

Research on the Mechanism and Path of Innovation Policy Driving Enterprise Technological Innovation

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Abstract

Innovation policy support is the first driving force for technological innovation, and it is particularly necessary to build a scientific and reasonable scientific and technological innovation policy system to promote the development of enterprises. The implementation of all-round scientific and technological innovation must implement the scientific and technological innovation policy, and must adhere to the basic requirements of matching innovation policies with corporate R&D investment, local innovation levels, and combining policy objectives and tools. On the basis of analyzing the mechanism of innovation policy supporting technological innovation of enterprises, this paper extracts the optimal path to promote the implementation of science and technology innovation policy.

Keywords

Technological Innovation; Innovation Policy; Theoretical Mechanism.

1. Introduction

The report of the Nineteenth National Congress of the Communist Party of China pointed out that innovation is the first driving force leading development and the strategic support for building a modern economic system. In an important period when scientific and technological innovation leads the high-quality development of the regional economy, enterprises need more R&D investment to promote scientific and technological innovation. Obviously, R&D investment is a key factor and prerequisite for technological innovation. Innovation policy support is the first driving force for technological innovation, and it is particularly necessary to build a scientific and reasonable technological innovation policy system to promote the development of enterprises.

2. Relevant Theories and Literature Review of Scientific and Technological Innovation and R&D Investment Research

2.1. Definition of Relevant Concepts

2.1.1. Technological Innovation

Scientific and technological innovation refers to the process of creating new products, new services or improving existing products and services through research and development of new knowledge, technologies and methods. It includes the invention, development and application of new technologies, as well as activities of innovation and improvement on the basis of existing technologies. It is a broad concept, including basic research, applied research, technology development, product design, marketing strategy and many other aspects. Scientific and technological innovation is an important driving force to promote social progress and economic development, and is of great significance to the improvement of the competitiveness of enterprises, countries and the world.

Technological innovation is not only technological innovation, but also innovation management, organization, finance and business models. In the modern economy, scientific and technological innovation has become an important symbol of the competitiveness of enterprises and countries. Therefore, strengthening the ability and level of scientific and technological innovation has become an important task for governments and enterprises of all countries.

2.1.2. Innovation Policy

Government innovation policies are mainly fiscal and tax policies. Fiscal and taxation policies refer to the fiscal system, taxation policy, fiscal investment, transfer expenditure and other policy means based on fiscal and taxation theories, focusing on adjusting the economic structure and social distribution in order to achieve certain fiscal goals and build a favorable economic environment. Satisfy the internal development needs of social organization members, and guide, stimulate or regulate their behavior through the systematic design of relevant incentive systems and development environments to achieve established goals. The fiscal and tax policies studied in this paper mainly include fiscal subsidy policies, preferential tax policies and fiscal and financial policies.

The fiscal subsidy policy refers to a kind of subsidy provided by the state to enterprises or individuals by the special fund of financial arrangements for designated matters in order to achieve specific political and economic goals. National and local governments support enterprises in the form of financial subsidies for scientific and technological innovation, mainly through the arrangement of special funds. First of all, fiscal special funds are usually more time-sensitive, and can be started when the policy is promulgated and terminated when the policy is terminated; secondly, fiscal special subsidies are more targeted, usually for specific industries or specific types of enterprises. The effect produced when guiding and regulating enterprise innovation activities is more flexible and direct.

Preferential tax policies refer to reducing the tax burden of some taxpayers in a targeted manner and supporting the economic development of some industries or a certain region by formulating an incentive tax system. Preferential tax policies are usually used by the state and local governments to intervene in the economy effective means. Tax incentives are applied in a wide range and in various forms. For example, low tax rate collection, accelerated depreciation, super deduction, deferred tax payment, immediate refund upon collection, export tax rebate, etc. are implemented for supporting technological innovation of enterprises.

2.2. Literature Review on Scientific and Technological Innovation and R&D Investment Research

The academic circles have conducted extensive and in-depth research on innovation policies, among which the two supporting policies of financial subsidies and preferential tax policies have attracted the most attention.

