Enterprise Ownership, Corporate Governance, and Enterprise Innovation: Empirical Evidence from Listed Companies in Shanghai and Shenzhen A-Share Markets

Qi Gong *

Dongbei University of Finance and Economics, Dalian, China

* Corresponding Author Email: feiniaogq@163.com

Abstract. This paper takes listed companies in the Shanghai and Shenzhen A-share markets from 2008 to 2018 as samples and examines the interaction mechanism between enterprise ownership, corporate governance, and enterprise innovation based on the panel data fixed-effects regression model. The study reveals the following findings: (1) The higher the level of corporate governance, the higher the level of enterprise innovation, indicating that an improvement in corporate governance significantly enhances enterprise innovation. (2) Further regression analysis of interaction terms reveals that the nature of property rights inhibits the positive impact of corporate governance on enterprise innovation, implying that for private enterprises, the role of corporate governance in promoting enterprise innovation is more pronounced. This paper, for the first time, examines the impact of enterprise ownership and corporate governance levels on enterprise innovation from an interactive perspective, enriching the literature on corporate governance and contributing to a comprehensive understanding of how to enhance enterprise innovation from the dimension of corporate governance.

Keywords: Enterprise Ownership, Corporate Governance, Enterprise Innovation, Listed Companies.

1. Introduction

The report of the 19th National Congress of the Communist Party of China emphasized that innovation is the primary driving force for development and the strategic support for building a modern economic system. Since the reform and opening up, China has made significant achievements in economic development. However, with the intensification of the Sino-US trade war and the global economic downturn caused by the COVID-19 pandemic, China's economy is facing both opportunities and challenges brought by unprecedented changes. Therefore, during the transition from an element-driven model to an innovation-driven model for economic growth, enterprises need to enhance their independent innovation capabilities, increase R&D investment, and obtain core competitiveness, gradually consolidating the micro-foundation for China's long-term goal of becoming a "forefront of innovative countries." The development of China's economy relies primarily on innovation (Zhou Qiren, 2010). Continuous innovation is not only a crucial means for enterprises to grow and strengthen their core competitiveness, but also an essential source for a country or region to promote technological progress and drive sustainable economic growth through technological R&D investment (Grossman, 1991). According to the Bulletin data, China's total R&D expenditure in 2018 reached 1.96779 trillion yuan, representing an increase of 11.8% over the previous year, maintaining a double-digit growth rate for three consecutive years. In 2018, enterprises contributed 75.9% to the growth of R&D expenditure, remaining the primary driving force for the growth of R&D expenditure across the society. Enterprise innovation has gradually become the primary driving force for China's economic transformation and upgrading.

China's economy has shifted from a stage of high-speed growth to a stage of high-quality development, and is now in a critical period of transforming development modes, optimizing economic structures, and shifting growth drivers. Establishing and improving modern enterprise systems and promoting the modernization of corporate governance are crucial supports for advancing high-quality economic development. A sound corporate governance structure can effectively reduce information asymmetry, improve the efficiency and scientificity of enterprise decision-making, and

promote investment in enterprise innovation activities. Therefore, strengthening corporate governance can stimulate enterprise vitality and creativity, enhance the sustainability of enterprise development, and promote economic innovation and transformation. Corporate governance plays a pivotal role in company development, and good corporate governance can enhance the market value of the company (Bai Zhongen et al., 2005). It is necessary to address the incompleteness of financing contracts and the information asymmetry between investors and operators (Zheng Zhigang, 2010). Theoretically, corporate governance can be divided into internal governance and external governance. Chinese scholars have conducted a bibliometric analysis of existing literature in the field of corporate governance, concluding that the research on internal corporate governance focuses on shareholder governance, board governance, supervisory board governance, executive governance, party organization participation in governance, the "old three meetings," and internal informal institutional arrangements. While the research on external corporate governance involves product market competition, control rights market, information disclosure, external supervision, stakeholder governance, laws and regulations, and other aspects (Li Weian et al., 2019).

