Impact of Social Responsibility Performance of Multinational Corporations on Corporate Value: Evidence from China

Yang Zhang[a,b*], Yanying Mo[a,b], Jing Shen[a] and Biyue Cheng[a,b]

[a]College of Economics and Management, China Jiliang University, Hangzhou 310018, China
[b]Center for Digital Trade and Regional Development, China Jiliang University, Hangzhou 310018, China

*Corresponding author: Yang Zhang, Tel.: +86-571-86914522; E-mail: zhy@cjlu.edu.cn
Author E-mail: Yang Zhang : zhy@cjlu.edu.cn
Yanying MO: MYYCarol@126.com
Jing Shen: shenjing@cjlu.edu.cn
Biyue Cheng: chengbieyue00@gmail.com

Abstract. Under a centralized shareholding structure, the actual controller has dominance in fulfilling corporate social responsibility (CSR). Using a sample of Chinese MNCs from 2008 to 2020, this paper investigates the impact of CSR fulfillment on corporate value as well as the variations in impact across contexts. This article examines the impact of social responsibility performance on corporate value from 2008 to 2020, using Chinese multinational enterprises as samples. The study reveals that fulfilling social responsibilities significantly enhances corporate value. However, the effect of technological innovation negatively moderates the relationship between social responsibility and corporate value improvement. Moreover, the promotion effect of social responsibility on corporate value is more pronounced in low social sensitivity industries and state-owned enterprises. These research findings hold both theoretical and practical significance, providing valuable theoretical guidance and practical reference for future corporate development and value enhancement.

Keywords: multinational corporations; corporate social responsibility; corporate value

1 Introduction

In the context of economic globalization, the continuous integration and development of the global industrial supply chain have achieved rapid economic growth, but at the expense of significant social and environmental costs. In recent years, there has been a surge in incidents related to food safety, production security, and environmental pollution due to the lack of corporate social responsibility (CSR). For instance, in 2015, Blue

L. Moutinho et al. (eds.), *Proceedings of the 2023 International Conference on Management Innovation and Economy Development (MIED 2023)*, Advances in Economics, Business and Management Research 260,
https://doi.org/10.2991/978-94-6463-260-6_4

Bell Creameries in the United States had its ice cream products contaminated with Listeria, resulting in three fatalities. In 2020, an explosion occurred in a Lotte Chemical factory in South Korea on its compressed production line, causing injuries to 31 residents and workers. Then, in 2021, China Nonferrous Mining Corporation discharged wastewater directly into the Yangtze River, posing a severe threat to the ecological balance of downstream reservoirs and villages. Globally, governments, businesses, and the general public have been increasingly concerned with CSR. Enterprises must take responsibilities for the negative effects of their production and operation activities while reaping economic benefits, and an increasing number of businesses have begun to prioritize, disclose, and manage their CSR, and publish annual CSR reports. The fulfillment of CSR can bring numerous benefits to the public, but there is still considerable disagreement about whether it leads to enhances corporate value.

Corporates incurring their social responsibilities require substantial costs. In order to achieve a balance between the economic benefits and the sustainable development of businesses, the community has begun to focus on the connection between CSR and enterprise value. Corporate value refers to an enterprise's capacity to enable shareholders and other stakeholders to realize their expected returns. Researchers have identified three fundamental systems in the theory of corporate value: shareholders' equity, company value, and stakeholders. A large number of scholars have studied the relationship between CSR and corporate value, which can be summarized into three categories of views. One view holds that the active performance of CSR will result in an increase in profits [1] [2]. Another group believes that the more social responsibility a company assumes, the lower its corporate value becomes [3] [4]. Additionally, some scholars believes that the inclusion of companies in the socially responsible investment (SRI) index does not have a significant impact on the increase in corporate value [5] [6]. As research subjects, the majority of academics choose listed companies or specific industries, whereas there are fewer results involving multinational corporations (MNCs).

