

Government Regulation Burden, Strategic Balance, and Corporate Performance

Duo Shang^a, Li-Bo Fan^b, Han-Long Liu^c, Dong-Liang Yuan^d

Abstract

This paper combines public interest theory, public choice theory, institutional logic theory, and strategic balance theory, uses multiple mediation models, systematically analyzes and empirically tests the relationship between government regulatory burden and corporate performance, and the impact of corporate strategic balance on the relationship. The results show that there is an inverted U-shaped relationship between government regulatory burden and corporate performance. The market strategy and non-market strategic investment level play multiple intermediary roles between government regulatory burden and corporate performance. This conclusion is still established after the robustness test. It is of great theoretical and practical significance to clarify the intrinsic mechanism of government regulation burden affecting enterprise performance for improving the quality of government regulation and the efficiency of enterprise operation.

Keywords: Government Regulation Burden, Strategic Balance, Firm Performance, Multiple Mediating Effect

1. Introduction

Since reform and opening, many large Chinese enterprises have made unprecedented achievements and even enjoyed a high reputation internationally. However, the development of SMEs has encountered many bottlenecks, and the backward business environment has become a constraint hindering the development of SMEs. To improve the business environment, release the vitality of the capital market, and the creativity of the whole society, at the "two sessions" in 2019, Premier Xi Jinping emphasized that it is necessary to continuously deepen structural reforms while reducing excessive interference of government departments in the market economy. Scholars have different opinions on whether the government should intervene in the market frequently and whether the burden of government regulation on enterprises inhibits the growth of economic performance. On the one hand, opponents believe that the burden of government regulation has

caused certain losses to enterprises, hindered their investment and innovation, and finally inhibited their growth (Loayza et al., 2005; Wang et al., 2019). On the other hand, supporters believe that to promote fair competition among enterprises, correct negative externalities, and protect consumer rights and private property, appropriate government regulation measures are necessary (Kitching et al., 2015; Lewis et al., 2015). Then, what is the relationship between government regulation burden and enterprise economic performance? What is the influence mechanism between them? People from all walks of life have been talking enthusiastically about this.

According to the theory of pluralistic institutional logic, there are many kinds of competitive institutional logics in the institutional situation, and different institutional logics work together to influence organizational behavior, while the selective response of organizations to institutional logics leads to diversified organizational behaviors (Marvin, 2008). Among them, market logic and bureaucratic logic are the two main competitive institutional logics in organizations. Market logic emphasizes that enterprises should pursue market-oriented operation efficiency, and holds that technological innovation ability and marketing ability are important sources of the core competitiveness of enterprises (Boitier et al., 2018; Wang et al., 2019).

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Bureaucratic logic emphasizes that enterprises should pursue organizational legitimacy in the institutional environment, and holds that institutional rent-seeking behavior and social responsibility behavior are the main methods for enterprises to alleviate non-market pressure (Diab & Metwally, 2020). The competitive relationship between market logic and bureaucratic logic leads enterprises to adopt both market strategy and non-market strategy. According to the theory of strategic balance, when the logic of pluralistic system tends to be stable, the level of market strategic investment and non-market strategic investment can reach a balanced state, and enterprises can gain competitive advantage and organizational legitimacy at the same time (Zhao et al., 2017).

As a joint force of the external environment, the change of regulatory burden will profoundly affect the competitive relationship between the two institutional logics in enterprises, and then break the balance of strategic investment level of enterprises. Excessive supervision and wrong intervention by government agencies will first intensify the conflict between market logic and bureaucratic logic, and then the conflict between institutional logic will lead to the change of market strategic investment level and non-market strategic investment level, and finally affect the change of enterprise economic performance level (Peng et al., 2009). So, is the influence of government regulation burden on enterprise economic performance promoted or inhibited? How does the input level of different strategies affect the relationship between them? To solve the above problems, this paper makes an empirical test on Chinese A-share manufacturing listed companies from 2008 to 2016 by using multiple intermediary effects. The specific research results show that the relationship between government regulation burden and enterprise economic performance is not a simple linear relationship, but an obvious "inverted U-shaped" relationship. The input level of market strategy and non-market strategy of enterprises play significant multiple intermediary effects between government regulation burden and economic performance of enterprises. This conclusion is still valid after the robustness test.

