

# Empirical Research on the Impact of Innovation Policy on Economic Growth

Ziwen Guo

Overseas Education College, Jimei University, Xiamen, China

**Abstract.** This study uses official websites such as the China Government Network as data sources, and takes innovation policies from 2012 to 2023 as samples, and summarizes the status quo of innovation policies from the three dimensions of policy tool types, policy theme characteristics, and policy elements. On the basis of putting forward the research hypothesis that innovation policy can promote economic growth, and based on the provincial panel data from 2012 to 2020, this paper demonstrates the impact of innovation policy on economic growth. The empirical results show that innovation policy can promote economic growth by affecting the level of innovation and entrepreneurship, and the heterogeneity test is carried out from the two angles of urbanization rate and innovation policy effect, which further verifies that innovation policy can promote economic growth, and innovation in the eastern region The policy effect is greater than that in the central and western regions. Finally, this article summarizes the problems that exist in the current policy implementation process, and gives suggestions for further promoting economic growth from the perspectives of policy design, policy implementation, social responsibility, and social governance.

**Keywords:** Innovation policy, economic growth, regression model, policy design, social responsibility.

## 1. Current status of innovation policy

The world is entering the era of a new industrial revolution with industrial transformation as the main body, and the economic structure and social form have been affected and challenged in an all-round and deep-seated manner. These major challenges have become the direct cause of the continuous introduction of innovation policies, the continuous emergence of innovation actors, and the continuous expansion of the innovation ecosystem. Regarding the meaning of innovation policy, the academic circle generally believes that it covers science, education, research, technology, and all innovation-related policy initiatives, and is the sum of various public policies adopted by the government to promote innovation activities. With the vigorous implementation of the innovation-driven high-quality development strategy, the innovation policy has completed the evolution from experimental exploration to gradual implementation, and the overall efficiency of the innovation chain has been continuously improved. However, in the process of implementing innovation policies, there are also factors such as insufficient linkage of executive agencies, public recognition to be improved, and relatively limited resource investment, which restrict the efficiency and effectiveness of policy implementation.

### 1.1 Innovation Policy Text Selection and Sample Coding

In order to have a more comprehensive understanding of the current innovation policy, the official websites such as the Peking University Magic Database and the China Government Network are used as data sources, and the search time is set from January 1, 2012, to June 15, 2023, and the search term is "innovation policy", 482 initial policy samples are obtained after searching in the data source. In order to take into account, the effectiveness of research topics and policy texts, the following criteria are adopted to screen initial policy documents: (1) Policy documents contain content directly related to innovation policies, and policy samples with little relevance are deleted; (2) Policy documents Must be published at the national level, with replies, cross-sectoral forwarding, or policy samples not relevant to the study topic deleted. After screening according to the above criteria, 286 policy texts were finally obtained to form the innovation policy text database.

Based on the perspective of policy tools, the article constructs a three-dimensional framework of "types of policy tools - positioning of policy elements - characteristics of policy themes". Using bibliometric and content analysis methods to quantitatively analyze my country's innovation policy. The policy analysis process is mainly manifested in: ① collecting and organizing initial policy samples, and constructing an innovative policy sample database; ② using Nvivo11 Plus software, manual intensive reading of policy texts, using three-level coding of "policy number-section number-text content" Coding and categorizing the content of the text clauses in the same way (see Table 1).

Table 1 Results of the Innovation Policy Text Coding (Excerpt)