Nowadays, CSR is not only a philanthropic activity to promote social development but also a strategic investment behavior to bring differentiated competitive advantages for enterprises [7], MNCs, due to the differences in the host country's political system, economic system, legal system, and socio-cultural differences, will face more external responsibilities and pressure from stakeholders. With the rise of SRI, an increasing number of investors are incorporating CSR activities into their investment decisions. MNCs will take more CSR in order to satisfy the diverse needs of stakeholders and expand the international market in the local environment [8]. In view of this, a more thorough and in-depth examination of the connection between CSR and the corporate value of MNCs is required. This paper, based on Stakeholder Theory, Stakeholder Theory and Resource-based View, uses panel date from 721 Chinese MNCs from 2008 to 2020 to construct a two-way fixed effects model to empirically examine the impact of corporate social responsibility on corporate value and conducts robustness tests, such as substituting dependent and independent variables and changing testing models, to ensure the accuracy of the initial test results. Secondly, the moderating effect model is employed to analyze the mechanism of "social responsibility performance, technological innovation, and enterprise value" and to investigate the effect of CSR on the enterprise value of Chinese MNCs. The preceding theoretical analysis and empirical findings demonstrate that the proactive fulfillment of CSR by Chinese MNCs contributes to an increase in corporate value and provide pertinent policy recommendations.

2 Research hypothesis

Early shareholder supremacy theory posited that the goal of corporate management is to maximize shareholder interests, and that the only effective method of corporate governance is for managers to exercise control in accordance with shareholder interests, and that implementing CSR is an additional expense that will harm shareholder interests and have a negative effect on corporate performance [9]. However, Stakeholder theory emphasizes that the development of the company cannot be accomplished without the input or participation of various stakeholders. And the company pursues the interests of all stakeholders, not just a specific group. Enterprises can increase their competitiveness by gaining the trust of stakeholders to attract resources [10]. Therefore, the relationship between the fulfillment of CSR and enterprise performance is not antagonistic; instead, it is a win-win behavior benefiting both the company and society.

The Resource-based View suggests that firms have different tangible and intangible resources, and the proactive fulfillment of CSR by firms is an investment by firms in intangible resources, such as the trust of stakeholders and a positive social reputation [11]. By demonstrating a commitment to social responsibility, companies can send positive signals to enhance their social reputation and attract valuable resources like talented individuals and investment opportunities to have positive effect on corporate value. [3]. In addition, the proactive fulfillment of CSR helps MNCs overcome the outsider disadvantage and avoid the uncertainty caused by the environment, system, and culture. When MNCs enter overseas markets, they can reduce the risks associated with foreign market entry by increasing the number of CSR activities [12], such as preventing the occurrence of catastrophic environmental incidents and mitigating conflicts with local communities, residents, and labor organizations. This paper proposes research hypothesis H1 based on these findings.

H1: Corporate value is enhanced by the CSR of MNCs.

With the transformation of the characteristics of global economic development, relying on factors like capital to drive economic growth has become less viable, and innovation-driven growth has become the core driving force for economic advancement. The sustainable enhancement of enterprise value is inevitably dependent on the driving force of technological innovation, which has long been a determinant of enterprise competitiveness and can influence the survival and growth of businesses. Nevertheless, since technological innovation is a long-term and uncertain enterprise activity that requires continuous investment of enterprise resources [13] and, according to the resource base theory, the enterprise's resources are limited, in the event of a high investment in technological innovation, the enterprise will reduce its focus on CSR. Too much CSR by the enterprise will have a crowding effect on the limited enterprise resources; as a result, the enterprise may pay less attention to its stakeholders, and the influence of CSR on the development of enterprise value may be diminished. Under the moderating effect of technological innovation, the influence of CSR on enterprise value will therefore be diminished. Based on this, this paper proposes research hypothesis H2.

H2: Technological innovation negatively moderates the impact of CSR on firm value for MNCs.

3 Research design

3.1 Data Sources and Sample Selection

The Shanghai Stock Exchange (SSE) issued the Notice on Strengthening the Social Responsibility of Listed Companies in May 2008 to encourage companies to disclose their annual social responsibility reports on time. In 2008, 290 listed companies disclosed their social responsibility reports under the active guidance of SSE. As a result, this paper uses the A-share listed MNCs from 2008 to 2020 as its initial sample and identifies the companies with export revenue comprising at least 10% of total operational revenue as MNCs [14]. And the specified ratings for social responsibility reports, total assets, total liabilities, intangible assets, total operating income, and gearing ratio are chosen for fitting.

Referring to existing studies, the initial sample is screened according to the following criteria: (1) excluding sample observations of financial listed companies; (2) excluding listed companies with irregular trading status such as ST and *ST; (3) excluding observations of delisted companies; and (4) excluding listed companies with a large amount of missing pertinent data and data anomalies. After sifting and organizing, the panel data of 721 MNCs, containing 6412 sample observations, is obtained. This paper winsorizes the primary continuous variables at the 1% and 99% levels so as to eradicate the effect of extreme values. The CSR data in this paper comes from the CSR reports of listed corporations on Hexun.com; all other data comes from the CSMAR database; and Stata 15.0 is used to analyze the data.