2.2.1. Relevant Research on Financial Subsidies and Technological Innovation

At present, the research conclusions of the existing domestic and foreign literature on the impact of financial subsidies on enterprise technological innovation can be roughly divided into three categories: positive incentive effect, negative crowding out effect, and nonlinear mixed effect.

1) Positive incentive effect

Most scholars use empirical analysis to verify that the financial subsidy policy plays a positive role in stimulating the R&D investment behavior of enterprises. Capron et al. (2005) took seven OECD member countries as the research object, based on the sample data of companies in the United States, Canada, Britain, France, Germany, Italy, and Japan in the 1980s, and found that government subsidies would prompt companies to increase R&D investment intensity, and continuous R&D subsidies will have a long-term incentive effect on the R&D investment of

enterprises. Lucy Minford et al. (2019) tested the relationship between financial subsidies and R&D innovation based on the British economic growth model, and found that direct subsidies offset the frictional costs associated with R&D and stimulated R&D innovation and R&D investment.

Based on the sample data of large multinational manufacturing companies, Oliviero (2016) found a positive incentive effect between financial subsidies and R&D investment through comparative analysis of sample data from seven European countries [6]. Yang Xiangyang (2014) established a game model between the government and enterprises, and believed that improving the external environment can further optimize subsidies and improve the effect of enterprise R&D investment. From the perspective of promoting external financing of enterprises, Wang Gang et al. (2017) pointed out that government R&D subsidies can release credit certification signals to the capital market, alleviate corporate financing problems, and thus stimulate corporate R&D investment. Guo Juanjuan (2020) analyzed the differences in the impact of fiscal subsidy policies on R&D investment behavior of enterprises in different regions from the perspective of regional differences. The research results show that financial subsidies have the best incentive effect on R&D in the central region, followed by the eastern region, and the western region has a higher incentive effect. Small. Ma Jianan et al. (2018) carried out research on enterprises in specific high-tech parks, using data that divides subsidy categories more accurately. The results show that subsidies encourage enterprises to increase R&D investment, but different types of subsidies have different effects. Only the promotion of innovation activities and talent agglomeration Subsidies are conducive to promoting enterprises to increase the level of R&D investment.

From the perspective of the two-way effect of financial subsidies and corporate R&D investment, Xiao Xingzhi and Wang Yipan (2013) used the data of 254 listed companies in strategic emerging industries to verify the intention of corporate innovation capabilities and the needs of corporate residual undistributed profit reuse management through empirical analysis. The combination of circumstances promotes enterprises to obtain more government subsidies; Yao Dongmin and Zhu Yong (2019) used the micro-econometric method of propensity score matching and double difference (PSM-DID) to test the impact of financial subsidies on enterprise R&D investment again. Strong "unidirectionality", the R&D behavior of enterprises will not have a significant impact on the subsequent subsidy income. Su Na (2019) showed a significant complementary effect between financial science and technology special subsidies and enterprise R&D investment, and the impact of financial science and technology special subsidies on enterprise R&D investment was more significant; among them, "innovative behavior stimulation" and "regional talents "Agglomeration" financial subsidies have the most significant impact on corporate R&D investment.

2) Negative extrusion effect

Another part of scholars have drawn the opposite conclusion by using different models, that is, financial subsidies have a crowding out effect on R&D investment of enterprises. Shrieve (1978) conducted an empirical analysis on more than 400 companies with R&D activities in the United States, and found that there was a significant crowding-out effect between government subsidies and R&D investment. Based on micro-enterprise data, Li Yongyou et al. (2017) found that government subsidies not only did not motivate enterprises to develop and innovate, but also produced a significant crowding-out effect. Theofanis (1996) conducted an empirical analysis based on the perspective of the entire industry and found that enterprises that have not received subsidies are more affected by the rise in the prices of production factors, and subsidies will inhibit the R&D activities of these enterprises. Song Laisheng and Su Nan (2017) found that government R&D subsidies have a crowding-out effect on R&D investment of enterprises, and have a greater impact on the crowding-out effect of technological innovation behavior in developed regions. Qiao Hongwu (2019) believes that due to a certain degree of

