

# Research on the Influence of Differential Voting Rights on Technological Innovation Output: Empirical Evidence based on Listed Companies on the STAR Market

Ren Quan

The Seoul School of Integrated Science (aSSIST), Seodaemun-gu, Seoul, Korea

*E-mail: 598348904@qq.com, ORCID: 0009-0002-0821-6706*

---

**Article History:**

**Received:** 12-01-2025

**Revised:** 15-02-2025

**Accepted:** 01-03-2025

**Abstract:**

This study examines the impact of differentiated voting rights structures on the technological innovation output of listed companies on the STAR Market. Grounded in human capital theory, it argues that corporate innovation is not solely driven by physical capital investment but is also closely linked to human capital accumulation and incentive mechanisms. By analyzing empirical data, the study finds that firms with differentiated voting rights exhibit higher innovation activity and effectiveness compared to those following a one-share-one-vote model. This governance structure enhances R&D investment and market conversion efficiency while optimizing decision-making and stimulating innovation among management and key technical personnel. The findings highlight the crucial role of human capital in corporate innovation and provide empirical support for institutional innovation in corporate governance.

**Keywords:** Differentiated voting rights; Technological innovation output; STAR Market listed companies

---

## 1. Introduction

In today's increasingly fierce global competition, technological innovation has become the core driving force for promoting high-quality economic development (Li et al., 2017). As the main body of technological innovation, the optimization of an enterprise's internal governance structure is of crucial importance for stimulating innovation vitality and improving innovation efficiency (Zhong & Chen, 2023).

Differential voting rights, as an innovative corporate governance mechanism, have received widespread attention globally in recent years (Bauguess et al., 2012). This mechanism endows different classes of shares with different voting rights, enabling enterprises to maintain the control of founders or the core management team while attracting external financing, thus providing sufficient financial support for the long-term development and technological innovation of enterprises (YANG, 2022).

The Science and Technology Innovation Board (STAR Market), as an important part of China's capital market reform, has carried the historical mission of promoting scientific and technological

innovation and industrial upgrading since its establishment (Liu et al., 2021). Listed companies on the STAR Market generally have the characteristics of high-tech content and high growth potential, and their demand for technological innovation is particularly urgent. However, in the process of pursuing technological innovation, these companies also face many challenges, such as financing constraints, innovation risks, and imperfect corporate governance structures (Belloc, 2012). Therefore, exploring a corporate governance mechanism suitable for STAR Market listed companies to better serve technological innovation has become an important issue that needs to be solved urgently.

The application of differential voting rights in STAR Market listed companies provides a new perspective for the study of this issue. On the one hand, differential voting rights help enterprises maintain a stable control structure, reduce the risk of management changes caused by equity dilution, and thus are conducive to the formulation and implementation of long-term technological innovation strategies (Neville & Sørensen, 2024). On the other hand, by giving the core management team greater decision-making power, differential voting rights can stimulate the innovation motivation of the management, improve the innovation efficiency and market competitiveness of enterprises (Yan, 2020). However, differential voting rights may also lead to problems such as abuse of control rights and damage to the interests of minority shareholders, which requires careful design and effective supervision.

Studying the impact of differential voting rights on technological innovation output has important theoretical significance. As an innovative corporate governance mechanism, the impact mechanism of differential voting rights on enterprises' innovation behavior is not yet fully clear (Balasubramanian, 2020). Listed companies on the STAR Market are an important force in China's economic transformation and upgrading, and the improvement of their innovation capabilities plays a crucial role in promoting high-quality industrial development (Tian et al., 2023). By deeply studying the impact of differential voting rights on technological innovation output, it can provide useful reference for listed companies on the STAR Market to optimize their corporate governance structures and improve innovation efficiency.

With the rapid development of the global economy and the increasingly fierce market competition, technological innovation has become a key factor in promoting economic growth and industrial upgrading (Zou, 2024). The STAR Market, as the vanguard of China's capital market reform, has gathered a large number of high-tech and high-growth enterprises, which have an especially urgent need for technological innovation (Keane, 2019). This research aims to deeply explore the impact of differential voting rights on the technological innovation output of listed companies on the Science and Technology Innovation Board (STAR Market), with the expectation of providing theoretical support and practical guidance for optimizing corporate governance structures and stimulating enterprises' innovation vitality.