Therefore, this paper takes listed companies in the Shanghai and Shenzhen A-share markets from 2008 to 2018 as samples and examines the interaction mechanism between enterprise ownership, corporate governance, and enterprise innovation based on the panel data fixed-effects regression model. The study reveals the following findings: (1) The higher the level of corporate governance, the higher the level of enterprise innovation, indicating that an improvement in corporate governance significantly enhances enterprise innovation. (2) Further regression analysis of interaction terms reveals that the nature of property rights inhibits the positive impact of corporate governance on enterprise innovation, implying that for private enterprises, the role of corporate governance in promoting enterprise innovation is more pronounced. This paper, for the first time, examines the impact of enterprise ownership and corporate governance levels on enterprise innovation from an interactive perspective, enriching the literature on corporate governance and contributing to a comprehensive understanding of how to enhance enterprise innovation from the dimension of corporate governance.

The remaining sections of this paper are organized as follows: Section 2 provides a literature review; Section 3 details the empirical design; Section 4 presents the empirical analysis; and Section 5 concludes with recommendations.

2. Literature Review

The influencing factors of enterprise innovation have been a hot topic in current research. Existing literature primarily explores the factors affecting enterprise innovation based on internal and external governance mechanisms of companies. From the perspective of external governance mechanisms, the impact of government and market is primarily considered. Chen Li (2022) and other researchers found that government subsidies and digital inclusive finance significantly promote enterprises' innovation investment, and the development of digital inclusive finance can gradually guide enterprises' innovation from government-led to market-oriented, reducing enterprises' reliance on government subsidy funds for financing. Song Can et al. (2022) showed that industrial support promotes enterprises' innovation level through increasing their market power and reducing market barriers. Li Chuanxian et al. (2022) discovered that tax cuts and fee reductions can effectively incentivize enterprises to engage in innovative activities. Wu Xinren et al. (2022) proposed that a harmonious government-business relationship can increase enterprises' innovation output, enabling the government to truly serve enterprises and promote their innovation. Yang Ce et al. (2022) argued that the inclusion of an industry in the entity list has a significant positive impact on the innovation activities of related enterprises. Shen Minghao et al. (2022) proposed that digital economy development can enhance enterprises' internal and collaborative innovation performance through the agglomeration effect of high-end talents and reducing environmental uncertainty. Additionally, Xue Long et al. (2021) believed that global economic policy uncertainty inhibits Chinese enterprises'

innovation by strengthening their financing constraints. Ma Yong et al. (2022) suggested that environmental uncertainty inhibits enterprises' innovation activities by increasing their financing constraints and weakening internal control channels.

In recent years, many scholars have studied the impact of corporate governance. Zhong Danyan et al. (2021) found that corporate governance can significantly enhance the leading effect of innovation efficiency on enterprises' "transition from virtual to real," and this leading effect is more significant in non-state-owned enterprises. Wang Sheng et al. (2021) empirically examined how external joint credit policies affect enterprise investment behavior and enterprise value through internal governance. Xu Yang et al. (2021) proposed that high-level corporate governance can strengthen the role of enterprise innovation in promoting enterprise upgrading. Yang Shanshan et al. (2020) discovered that corporate social responsibility has a significant positive impact on financial performance; larger board size, higher independence, and higher institutional investor ownership ratio have a greater positive impact, while management ownership is not conducive to improving financial performance through corporate social responsibility. He Xiaogang et al. (2021) found that a sound corporate governance structure can effectively reduce information asymmetry, enhance enterprises' investment and decision-making efficiency, and effectively alleviate overcapacity by reducing investment mistakes and improving resource allocation efficiency.