3.2 Selection and measurement of variables

Explained variable: Corporate value($Tobin\ Q$):The academic enterprise value measurement index is predominately based on the market method, taking enterprise share price and market risk into account as well as data from market indicators, which cannot be easily manipulated by the company, can comprehensively reflect enterprise value, and is the more prevalent evaluation method on the international stage. Chung and Pruitt [15] proposed a simple formula to determine Tobin's Q: divide the enterprise's market value by its total capital at the end of the period. Capital. The firm's market value equals the market value of its equity plus the market value of its net debt.

Explanatory variables: Corporate social responsibility(CSR): We refer to Wang et al. [16] and use the ratings published in Hexun. com's CSR report to measure the CSR ratings, which are derived from a comprehensive evaluation system that considers the social responsibility reports published by listed companies and the company's annual financial report. In addition, it provides a comprehensive evaluation of the company's CSR performance in five areas: shareholders' responsibility, employees' responsibility, suppliers', customers', and consumers' rights and responsibilities, environmental responsibility, and social responsibility.

Control variables: According to existing empirical literature and theoretical models [17], in order to control the bias induced by other factors, the firm's size will impact its decision-making behavior. In this paper, total assets, total liabilities, intangible assets, total operating income, and gearing ratio are used to evaluate the size and operation of a business. Table 1 displays the definitions for the variables listed above.

Table 1. Variable definitions

Variable category	Variable symbol	Description of variables
Explanatory variable	Tobin Q	Market value of the enterprise/total capital of the enterprise at the end of the period
Explanatory variable	CSR	Hexun.com CSR Report Rating/100
Control variable	Total Assets	Logarithm of total company assets
	Total Liabilities	Logarithm of total corporate liabilities
	Intangible Asset	Logarithm of corporate intangible assets
	Business Income	Logarithm of the company's total operating revenue
	Asset Liability Ratio	Total liabilities/total assets * 100%

3.3 Modeling

Using the research of Li and Xiao [18], this paper employs a two-way fixed-effects model to investigate the influence of MNCs' CSR on firm value.

$$Tobin\ Q_{it} = \beta_0 + \beta_1 CSR_{it} + Controls_{it} + Year + Industry + \varepsilon_{it}$$

$Tobin\ Q_{it}$ stands for the company i measure of corporate value for the year t, while CSR_{it} stands for the company i measure of CSR report score for the year t., and ε_{it} stands for the random disturbance term.

4 Results

4.1 Analysis of empirical results

Prior to the benchmark regression, descriptive statistics, Pearson correlation analysis, and the Hausman test were employed to determine whether the sample data was appropriate for a fixed effects or random effects model. The results showed $p = 0.000$ that the original hypothesis is significantly rejected, so this study adopts a fixed panel effect model for estimation. With a p-value of 0.000, the results showed that the original hypothesis is significantly rejected. To estimate, this study uses a fixed panel effect model, which can partially solve the problem of endogeneity caused by the missing variables that don't change over time in relation to the explanatory variables. In order, the main effect variables, control variables, and moderating variables are added to the model. To diminish the effect of heteroskedasticity, robustness standard errors were used in the regression analysis, and the results are presented in Table 2:

The results of regression after sequentially adding various control variables are displayed in columns 1 through 6. The control variables are omitted from column 1. CSR column 1's regression coefficients are substantially positive at the 10% level, indicating that the fulfillment of social responsibility by MNCs is positively associated with corporate value. After adding control variables, the regression coefficients of columns 2 through 6 are all positive at the 1% level, indicating that the positive fulfillment of social responsibility by MNCs will result in an increase in corporate value, thereby confirming the hypothesis H1 of this paper.

Table 2. Benchmark regression results

VARIABLES	(1)	(2)	(3)	(4)	(5)	(6)
CSR	1.984*	6.698***	5.623***	5.322***	4.087***	3.401***
	(1.96)	(7.61)	(6.20)	(6.42)	(5.65)	(6.68)
Total Assets		-0.793***	-0.232**	-0.180	-0.522***	-0.841***
		(-19.95)	(-3.11)	(-1.94)	(-5.21)	(-5.55)
Total Liabilities			-0.456***	-0.458***	-0.544***	-0.157
			(-8.25)	(-9.07)	(-13.49)	(-1.14)
Intangible Asset				-0.019	-0.024	-0.034
				(-0.47)	(-0.67)	(-1.05)
Business Income					0.514***	0.477***
					(10.68)	(9.68)
Asset Liability Ratio						-1.444**
						(-3.15)
_cons	3.215***	20.00***	17.23***	16.49***	14.92***	15.47***
	(28.08)	(23.15)	(21.45)	(24.78)	(22.84)	(26.97)
Year	YES	YES	YES	YES	YES	YES
Industry	YES	YES	YES	YES	YES	YES
N	6118	6118	6118	6091	6091	6091
R	0.127	0.357	0.405	0.408	0.389	0.397

Note: *P<0. 10, **P<0. 05, ***P<0. 01; standard errors of estimation are in parentheses.