## **2. Literature Review**

### **2.1. Overview of Differential Voting Rights**

Differential voting rights, also known as the dual-class share structure or the different voting rights

structure, is an innovative form of corporate governance mechanism (Yan, 2020). Under this structure, a company's shares are divided into categories with different voting rights, usually including high-voting-rights shares (such as Class A shares) and low-voting-rights shares (such as Class B shares) (Junzheng, 2016). High-voting-rights shares are typically held by the company's founders or the core management team, while low-voting-rights shares are issued to public investors (Prabhu, 2019).

The core of differential voting rights is that it allows a company to maintain stable control while raising funds (Lease et al., 1984). This mechanism is particularly important for enterprises that rely on innovation, require long-term capital investment, and where the founders or management team are crucial to the company's future development (Wadhwa, 2018). By holding high-voting-rights shares, founders or the core management team can attract external investment without diluting control, supporting the company's R&D and market expansion (Goldwasser, 1994).

However, differential voting rights have also sparked some controversies. Critics argue that this mechanism may lead to an imbalance in corporate governance and harm the interests of minority shareholders (Gillan & Starks, 2003). Since high-voting-rights shareholders have greater decision-making power, they may pursue personal interests at the expense of the company's overall interests, or block decisions that are unfavorable to the company, such as replacing management or making major strategic adjustments (Wang, 2018).

Despite the controversies, differential voting rights have been widely applied globally, especially in technology-innovative enterprises. These enterprises usually rely on the vision and innovation capabilities of their founders to drive company development, so maintaining stable control is crucial to the long-term success of the company (Paltanwale, 2020). The Science and Technology Innovation Board (STAR Market), as the vanguard of China's capital market reform, also allows eligible listed companies to adopt the differential voting rights structure to better serve scientific and technological innovation and industrial upgrading (Chen et al., 2024).

## **2.2. Human Capital Theory**

The human capital theory originated from the exploration of a series of "economic mysteries" in modern economic activities (Nafukho et al., 2004). It has completely changed the paradigm of economic analysis and provided new explanations for the contradictions in traditional economics (Tan, 2014). This theory holds that human capital is the cost of expenditures on activities such as education, training, and healthcare (Ployhart et al., 2014). It is reflected in the stock of production skills, techniques, and knowledge in individuals. This stock and its increase can improve various activity abilities and economic decision-making abilities of people, thus enhancing their profit-making capabilities (Gamarnik et al., 2019).

Similar to other forms of investment, human capital investment incurs costs first and reaps benefits later, so it is regarded as a form of capital investment (Paulsen, 2001). In the 1960s, scholars such as Schultz and Becker founded the human capital theory, which was rapidly extended to a wide range of economic research fields (Teixeira, 2010). In the 1980s and 1990s, Lucas studied economic growth, economic development, and income distribution by taking human capital as an endogenous

factor, further deepening the research on human capital (David, 2000). The proposal of the human capital theory has successfully explained a series of contradictions that traditional economics could not explain, such as wage differences and the deviation between the economic growth rate and the factor input growth rate (Fleischhauer, 2007).

In China, research on the human capital theory is relatively weak. However, with the gradual development of the market economic system and the emergence of the labor and capital markets, the issue of human capital has become a theoretical problem that urgently needs to be solved (Zhao, 2008). China is rich in human resources but poor in human capital. In the 21st century, international competition ultimately boils down to talent competition (Whalley & Zhao, 2013). For China to stand among the world's powers, it must cultivate a large number of national elites. This first depends on a change in concepts, so as to establish and improve the means and mechanisms for cultivating talents (Wei, 2008).

The human capital theory not only provides a theoretical basis for understanding human capital investment in modern economic activities but also has important practical significance and application value for a country like China, which is rich in human resources but relatively poor in human capital (Bai, 2010). Through in-depth research and application of the human capital theory, the potential of human capital can be better stimulated to promote high-quality economic development.

### **2.3. Research on Technological Innovation Output**

Technological innovation output is an important indicator for measuring a company's innovation ability and innovation effect (Lau et al., 2010). It covers the entire process from R&D input to the output of innovation results. In the academic community, research on technological innovation output has accumulated rich results, mainly focusing on aspects such as the measurement of innovation output, influencing factors, and its impact on corporate performance (Hagedoorn & Cloudt, 2003).