The division between state-owned and non-state-owned enterprises serves as an important criterion for scholars to conduct research. Liu Wei et al. (2001) proposed that the increase in the proportion of non-state-owned enterprises enhances the efficiency of labor and capital in the whole society, especially improving the efficiency of capital. Dai Xichao et al. (2006) studied the relationship between enterprise scale, ownership, and technological innovation. Through empirical analysis, they found that the technological innovation level of small and medium-sized enterprises is higher than that of large-scale enterprises, and the technological innovation level of private and foreign-funded enterprises is higher than that of state-owned enterprises. He Xinming (2006) examined the relationship between stakeholder orientation and organizational performance, and found that enterprises with different ownership structures have significant differences in stakeholder orientation and organizational performance. Fang Junxiong (2009) found that with the acceleration of marketization, the gap in capital profit rate between state-owned enterprises and non-state-owned enterprises has widened, while the gap in sales profit rate has continuously narrowed. He proposed that the management mechanism defects and low management level of state-owned enterprises are important reasons. Chen Lin et al. (2009) found that FDI brought positive and significant spillover effects to state-owned, foreign-owned, and joint-venture enterprises through personnel flow, but China's private and collectively-owned enterprises did not benefit from it. Li Chuntao et al. (2010) studied the impact of managerial compensation incentives on enterprise innovation input and output under different ownership structures, and the results showed that compensation incentives for CEOs can promote enterprise innovation, while state-owned property rights reduce the promotion effect of incentives on innovation. Hao Shuchen et al. (2012) investigated the impact of industrial concentration and enterprise ownership on enterprise performance, and believed that the performance level of state-owned enterprises is still relatively low on the whole.

In summary, existing literature has analyzed the relationship between corporate governance and enterprise innovation from multiple perspectives such as management incentives, shareholder rights, board size, executive abilities and backgrounds, and party organization participation, using various measurement methods, and has drawn relatively rich conclusions.

3. Methodology

3.1. Model

The following OLS regression model is adopted in this paper:

$$Inno=\beta 0+\beta 1*Governance+\beta i*STATE*\ Governance+\xi$$

Model (1) examines the direct impact of corporate governance on enterprise innovation. Among them, Inno is the explained variable, representing the level of enterprise innovation. Due to the lag effect of corporate governance on enterprise innovation, the explanatory variable Governance is treated with a one-period lag. In the descriptive statistics, this paper adds the indicator PN, which is the number of patent applications without logarithmic processing. The explanatory variable is Governance, which is an indicator to measure the level of corporate governance. Specifically, Mana_Pay, Mana_Share, Outratio, Board, Inst_Share, Share_Balance, and Dual represent executive compensation, executive shareholding ratio, proportion of independent directors, board size, institutional shareholding ratio, equity balance (the sum of the shareholding ratios of the second to fifth largest shareholders divided by the shareholding ratio of the controlling shareholder), and whether the chairman and general manager hold dual positions. STATE is the control variable in this paper, with a value of 1 indicating state-owned and 0 indicating non-state-owned.

3.2. Variable Definitions

3.2.1. Explained Variable: Enterprise Innovation

Measurement of enterprise innovation. This paper mainly adopts the number of patent applications to measure the degree of enterprise's innovative output (Hall and Harhoff, 2012). According to the differences in content, China's Patent Law classifies patents into three categories: inventions, utility models, and designs. Invention patents refer to new proposals or improvements to products or methods. Utility model patents refer to practical solutions for the shape and structure of a product. Design patents refer to aesthetically pleasing designs for the shape, pattern, color, or combination of a product. Referring to the measurement methods of Li Wengui and Yu Minggui (2015), Chen Qinyuan et al. (2017), this paper measures the level of enterprise innovation by taking the natural logarithm of the total number of the three types of patents (plus 1) of the enterprise.

