovation lies in having high-quality technical personnel. In order to establish high-quality technical innovation talents, the governments policy support is an essential key factor. In order to promote corporate technology innovation and sustainable development, we need to strengthen the introduction and training of technical personnel. Through the enterprise internal incentive policy to improve the enterprise internal talent cohesion

## RESULTS AND DISCUSSION

### A New Path of Enterprise Economic Innovation and Development under the Background of Digital Economy

In order to improve the enterprises sustained growth ability and core competition ability, the enterprise needs to take on, with the help of the power of digital transformation, the enterprise subversion potential transformation and rebirth upgrade, find the enterprise development goals, through the goal setting, leading the enterprise digital change, and through the digital change, swallow enterprise short board, to form a complete and scientific enterprise management system (Lijun. 2019). Digital transformation has become an irreversible trend, and its necessity and urgency are becoming increasingly obvious. And through

this paper studies the relationship between the digital economy and enterprise economy, can strengthen the key core technology in the development of enterprise economy innovation path, make digital economy digital organization form for the new development path, further under the background of digital economy enterprise economic innovation development of new path to make new contributions.

### Strengthen the Innovation Path for the Development of Key and Core Technologies in the Enterprise Economy

Scientific and technological innovation drives economic development, and technologies in key fields are at the core of social and economic development. Our country to develop and perfect represented by 5G, industrial Internet, digital infrastructure, speed up the traditional digital infrastructure, promote digital to intelligent social infrastructure, such as building intelligent transportation system, promote wisdom city technology services, promote digital public service resources, the construction of wisdom school, wisdom city, etc. From 1995 to 2010, the degree of technology dependence of Chinas large and medium-sized industrial enterprises decreased significantly, from 71.81% to 8.77%, indicating that the independent innovation activities were gradually strengthened. The proportion of digestion and absorption input was also increased, from 3.63% to 42.78%, but the digestion and absorption rate was still low (Wenying, 2021) Although there is still a gap between Chinese enterprises and developed countries in core technologies, the momentum of independent innovation is good, but it still takes time to achieve breakthrough innovation. Huawei Adhere to technological innovation, through independent research and development of core technologies and patents to promote industrial development. Huawei has invested a lot of resources in research and development and now has more than 100,000 patents, giving Huawei's products a unique competitive advantage in the market. Huawei The success fully shows that technological innovation is an important means for enterprises to establish competitive advantage. The success of Huawei also proves that the globalization strategy is in the enterprise The important role in industry competitive advantage. Huawei resource sharing and win-win results through open platforms and ecosystems. Huawei The successful experience shows that in order to realize the internal connection between digital management innovation and the competitive advantage of enterprises, enterprises need to Technological innovation, globalization strategy and open cooperation, optimize the allocation of resources by building global R&D and manufacturing networks, and realize innovation through cooperation with partners. To achieve the sustainable development of enterprises.

### Build the Digital Organizational form of Enterprise Economy under the Background of Digital Economy

Digital organization has a variety of forms, among them, the representative organization is the platform, flat and

flexible organization, digital organization with digital technology and management science for endorsement, can release in the virtual network and space more flexibility and convenience, can break through the limitation of physical space, links and assign traditional organization node, with fast information transmission and low communication cost, improve the operation efficiency of the enterprise. Many enterprises at home and abroad have opened up their enterprise platforms, Using digital technology to attract suppliers, consumers, and partners, Building the ecosystem, To achieve sustainable development, When the influence of the enterprise in the platform reaches a certain level, Enterprises can use the platform to earn more than the average profit; The flattening of the tissues reduces the path length of the information transfer, Also reduces the distortion of the information, It also reduces labor costs and administrative costs, Companies that use the digital technology, It can be uploaded in a more timely manner, Strengthen the response ability of enterprises; Enterprises building flexible organizations can eliminate the boundaries of enterprises to the greatest extent, Let the information flow efficiently within the enterprise, Improve the efficiency of internal and external interaction, It also stimulates the endogenous innovation power of enterprises. Enterprises promote organizational change, with cutting-edge technology, enterprise scene and business model innovation, for enterprises Development injects new movement.

## CONCLUSION

In this paper, through the development of the digital economy and the relationship and significance of enterprise economy, literature and concept, deeply discusses the background of the digital economy and how to promote the development direction of enterprise economic innovation, including the problems in its development and challenges, finally from the perspective of the digital economy, put forward about the effective way of industrial economic development. First, to strengthen the development direction of digital economy. Thus, enterprises should take the initiative to put themselves in the era of digital economy background, deeply analyze their realistic conditions, combined with the development of digital, strengthen digital change management ideas,

promote enterprise organization and human resources, and give full play to the digital change effect, improve the comprehensive competition ability of enterprises, to help enterprises seize the opportunity of The Times, realize the sustainable development of the enterprise.

## REFERENCES

- Cao, B. (2023). *The impact of manufacturing digitalization on enterprise innovation*. Southwestern University of Finance and Economics.
- Chen, C. (2023). Tax risk management analysis based on internal control. *Commercial* 2.0, 9, 22–24.
- Dou, H. (2021). Research on the innovation strategy of enterprise management under the new normal of the economy. *The Economic Research Guide*, 25, 13–15.
- Feng, G. (2021). Research on enterprise management innovation under the background of the economic new normal. *China's Collective Economy*, 25, 60–61.
- Han, L. (2019). Discussion on the influence of “Internet +” on the innovation mode of modern enterprise economic management. *Modern Marketing: Information Version*, 6, 130.
- Li, J., & Zhao, D. (2022). Research on the development of digital transformation from the perspective of enterprise management. *Modern Commerce*, 6, 126–129.
- Tian, W. (2021). Exploration on the standardized strategy of enterprise economic management mode under the background of the digital economy era. *Modern Commerce*, 34, 156–158.
- Wang, Y. (2022). Research on enterprise tax risk control based on internal control. *Chinese and Foreign Corporate Culture*, 12, 46–48.
- Wang, X., Ju, Z., Kovshar, S. N., Leonovich, S. N., & Solopova, N. A. (2023). The use of non-metallic fiber in the protection of building materials and its impact on the environment. *Construction Economics*, 7, 86–91.
- Xianpeng, W., & Haoxuan, Y. (2024). Commercial economic value of non-metallic fiber concrete. Google Scholar. [https://scholar.google.com.hk/scholar?hl=zh-CN&as\\_sdt=0%2C5&q=Commercial+econom1c+v alue+of+non-metallic+fiber+concrete.&btnG=](https://scholar.google.com.hk/scholar?hl=zh-CN&as_sdt=0%2C5&q=Commercial+econom1c+v alue+of+non-metallic+fiber+concrete.&btnG=)
- Zhao, X. (2019). Under the new normal. *Modern Marketing (Business Version)*, 12, 138.