2. Theoretical basis and research hypothesis

2.1 The Relationship between Government Regulation Burden and Enterprise Economic Performance

The burden of government regulation specifically refers to the extra costs related to the

performance of relevant government regulations and regulations and exceeding the normal operation of enterprises (Lewis et al., 2015). The government and relevant regulatory authorities regulate enterprises mainly in three ways: laws and regulations formulated for specific behaviors of enterprises, taxes levied on enterprises and intervention in business decisions of enterprises. However, when enterprises accept the supervision of the government and relevant departments, they will produce more costs related to government regulation than the normal operation of enterprises, and these additional costs are the burden of government regulation. Many scholars have conducted in-depth research on the relationship between government regulation burden and the economic performance of enterprises. Some scholars believe that government agencies play the roles of "regulators" and "service providers" in the process of the rapid growth of enterprises, while others believe that government agencies also have dual characteristics of lack of regulation and excessive intervention.

On the one hand, according to the theory of public interest, the long-term lack of regulation and weak regulation of government departments cannot effectively solve the problems of monopoly, negative externality, and information asymmetry in the real capital market (Weiss, 1995; Lyu & Bi, 2020). As the "regulator" of the market, the government could have supervised the entry or exit decision of enterprises, the price of products, the quantity and quality of services, etc. by means of legislation and taxation, to ensure fair competition in the market, thus reducing the loss of economic performance of enterprises and consumers' rights and interests, and finally realizing the optimal allocation of resources. However, when the supervision of government departments is not strict, many manufacturers will shoddy to obtain excess profits. With the widespread of "losing morality" in the industry, the legal or regulatory departments will face the situation that the law does not blame the public. In the end, bad money drives out good money, which seriously infringes on the rights and interests of consumers (Henry, 2020). On the other hand, according to the theory of public choice, the government's regulation of enterprises is a way to create rent and extract rent. The increasing regulatory burden of government departments makes many small and medium-sized enterprises lose their competitive advantage and even be forced to withdraw from the market, which ultimately has a certain negative impact on the macro-national economy and micro-enterprise

economic performance (Wang et al., 2019). For example, research shows that the economic growth rate of developing countries is generally lower than that of developed countries because the products and labor markets of developing countries bear a heavy burden of government regulation (Loayza et al., 2005). Coincidentally, the anti-competitive regulation in the upstream of the industry will also significantly reduce the total factor productivity of the intermediate product market (Bourlès, et al., 2013). Also, scholars have reached similar conclusions when exploring the micro effect of government regulation burden. The heavy burden of government regulation leads to the extremely slow growth of small and medium-sized enterprises, and eventually, they have to withdraw from the market (Capelleras et al., 2008). At the same time, the research using the data of small and medium-sized enterprises in Ghana also shows that the burden of government regulation is significantly negatively correlated with the social performance of enterprises (Adomako et al., 2016).

Although too much or too little government regulation burden will hurt the economic performance of enterprises, the impact of government regulation burden on the economic performance of enterprises is not all negative. Moderate government regulation can also improve the economic performance of enterprises by increasing market opportunities and business practices. For example, it has been found that under a certain social background, appropriate government regulation will directly or indirectly affect the economic performance of enterprises and interfere with their business decisions. Enterprises have made positive responses to adapt to this kind of government regulation behavior, thus improving their economic performance (Kitching et al., 2015). In addition, government regulation and enterprise self-regulation complement each other. Government regulation can promote enterprises to perform standardized behavior, while relevant government departments restrict enterprise behavior and encourage enterprise production activities, which ultimately promotes the sustainable development of enterprise economic performance (Kitching et al., 2015; Altenburg et al., 2017).