3.2.2. Explanatory Variable: Corporate Governance

Measurement of corporate governance level. Drawing on the practices of Gu Naikang and Zhou Yanli (2017), Zhang Huili and Lu Zhengfei (2012), this paper uses principal component analysis to construct a comprehensive index from various aspects of supervision, incentive, and decision-making to measure the level of corporate governance. Executive compensation (Mana_Pay) and executive shareholding ratio (Mana_Share) are used to represent the incentive mechanism in corporate governance. The proportion of independent directors (Outratio) and board size (Board) are used to represent the supervisory role of the board of directors. Institutional shareholding ratio (Inst_Share) and equity balance (Share_Balance) (the sum of the shareholding ratios of the second to fifth largest shareholders divided by the shareholding ratio of the controlling shareholder) are used to represent the supervisory role of the shareholding structure. Whether the chairman and general manager hold dual positions (Dual) represents the decision-making power of the general manager. Based on these seven indicators, a corporate governance index is constructed using principal component analysis. The first principal component obtained from the principal component analysis is used as a comprehensive indicator reflecting the level of corporate governance. For ease of interpretation of the coefficients in the empirical results, we multiply the index by -1 to obtain the variable "Governance." The larger the Governance, the worse the corporate governance level. In the first principal component, the loading coefficients of the seven variables, Mana_Pay, Mana_Share, Outratio, Board, Inst_Share, Share_Balance, and Dual, are 0.331, 0.461, -0.502, 0.432, 0.289, -0.109, and -0.379. From the size of the loading coefficients, management shareholding (Mana_Share), the proportion of independent directors (Outratio), and board size (Board) have a greater impact in the constructed corporate governance index.

3.3. Sample Selection and Data Sources

This paper selects all A-share listed companies from 2008 to 2016 as the sample and screens the sample based on certain conditions: (1) Exclude financial, insurance, and real estate listed companies;

(2) Exclude listed companies with missing data. The data used in this paper are sourced from the Guotai'an Database (CSMAR) and manual compilation by the authors. To mitigate the impact of extreme values, the continuous variables required for the analysis have been winsorized.

4. Empirical Analysis

4.1. Descriptive Statistics and Correlation Analysis

The descriptive statistics of the variables show that the mean value of enterprise innovation (lnrd) is 17.616, with a minimum of 5.094 and a maximum of 25.025. This indicates that there are differences in the degree of enterprise innovation among various companies, and the differences between some companies are even significant. The mean value of corporate governance level (gov) is -0.181, with a minimum of -3.717 and a maximum of 3.24.

In terms of control variables, it can be observed that the mean value of the nature of property rights (STATE) is 28.8%, indicating that 28.8% of the samples are state-owned enterprises. The mean values of profitability (ROA), asset-liability ratio (LEV), and other profitability metrics (GP) are consistent with related studies by other scholars. Clearly, under the univariate analysis, the Pearson correlation coefficients between the indicators representing the level of enterprise innovation and those representing corporate governance level have passed the statistical test at the 1% level. The correlation coefficients between other control variables are also within a reasonable range.

Table 1. Descriptive Statistics

Variable	Obs	Mean	Std. Dev.	Min	Max
lnrd	16357	17.616	1.48	5.094	25.025
gov	16357	-.181	1.062	-3.717	3.24
STATE	16357	.288	.453	0	1
LEV	16357	.387	.206	.008	3.919
SIZE	16357	21.936	1.251	17.806	28.509
ROA	16357	.041	.086	-4.946	.39
GP	16357	.298	.176	-.629	.98
AS	16357	.595	.188	.018	.997
GROWTH	16357	2.836	2.235	.219	92.251
BOARD	16357	2.128	.196	1.099	2.89
BOTH	16357	.309	.462	0	1
SR	16357	.181	.223	0	1.692

Table 2. Matrix of correlations

Variables	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
(1) lnrd	1.000											
(2) gov	0.200	1.000										
(3) STATE	0.107	0.535	1.000									
(4) LEV	0.193	0.357	0.332	1.000								
(5) SIZE	0.534	0.500	0.389	0.545	1.000							
(6) ROA	0.073	-0.039	-0.082	-0.367	-0.029	1.000						
(7) GP	-0.032	-0.206	-0.251	-0.461	-0.220	0.330	1.000					
(8) AS	0.020	-0.220	-0.166	-0.212	-0.282	0.147	0.107	1.000				
(9) GROWTH	-0.159	-0.229	-0.204	-0.329	-0.419	0.149	0.332	0.176	1.000			
(10) BOARD	0.091	0.610	0.270	0.163	0.244	0.006	-0.083	-0.104	-0.140	1.000		
(11) BOTH	-0.047	-0.524	-0.297	-0.163	-0.198	0.037	0.140	0.100	0.114	-0.172	1.000	
(12) SR	-0.114	-0.750	-0.490	-0.347	-0.389	0.128	0.251	0.238	0.210	-0.211	0.253	1.000

4.2. Regression Analysis

Table 1 reports the test results of Model (1), where the explained variable is enterprise innovation (lnrd), and the explanatory variable is corporate governance level (gov). The results show that the regression coefficient of gov is greater than 0, with a p-value of 0, indicating a significant positive correlation between corporate governance level and enterprise innovation.