Serial number	The name of the policy document	Text Content Analysis Unit	Policy Code	Policy tools	Refinement of policy instruments
01	The State Council General Office on deepening the reform of innovation and entrepreneurship education in institutions of higher learning Office of the State Council [2015] No. 36	(4) to promptly summarize and promote the good experiences and good practices of universities in various places, select students to be successful models of innovation and entrepreneurship, enrich the forms of publicity, and cultivate a culture of creativity; We should strive to create an environment in which we dare to be the first, take risks and tolerate failure.	1-4	Environmental	Promotional incentives
		(8) All regions and relevant departments shall actively implement the policy on entrepreneurship training for college students, develop entrepreneurship training courses suitable for students' characteristics, and build an online training platform. Colleges and universities are encouraged to independently formulate special training programs or jointly develop entrepreneurship training programs with qualified educational and training institutions, trade associations, mass organizations and enterprises.	1-8	Supply type	Education and training
10	Announcement on the tax policy of innovative enterprises in the pilot stage of issuing depository receipts in China Ministry of Finance, State Administration of taxation, CSRC Notice No. 52 of 2019	(3) individual investors shall be exempted from VAT for the time being on the transfer of the difference in price of CDR of innovative enterprises.	10-3	Demand	Tax Incentives
55	The Ministry of Finance, the State Administration of taxation, the Ministry of Science and technology on increasing the strength of pre-tax deductions to support science, technology and innovation Ministry of Finance, State Administration of taxation, Ministry of Science and Technology Notice No. 28 of 2022	(2) the policy scope and administration of the policy for enterprises to enjoy pre-tax deductions for R & D expenses, in accordance with the "Notice of the Ministry of Finance, State Administration of Taxation and the Ministry of Science and Technology on improving the policy of adding and deducting research and development expenses before tax"(fiscal and taxation [2015] No. 119)	55-2	Demand	Tax Incentives
		(3) implementation of the relevant provisions of the circular of the Ministry of Finance, the State Administration of taxation and the Ministry of Science and technology on the policy issues relating to the pre-tax deductions for research and development expenses entrusted by enterprises to foreign countries (fiscal and Taxation No. 64 of 2018)	55-3	Environmental	Financial support
106	Circular of the general administration of market supervision on the issuance of a work plan for the National Pilot Project on the protection of commercial secrets China Municipal Supervision Competition (2022) No. 26	(3) the innovation pilot areas shall be divided into phases and focus, and gradually make breakthroughs and innovations at various stages, at the end of June and December of each year, the progress of the innovation pilot work will be reported to the general administration of Market Supervision and the provincial-level market supervision departments where they are located.	106-3	Environmental	Market regulation
		(4) improving the protection of government services. In the light of the new requirements and challenges brought by the economic development and scientific and technological transformation, we should actively respond to the extensive needs of trade secret protection and establish a comprehensive and full-process trade secret protection service system.	106-4	Supply type	Social Security
210	The Ministry of Science and Technology of the People's Bank of China (PBC), the intellectual property office of the Securities and Futures Commission (Circ), the People's Bank of China (CBRC), the People's Bank of China (PBC), has put forward suggestions on vigorously promoting the new system and mechanism to do a good job in science and technology financial services Silver Hair (2014) No. 9	(1) on the premise of strengthening supervision, to allow qualified private capital to initiate the establishment of small and medium-sized banks in accordance with the law, so as to provide specialized financial services for scientific and technological innovation.	210-1	Supply type	Financial Services
		(10) Leveraging government funds, making full use of existing venture capital funds, improving the policy environment and exit mechanism for venture capital, and encouraging more social capital to enter the field of venture capital.	210-10	Environmental	Community participation
		(15) Encouraging all localities to build credit demonstration zones for science and technology enterprises in light of local conditions, relying on high-tech zones and industrial bases, and making full use of credit information platforms such as the basic database on financial credit information, we will increase the collection of credit information on technology companies, and establish and improve the credit rating and recommendation system for technology companies, so as to provide support for financial institutions to promote financial products such as credit loans.	210-15	Supply type	Infrastructure

## 1.2 Three-dimensional analysis framework of innovation policy

This study analyzes the existing innovation policies from the three-dimensional analysis framework of policy tool types, element positioning and theme characteristics.