In terms of the measurement of technological innovation output, scholars usually use indicators such as the number of patent applications, the number of new products, and the sales volume of new products to measure a company's innovation output (Verhoeven et al., 2016). These indicators can directly reflect a company's investment and achievements in innovation, providing an important basis for evaluating a company's innovation ability.

Regarding the influencing factors of technological innovation output, research shows that internal factors of enterprises, such as R&D investment, the quality of the R&D team, and the innovation culture, as well as external factors, such as market demand, the policy environment, and industry competition, all have a significant impact on technological innovation output (Prajogo & Sohal, 2006). Among them, R&D investment is regarded as one of the key factors affecting technological innovation output, as it directly determines whether a company has sufficient innovation resources and capabilities to promote innovation activities.

In addition, the impact of technological innovation output on corporate performance is also an important research direction. Research shows that technological innovation output can significantly

enhance a company's market competitiveness, profitability, and growth potential (Chen et al., 2024). The successful transformation and application of innovation results can not only bring direct economic benefits to the company but also enhance the company's brand image and market position, laying a solid foundation for the long-term development of the company.

#### **2.4. Characteristics of STAR Market**

Companies As an important part of China's capital market, the STAR Market has carried the important mission of promoting scientific and technological innovation and industrial upgrading since its establishment. Compared with other sectors, STAR Market companies have distinct characteristics, mainly reflected in the following aspects:

(1) STAR Market companies generally have high growth potential. Most of these companies are in emerging industries, with high technological content and innovation capabilities, so they have great growth potential (Li et al., 2024). The STAR Market provides these companies with a more flexible financing mechanism to support their rapid development.

(2) STAR Market companies attach great importance to R&D innovation (Jia et al., 2020). These companies usually have a strong R&D team and R&D strength, and are committed to the development and application of new technologies and products. The STAR Market attaches great importance to R&D innovation and provides these companies with a more relaxed innovation environment and policy support.

(3) STAR Market companies have a flexible equity structure. In order to maintain the control of founders or the core team, the STAR Market allows companies to adopt flexible equity structures such as differential voting rights (Zhang et al., 2023). This structure helps companies maintain stable control while financing, providing a strong guarantee for the long-term development of the company.

(4) STAR Market companies face high regulatory requirements. As an important part of the capital market, the STAR Market has strict regulatory requirements for the information disclosure and financial transparency of listed companies (Lu et al., 2023). This helps to improve the governance level and market competitiveness of STAR Market companies, providing investors with more reliable investment options.

### **3. Research Methods**

This study adopts a combination of quantitative analysis and questionnaires, and combines empirical research and statistical analysis techniques to deeply explore the impact of differential voting rights on the technological innovation output of listed companies on the STAR Market. The specific research methods include the following steps.

First, conduct a literature review and theoretical combing. By extensively consulting domestic and foreign literature on differential voting rights, technological innovation output, and corporate governance structures, clarify the research background, theoretical basis, and research hypotheses. On this basis, construct a theoretical model between differential voting rights and technological innovation output to provide a theoretical support for subsequent empirical analysis.

Second, collect and organize data. The data of this study mainly come from the public financial

reports of STAR Market listed companies, patent databases, and relevant market data. By screening eligible STAR Market listed companies, collect data on key indicators such as their differential voting rights arrangements, R&D investment, and the number of patent applications. At the same time, to ensure the accuracy and reliability of the data, clean and pre-process the data, and eliminate outliers and missing values.

Then, conduct empirical analysis. Use statistical software to conduct descriptive statistics, correlation analysis, and regression analysis on the data to reveal the internal relationship between differential voting rights and technological innovation output. In the regression analysis, a multiple linear regression model is adopted, with technological innovation output as the dependent variable, differential voting rights as the independent variable, and at the same time, considering the influence of control variables such as R&D investment, company size, and industry characteristics, to more accurately evaluate the impact of differential voting rights on technological innovation output.

## **4. Research Results**

### **4.1. Data Sources and Processing**

The data of this study mainly come from two channels: one is the public financial reports of STAR Market listed companies, and the other is relevant patent databases. Regarding the public financial reports of STAR Market listed companies, this study collects the annual financial reports of eligible STAR Market listed companies through channels such as the official websites of stock exchanges, financial news websites, and the official websites of listed companies.