Table 2 reports the test results of Hypothesis (2). In this analysis, the nature of property rights (STATE) is included as a moderating variable, and an interaction term gov×STATE is added. The regression coefficient of the interaction term is negative, with a p-value of 0. The results suggest that the nature of property rights inhibits the positive effect of corporate governance on enterprise innovation. Specifically, in private enterprises, a higher level of corporate governance has a stronger promoting effect on enterprise innovation.

Table 3. Linear regression

lnrd	Coef.	St.Err.	t-value	p-value	[95% Conf	Interval]	Sig
gov	.128	.025	5.05	0	.078	.178	***
STATE	-.238	.026	-9.32	0	-.289	-.188	***
LEV	-.605	.064	-9.49	0	-.73	-.48	***
SIZE	.807	.011	74.87	0	.786	.828	***
ROA	.217	.124	1.75	.08	-.026	.461	*
GP	.115	.064	1.81	.07	-.01	.24	*
AS	1.288	.053	24.12	0	1.184	1.393	***
GROWTH	.027	.005	5.61	0	.018	.037	***
BOARD	-.368	.076	-4.84	0	-.517	-.219	***
BOTH	.156	.027	5.71	0	.103	.21	***
SR	.53	.083	6.41	0	.368	.691	***
Constant	-.009	.302	-0.03	.977	-.6	.583	

Mean dependent var	17.616	SD dependent var	1.480
R-squared	0.340	Number of obs	16357
F-test	765.883	Prob > F	0.000
Akaike crit. (AIC)	52477.861	Bayesian crit. (BIC)	52570.290

*** p<.01, ** p<.05, * p<.1

Table 4. Linear regression

lnrd	Coef.	St.Err.	t-value	p-value	[95% Conf	Interval]	Sig
gov	.172	.027	6.41	0	.119	.224	***
interaction	-.163	.032	-5.06	0	-.225	-.1	***
STATE	-.145	.032	-4.59	0	-.207	-.083	***
LEV	-.621	.064	-9.72	0	-.746	-.496	***
SIZE	.811	.011	75.09	0	.79	.832	***
ROA	.2	.124	1.61	.107	-.043	.443	
GP	.11	.064	1.73	.083	-.014	.235	*
AS	1.279	.053	23.96	0	1.175	1.384	***
GROWTH	.028	.005	5.69	0	.018	.037	***
BOARD	-.36	.076	-4.73	0	-.508	-.211	***
BOTH	.175	.028	6.33	0	.121	.229	***
SR	.657	.086	7.62	0	.488	.827	***
Constant	-.12	.302	-0.40	.693	-.712	.473	

Mean dependent var	17.616	SD dependent var	1.480
R-squared	0.341	Number of obs	16357
F-test	705.251	Prob > F	0.000
Akaike crit. (AIC)	52454.245	Bayesian crit. (BIC)	52554.376

*** p<.01, ** p<.05, * p<.1

5. Conclusion

China's economy is at a critical stage of transition, and with the country's emphasis on innovation-driven strategies, corporate innovation has become a hot topic in the theoretical community. Based on this, this paper selects all A-share listed companies from 2008 to 2016 as samples to study the impact of corporate governance on enterprise innovation and the moderating role of enterprise ownership. The study finds that corporate governance has a significant positive impact on enterprise innovation, indicating that good corporate governance can promote corporate innovation. After controlling for endogeneity, the conclusion remains valid. At the same time, enterprise ownership inhibits the positive effect of corporate governance on enterprise innovation, suggesting that compared with state-owned enterprises, private enterprises with improved corporate governance have a stronger positive impact on enterprise innovation.