4.2 Moderating effects

The majority of the existing literature employs R&D investment to measure the level of corporate innovation, as does this paper. Utilizing Wen et al.'s [19] research on the moderating effect, this paper includes the technological innovation variable ($R\&D\ Spend\ Sum_{it}$) as well as the interaction term between CSR and technological innovation ($CSR_{it} \times R\&D\ Spend\ Sum_{it}$) and constructs the following regression model:

$$Tobin\ Q_{it} = \beta_0 + \beta_1 CSR_{it} + \beta_2 R\&D\ Spend\ Sum_{it} + \beta_3 CSR_{it} \times R\&D\ Spend\ Sum_{it} + Controls_{it} + Year + Industry + \varepsilon_{it}$$

Table 3 displays the empirical results of the moderating effect of technological innovation on corporations. Column 1 is a regression with only the explanatory variables, corporate technological innovation, and the interaction term. The regression coefficient of CSR is significantly positive at the 1% level, and the regression coefficient of the interaction term of CSR and corporate technological innovation is significantly negative at the 1% level, indicating that corporate technological innovation moderates the impact of CSR negatively. The results of adding control variables sequentially are shown in columns 2 through 6, and the regression coefficients of the interaction terms are all significantly negative at the 1% level, indicating that corporate technological innovation impedes the improvement of CSR on corporate value and confirming the paper's hypothesis H2.

Table 3. The moderating effects of firms' technological innovation

VARIABLES	(1)	(2)	(3)	(4)	(5)	(6)
CSR	4.574***	7.259***	6.802***	6.809***	5.068***	4.460***
	(10.58)	(21.13)	(17.58)	(13.28)	(14.65)	(13.98)
R&D Spend Sum	-0.198***	0.0644	0.0730	0.0743	-0.00476	-0.0105
	(-8.29)	(1.87)	(2.02)	(2.04)	(-0.18)	(-0.38)
CSR×R&D Spend Sum	-0.221***	-0.197***	-0.188***	-0.187***	-0.190***	-0.194***
	(-18.06)	(-15.85)	(-18.21)	(-17.77)	(-17.65)	(-18.69)
Total Assets		-0.743***	-0.461***	-0.467***	-0.895***	-1.189***
		(-18.20)	(-6.46)	(-4.67)	(-8.68)	(-9.35)
Total Liabilities			-0.236***	-0.236***	-0.321***	0.0586
			(-4.50)	(-5.81)	(-14.99)	(0.99)
Intangible Asset				0.00791	0.0114	-0.00276 (-0.07)
				(0.16)	(0.25)	
Business Income					0.659***	0.619***
					(17.24)	(20.18)
Asset Liability Ratio						-1.456***
						(-7.03)
_cons	6.435***	17.75***	16.33***	16.32***	14.76***	15.10***
	(15.48)	(33.33)	(36.49)	(33.41)	(31.63)	(33.01)
Year	YES	YES	YES	YES	YES	YES
Industry	YES	YES	YES	YES	YES	YES
N	5546	5546	5546	5540	5540	5540
R	0.198	0.368	0.398	0.397	0.366	0.378

Note: *P<0. 10, **P<0. 05, ***P<0. 01; standard errors of estimation are in parentheses.

4.3 Heterogeneity analysis

In recent years, the production of safety problems, environmental pollution, and other problems has occurred frequently; however, the lack of CSR is no longer confined to a single company but has spread to specific industries as industry-specific CSR deficiencies. Li and Zhang [20] demonstrated that certain industries, such as those with severe pollution, can impact the influence of CSR on corporate value.

According to previous research, industries with a high sense of social responsibility are those that pollute the most. Referring to the definition of heavy pollution industries by Li and Xiao [18] and combining it with the 2012 version of the China Securities and Exchange Commission's industry classification standard, the industry codes selected in this paper with higher social responsibility sensitivity are B06-12、B17、C18、C19、C22、C25-29、C31、C32、D44 and are marked with a 1 if they belong to the aforementioned industries and a 0 otherwise.