information asymmetry between the government and enterprises, enterprises transmit false information to the government to defraud financial subsidies, which makes innovative technology subsidies produce a "reverse" incentive effect. Wu Fei (2018) based on the sample data of my country's listed companies from 2007 to 2014, studied the relationship between financial subsidies, local government behavior and enterprise innovation activities, and found that the government's strong willingness to subsidize will squeeze the financing needs of enterprises. The effect is not conducive to the R & D and innovation activities of enterprises. Gu Qun (2016) took high-tech enterprises as the research object, based on the sample data of small and medium-sized board listed companies in the Shenzhen Stock Exchange from 2008 to 2013, studied the relationship between financial subsidies and innovation investment of technology-based SMEs, and found that financial subsidies and technology-based SMEs There is a negative correlation between innovation input.

Yu Saiyuan (2017) used the GMM estimation method to empirically study the data of my country's A-share non-financial listed companies from 2007 to 2015, and concluded that financial subsidies not only have an adverse impact on the economic benefits of the company itself, but also have no significant impact on its social benefits. effect. Luo Hang (2019) took my country's listed military enterprises as the research object and found that under the adjustment effect of financial subsidies, the hysteresis incentive effect of R&D activities on enterprise growth was greatly reduced. Yang Guochao et al. (2017) found that the "one-size-fits-all" micro-recognition threshold of the ratio of the company's R&D investment to sales revenue determined in the "Management Method for the Recognition of High-tech Enterprises" led companies to manipulate R&D behaviors in order to obtain more tax incentives and financial benefits. Subsidies have contributed to the decline in the company's R&D performance.

3) Nonlinear mixed effect

Some scholars have found through empirical research that the impact of financial subsidies on corporate R&D investment behavior is not simply a positive incentive or a reverse crowding out effect. Financial subsidies will promote corporate R&D investment behavior within a certain threshold. towards inhibition. Zhang Xiangda and Qi Moda (2018) used the empirical data of listed companies to conduct empirical analysis on the subsidy intensity and the relationship between subsidy growth rate and R&D investment is nonlinear. Among them, the government's funding intensity and investment growth rate for subsidizing R&D behaviors both present a "U"-shaped development trend. Guellec (2003) reached the same conclusion based on the sample data of 17 OECD member countries, and found that there was an inverted "U"-shaped relationship between financial subsidies and enterprise R&D. BERGSTROM (2000) took Swedish listed companies as a sample and found that the impact of financial subsidies on the growth of enterprises showed obvious phased characteristics. In the short term, financial subsidies can effectively promote the growth of enterprises, but in the long run, this positive effect will continue to be weakened, and ultimately financial subsidies will also inhibit the growth of enterprises. Yu Zhen et al. (2020) take local government financial subsidies to support state-owned enterprises' R&D investment as the research object. It is believed that appropriate government financial subsidies can improve enterprise performance, but excessive subsidies have a negative impact on enterprise performance and have not played a substantial incentive role for state-owned enterprises. Yang Zhiqing et al. (2016) conducted an empirical study based on the data of manufacturing enterprises and found that the current government's financial subsidy funds are more inclined to state-owned enterprises, which largely restricts the efficiency of innovation subsidy funds. Song Lin et al. (2017) took the equipment manufacturing industry as the research object, based on micro-enterprise panel data, and found that the incentive effect of government subsidies on enterprise R&D investment has an effective range.

2.2.2. Research on the Correlation between Tax Incentives and Technological Innovation

At present, the existing literature on the research on tax incentives supporting corporate technological innovation can also be roughly divided into positive incentive effects, negative crowding out effects, and nonlinear mixed effects.

1) Positive incentive effect

Lin Hanchuan et al. (2013) believe that preferential tax policies can better promote enterprises to use internal financing such as retained earnings to promote technological innovation. Huang Huidan et al. (2019) believe that tax incentives can effectively save enterprises' R&D investment costs and promote the cycle of R&D behavior. Ma Weihong (2011) used the panel data of manufacturing enterprises to find that the positive promotion effect of preferential tax policies on R&D investment behavior of high-tech enterprises is significantly higher than that of ordinary enterprises. Zhang Mingjiu (2017) believes that preferential tax policies can release investment signals to private investors, guide more funds to flow into enterprises enjoying preferential policies, give full play to the role of information asymmetry, and enable enterprises to obtain more support for technological innovation activities.