### 1.2.1 Policy Instrument Type Dimension

From the perspective of public policy, policy tools are the means, methods and techniques chosen by government agencies to achieve expected goals [1]. The choice and use of policy tools has a strong impact on whether the government can achieve the set goals. This article intends to draw on the types of tools defined by Rothwell and Zegveld [2] to analyze the text of innovation policies. This analysis found that supply-oriented policy tools (accounting for 36%), environmental policy tools (accounting for 42%) and demand-oriented policy tools (accounting for 22%) three categories (see Figure 1). a) Supply-oriented policy tools: mainly refers to the government's direct support and supply for public-related activities, including financial subsidies, public services, infrastructure, technical support, education and training, etc.; b) Environmental policy tools: refers to the government adopting a series of measures to create a favorable development environment, mainly including risk prevention, financial services, platform construction, etc. c) Demand-oriented policy tools: the government adopts demonstration and leadership, industrial innovation, mutual assistance and cooperation to enhance the subjectivity and consciousness of innovation. From the refinement of policy tools (see Figure 2), it can be found that the current policies account for 35% of science and technology, 13% of social security, 9% of education and training/industrial upgrading/others, 7% of infrastructure, and 7% of financial support/financial services. 5%, social participation 3%, market supervision 2%, publicity incentives/tax incentives 1%.

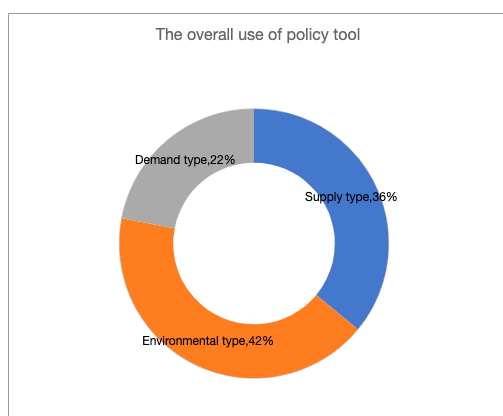


Figure 1 The overall use of policy tool

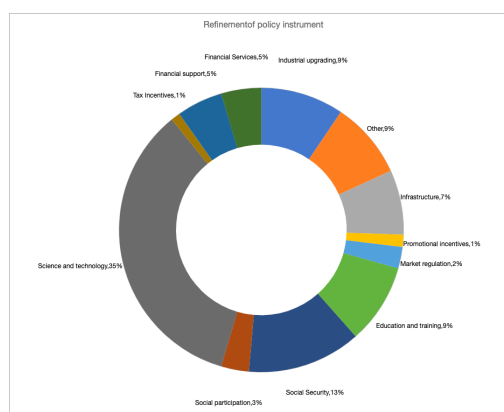


Figure 2 Refinement of policy instrument

### 1.2.2 Policy Theme Dimensions

The characteristics of the policy theme can usually better reflect the focus of the policy issuer in the policy formulation process. The article refers to the research of Wang Chunping and other scholars, and divides the characteristics of policy topics into three parts: word segmentation, topic words and semantic network [3]. In order to comprehensively analyze policy texts, this article conducts word frequency analysis on 286 innovation policy texts, extracts the top 100 high-frequency subject words in policy texts (only the top 20 keywords are listed in Table 2), and mines the key words hidden in policy texts content. It can be seen from the top 20 high-frequency words: ① The policy text design has clear goals, including innovation (1598), technology (1265), entrepreneurship (713), upgrading (623), industry (621), etc. The above-mentioned high-frequency keyword combinations fall into three types of policy objectives: innovation and entrepreneurship, technological innovation, and industrial upgrading; ② The means of the policy text are clear, including training (956), finance (859), service (837), enterprise (439), platform (455), etc. High-frequency keywords can be combined into training,

financial services and platform construction, etc. ③High-frequency keywords such as policy (1950), organization (559), encouragement (451), and implementation (542) indicate that the country mainly plays the role of top-level design, organization service, and encouragement and guidance in the process of innovation and entrepreneurship.

Table 2 Innovation Policy 20 high-frequency keywords

Serial number	Keywords	Quantity	Serial number	Keywords	Quantity
1	Policy	1950	11	Construction	569
2	Innovation	1598	12	Organization	559
3	Technology	1265	13	Implementation	542
4	Training	956	14	Facilities	492
5	Education	923	15	Platform	455
6	Finance	859	16	Encourage	451
7	Services	837	17	Enterprises	439
8	Start a business	713	18	Regulation	431
9	Upgrade	623	19	Tax	397
10	Industry	621	20	Publicity	388

### 1.2.3 Dimensions of Policy Elements

Social identity, target benefits, capacity building, policy cognition, and resource acquisition are used as the measurement factors of the innovation subject's behavioral attitude, subjective norms, and perceived behavioral control dimensions. At the national level, attention to innovation policies is mainly focused on the dimensions of social identity (37%), resource acquisition (28%), and capacity building (20%). The difficulty of obtaining resources and cultivating the innovation ability of the public are the core means for the government to promote innovation and entrepreneurship of enterprises and individuals. In addition, there is a large gap between the number of policy provisions in policy cognition (8%) and target benefits (7%) and other factors in this dimension, and policy attention allocation needs to pay attention to and strengthen innovation policy cognition and target benefits.