To sum up, too much or too little government regulatory burden is not conducive to the exertion of government regulatory responsibilities, and the relationship between government regulatory burden and business performance is not a simple linear relationship. There is an optimal solution to the burden of government regulation, which makes

the economic performance of enterprises at the highest level. Before the optimal solution appears, the economic performance of enterprises is positively correlated with the burden of government regulation, and after the inflection point appears, the economic performance of enterprises is negatively correlated with the burden of government regulation. Similarly, related research in the field of environmental regulation shows that the intensity of environmental regulation has a "U-shaped" relationship with technological innovation and an "inverted U-shaped" relationship with total factor energy efficiency (Zhou et al., 2020; Erik et al., 2020). Therefore, this paper puts forward hypothesis 1:

H1: There is an inverted U-shaped relationship between government regulation burden and enterprise economic performance.

2.2 An analysis of the intermediary effect of enterprise strategic balance

According to the theory of institutional logic, there are usually two opposing institutional logics in enterprises-market logic and bureaucratic logic, which jointly influence the strategic behavior of enterprises (Friedland & Alford, 1991; Minbaeva et al., 2020). On the one hand, enterprises carry out market strategy under the guidance of market logic, which mainly includes internal capability-oriented R&D strategic behavior and external market-oriented sales strategic behavior. On the other hand, due to bureaucratic logic, enterprises tend to adopt non-market strategies, including corporate political behavior, social responsibility behavior, etc., to adjust the relationship between enterprises and government agencies, and the public. Market logic requires enterprises to shape core competitiveness and maintain a sustainable competitive advantage in the market. Bureaucratic logic emphasizes that enterprises should keep good consistency with other enterprises of the same type and obtain organizational legitimacy. Although there are competitive relations and strategic conflicts between these two institutional logics (Besharov & Smith, 2014). However, according to the strategic balance theory, the adoption of market strategy and non-market strategy can help enterprises solve the problem of organizational legitimacy while maintaining their competitive advantages. When the external environment of enterprises tends to be stable, the balanced relationship between the two institutional logics can help enterprises improve their uniqueness and performance level (Zhao et al., 2017).

Government regulation is one of the joint forces

of the external environment faced by enterprises (Chen et al., 2020), When the level of government regulation burden changes, it will intensify the logical conflict of multiple systems within the organization, and then change the strategic choice and investment level of enterprises, and break the strategic balance within enterprises. To improve the competitive advantage and organizational legitimacy of enterprises, enterprises will make strategic adjustments according to the changes of external factors, and change the input level of market strategy and non-market strategy, to cope

with the regulatory pressure of the external environment, and the changes of enterprise strategy have affected the economic performance of enterprises. Therefore, hypothesis 2 of this paper is put forward:

H2: The level of enterprise's strategic investment has multiple mediating effects in the "inverted U-shaped" relationship between government regulation burden and enterprise's economic performance.

The logical framework of this paper is shown in Figure 1.

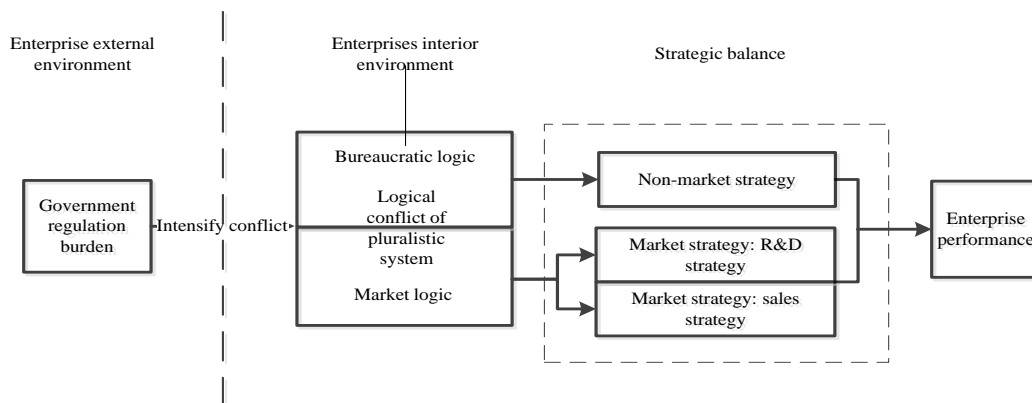


Figure 1. Internal mechanism of government regulation burden affecting enterprise economic performance

3. Methodology

3.1 Data

Because of too much missing data before 2008, this paper selects A-share manufacturing companies listed on Shanghai Stock Exchange and Shenzhen Stock Exchange from 2008 to 2018 as the research object. For the initial sample, this paper screens according to the following criteria: (1) Excluding financial and insurance companies; (2) Excluding companies with ST and *ST during the sample period; (3) Excluding companies that have been delisted; (4) Excluding companies with missing relevant data. After screening, a total of 8391 company-year samples were obtained. To avoid the influence of outliers, this paper carried out winsorize processing on 1% and 99% quantiles. All the financial data used in this paper come from CSMAR database and Wind financial database, and stata15.0 is used for data analysis.