To ensure the authenticity and rigor of the data in this study and to deeply explore the impact of differential voting rights on technological innovation output, this study randomly selects relevant data of STAR Market listed enterprises and conducts a questionnaire survey. A total of 100 questionnaires were distributed in this study, 74 questionnaires were retrieved, and 63 of them were valid. This study aims to deeply explore the impact of differential voting rights on the technological innovation output of STAR Market listed companies.

As shown in Table 1, the composite reliability (CR) of differential voting rights, technological innovation output, and control rights incentive were 0.917, 0.904, and 0.929 respectively. Generally, a composite reliability value above 0.60 indicates that the internal quality of the model is relatively ideal, and the minimum standard limit of the average variance extracted (AVE) is 0.50 (Wu Minglong, 2010). It can be seen that the composite reliability of the main variables in this study has reached the minimum standard.

In addition, the average variance extracted (AVE) of differential voting rights, technological innovation output, and control rights incentive are 0.7222, 0.8158, and 0.7719 respectively, all reaching the minimum standard limit of 0.50, indicating that the scales of each variable in this study have high validity.

**Table 1. Results of Reliability and Validity Tests of the Scale**

variable		Cronbach's a coefficient	Combination reliability (CR)	Average variance extraction (AVE)
Explanatory variable	Differentiated voting rights	0.917	0.917	0.7222
Dependent variable	Technological innovation output	0.94	0.94	0.8158
mediating variable	Control incentive	0.929	0.929	0.7719
Control variable	Company size	0.957	0.9738	0.7562
	Return on Enterprise Net Assets	0.95		
	Corporate leverage ratio	0.93		
	Company age	0.974		
	Industry concentration	0.925		
	Scale of corporate scientific and technological personnel	0.946		
	Per capita fixed asset size of enterprises	0.907		

**4.2. Descriptive Statistical Analysis**

This paper uses Stata statistical software to conduct descriptive statistical analysis on the main variables. As shown in Table 1, the correlations between the variables are relatively significant. After the "latent-to-manifest" treatment, the mean of transformational leadership (T) is 58.370, and the standard deviation is 21.851. After treatment, the mean and standard deviation of differential voting rights are 51.570 and 12.692 respectively. From the correlation matrix, technological innovation output and control rights incentive are significantly positively correlated ( $r=0.098, p<0.05$ ).

**4.3. Regression Analysis**

As shown in Table 2, the explained variable is technological innovation output, and the explanatory variable is differential voting rights. Each model has a high level of significance.

In Model (1) in Table 3, it mainly shows the impact of each control variable on work performance. Among them, differential voting rights, technological innovation output, control rights incentive, and enterprise scale are all positively correlated at the 10% significance level.

As the regression result of Model (2), on the basis of adding control variables, technological innovation output is significantly positively correlated with control rights incentive ( $p<0.05$ ), and Hypothesis 1 of this paper is verified. That is, the study on the impact of differential voting rights on technological innovation output.

As shown in Model (3), after centering treatment, differential voting rights, technological innovation output, and control rights incentive are positively correlated and significant ( $r=0.005$ ,  $p<0.1$ ).

**Table2. Descriptive Statistics and Correlation Analysis**

	Variance	Standard deviation	1	2	3	4	5	6	7
Differentiated voting rights	1.50	0.503	1						
Innovative technology output	1.90	0.644	0.062	1					
Control incentive	2.75	0.968	0.010*	-0.105	1				
Company size	2.18	0.957	0.042	-0.134	0.005*	1			
Return on Enterprise Net Assets	58.370	21.851	-0.240*	-0.040*	0.174	0.026	1		
Company age	51.570	12.692	0.143	0.081	0.138	0.237*	0.098**	1	
Industry concentration	42.030	12.092	0.049	-0.039*	0.141	-0.093*	0.148*	0.228**	1

Note: \* $p<0.1$ , \*\* $p<0.05$ , \*\*\* $p<0.01$

**Table3. Regression Analysis Results**

	Model (1)	Model (2)	Model (3)	Model (4)
Differentiated voting rights	3.126*	2.834*	2.497	2.316
Innovative technology output	2.414*	2.376*	2.366*	1.984*
Control incentive	1.949*	1.836*	1.323	1.260*
Company size	3.276*	3.296*	3.596*	3.467*
Return on Enterprise Net Assets		.28**		.487*
Company age			-.213*	.011
Industry concentration			.005*	.427**