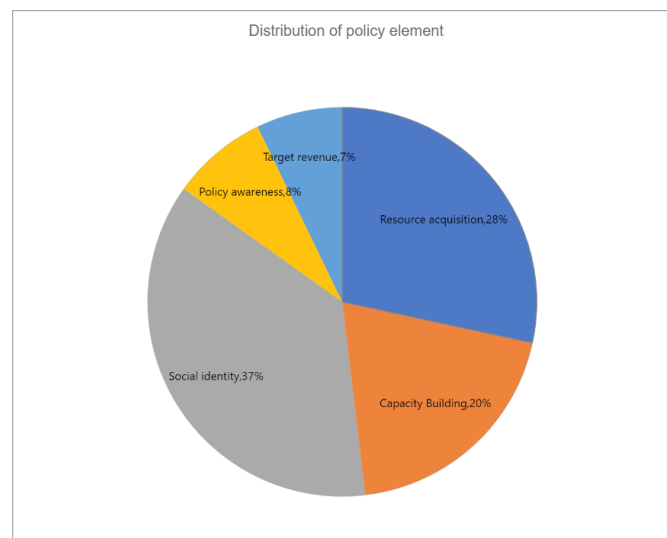


Figure3. Distribution of policy elemrnt

## **2. Literature review and theoretical hypothesis on innovation policy and economic growth**

### **2.1 Literature review**

Innovation is the internal driving force of economic growth, a large number of empirical studies have confirmed the role of innovative technology in promoting economic growth: Li Baoli and Hu Xueping (2013) [4], Li Miaomiao et al. (2015) [5] and Wang Jinbo (2018) [6] have shown that technological innovation is important driver of economic growth. Shang Hongtao and Huang Xiaoshuo (2018) used the research method of micro-econometrics comprehensive data to explore the important role of innovation in economic growth [7]. Shi Ge's (2020) research shows that since 2000, technological innovation has always positively affected China's economic growth, and the contribution rate has increased year by year [8]. In recent years, some scholars have begun to focus on the factors affecting the implementation of innovative education policies, mainly from the model of the policy implementation process [9], the theory of gradual decision-making[10] and the theory of policy diffusion[11]. From the perspectives of entrepreneurship education and other perspectives, the change mode, influencing factors and evolution characteristics of entrepreneurship education policy are analyzed.

Based on the existing research, it can be found that there are few studies on innovation policy and economic growth and the factors affecting innovation policy implementation in the existing literature, and the attention is relatively scattered, and there is a lack of necessary judgment on the subject relationship and dynamic process behind the implementation of the policy. This research integrates innovation policy, regional economic differences and economic growth into the same framework, and focuses on the logical path of innovation policy to promote economic growth, as well as the responsibilities of various social entities in the process of policy implementation.

### **2.2 Theoretical Hypothesis**

Regardless of the stage of economic development, attaching importance to and returning to the real economy has always been a major strategy for my country's economic development[12]. From the existing literature, scholars have studied the endogenous power of regional economic growth from the perspectives of financial services, housing prices, insurance, and institutional innovation [13-15]. These studies have played a certain policy enlightening role in promoting the steady growth of the regional economy. Today, more and more innovation policies are introduced. From a macro perspective: innovation policies can effectively promote the optimization and upgrading of industrial structure, promote economic quality and efficiency, and benefit regional economic growth; From a micro perspective: it has created a good environment for the government, enterprises, institutions, and the public to carry out innovative activities. Innovation is a typical policy-driven behavior with significant spillover, which has positive significance for promoting the level of innovation and entrepreneurship. Based on this, this research hypothesizes:

H1: Innovation policy promotes the growth of the real economy by affecting the level of innovation and entrepreneurship.