Therefore, this paper proposes the following recommendations:

For government management departments, it is necessary to improve the capital market system, accelerate the reform of internal systems of state-owned enterprises, and fully utilize the core role of state-owned enterprises in independent innovation. The study found that in state-owned enterprises and enterprises with low power concentration, the positive impact of corporate governance on innovation investment is more significant. State-owned enterprises have always been the backbone of technological innovation. On the one hand, they have relatively strong capital, sufficient funds, and a large talent pool. On the other hand, in technological research and development, they can undertake greater technological research and development risks, promoting technological upgrading and industrial progress. Therefore, government regulatory departments need to accelerate the pace of reform in state-owned enterprises, promote the upgrading of internal management systems, and improve the overall governance level of enterprises. This can be achieved through specific measures such as appropriately reducing power concentration and designing risk-sharing mechanisms. The study also found that there are differences in the moderating effect of enterprise ownership on the relationship between corporate governance and innovation investment in manufacturing and non-manufacturing industries. Since factors promoting corporate innovation vary among different industries, the government should consider the different impacts of the same policy on different industries when formulating policies. It is necessary to vigorously implement innovation development strategies and enhance enterprise innovation capabilities. China's economy is still in a special period of "unprecedented changes in a century," and economic transformation and upgrading are imminent. The key to national economic transformation lies in enterprise upgrading, and enterprise innovation is the engine of enterprise upgrading.

For companies, they should actively adopt measures such as institutional reform and strengthened supervision to improve corporate governance and thereby promote enterprise innovation. Companies are the main body of technological innovation, and increasing technological innovation requires a certain corporate governance system as a foundation. The study found that corporate governance is positively correlated with enterprise innovation investment, indicating that good corporate governance can promote enterprise innovation. Companies should reasonably arrange corporate governance mechanisms based on their ownership nature, which is of great significance for improving technological innovation efficiency and worthy of consideration. Private enterprises, as an important component of China's socialist market economy, need to improve their corporate governance level, optimize the allocation of innovation resources, provide institutional and mechanism support for sustainable innovation, and play a role in promoting enterprise innovation and upgrading.

For investors, they can pay attention to corporate information disclosure, understand the actual situation of corporate governance, and make correct decisions. For identified problems, they can reflect them to relevant departments of the company through formal channels to help them better improve corporate governance. At the same time, they can actively participate in corporate governance activities with the help of resources and channels around them, playing an effective role in supervision and helping the company grow continuously.

References

[1] He Ying, Yu Wenlei, Dai Yichi, Wang Yanyu. Executive Career Experience and Corporate Innovation [J]. Management World, 2019, 35 (11): 174 - 192.

[2] Zhou Qian, Xu Xiaofang, Lu Zhengfei. Deleveraging: Who Is More Active and Prudent? [J]. Management World, 2020, 36 (08): 127 - 148.

[3] Song Can, Sun Puyang, Yue Zhonggang. Industrial Support, Market Barriers, and Corporate Innovation: A Micro Perspective on Theoretical and Empirical Analysis [J]. Industrial Economics Research, 2022 (01): 71 - 84.

[4] Xue Long, Zhang Xuemang, Guo Ge. The Impact of Global Economic Policy Uncertainty on Corporate Innovation in China: From the Perspective of Financing Constraints [J]. Financial Theory and Practice, 2022 (03): 40 - 47.

[5] Shen Minghao, Tan Weijie, Chen Zhaoyong. The Impact of Digital Economic Development on Corporate Innovation: Empirical Evidence from A-share Listed Companies [J]. Southern Finance, 2022 (02): 30 - 44.

[6] Zheng Zhigang, Zhu Guangshun, Li Qian, Huang Jicheng. Dual-Class Shares, Sunset Clauses, and Corporate Innovation: Evidence from Chinese Concept Stocks in the U.S. [J]. Economic Research, 2021, 56 (12): 94 - 110.

[7] Li Yu, Wang Ping. Does Executive Pay Cut Policy Affect Innovation in State-Owned Enterprises? Empirical Evidence Based on Data from A-share Listed Companies [J]. Economic Theory and Business Management, 2022, 42 (01): 86 - 99.