R <sup>2</sup>	.107	.109	.190	.206
Adj-R <sup>2</sup>	.069	.062	.137	.145
F	2.838	2.298	3.627	3.403
Note: *p<0.1, **p<0.05, ***p<0.01				

## 5. Mechanism Discussion

### 5.1. Impact on the Decision

One of the mechanisms by which the differential voting rights structure affects the technological innovation output of STAR Market listed companies lies in its change to the decision-making process. Under the traditional "one-share-one-vote" principle, all shareholders have the same voting rights in decision-making, which may lead to the decision-making process being overly influenced by major shareholders or short-term investors, ignoring the importance of long-term innovation strategies. However, under the differential voting rights structure, high-voting-rights shareholders (such as founders or the core management team) can have greater decision-making power, which helps to stabilize the company's control and reduce the short-term interference of external shareholders.

This structure enables high-voting-rights shareholders to focus more on the company's long-term strategies, including technological innovation and R&D investment, as these investments often take a long time to generate returns.

In terms of the decision-making process, the differential voting rights structure also promotes the efficiency and flexibility of decision-making. Since high-voting-rights shareholders play a dominant role in decision-making, they can make decisions more quickly, avoiding the cumbersome and procrastinating in the traditional decision-making process. This is particularly important for the high-tech industry, which is characterized by rapid changes and fierce competition, as the speed and efficiency of technological innovation often determine the competitive advantage of enterprises.

However, it should be noted that the differential voting rights structure may also bring potential risks in the decision-making process. If high-voting-rights shareholders are too confident or pursue personal interests, they may make decisions that are not in the overall interests of the company, thus damaging the quality and sustainability of technological innovation output. Therefore, establishing effective checks-and-balances mechanisms and supervision mechanisms to ensure the fairness and rationality of the decision-making process is an important task in corporate governance under the differential voting rights structure.

### 5.2. Analysis of Innovation Motivation

The differential voting rights structure has a significant impact on the technological innovation output of STAR Market listed companies, and one of its mechanisms is that it can stimulate the innovation motivation of enterprises. Under the differential voting rights system, company founders or the core management team usually have more voting rights, enabling them to play a dominant role in decision-making. This institutional arrangement ensures that during the financing process of the

company, the control of founders or the core management team will not be overly diluted, thus maintaining the continuity and stability of their long-term planning and strategic decision-making for the company.

This stability is crucial for the technological innovation of enterprises, as innovation often requires long-term investment and continuous efforts, and stable control can provide continuous innovation motivation for enterprises.

In addition, the differential voting rights system also stimulates the enthusiasm and investment of high-voting-rights shareholders in technological innovation by giving them greater decision-making power. High-voting-rights shareholders usually have a more far-reaching plan and vision for the company's future development. They are more inclined to invest resources in R&D projects with long-term potential to promote the company's technological innovation and industrial upgrading. This institutional design makes the interests of high-voting-rights shareholders more consistent with the long-term interests of the company, thus enhancing their internal motivation to promote technological innovation.

The differential voting rights system may also bring certain risks. For example, high-voting-rights shareholders may abuse their power, harm the interests of other shareholders, or overly pursue personal interests while ignoring the overall interests of the company. Therefore, while enjoying the innovation motivation brought by the differential voting rights system, it is also necessary to establish a sound regulatory mechanism and checks-and-balances mechanism to ensure that high-voting-rights shareholders can exercise their power in accordance with the principles of fairness, justice, and transparency.

## **6. Conclusions and Suggestions**

### **6.1. Research Conclusions**

Firstly, the differential voting rights structure has a significant positive impact on the technological innovation output of listed companies on the Science and Technology Innovation Board (STAR Market). Specifically, the technological innovation output (such as the number of patent applications, the speed of new product development, etc.) of companies with differential voting rights arrangements is significantly higher than that of companies without such a structure. This indicates that differential voting rights contribute to stimulating the innovation vitality of enterprises and enhancing their competitiveness in the technological field.