## **3. Empirical Analysis of Innovation Policy and Economic Growth**

### **3.1 Variables and models**

#### **3.1.1 Interpreted variables**

The explanatory variable of this study is the growth of the real economy (reg). In terms of the selection of indicators to measure the growth of the real economy: Liu Xiaoxin and Zhang Yao (2020) used per capita GDP to measure the growth of the real economy in the region, which has a large deviation [16]. Fan Ling and Han Tingchun (2020) used the part other than the real estate market and the financial market to represent the real economy. This measurement method has been improved by

domestic scholars and is widely used to measure the growth of the real economy [17]. This study intends to select the regional GDP after excluding the financial industry and the real estate industry to measure the growth of the regional real economy.

### 3.1.2 Core Explanatory Variable

The core explanatory variable of this study is innovation policy. Since the policy cannot be directly quantified, this study uses the level of innovation and entrepreneurship (iel) to measure. This data comes from the "1990-2020 Regional Innovation and Entrepreneurship in China" released by the National School of Development of Peking University in 2020. Index", this study uses the logarithmic value of per capita innovation and entrepreneurship score to measure the level of innovation and entrepreneurship.

### 3.1.3 Control variable

There are six control variables to be selected in this study: ① Government intervention degree (gov): measured by the proportion of regional fiscal expenditure in GDP; ② Degree of opening to the outside world (open): measured by the proportion of total import and export in each region in GDP; ③ Human capital stock (edu): measured by the product of the average years of education of the population aged 6 and above in the region and the labor force employed in the real economy sector; ④ Science and technology research expenditure (te): measured by the proportion of science and technology research expenditure in GDP in each region; ⑤ Fixed capital investment (k): Measured by the total value of fixed assets of the whole society in each region; ⑥ Urbanization rate (urb): The urbanization rate of each region indicates the regional urban development level.

### 3.1.4 Regression Model

Based on this, this study draws on the standard Barro growth regression equation to construct the following regression model:

$$reg_{it} = \beta_0 + \beta_1 iel_{it} + \beta_2 control_{it} + u_i + \varepsilon_{it} \quad (1)$$

In Equation (1), reg represents the growth of the real economy, i and t represent the period t in region i,  $\beta$  represents the parameter to be estimated, ielit represents the level of innovation and entrepreneurship, control represents a group of control variables that affect the growth of the real economy, and u represents the region Individual heterogeneity is the individual fixed effect.  $\varepsilon$  represents the random error term in the regression equation. The descriptive statistical analysis results of each variable are shown in Table 3.

Table 3 Descriptive statistical analysis of each variable

Variable	Variable symbol	Mean	Standard deviation	Minimum	Maximum
Real economic growth	reg	9.492	0.971	6.342	11.231
Innovation Policy (innovation and entrepreneurship level)	iel	34.484	28.061	0.685	95.89
The degree of government intervention	gov	0.283	0.211	0.114	1.381
Openness to the outside world	open	0.272	0.313	0.021	1.552
The stock of human capital	edu	9.721	0.842	7.381	13.012
Spending on scientific and technological research	te	0.051	0.042	0	0.171
Fixed Capital	k	27.812	0.891	24.672	29.381
Urbanization rate	urb	0.562	0.131	0.232	0.891

## 3.2 Data Sources

The data used in this study come from the "China Statistical Yearbook" of the relevant years and the "Statistical Yearbooks" of the corresponding years in each region. In order to make the data of different years comparable, all data related to price measurement in this paper use the GDP deflator to eliminate the influence of price factors.

### 3.3 Analysis of Benchmark Regression Results

This study uses panel data and the cross-sectional dimension is greater than the time dimension, and the fixed effect model is used for research (as shown in Table 4): Column (1) is the empirical regression result without adding control variables, and column (2) is the result of adding control variables. Empirical regression results for control variables. Without considering the control variables, the marginal effect of innovation and entrepreneurship on regional real economic growth is 0.1968, and it is significantly positive at the 1% significance level. After considering all the control variables, it is found that the level of innovation and entrepreneurship has slightly weakened the positive promotion of regional real economic growth, but it is still significant at the 1% level of significance. This shows that innovation policy empowers the development of innovation and entrepreneurship, which can significantly promote the growth of the real economy in the region.