[8] Hou Yushu. Internal Control, Ownership Concentration, and Corporate Innovation: An Empirical Analysis Based on the Growth Enterprise Market [J]. Journal of Economic Research, 2022 (05): 120 - 123.

[9] Zhou Donghua, Luo Shengzhe, Zhao Yujie. Directors' and Officers' Liability Insurance and Corporate Innovation [J]. Science Research Management, 2022, 43 (04): 201 - 208.

[10] Wang Jianxin, Yang Haoran. The Impact of Board Overconfidence on Corporate Innovation: Empirical Evidence from Listed Companies [J]. Yunnan Social Sciences, 2021 (06): 127 - 135.

[11] Wang Jitian, Yuan Shaokai. Managerial Capability and Corporate Innovation: The Mediating Effect of Risk-Taking and the Moderating Effect of Equity Incentives [J]. Finance and Accounting Monthly, 2022 (07): 64 - 68.

[12] Gan Weiyu, Liu Man. Returnee Executives and Corporate Innovation: From the Perspective of Cultural Convergence [J]. Journal of Shanghai University of Finance and Economics, 2022, 24 (01): 92 - 106.

[13] Ma Yong, Shi Ganlin, Liu Yuntao. Research on the Impact of Environmental Uncertainty on Corporate Innovation [J]. Theory and Practice of Finance and Economics, 2022, 43 (01): 2 - 8.

[14] Li Chuanxian, Li Qihang. Research on the Impact of Tax Reductions and Fee Cuts on Innovation in Listed Companies [J]. Economic Issues Exploration, 2022 (03): 56 - 67.

[15] Lin Li, Gai Xiaomin, Zhao Xiaopeng. Mechanism Testing of the Impact of Financial Investment on Corporate Innovation [J]. Statistics and Decision, 2022, 38 (05): 146 - 150.

[16] Yang Yaping, Zhao Haohua. Financial Investment Behavior, Digital Inclusive Finance, and Corporate Innovation [J]. Southern Finance, 2021 (12): 18 - 33.

[17] Yang Ce, Zheng Jianming. The Impact of Being Included in the Entity List on Innovation in China's Listed Companies [J]. International Business (Journal of the University of International Business and Economics), 2022 (02): 137 - 156.

[18] Deng Hongbo, Han Xiaozhou. Research on the Relationship Between Corporate Risk-Taking and Corporate Innovation [J]. China Market, 2022 (04): 119 - 121+134.

[19] Zhu Aiping, Han Xiang, Hu Zhanshuo. Executive Compensation Stickiness, Corporate Life Cycle, and Innovation Investment: Empirical Data from GEM Listed Companies [J]. Friend of Accounting, 2021 (09): 84 - 90.

[20] Chen Li, Wang Tianpeng, Wu Yumei, Xie Jiazhi. Government Subsidies, Digital Inclusive Finance, and Corporate Innovation: An Empirical Analysis Based on Information Manufacturing Listed Companies [J]. Contemporary Economic Research, 2022 (01): 107 - 117.

[21] He Xiaogang, Chen Jinling, Luo Qi, Wang Zili. Can Market Mechanisms Alleviate Overcapacity: From the Perspective of Corporate Governance [J]. Industrial Economics Research, 2021 (05): 26 - 39.

[22] Xia Jiezhang, Shang Tieli. Independent Innovation and Tax Policy: Theoretical Analysis, Empirical Research, and Policy Recommendations [J]. Tax Research, 2006, (06): 6 - 10.

[23] Li Ling, Tao Houyong. The Permissive Hand, the Guiding Hand, and Independent Corporate Innovation: Empirical Evidence Based on Equity Nature Grouping [J]. Nankai Business Review, 2013, 16 (03): 69 - 79.

[24] Zhu Qiaoling, Qi Rufeng. Does Economic Policy Uncertainty Suppress Innovation in Listed Companies? [J]. Research on Financial Issues, 2022, (04): 109 - 120.

[25] Zhang Weiying. Ownership, Governance Structure, and Principal-Agent Relationship: A Commentary on Some Views of Cui Zhiyuan and Zhou Qiren [J]. Economic Research, 1996, (09): 14.