3.2 Variable

(1) dependent variable: enterprise economic performance (ROA). In this paper, the return on assets is used as the proxy variable of an enterprise's economic performance, which is a positive index, and a higher ROA means that the enterprise has higher profitability. The specific

calculation formula is $ROA = \text{net profit} / \text{average total assets of the enterprise}$.

(2) Independent variable: government regulation burden (Tax). The direct cost of government regulation to enterprises can be measured by the tax burden of enterprises. Referring to the research method of Chen et al. (2020), this paper uses "various taxes paid+income tax expenses+business taxes and surcharges" as the proxy index of regulation burden. In addition, this paper divides the total operating income based on the above indicators to eliminate the influence of enterprise scale. This is a positive indicator. The larger the value, the heavier the regulatory burden faced by enterprises.

(3) Intermediary variables: market strategy and non-market strategy. As to the measurement of market strategy, this paper refers to Peng et al. (2009), using "R&D investment/total operating income" to measure the investment level of R&D strategy (Tech) and "sales expenses/total operating income" to measure the investment level of sales strategy (Ad). In addition, referring to the thinking of Hillman (2002), we use "(administrative expenses+non-operating expenses)/operating costs" to measure the input level of non-market strategy.

(4) Control variable. Because other factors of the company's fundamentals will also have an impact on the economic performance of enterprises, this paper controls the following variables. The enterprise-scale (Size) is expressed by the natural logarithm of the total assets of the enterprise; The age of the enterprise (Age) is expressed by the number of years experienced by the enterprise

from its establishment to the end of the year; The asset-liability ratio of an enterprise (Lev) is expressed by the ratio of total liabilities to total assets of the enterprise in the current year; The ratio of book value to a market value of an enterprise (BM) is expressed by the ratio of total assets to a market value of the enterprise. The calculation method of related variables in this paper is shown in Table 1.

Table 1. Variable Definitions

Variable Symbol	Variable Name	Variable Definition
ROA	enterprise economic performance	net profit/average total assets
Tax	government regulation burden	(various taxes and fees+income tax expenses+business taxes and surcharges)/total operating income
Tech	market strategy 1: Research and development strategy	Development expenditure/total operating income
Ad	market strategy 2: Sales strategy	Sales expenses/total operating income
Non-market	Non-market strategy	(enterprise management expenses+non-operating expenses)/operating costs
Size	Enterprise Scale	The total assets of the enterprise are logarithmic
Age	Enterprise age	The number of years experienced by the enterprise from its establishment to the observation year
Lev	Enterprise asset-liability ratio	Total liabilities/total assets of enterprises
BM	enterprises Book market value ratio	Total assets of enterprise/market value of enterprise

3.3 Research Method

From the above theoretical analysis, it can be seen that the government regulation burden first changes the input level of market strategy and non-market strategy, and then affects the economic performance of enterprises. So, is there any difference between market strategy and non-market strategy? How to compare the input level of the enterprise market and non-market strategy? To solve the above problems, this paper refers to the research of Baron & Kenny(1986) and introduces a one-dimensional parallel multiple mediation model for analysis.

First of all, to explore the relationship between government regulation burden and enterprise economic performance, this paper uses the following fixed effect regression model:

$$ROA_{it} = a_0 + a_1Tax_{it} + a_2Tax_{it}^2 + a_3Control_{it} + \varepsilon_{it} \quad (1)$$

Among them, the explanatory variable is ROA and the explanatory variable is Tax, which respectively represents the economic performance of enterprises and the regulatory burden imposed by the government on enterprises. Control represents some fundamental control variables of the company, specifically: enterprise Scale (Size), enterprise Age (Age), enterprise asset-liability ratio (Lev), and enterprise book-to-market ratio (BM), ε is the random disturbance term of the model.