Table 4 Regression results of innovation policy and real economic growth benchmark

variable symbol	(1) Fixed Effect Model	(2) Fixed Effect Model
iel	0.1968*** (0.0108)	0.1274*** (0.0176)
open		-0.2961*** (0.0534)
edu		0.0329** (0.0173)
te		0.4869 (0.7798)
k		0.0521 (0.0371)
gov		-1.2571** (0.5401)
urb		1.6687*** (0.4232)
R2	0.86	0.91
city effect	control	control

Note: \*\*\*, \*\*, \* indicate significance at the significant level of 1%, 5% and 10% respectively; the values in brackets are the robustness standard deviations of regression coefficient estimates; this table omits the report constants Estimated results

### 3.4 Heterogeneity Test

#### 3.4.1 Heterogeneity Analysis of Urbanization Rate

Due to differences in economic development level, urbanization rate, human capital stock, and geography in different regions of my country, there are heterogeneous differences in innovation strength among regions. In this study, two urbanization levels are divided according to the cut-off point of regional urbanization rate: ① High urbanization level areas: provinces and cities above the median; ② Low urbanization level areas: provinces and cities below the median level, Estimation analysis is carried out separately to verify whether there is a difference in the level of urbanization heterogeneity in the level of innovation and development among regions.

#### 3.4.2 Heterogeneity Analysis of Innovation Policy Effect

Improving the level of regional innovation not only needs to increase the willingness of the public to accept innovation, but more importantly, the central and local governments have introduced relevant policies and measures, but the policy proposals are exogenous in time, and there is a time lag from proposal to full implementation. Differences in the quality of local government, residents' education level, economic development level, and residents' willingness to accept will affect the implementation of relevant policies. Therefore, in this study, the central and western regions are set as the experimental group, and the eastern region is set as the control group to construct grouping dummy variables; the innovation policy proposed before 2018 is set to 0, and the innovation policy proposed after 2018 is set to 0 with a five-year gradient. Construct a time dummy variable for 1, and use the difference-in-differences method (DID) to verify the policy effect on the development of innovation and entrepreneurship.

From the analysis in Table 5, it can be seen that improving the level of innovation and entrepreneurship can significantly promote the development of the real economy in areas with a high

level of urbanization, but not in areas with a low level of urbanization; the effect of innovation policies can significantly promote the growth of the real economy in the eastern region, while it has a significant effect on the growth of the real economy in the eastern region. For the western region, there may be an impediment in the short term, which is mainly related to related factors such as the degree of infrastructure improvement in the central and western rural areas, the low level of public education, and the lack of awareness of innovation-related knowledge.

Table 5 The Impact of Innovation and Entrepreneurship on Growth of the Real Economy: Heterogeneity Test Results

variable name	High Level of Urbanization	Low Level of Urbanization	policy effect
iel	0.1238*** (0.0162)	0.0562 (0.0483)	
DID			-0.3167** (0.1421)
<i>du</i>			-0.0098 (0.0650)
<i>dt</i>			0.3121** (0.1386)
control variable	control	control	control
R2	0.912	0.943	0.941
city effect	control	control	control

Note: \*\*\*, \*\*, \* indicate significance at the significant level of 1%, 5% and 10% respectively; the values in brackets are the robustness standard deviations of regression coefficient estimates;

## 4. Research conclusions and countermeasures

### 4.1 Core research conclusions

Aiming at whether the innovation policy drives the growth of the real economy in the region, this study conducts research from both theoretical and empirical levels. Theoretical analysis shows that innovation policy affects the growth of the real economy by improving the level of mass innovation and entrepreneurship. The empirical results show that innovation policies empower the development of innovation and entrepreneurship, and improving the level of innovation and entrepreneurship can promote the steady development of the real economy, especially in areas with high levels of urbanization. However, the short-term hindrance to areas with low urbanization levels is mainly related to the imperfect infrastructure in the central and western regions and the lack of public awareness of innovation. The growth of the regional economy is inseparable from innovation and entrepreneurship. Not only must innovation policies be fully utilized to empower innovation and development, but also the attention and joint participation of the government, enterprises, social organizations, and individuals is required to ensure that the implementation of innovation policies drives the growth of the real economy.