The regression results of the heterogeneity analysis by industry type are presented in Table 4. In the main effects model, the regression coefficients of CSR for industries with a high sensitivity to social responsibility are all negative but statistically insignificant. However, the main effects model is substantially positive for industries with low social responsibility sensitivity, suggesting that CSR in industries with low social responsibility sensitivity has a positive impact on firm value. It may be due to the fact that public attention and skepticism when firms are in industries with high social responsibility sensitivity can lead to a decrease in consumer trust, which negatively impacts the process of corporate reputation management.

Table 4. Regression Results of Sub-Industry Type Heterogeneity Analysis

VARIABLES	High social responsibility sensitivity		Low social responsibility sensitivity	
	(1)	(2)	(3)	(4)
CSR	-0.0815 (-0.04)	-0.00354 (-0.00)	2.341* (2.81)	3.633*** (6.27)
_cons	2.991*** (28.90)	8.868** (6.77)	3.291*** (22.95)	17.07*** (25.99)
Controls	NO	YES	NO	YES
Year	YES	YES	YES	YES
Industry	YES	YES	YES	YES
N	1708	1703	4410	4388
R	0.138	0.357	0.127	0.396

Note: *P<0. 10, **P<0. 05, ***P<0. 01; standard errors of estimation are in parentheses.

4.4 Robustness check

In order to ensure the statistical robustness of the regression conclusions model and the explanatory power of the indices and the dependability of the calculations, this paper concludes that the social responsibility of Chinese MNCs has a positive effect on the impact of enterprise value, based on the results of a previous test. This paper replaces the variables in the hypothetical model with enterprise value and social responsibility, as well as the test method. The results indicate that the study's conclusions have not changed qualitatively, indicating that this paper is more robust. The investigation's findings are reliable.

5 Conclusions and recommendations

This paper utilizes 721 Chinese MNCs from 2008 to 2020 as its research subject, and conducts empirical analysis using a two-way fixed-effects model and employs robustness tests with variable substitutions and alternate testing methods. The empirical test results indicate that the active fulfillment of CSR by Chinese MNCs contributes to the enhancement of corporate value, but technological innovation negatively moderates the relationship between CSR and the occurrence of corporate value. The effect of CSR fulfillment on firm value is more significant in industries with low CSR sensitivity than in industries with high CSR sensitivity. This result is consistent with previous research findings, which suggest that actively fulfilling CSR brings numerous benefits to firms, such as improved brand performance, increased corporate value, and reduced financing impediments [3] [21], and consequently positively affects corporate reputation and high-quality corporate development [22].

This paper offers the following insights for enterprise development and value enhancement based on the aforementioned findings:

For enterprise managers, the performance of CSR is conducive to the enhancement of enterprise value, which enables them to integrate the fulfillment of CSR into their corporate culture in dynamical domestic and international environments and creates a favorable economic environment for the enterprise and society. Enterprises should develop in harmony with the local economy, society, and environment, maintain harmonious relations with external organizations, better integrate into the globalized environment, maximize the value-creation effect of "socially responsible capital," and optimize the allocation of social resources by leveraging the synergy between domestic and foreign enterprises. For the government, businesses must not only accomplish their market responsibilities and create wealth value, but also fulfill their CSR and create social value. Therefore, the Chinese government should guide companies to better fulfill their social responsibilities, establish standardized disclosure systems, encourage positive behaviors related to social responsibility, and establish mechanisms for monitoring corporate social responsibility performance. It should also guide companies to align their social responsibility efforts based on their individual characteristics and improve clear and feasible monitoring rules.

Although technological innovation negatively moderates the positive effect of Chinese MNCs' assumption of CSR on corporate value, technological innovation as a high-risk, long-cycle activity requires companies to reward long-term successful innovations and tolerate short-term failures rather than focusing only on short-term gains. Companies can consolidate their development and enhance their competitiveness while gradually integrating social responsibility into their innovative processes. Social responsibility should be seen as a source of innovation, and long-term strategic views on social responsibility should be established. In addition, the government's constraints and incentives are extremely important, and the government should supervise and guide the enterprises by, for example, encouraging them to more comprehensively consider the two aspects of technological innovation investment and CSR, giving full play to the enterprise's subjective initiative, and achieving a win-win situation for the enterprise and society while boosting the enterprise's innovation investment and competitiveness.