Secondly, to test the multiple mediating effects

of different strategic behaviors between government regulation burden and enterprise economic performance, this paper uses the three-step regression method (3SLS), which is as follows:

The first step:

$$ROA_{it} = a_0 + a_1Tax_{it} + a_2Tax_{it}^2 + a_3Control_{it} + \varepsilon_{it} \quad (1)$$

The second step:

$$Ad_{it} = b_0 + b_1Tax_{it} + b_2Tax_{it}^2 + b_3Control_{it} + \varepsilon_{it} \quad (2)$$

$$Tech_{it} = c_0 + c_1Tax_{it} + c_2Tax_{it}^2 + c_3Control_{it} + \varepsilon_{it} \quad (3)$$

$$Non - market_{it} = d_0 + d_1Tax_{it} + d_2Tax_{it}^2 + d_3Control_{it} + \varepsilon_{it} \quad (4)$$

The third step:

$$ROA_{it} = e_0 + e_1Tax_{it} + e_2Tax_{it}^2 + e_3Ad_{it} + e_4Tech_{it} + e_5Non - market_{it} + e_6Control_{it} + \varepsilon_{it} \quad (5)$$

First of all, according to model (1), this paper carries out the first step regression to test the influence of the first term and the second term of government regulation burden on the economic performance of enterprises. If the coefficient a1 is significantly positive and the coefficient a2 is significantly negative, it shows that there is an inverted U-shaped relationship between the burden of government regulation and the economic performance of enterprises, and the second step of the empirical test can be continued. If the coefficient is not significant, the next test will be

stopped. In the second step, the models (2), (3), and (4) are regressed to test whether the regression coefficients between the three intermediary variables and the first and second terms of government regulation burden are significant. If both coefficients are significant, it shows that the government regulation burden significantly affects the strategic investment level of enterprises. The third step is to regress the model (5), analyze the

overall effect and partial mediation effect at the same time, and make a comparative analysis; If the coefficient of the primary term of government regulation burden is significant, it shows that there is partial multiple mediation effect; if the coefficient is not significant, it shows that there is complete multiple mediation effect. The schematic diagram of the multiple mediation effect test in this paper is shown in Figure 2.

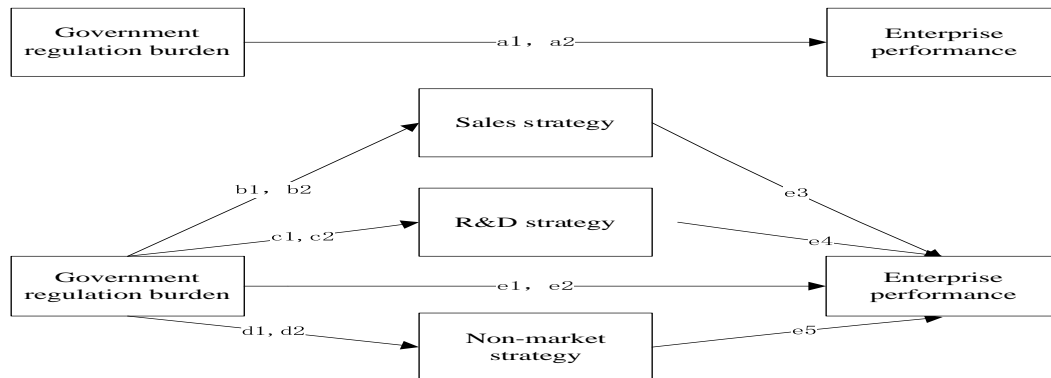


Figure 2. Intermediary effect test of enterprise strategic choice

4. Empirical result analysis

4.1 descriptive statistic

Table 2 reports descriptive statistics of related variables. It can be seen that the average economic performance of enterprises is 0.0567 and the standard deviation is 0.2928, indicating that the profitability of manufacturing enterprises is good. The minimum value of government regulation burden is 0.0005, and the maximum value is 0.1782, which indicates that there are some differences in regulation burden among manufacturing enterprises, which may be due to different sub-industries. The average value of sales strategy investment, R&D strategy investment, and non-market strategy investment are 0.0748, 0.0051, and 0.1008 respectively, which shows that Chinese manufacturing enterprises are most concerned about corporate political behavior, followed by