At present, the following problems exist in the process of innovation policy from design to promulgation and implementation: ① policy objectives do not pay enough attention to local differences, and evaluation tools lack consistency; ② executive agencies are insufficiently linked, and their functions are relatively scattered; The level is inconsistent, and the understanding of the policy is not in place; ④The policy environment is relatively complicated, and the resource input is relatively limited. Based on the above problems, this study gives suggestions from the perspectives of policy design, policy implementation, social responsibility, and social governance to further promote economic growth.

### 4.2 Suggested countermeasures

#### 4.2.1 Policy Design

There are natural differences between the central and western regions and the eastern regions. The design of innovation policies should be based on the level of local economic development and local characteristics, from the perspectives of infrastructure construction, enterprise information

construction, innovative human capital supply, fiscal and tax incentives, and innovation policy promotion. Incentive policy design based on the characteristics of innovative talents at different levels and the development needs of innovative enterprises, through the establishment of talent projects such as "innovative talents", "entrepreneurial talents", "creative talents" and "creative talents", to give different types of innovative talents Talents are rewarded in different forms such as research and development funding, site rental subsidies, and expert allowances to meet their actual needs and ensure the accuracy of policy content.

#### 4.2.2 Policy Implementation

No matter how good a policy is, it is empty talk if it is not implemented. There will be many problems and obstacles from the introduction of the policy to the implementation of the policy. It is necessary to promote the implementation of innovative policies from the following aspects: ① Strengthen the construction of the policy implementation mechanism and clarify the functional positioning of the executive agency; ② Intensify the construction of innovative infrastructure: build industrial technology innovation platforms in multiple fields, lay out an innovative infrastructure system with deep integration of industry, education and research, build major scientific and technological infrastructure clusters, improve the national key laboratory system, etc. to improve the efficiency of information communication and innovation level ; ③ Improve and optimize the hard environment for regional investment: In combination with each region's own economic development stage, industrial base, and resource conditions, etc., substantively implement innovation-related investment policies, and provide funds and policy preferences to individuals and enterprises with innovative output to stimulate innovation motivation; ④ Accelerate the successful transformation of recommended innovations: focus on the needs of innovative technology industrialization, increase the speed of technological R&D transformation to marketization, enhance industrial innovation capabilities, encourage universities, research institutes and enterprises to jointly establish scientific and technological innovation achievement incubation institutions, and accelerate the transformation of scientific and technological innovation achievements application.

#### 4.2.3 Social Responsibility and Social Governance

Innovation policies cannot be achieved overnight. Better implementation of innovation policies requires all sectors of society to assume their due responsibilities and fulfill their due obligations, and work together to promote the implementation of innovation policies to drive economic development.

① Government level: Increase technology and capital investment in the construction of grassroots network facilities, improve network hardware facilities in the central and western regions, pave the way for mass innovation and entrepreneurship, allow more innovation and development achievements to benefit the public, and create a good environment for the growth of the real economy in the region Development Environment;

② Enterprise level: We should pay attention to the important role of corporate social responsibility in promoting the improvement of corporate innovation level, actively fulfill corporate social responsibility, send a good signal to the outside world, establish a good corporate image, and obtain resource support from stakeholders. So as to promote the innovation and development of enterprises;

③ Community level: To fully recognize the unique advantages of innovation, relying on community social organizations, organize relevant personnel to go deep into the grassroots to carry out innovation policy publicity, so as to stimulate the enthusiasm of the target group, enhance the policy identity, and encourage the public to try to use innovation technology for entrepreneurial development;

④ Personal level: Always pay attention to innovation policies, continuously strengthen the cultivation of innovative thinking according to policy guidance, learn innovative technologies, and improve self-innovation capabilities.