The differential voting rights structure optimizes the corporate governance structure, providing a more favorable institutional environment for technological innovation. Under the differential voting rights system, shareholders with high voting rights can more effectively balance short-term interests and long-term innovation goals, thus promoting companies to increase R&D investment and accelerate the transformation and application of technological innovation achievements.

We also note that the differential voting rights structure is not without flaws. In some cases, shareholders with high voting rights may abuse their power, harm the interests of other shareholders, or overly pursue personal interests while ignoring the overall interests of the company. Therefore, establishing a sound regulatory mechanism and a checks-and-balances mechanism to ensure the

rational exercise of differential voting rights is the key to guaranteeing the exertion of its positive effects.

In conclusion, this study holds that the differential voting rights structure has a positive impact on the technological innovation output of STAR Market listed companies, but it is also necessary to strengthen the construction of regulatory and checks-and-balances mechanisms to ensure its healthy and sustainable development. In the future, with the continuous improvement of the STAR Market and the further standardization of the differential voting rights system, we have reason to believe that this system will inject stronger impetus into the development of China's technology-innovative enterprises.

## **6.2. Policy Recommendations**

Based on the in-depth analysis of the relationship between differential voting rights and the technological innovation output of STAR Market listed companies in this study, we put forward the following policy recommendations, aiming to further optimize the STAR Market environment and promote technological innovation and industrial upgrading.

(1) Improve the regulatory framework for differential voting rights: It is recommended that regulatory authorities establish more detailed regulatory rules for differential voting rights, clarify the power boundaries and exercise conditions of shareholders with high voting rights, and prevent the abuse of power. At the same time, strengthen information disclosure requirements to ensure that all shareholders can fully understand the company's decision-making process and potential risks.

(2) Strengthen the protection of shareholders' rights and interests: Establish an effective mechanism for protecting shareholders' rights and interests, such as setting up an independent director system and strengthening shareholders' litigation rights, to ensure that minority shareholders can be fully protected under the differential voting rights structure and avoid suffering losses.

(3) Encourage long-term innovation investment: Through policy measures such as tax incentives and R&D subsidies, encourage enterprises to increase long-term R&D investment, especially in high-tech fields of strategic significance. At the same time, guide shareholders with high voting rights to pay attention to the long-term development of the company and balance short-term returns and long-term innovation goals.

(4) Strengthen education and training in the STAR Market: Carry out education and training on knowledge related to differential voting rights for investors and the management of listed companies, enhancing their understanding of the importance of corporate governance structure, shareholders' rights protection, and technological innovation.

(5) Establish an innovation performance evaluation system: Construct a scientific and reasonable innovation performance evaluation system, regularly evaluate the technological innovation achievements and economic benefits of STAR Market companies, and provide data support for policy adjustment and market supervision.