market-oriented marketing behavior, and pay little attention to R&D behavior of enterprises, which is also in line with China's national conditions. The average value of enterprise-scale is 21.89, and the standard deviation is 1.2239, which shows that there is little difference in the scale of manufacturing enterprises, which can eliminate the influence of some individual characteristics on the follow-up research. After excluding the delisted enterprises, it is found that the average age of enterprises is 13.75, indicating that manufacturing enterprises are generally in the mature stage. The minimum values of debt ratio and book-to-market ratio of enterprises are 0.0071 and 0.0079, and the maximum values are 0.6023 and 12.1002, respectively, indicating that the leverage of manufacturing enterprises is relatively low and their financial situation is good.

Table 2. Descriptive Statistical Analysis of Variables

Variable	observation	average	standard deviation	Minimum value	maximum value
ROA	8391	0.0567	0.2928	0.0000	0.1003
Tax	8391	0.0992	0.1280	0.0005	0.1782
Ad	8391	0.0748	0.0860	0	0.8000
Tech	8391	0.0051	0.0362	0	1.8720
Non-market	8391	0.1008	0.1627	0	0.3262
Size	8391	21.89	1.2239	17.39	27.1
Age	8391	13.75	5.3409	1	36
Lev	8391	0.4245	1.3178	0.0071	0.6023
BM	8391	0.8198	1.6839	0.0079	12.1002

4.2 Regression analysis

(1) Influence of independent variable on the dependent variable

Table 3 shows the regression results of model (1). The estimated coefficient of the impact of government regulation burden on enterprise economic performance is 5.7392, and the estimated coefficient of the impact of quadratic term on enterprise economic performance is -1.5332. Both coefficients are significant at a 1% confidence level, indicating that government regulation burden has a significant "inverted U-shaped" impact on enterprise economic performance. Hypothesis 1 of this paper has been verified.

There is an optimal solution to the government regulation burden. When the government regulation burden is less than the optimal solution, it is difficult for weak regulatory government agencies to effectively solve the problems of monopoly, negative externality, and information asymmetry in the real capital market. With the continuous strengthening of regulation, enterprise economic performance will gradually improve; When the government regulation burden is greater than the optimal solution, the increasing regulation burden of government departments will make many small and medium-sized enterprises lose their competitive advantage and even be forced to withdraw from the market, and the economic performance of enterprises will decline with the increase of government regulation burden.

Table 3. Regression Results of Model (1)

Variable	ROA	
	Estimate	t-value ¹
Tax	5.7392***	21.5226
Tax ²	-1.5332***	-16.7423
Size	0.2848***	11.2126
Age	-0.1462***	-3.3721
Lev	-0.1194***	-24.1841
BM	-0.5675***	-28.8935
Adj.R-Squared	0.2226	
F-statistic	344.097***	
DurbinWatsonTest	1.8365	

* means significant at 10%, ** means significant at 5%, *** means significant at 1%

(2) The influence of independent variables on intermediary variables

Table 4 reports the relationship between government regulation burden and different levels

of strategic investment. According to the regression results of the model (2), the estimated coefficient of the influence of government regulation burden on enterprise sales strategy is 0.1486, and the estimated coefficient of the influence of quadratic term on enterprise sales strategy is -0.0374. Both coefficients are significant at a 1% confidence level, which shows that there is an inverted U-shaped relationship between government regulation burden and enterprise sales strategy investment level. According to the regression results of the model (3), the estimated coefficient of the influence of the primary term on the R&D strategy of enterprises is -0.0232, and the estimated coefficient of the second term on the R&D strategy of enterprises is 0.0062, which are significantly correlated at the confidence levels of 5% and 10%, respectively. This shows that there is a significant "positive U-shaped" relationship between the government regulatory burden and the investment level of enterprises' R&D strategy. According to the regression results of the model (4), the estimated coefficient of the primary term of government regulation burden on enterprises' non-market strategy is 0.2692, and the estimated coefficient of the second term on enterprises' non-market strategy is -0.0379. There is a significant correlation between the two coefficients at a 1% confidence level, which shows that the influence of government regulation burden on enterprises' non-market strategy investment presents an inverted U-shaped relationship.