Introducing the concept of intermediary effect, Xie Yingjun (2020) found that tax incentives need to use research and development investment as an intermediary variable to realize the impact on corporate innovation results. Xiao Lulu et al. (2017) found that tax incentives exert a certain coordination effect through cost stickiness and have a positive impact on corporate R&D investment. Sun Qixin et al. (2020) based on the 2015-2018 national science and technology business incubator tax policy, found that tax incentives have a positive impact on the R&D investment and innovation behavior of incubating enterprises through the incubator.

Carrying out specific subdivisions of tax incentives, Han Renyue et al. (2019) believe that different tax incentives can promote R&D investment in enterprises, but the intensity of different methods varies. Ju Hualei, Wang Shengli (2020) compared the incentive effects of different tax categories on R&D investment of high-tech enterprises from the perspective of the innovation chain. The research results show that the incentive effect of the income tax reduction policy on the input side is more significant. Wu Songbin et al. (2019) pointed out that both R&D super deduction and income tax reduction and exemption have promoted the increase of enterprises' R&D investment. Income tax incentives increased by 1 unit in the previous period, and the total number of patent applications for R&D output decreased by 0.08 units. Yuan Yehu (2020) based on the double-difference model test of the samples of pharmaceutical manufacturing listed companies from 2007 to 2018, found that the implementation of the R&D expense super deduction policy promoted the reduction of the leverage ratio of pharmaceutical manufacturing companies. Especially notable. Xie Debing (2020) believes that the incentive effect of preferential tax policies is greater than that of financial subsidy policies. In addition, after subdividing and comparing, it is found that corporate income tax has a significantly stronger effect on promoting technological innovation of enterprises than turnover tax.

2) Negative extrusion effect

Eisner (1984) believed through empirical research that the promotion effect of preferential tax policies is not significant, and may even hinder the R&D investment behavior of enterprises. Kong Shuhong (2010) believes that tax incentives have no obvious promotion effect on technological innovation in general. Li Wei'an et al. (2016) considered the influence of external environmental factors, and from the perspective of new institutionalism, they found that tax incentives and corporate R&D investment, after introducing the variable of political connection, have negative incentives for the innovation activities of high-tech enterprises. Chen Feifei (2015) used the method of investigation and research, taking some domestic high-tech

enterprises as samples, and the analysis results showed that the promotion effect of preferential tax policies on R&D investment is not obvious. Liu Xiaomei (2017) found that the promotion effect of corporate income tax incentives on corporate R&D investment is very weak, and for state-owned enterprises, corporate income tax has a certain crowding out effect on R&D investment. Huang Cui et al. (2011) believed that the current preferential tax policy ignores issues such as industrial preferential orientation, which has obvious stages, and the continuity and stability of the policy still need to be further improved.

3) Nonlinear mixed effect

Feng Haihong (2015) found that preferential tax policies have an incentive effect on corporate R&D investment in a certain optimal policy range. When the policy strength is within this range, the incentive effect on corporate R&D investment will be significantly enhanced. Yang Sally (2019) concluded through empirical evidence that after the implementation of supply-side structural reforms in China, the total factor productivity of enterprises has been significantly improved, which is in line with the original intention of the reform. Tax incentives do have a positive incentive effect on the total factor productivity of enterprises. However, excessive tax incentives will instead encourage the "inertia" of enterprises and affect their initiative in R&D and innovation. Chen Ling (2016) selected the data of listed companies from 2010 to 2012 for empirical research in order to sort out the coexistence of incentive effect and crowding out effect of government subsidies on enterprise innovation R&D investment. The final result shows that those who currently receive more subsidies are often large-scale local emerging enterprises, and they play an obvious role in stimulating and promoting.