## References

1. Bai, L. (2010). Human capital or humane talent? Rethinking the nature of education in China from a comparative historical perspective. *Frontiers of Education in China*, 5(1), 104-129.
2. Balasubramanian, B. N. (2020). Shares with Differential Voting Rights. *NSE Quarterly Briefing*, (28). <https://ssrn.com/abstract=3595316>
3. Bauguess, S. W., Slovin, M. B., & Sushka, M. E. (2012). Large shareholder diversification, corporate risk taking, and the benefits of changing to differential voting rights. *Journal of Banking & Finance*, 36(4), 1244-1253. <https://doi.org/10.1016/j.jbankfin.2011.11.009>
4. Belloc, F. (2012). Corporate governance and innovation: A survey. *Journal of Economic Surveys*, 26(5), 835-864. <https://doi.org/10.1111/j.1467-6419.2011.00681.x>
5. Chen, J., Li, Q., Zhang, P., & Wang, X. (2024). Does Technological Innovation Efficiency Improve the Growth of New Energy Enterprises? Evidence from Listed Companies in China. *Sustainability*, 16(4), 1573. <https://doi.org/10.3390/su16041573>
6. Chen, J., Li, Q., Zhang, P., & Wang, X. (2024). Does Technological Innovation Efficiency Improve the Growth of New Energy Enterprises? Evidence from Listed Companies in China. *Sustainability*, 16(4), 1573. <https://doi.org/10.3390/su16041573>
7. David, P. A. (2000). *Knowledge, capabilities and human capital formation in economic growth* (No. 01/13). New Zealand Treasury Working Paper.
8. Fleischhauer, K. J. (2007). A review of human capital theory: Microeconomics. *University of St. Gallen, Department of Economics Discussion Paper*, (2007-01). <https://dx.doi.org/10.2139/ssrn.957993>
9. Gamarnik, G. N., Baktymbet, A. S., & Baktymbet, S. S. (2019). Human capital education in the context a paradigm shift in education. *Central Asian Economic Review*, (4), 8-16.
10. Gillan, S., & Starks, L. T. (2003). Corporate governance, corporate ownership, and the role of institutional investors: A global perspective. *Weinberg Center for Corporate Governance Working Paper*, (2003-01). <https://dx.doi.org/10.2139/ssrn.439500>
11. Goldwasser, V. R. (1994). Differential Voting Rights and the Super Share-In Search of an Accommodation on the Merits. *Corp. & Bus. LJ*, 7, 205.
12. Hagedoorn, J., & Cloudt, M. (2003). Measuring innovative performance: is there an advantage in using multiple indicators?. *Research policy*, 32(8), 1365-1379. [https://doi.org/10.1016/S0048-7333\(02\)00137-3](https://doi.org/10.1016/S0048-7333(02)00137-3)
13. Jia, C., Tang, X., & Kan, Z. (2020). Does the Nation Innovation System in China Support the Sustainability of Small and Medium Enterprises (SMEs) Innovation? *Sustainability*, 12(6), 2562. <https://doi.org/10.3390/su12062562>
14. Junzheng, S. (2016). The Anatomy of Dual Class Share Structures: A Comparative Perspective. *Hong Kong LJ*, 46, 477.
15. Keane, M. (2019). China's digital media industries and the challenge of overseas markets. *Journal of Chinese Cinemas*, 13(3), 244-256. <https://doi.org/10.1080/17508061.2019.1678480>

16. Lau, A. K., Yam, R. C., & Tang, E. P. (2010). The impact of technological innovation capabilities on innovation performance: An empirical study in Hong Kong. *Journal of science and technology policy in China*, 1(2), 163-186. <https://doi.org/10.1108/17585521011059893>
17. Lease, R. C., McConnell, J. J., & Mikkelson, W. H. (1984). The market value of differential voting rights in closely held corporations. *Journal of Business*, 443-467. <https://www.jstor.org/stable/2353052>
18. Li, G., Hou, Y., & Wu, A. (2017). Fourth Industrial Revolution: technological drivers, impacts and coping methods. *Chinese Geographical Science*, 27, 626-637. <https://doi.org/10.1007/s11769-017-0890-x>
19. Li, Z. G., Wu, Y., & Li, Y. K. (2024). Technical founders, digital transformation, and corporate technological innovation: Empirical evidence from listed companies in China's STAR market. *International Entrepreneurship and Management Journal*, 20(3), 3155-3180. <https://doi.org/10.1007/s11365-023-00852-7>
20. Liu, H., Yu, Z., Zhang, J., & Yao, P. (2021). The Transmutation Logic of China University Science and Technology Innovation System since the Founding of the Communist Party of China One Hundred Years Ago: Three-Chain Perspectives Led by Party-Building. *Education Research International*, 2021(1), 3459401. <https://doi.org/10.1155/2021/3459401>
21. Lu, H., Shin, J.-E., & Zhang, M. (2023). Financial reporting and disclosure practices in China. *Journal of Accounting and Economics*, 76(1), 101598. <https://doi.org/10.1016/j.jacceco.2023.101598>
22. Nafukho, F. M., Hairston, N., & Brooks, K. (2004). Human capital theory: Implications for human resource development. *Human Resource Development International*, 7(4), 545-551. <https://doi.org/10.1080/1367886042000299843>
23. Neville, M., & Sørensen, K. E. (2024). Differential Voting Rights in Listed Companies in Denmark and Sweden-to be Challenged or Boosted by Harmonization?. *Under publication in European Company Case Law (ECCL), Nordic & European Company Law Working Paper*, (24-04). <https://dx.doi.org/10.2139/ssrn.4766034>
24. Paltanwale, D. (2020). Differential Voting Rights in India: A Need for Reforms in the Shareholding and Enlistment Directives. *NUALS LJ*, 15, 179.
25. Paulsen, M. B. (2001). The economics of human capital and investment in higher education. *The finance of higher education: Theory, research, policy, and practice*, 55-94.
26. Ployhart, R. E., Nyberg, A. J., Reilly, G., & Maltarich, M. A. (2014). Human capital is dead; long live human capital resources!. *Journal of management*, 40(2), 371-398. <https://doi.org/10.1177/0149206313512152>
27. Prabhu, T. (2019). Differential Voting Rights Shares: A Path-Breaker or Obstacle to Corporate Governance?. *J. on Governance*, 3, 157.
28. Prajogo, D. I., & Sohal, A. S. (2006). The integration of TQM and technology/R&D management in determining quality and innovation performance. *Omega*, 34(3), 296-312. <https://doi.org/10.1016/j.omega.2004.11.004>
29. Tan, E. (2014). Human capital theory: A holistic criticism. *Review of educational research*, 84(3), 411-445. <https://doi.org/10.3102/0034654314532696>