It can be seen from the empirical results in Table 4 that enterprises will choose different levels of strategic investment in the process of coping with the burden of government regulation. Specifically, the government regulation burden affects the level of investment in sales strategy and non-market strategy in an "inverted U-shaped" way, while the R&D strategy is different, and the government regulation burden has a significant "positive U-shaped" relationship with it. This is because the sales strategy and non-market strategy of enterprises are similar, which is a short-term strategy that can get rapid performance feedback, while the R&D strategy is different from the above two strategies. Because the R&D investment cycle is longer and the risk is greater, the R&D strategy belongs to a long-term strategy. When the government regulation burden on enterprises changes, enterprises tend to give priority to the sales strategy and non-market strategy that can

less reliable the estimated value of regression coefficient is and the closer it is to 0.

¹ t_value is used to test the significance of regression coefficient. The smaller t_value is, the

improve the economic performance of enterprises in a short time, to improve the negative impact of government regulation burden on the economic performance of enterprises in time. However, R&D strategy can't improve the economic performance of enterprises in a short time, so it is subject to the "crowding out effect" of sales strategy and non-market strategy, so the investment level of R&D strategy decreases first when the burden of government regulation increases. Furthermore,

with the further aggravation of government regulation burden, the marginal effect of the short-term strategy of enterprises is gradually reduced, and the economic performance of enterprises cannot be improved through short-term strategy. At this time, enterprises will choose to reduce the investment level of sales strategy and non-market strategy, and instead increase the investment level of R&D strategy, and finally return to the balance between market strategy and non-market strategy.

Table 4. Regression Results of Models (2), (3) and (4)

variable	Ad(model 2)		Tech(model 3)		Non-market(model 4)	
	Estimate	t-value	Estimate	t-value	Estimate	t-value
Tax	0.1486***	14.6461	-0.0232**	-2.3024	0.2692***	17.5432
Tax^2	-0.0374***	-10.7201	0.0062*	1.7959	-0.0379***	-7.1890
Size	-0.0102***	-10.5137	0.0021**	2.1768	-0.0143***	-9.7701
Age	0.0028***	15.0172	0.0006***	3.3958	0.0047***	16.6315
Lev	0.0014	0.8370	0.0007	0.4184	-0.0006	-0.2315
BM	0.0019***	2.5804	-0.0006	-0.7470	-0.0020*	-1.7287
Adj.R-Squared	0.0584		0.0088		0.1088	
F-statistic	74.5958***		10.6288***		146.764***	
Durbin Watson Test	1.2471		1.3093		2.0276	

* means significant at 10%, ** means significant at 5%, *** means significant at 1%

(3) Mediating effect test

To investigate the mediating effect of different levels of strategic investment between government regulation burden and enterprise economic performance, this paper brings three mediating variables into the model (5) for the empirical test, and the specific regression results are shown in Table 5. The primary coefficient of government regulation burden is significantly positive, while the secondary custom of government regulation burden is significantly negative, and both of them have passed the significance test of 1%. Generally speaking, this shows that too much or too little government regulation burden is not conducive to the improvement of enterprise economic performance, and there is an optimal solution to the government regulation burden, which makes the enterprise economic performance peak, and the relationship between them is "inverted U-shaped". Specifically, the influence coefficient of sales strategy investment level is -1.9718, that of R&D strategy investment level is -0.7001, and that of non-market strategy investment level is -0.9787, which respectively pass the significance test at 1%, 5%, and 1% confidence level, which shows that with the increase of market strategy investment level and non-market strategy investment level, the economic performance level of enterprises will gradually decline.