3. Mechanism Analysis of Innovation Policy Supporting Enterprises' Scientific and Technological Innovation

3.1. The Internal Mechanism of Innovation Policy to Support Technological Innovation of Enterprises

3.1.1. The Mechanism of Government Investment in Science and Technology

In the process of fiscal and tax policies promoting technological innovation of enterprises, government investment has the most direct impact on enterprise innovation activities. Government investment in science and technology includes direct government investment and government subsidies, so as to increase the source of funds for enterprises, reduce the risk of enterprise innovation, and enhance the motivation of enterprise innovation. However, the stages and methods of the two on enterprise innovation are different. Direct investment from the government is mainly used in the research and development and achievement stage of enterprise innovation. It can directly invest funds in enterprises, or invest in enterprise scientific research by setting up innovation funds. Government subsidies can be used in R&D, achievement and marketization stages, especially in the marketization stage, where the government can promote the transformation of scientific and technological achievements of enterprises and realize the market value of technological innovation through consumer subsidies.

3.1.2. Government Guaranteed Loan Mechanism

In the technological innovation of enterprises, a large amount of capital needs to be continuously invested. If only relying on their own and the government's investment, they may encounter insufficient funds or the continuity of R&D follow-up investment will be affected, and may even lead to a crisis of capital chain rupture and bankruptcy. Therefore, it is usually necessary to Loan inputs from financial institutions. However, in the process of an enterprise applying for a loan, because technological innovation involves the business secrets of the enterprise itself, there is a large amount of information asymmetry between the enterprise and

the financial institution. When there is no information, it will limit the amount of funds that enterprises can obtain for innovation, making it difficult for enterprises to continue their innovation activities. Therefore, in this process, the government loan guarantee is particularly important. The government, as the management agency of the loan intermediary enterprise, reviews and investigates the enterprise's funds, innovative technology prospects, risks, reputation, and operating conditions, and provides guarantees for eligible innovative enterprises. Enterprises provide loan guarantees, which can not only ensure that innovative enterprises retain their commercial secrets, but also reduce the risks faced by financial institutions and achieve a win-win situation.

3.1.3. Tax Incentive Mechanism

In corporate innovation, preferential tax policies can permeate many aspects of corporate innovation activities. From innovative technology research and development to achievement, from the introduction of innovative talents to the establishment of innovation platforms, from the production of innovative achievements to market terminals, etc., tax preferential policies have played a role. great impetus. Tax incentives directly affect enterprise innovation mainly through income tax incentives, tax reduction or exemption for innovative enterprises. In addition, the government can also provide individual income tax incentives for scientific researchers in the talent platform, thereby increasing the actual wages of scientific researchers. It can also implement tax incentives for consumption tax and other consumer-related turnover taxes to bring new technologies to Some of the discounts that come from the company will be given to consumers, so as to better promote the marketization of enterprise innovation technology and form a virtuous circle between enterprise technology innovation and marketization.

3.1.4. Talent Platform Mechanism

In terms of the cultivation of scientific and technological talents in enterprises, it is inseparable from the support of government policies and platforms for scientific and technological talents. Government education investment is the main way to cultivate scientific and technological talents, especially universities and scientific research institutions are an important way for enterprises to obtain scientific and technological talents. In addition, the government will also encourage enterprises to introduce overseas high-tech talents through high salaries and other preferential policies, and provide corresponding preferential policies and subsidies. Studies have shown that enterprises with the guidance of technology leaders have a 20% higher rate of technological innovation success than companies without technology leaders. Therefore, the establishment of a government-led scientific and technological talent platform is an important foundation for enterprise innovation.

3.1.5. Technology Innovation Platform Mechanism

In the science and technology innovation platform system, the government is the main coordinator, designer and maintainer, so the formation of a government-led, establishment of a science and technology innovation platform will drive universities, enterprises and other multi-party innovation platforms to form a joint force to realize the elements of scientific and technological information, knowledge and innovation and other aspects of sharing, integrating scientific and technological innovation resources, providing services such as information, knowledge, and marketization of scientific and technological achievements for technological innovation of enterprises, such as university science and technology parks, high-tech industrial parks, and technological innovation centers, etc., providing important services for technological innovation of enterprises. platform support.

3.1.6. Market-oriented Mechanisms Such as Government Procurement and Guidance

In the process of marketization of scientific and technological achievements of enterprises, the government should actively guide and strengthen publicity, so that consumers can establish a

correct understanding of new technologies and better accept new technologies. It is necessary to build a platform for the transformation and experience of scientific and technological achievements, use government procurement to promote the marketization and commercialization of new technologies, and assist the relationship between enterprises and consumer terminals, promote good communication between enterprises and consumers, timely feedback demand information, and promote Realize the value of new technology achievements.