References

1. Friedman M. The social responsibility of business is to increase its profits[M]//Corporate ethics and corporate governance. Berlin, Heidelberg: springer berlin heidelberg, 2007: 173-178.
2. Chen Xiaoyi, Wang Yurong, Yang Zhenning. Corporate Social Responsibility and Firm Value： The Moderating Effect of Organizational Inertia and Industry Sensitivity. Jurnal of Technology Economics, 2020, 39(07):140-146+158.
3. Servaes, Henri, Tamayo, et al. The Impact of Corporate Social Responsibility on Firm Value: The Role of Customer Awareness. Management Science, 2013.DOI:10.1287/mnsc.1120.1630.
4. Liu Jianqiu, Zhu Yixiang. Actual Controllers' Foreign Residency Rights and Corporate Value --A Test of Masking Effect Based on CSR. East China Economic Management, 2019,33(10): 169-176. DOI: 10.19629/j.cnki.34-1014/f.181221026.
5. Barnett M L. Stakeholder influence capacity and the variability of financial returns to corporate social responsibility. Academy of management review, 2007, 32(3): 794-816.
6. Zhang Xu, Song Chao, Sun Yaling. An empirical study on the relationship between corporate social responsibility and competitiveness. Science Research Management, 2010,31(03): 149-157. DOI: 10.19571/j.cnki.1000-2995.2010.03.019.
7. Mcwilliams A, Siegel D S. Creating and Capturing Value: Strategic Corporate Social Responsibility, Resource-Based Theory, and Sustainable Competitive Advantage. Journal of Management, 2011, 37(5):p.1480-1495.DOI:10.1177/0149206310385696.
8. Attig N, Boubakri N, Ghoul S E,et al. International Diversification and Corporate Social Responsibility. Management Decision, 2016, 54(3): 1-27. DOI: info: doi/10.1108/MD-07-2015-0322.
9. Glavas A, Piderit S K. How Does Doing Good Matter?. Journal of Corporate Citizenship, 2009, 2009(36):51-70(20). DOI: info: doi/10.9774/GLEAF.4700.2009.wi.00007.
10. Jones T M. Instrumental Stakeholder Theory: A Synthesis of Ethics and Economics. Academy of Management Review, 1995, 20(2):404-437. DOI:10.2307/258852.
11. And A J H, Keim G D. Shareholder value, stakeholder management, and social issues: what's the bottom line? Strategic Management Journal, 2001.DOI:10.1002/1097-0266(200101)22:2<125: AID-SMJ150>3.0.CO;2-H.
12. Najah, Attig, Narjess,et al. Firm Internationalization and Corporate Social Responsibility. Journal of Business Ethics, 2016.DOI:10.1007/s10551-014-2410-6.
13. Manso G. Motivating Innovation. The Journal of Finance, 2011, 66(5). DOI:10.1111/j.1540-6261.2011.01688.x.
14. Guo Fei. Foreign Exchange Risk Hedging and Firm Value: Evidence from the MNCs in China. Economic Research Journal, 2012,47(09):18-31.
15. Chung K H, Pruitt S W. A simple approximation of Tobin's q. Financial management, 1994: 70-74.
16. Wang Aiping, Dou Bin, Hu Haifeng. Corporate Social Responsibility and Corporate Fraud in China. Nankai Economic Studies, 2022(02): 138-156. DOI: 10.14116/j.nkes.2022.02.009.
17. Useem, M. Corporate support for health and human services. J Natl Assoc Hosp Dev (1988):15-18.
18. Li Qingyuan, Xiao Zehua. Heterogeneous Environmental Ｒegulation Tools and Green Innovation Incentives: Evidence from Green Patents of Listed Companies. Economic Research Journal, 2020,55(09):192-208.
19. Wen Zhonlin, Hou Jietai, Zhang Lei. A Comparison of Moderator and Mediator and Their Applications. Acta Psychologica Sinica,2005(02):268-274.

20. Li Yuanhui, Zhang Jie. A Study of Market Reactions to Social Responsibility Report Disclosure. Friends of Accounting, 2012(36):88-90.
21. Quan Xiaofeng, Wu Shinon, Yin Honying. Corporate Social Responsibility and Stock Price Crash Risk: Self-interest Tool or Value Tool? Economic Research Journal, 2015,50(11):49-64.
22. Cao Ping, Zheng Shuyun. The Impact of Corporate Social Responsibility on the High Quality Development of Enterprises - The Moderating Role of Technological Innovation. Modernization of Management, 2023,43(01): 112-118. DOI: 10.19634/j.cnki.11-1403/c.2023.01.014.