## References

- [1] Lu Zhikui. Selection of Public Policy Tools—A New Perspective of Policy Implementation Research[J]. Pacific Journal, 2006 (05) : 7-16.
- [2] See Roy Rothwell, Walter Zegveld. Innovation and the small and medium sized firm, University of Illinois at Urbana-Champaign's Academy for Entrepreneurial Leadership Historical Research Reference in Entrepreneurship, 1982, Vol.9, Iss.3, pp.23- 36; Jakob Edler, Luke Georghiou. Public procurement and innovation—resurrecting the demand side, Research Policy, 2007, Vol.36, Iss.7, p.953.
- [3] Wang Chunping, Duan Yongbiao, Ren Linjing. Quantitative Research on Rural Revitalization Policy Text of Central Ministries and Commissions: A Three-Dimensional Analysis Framework Based on the Perspective of Policy Tools[J]. Agricultural Economics and Management, 2021(03):15-27.
- [4] Li Baoli, Hu Xueping. Financial Development, Technological Innovation and Economic Growth—An Empirical Analysis Based on Structural Panel Autoregressive Model[J]. Journal of Guizhou University of Finance and Economics, 2013(5):1-6
- [5] Li Miaomiao, Xiao Hongjun, Zhao Shuang. Research on the Relationship between Financial Development, Technological Innovation and Economic Growth—Based on China's Provincial and Municipal Panel Data [J]. Chinese Management Science, 2015,23(2): 162-169.
- [6] Wang Jinbo. Financial Development, Technological Innovation and Regional Economic Growth—An Empirical Study Based on China's Interprovincial Data[J]. Finance and Economics, 2018 (1): 57-64.
- [7] Shang Hongtao, Huang Xiaoshuo. The dynamic interaction effect of government subsidies, R&D investment and innovation performance [J] . Science Research, 2018, 36 (3): 446-455+501.
- [8] Shi Ge, Guo Junhua. Theoretical and empirical research on the contribution of innovation to economic growth—Based on the dual perspective of innovation effect and energy effect [J] . Exploration of Economic Issues, 2020(7).
- [9] Wang Jingyan, Li Zhihong. Research on College Students' Entrepreneurship Policy Implementation Based on Smith's Policy Implementation Process Model [J]. Science and Technology for Development, 2017(04):301-304.
- [10] Wei Shuguang, Wu Keyu. The Development and Evolution of my country's Innovation and Entrepreneurship Education Policy from the Perspective of Progressive Decision-Making Theory [J]. Modern Education Management, 2021(12): 19-28.
- [11] Li Fengyun, Dong Zhijie. Policy Diffusion of Innovation and Entrepreneurship Education in Chinese Universities: Process, Mechanism and Prospect [J]. Innovation and Entrepreneurship Education, 2021(06):21-29
- [12] Zhang Lin, Wen Tao. Spatial-temporal characteristics and dynamic evolution of China's real economy growth [J]. Quantitative Economics and Technical Economics Research, 2020,37(3):47-66
- [13] Xiao Gongwei, Liu Hongtao, Guo Jianhua. Institutional innovation, financial development and real economic growth: An empirical study based on the spatial Durbin model [J]. Exploration of Economic Issues, 2018(8):85-94
- [14] Liang Fengbo, Guo Xuemeng, Chen Luofei. Research on the linkage between insurance development and real economic growth: Based on the comparative analysis of China and Japan [J]. Taxation and Economics, 2018(2): 9-16.
- [15] Peng Junhua, Xu Guihua, Zhou Aimin. The Impact of Housing Price Fluctuation on the Real Economy: Driving Effect or Crowding Out Effect? —An empirical analysis based on interprovincial panel data [J]. Investment Research, 2017,36(8):39-51.
- [16] Liu Xiaoxin, Zhang Yao. Spatial distribution and spatial correlation of China's regional economic growth: Based on the perspective of real economy and virtual economy [J]. Economic Theory and Economics Economic Management, 2020,(6):4-20.
- [17] Fan Ling, Han Tingchun. The Government's Role in the Process of Financial Development Serving the Real Economy: Enhancement or Inhibition? [J]. Economics and Management Research, 2020,41(8):104-114.