3.2. Analysis of the Role of Innovation Policies on the Development of Local Enterprises' Scientific and Technological Innovation

The purpose of these innovation policies mentioned above is to encourage enterprises to increase investment in research and development, improve technological level and product quality, and promote technological innovation and industrial upgrading. The implementation of innovation policies can effectively promote enterprises to strengthen technological innovation and industrial upgrading, improve the competitiveness and innovation capabilities of enterprises, and promote economic development and social progress.

3.2.1. Reduce the Cost of Enterprise Innovation.

Innovation policies can reduce the innovation cost of enterprises through various forms of financial support, encourage enterprises to increase R&D investment, and improve technological innovation capabilities. In addition, the government can also provide enterprises with support services such as intellectual property protection and technology transfer to further reduce the risks and costs of enterprise innovation.

3.2.2. Improve the Willingness of Enterprises to Innovate.

Innovation policies can stimulate enterprises' willingness to innovate, promote enterprises to increase R&D investment, and promote technological innovation. The government can provide innovation incentives for enterprises through preferential tax policies, scientific research project review, intellectual property protection, etc., encourage enterprises to devote themselves to the field of technological innovation, and improve the market competitiveness of enterprises.

3.2.3. Improve the Research and Development Capabilities of Enterprises.

Policy support can increase enterprises' R&D investment, promote enterprises to increase R&D teams and equipment, and improve enterprises' R&D capabilities and R&D levels. This will help enterprises to develop more competitive products and technologies and improve their market competitiveness.

3.2.4. Promote the Transformation of Scientific and Technological Achievements.

Innovation policies can promote the transformation of scientific and technological achievements, promote scientific and technological achievements from the laboratory to the market, and inject new momentum into local economic development. The government can provide support for the promotion and application of scientific and technological achievements by establishing institutions and platforms for the transformation of scientific and technological achievements, and accelerate the implementation and industrialization of scientific and technological achievements.

3.2.5. Optimize the Innovation Environment.

Innovation policy can optimize the innovation environment and provide a more stable and sustainable development environment for enterprises. The government can improve the quality and efficiency of the innovation environment and provide better support for the innovation and development of enterprises by improving the protection of intellectual property

rights, establishing a service system for technological innovation, and promoting the internationalization of scientific and technological achievements.

To sum up, the innovation policy provides strong support and guarantee for the scientific and technological innovation of local enterprises by reducing the cost of innovation, stimulating the willingness to innovate, promoting the transformation of scientific and technological achievements, and optimizing the innovation environment.

4. The Optimization Path for Innovation Policy to Support Technological Innovation of Enterprises

In the process of promoting scientific and technological innovation of enterprises, Wenzhou should focus on the above-mentioned mechanism of promoting innovation, rationally plan the use of fiscal funds, strengthen the performance management of fiscal scientific research investment, optimize the structure of fiscal investment in science and technology, and improve a series of scientific and technological talent development mechanisms and taxation mechanisms. Policy mechanisms to promote continuous innovation and enhance technological strength of enterprises.

4.1. Increase Financial Technology Investment in Enterprises and Rationally Plan the Use of Financial Technology Investment Funds

In recent years, the absolute scale and relative proportion of fiscal investment in science and technology have been increasing, but the increase in R&D investment intensity has not been obvious, and a stable long-term growth mechanism has not been formed. Compared with Beijing, Shanghai and some developed countries, there is still a significant gap. In this regard, Wenzhou should increase the scale of financial innovation investment and R&D funding for enterprises while ensuring the overall growth of financial investment in science and technology. At the same time, it is also important to consider increasing the intensity of R&D funding. We can target developed countries such as South Korea and Japan, set the proportion of R&D funding, increase the corresponding budgetary expenditures, and form a long-term effect of financial technology investment with enterprises as the main target. growth mechanism. In addition, it is also necessary to rationally plan the use of financial science and technology investment funds by enterprises. In addition to investing and distributing innovation funds according to technological input-output efficiency, it is also necessary to give full play to the guiding role of government investment in technological innovation of enterprises. Determine the quota ratio between government investment in science and technology and the investment of enterprises themselves, through the directional guidance of government investment in science and technology, stick to the investment in technology innovation of enterprises, give play to the leading role and multiplier effect of financial funds, and drive enterprises to invest more funds in innovative projects under construction.