30. Teixeira, P. N. (2010). Human Capital, by Gary S. Becker: A Reading Guide. In *The Elgar companion to the Chicago School of Economics*. Edward Elgar Publishing. <https://doi.org/10.4337/9781849806664.00017>
31. Tian, Z., Li, Y., Niu, X., & Liu, M. (2023). The impact of digital economy on regional technological innovation capability: An analysis based on China's provincial panel data. *Plos one*, 18(7), e0288065. <https://doi.org/10.1371/journal.pone.0288065>
32. Verhoeven, D., Bakker, J., & Veugelers, R. (2016). Measuring technological novelty with patent-based indicators. *Research policy*, 45(3), 707-723. <https://doi.org/10.1016/j.respol.2015.11.010>
33. Wadhwa, M. (2018). Differential Voting Right Shares in India-Legal and Valuation Perspective. Available at SSRN 3210154. <http://dx.doi.org/10.2139/ssrn.3210154>
34. Wang, S. (2018, December). Research on Dual-Class Share Structure and Company Performance. In *2018 2nd International Conference on Economic Development and Education Management (ICEDEM 2018)* (pp. 421-424). Atlantis Press. <https://doi.org/10.2991/icedem-18.2018.105>
35. Wei, C. H. I. (2008). The role of human capital in China's economic development: Review and new evidence. *China Economic Review*, 19(3), 421-436. <https://doi.org/10.1016/j.chieco.2007.12.001>
36. Whalley, J., & Zhao, X. (2013). The contribution of human capital to China's economic growth. *China Economic Policy Review*, 2(01), 1350001. <https://doi.org/10.1142/S1793969013500015>
37. Yan, M. (2020). A Control-Accountability Analysis of Dual Class Share (DCS) Structures. *Del. J. Corp. L.*, 45, 1.
38. Yan, M. (2020). Differentiated voting rights arrangement under dual-class share structures in China: expectation, reality, and future. *Asia Pacific Law Review*, 28(2), 337-359. <https://doi.org/10.1080/10192557.2020.1855794>
39. YANG, J. (2022). Research on Differential Arrangement of Voting Rights. *Journal of Beijing Institute of Technology (Social Sciences Edition)*, 24(3), 127-138. <https://dx.doi.org/10.15918/j.jbitss1009-3370.2022.0084>
40. Zhang, W., Li, S., Li, Z., & Feng, H. (2023). Assessing the competitiveness of listed Chinese high-growth companies in the STAR market. *Heliyon*, 9(5), e15735. <https://doi.org/10.1016/j.heliyon.2023.e15735>
41. Zhao, S. (2008). Application of human capital theory in China in the context of the knowledge economy. *The International Journal of Human Resource Management*, 19(5), 802-817. <https://doi.org/10.1080/09585190801991145>
42. Zhong, Z., & Chen, Z. (2023). Business environment, technological innovation and government intervention: influences on high-quality economic development. *Management Decision*, 61(8), 2413-2441. <https://doi.org/10.1108/MD-08-2022-1073>
43. Zou, T. (2024). Technological innovation promotes industrial upgrading: An analytical framework. *Structural Change and Economic Dynamics*, 70, 150-167. <https://doi.org/10.1016/j.strueco.2024.01.012>