4.2. Strengthen the Performance Management of Financial Scientific Research Investment and Increase the Supervision of Financial Science and Technology Investment

On one hand, it is necessary to strictly follow the requirements of fiscal budget preparation, link fiscal investment in enterprise science and technology with performance management, and link fiscal scientific research input with output. In the early stage, the budget should be coordinated and scientifically arranged. In the later stage, the performance evaluation of financial science and technology investment should be strengthened. Let financial science and technology funds be invested in truly valuable fields. On the other hand, it is necessary to strengthen financial supervision of funds invested in technological innovation by enterprises. At present, due to policy flaws in Wenzhou, the supervision of the flow of financial subsidy funds and funds is not

strict, resulting in the loss of a large amount of funds. In this regard, we can improve and standardize the management of government procurement, preferential treatment, subsidies and other aspects of financial systems, strengthen in-process control and post-event auditing, and at the same time make full use of modern information technology, use government affairs management big data platforms, cloud service management platforms, timely Obtain enterprise and government information invested in scientific and technological innovation, and realize the joint supervision and digital management of the government, enterprises and society.

4.3. Optimizing the Structure of Financial Investment in Science and Technology

Through the previous analysis, we know that Wenzhou's corporate science and technology expenditures in recent years have shown a structural imbalance, both in terms of the structure of corporate R&D funding sources and the types of activities invested in R&D funding. Experimental development is the main investment, and the investment structure is seriously unbalanced, which greatly reduces the efficiency of fiscal expenditure. Therefore, on the one hand, it is necessary to increase government investment in the sources of enterprise R&D funding, and to promote the development of enterprise R&D institutions such as enterprise technology centers and engineering technology development laboratories, especially the key areas and weak links in enterprise technological innovation. Direct investment, financial subsidies, preferential policies, government incentives, etc., give full play to the leading role of the government. On the other hand, it is necessary to strengthen the financial support for basic research and applied research of enterprises. In terms of investment in basic research, finance should take full account of the basic status of basic research and its positive externality characteristics. It is advisable to use direct investment, and use the form of quotas to agree on the proportion of basic research funds that enterprises use in fiscal innovation investment, forming The long-term driving force mechanism for supporting technological innovation of enterprises. At the same time, in terms of investment in experimental development, it is necessary to fully consider the investment targets of financial science and technology funds. For innovative fields that are profitable, have a short return period, and have high enthusiasm for investment by enterprises, the resource allocation efficiency of the market should be fully utilized. Investment institutions will undertake the main part, and the government only needs to conduct indirect guidance and intervention.

4.4. Improve the Scientific and Technological Talent Development Mechanism, and Use Preferential Policy Measures to Balance Human Capital Investment

In the improvement and implementation of Wenzhou's financial policy to support enterprise innovation, it is necessary to fully consider the issue of human capital investment and balanced development, and improve the scientific and technological talent reserve mechanism. First, take Wenzhou universities and scientific research organizations as a platform, take advantage of the hematopoietic function of their talents, strengthen the cultivation and guidance of students' scientific and technological innovation capabilities, integrate knowledge and practice, and establish a multilateral exchange mechanism among universities, scientific research institutions, and enterprises. At the same time, students are encouraged to actively participate in corporate scientific research projects under the guidance of teachers by using practice bases and corporate R&D and innovation platforms, so as to realize the sharing and win-win pattern of multilateral resources, information, and technologies. Secondly, it is necessary to balance the regional distribution of talents through a variety of talent introduction policies. In Jiangsu, the unbalanced regional economic development also affects the uneven distribution of talents, and the northern part of Jiangsu is obviously weak. In this regard, through the introduction of talents, the government has increased the salary, financial subsidies, commendation and

promotion of talents in northern Jiangsu and other regions. Effective measures such as personal tax reduction and exemption for scientific and technological talents to attract scientific and technological innovation talents. Thirdly, it is necessary to change the talent incentive mechanism in different fields such as basic research and experimental development. For the evaluation and incentive mechanism of scientific research personnel, one size fits all cannot be adopted, and different incentive mechanisms should be formulated according to the different fields in which they work. For scientific research personnel engaged in basic research and applied research, the evaluation should be mainly based on their scientific research projects and academic ability. For scientific research talents in the field of experimental development, the evaluation criteria should be based on the degree of achievement and marketization of their scientific research projects, such as patents. Application and authorization status, whether the market value can be effectively realized, etc. Of course, material incentives should be fully considered in all these, and different degrees of material incentives should be given to contributing scientific and technological personnel, which is the basic premise of incentives.

4.5. Improve Tax Incentives, Government Procurement, Government Guarantees and Other Mechanisms for Scientific and Technological Innovation, and Effectively Promote and Guide the Commercialization of Scientific and Technological Achievements of Enterprises

In promoting technological innovation of enterprises, in addition to giving full play to the role of policy-based incentive mechanisms, it is also necessary to fully consider the role of relevant policies in guiding the marketization of scientific and technological innovation achievements. First, in addition to implementing individual tax incentives in the talent introduction mechanism, full consideration should also be given to preferential tax policies for enterprises, especially corporate income tax incentives and reductions. At the same time, if an enterprise suffers losses due to R&D or technology development problems, it can make reasonable adjustments to income tax, delay collection or exempt it. Second, improve the government procurement system and give full play to the leading role of government procurement in the marketization of technological innovation of enterprises. On the one hand, Wenzhou government procurement should focus on purchasing local independent innovation products, forming a demonstration effect in the whole province, and giving full play to the role of stimulating independent innovation of local enterprises; The projects are combined to implement customized R&D and production, and strengthen the support and guarantee of scientific and technological innovation through government procurement. Third, it is necessary to further build and improve the policy system of government support for enterprise innovation such as government loan interest discounts, credit guarantees, and equity investment, and form a mechanism for financial policy support and government guarantees to promote enterprise technological innovation. Especially for the current innovation of small and medium-sized enterprises in Wenzhou, the acquisition of its innovation funds adopts methods such as loan discounts and credit guarantees, which can closely link financial institutions, the government, and enterprises to form a symbiotic and win-win situation. Sufficient financial support, and can encourage these three parties to fully participate in its marketing promotion, forming a chain structure of a virtuous circle.

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References

- [1] Azam Chaudhry and Waqar Wadho. Innovation and Firm Performance in Developing Countries: The Case of Pakistani Textile and Apparel Manufacturers [J]. Research Policy, 2018 (7).
- [2] Chaipom Vithessonthi, Olimpia C. Racela. Short-run and Long-run Effects of Internationalization and R&D Intensity on Firm Performance [J]. Journal of Multinational Financial Management, 2016 (34):10-15.
- [3] Nuns, P. Serrasqueiro. Is There a linear Relationship Between R&D Intensity and Growth? Empirical Evidence of Non-high-tech vs. High-tech SME [J]. Research Policy, 2012 (1):110-121.
- [4] Cheng Liwei, Dai Xiaoyong. Analysis of R&D Investment Distribution Characteristics and Influencing Factors of R&D Investment Intensity-Based on the Panel Data of 300,000 Industrial Enterprises in China[J]. China Soft Science, 2012(08).
- [5] Cheng Yao, Yan Huihui. Policy Research on Tax Incentives on R&D Investment [J]. Quantitative Economics and Technology Research, 2018 (2).
- [6] Guo Xiaoting. Research on the Regional Innovation Effect of R&D Clusters and Knowledge Spillovers [D]. Shanghai: Shanghai Academy of Social Sciences, 2017.
- [7] Li Yanlong. Preferential tax policies and innovation efficiency of high-tech industries [J]. Quantitative Economics and Technical Economics Research, 2018 (1): 60-76.
- [8] Liu Hewang, Zheng Shilin, Wang Yufeng. Types of Ownership, Technological Innovation and Enterprise Performance [J]. China Soft Science, 2015(3): 28-40.