Combining the regression results of Table 3, Table 4, and Table 5, we can find that, first of all, there is a significant "inverted U-shaped" relationship between government regulation burden and enterprise economic performance, which verifies the first hypothesis of this paper and passes the first test of mediation effect 3SLS. Secondly, according to the models (2), (3), and (4), the government regulation burden is regressed with three kinds of strategic investment levels, and the results show that the estimation coefficients of market strategic investment level and non-market strategic investment level have passed the significance test, which is in line with the second step test of intermediary effect 3SLS. Finally, according to the model (5), this paper tests the three levels of strategic investment in the main regression, and analyzes the overall effect and partial intermediary effect, and makes a comparative analysis. The regression results in Table 5 show that the regression coefficient of government regulation burden is still significant after the intermediary variables are added, and the overall goodness of fit (0.2303) of the model (5) is higher than that of the model (1) (0.2226), which shows that the level of enterprise strategic investment plays a partial intermediary effect on government regulation burden and enterprise economic performance.

Table 5. Regression Results of Model (5)

variable	ROA	
	Estimate	t-value
Tax	6.2796***	22.8487
Tax ²	-1.6397***	-17.7654
Ad	-1.9718***	-6.4001
Tech	-0.7001**	-2.2541
Non-market	-0.9787***	-4.7994
Size	0.2523***	9.8367
Lev	-0.1435***	-3.3269
Age	-0.1087***	-21.4125
BM	-0.5660***	-28.9344
Adj.R-Squared	0.2303	
F-statistic	239.647***	
Durbin Watson Test	1.8491	

* means significant at 10%, ** means significant at 5%, *** means significant at 1%

4.3 Analysis of multiple mediating effects

Through the mediation effect 3SLS model, this paper has empirically verified that market strategy and non-market strategy are the mediation variables of the relationship between government regulation burden and enterprise economic performance. To further evaluate the overall mediation effect and individual mediation effect, this paper makes the following analysis, and the

specific calculation results are shown in Table 6.

First of all, according to the three-step regression model, this paper calculates that the overall mediation effect is $(5.7392-1.5332)-(6.2796-1.6397) = -0.4339$, and the T value is -1.7303 , which is significant at the confidence level of 10%. This result shows that the three variables, sales strategy investment level, R&D strategy investment level, and non-market strategy investment level, play intermediary roles. Specifically, the mediating effect of sales strategy is $(0.1486-0.0374) \times (-1.9718) = -0.2192$, the mediating effect of R&D strategy is $(-0.0232+0.0062) \times (-0.7001) = 0.0119$, and the mediating effect of non-market strategy is $(0.2692-0.0620) \times (-0.9787) = -0.2028$. The mediating effects of these three factors are $|0.2192|/|-0.4339|=50.52\%$, $|0.0119|/|-0.4339|=2.74\%$ and $|-0.2028|/|-0.4339|=46.74\%$, respectively, all three variables passed the Z test. The results show that the burden of government regulation can affect the economic performance of enterprises through the level of strategic investment, but the effects of different levels of strategic investment are not consistent, and the level of sales strategic investment plays a major intermediary role, followed by non-market strategy and finally R&D strategy.

Table 6. Test Results of Individual Mediating Effects

Analysis of multiple mediating effects	computing formula	Calculation result
Overall mediating effect	$(a_1 + a_2) - (e_1 + e_2)$	-0.4339* (T_value=-1.7303)
Intermediary effect of sales strategy	$(b_1 + b_2) \times e_3$	-0.2192*** (Z_Ad=8.2095)
Intermediary effect of R&D strategy	$(c_1 + c_2) \times e_4$	0.0119** (Z_Tech=-2.0086)
Intermediary effect of non-market strategy	$(d_1 + d_2) \times e_5$	-0.2028** (Z_Non-market=1.6051)
The proportion of intermediary effect of sales strategy to the overall intermediary effect	$\frac{(b_1 + b_2) \times e_3}{(a_1 + a_2) - (e_1 + e_2)}$	50.52%
The proportion of intermediary effect of R&D strategy to the overall intermediary effect	$\frac{(c_1 + c_2) \times e_4}{(a_1 + a_2) - (e_1 + e_2)}$	2.74%
The proportion of non-market strategic intermediary effect to the overall intermediary effect	$\frac{(d_1 + d_2) \times e_5}{(a_1 + a_2) - (e_1 + e_2)}$	46.74%

* means significant at 10%, ** means significant at 5%, *** means significant at 1%

5. Robustness test

Although we have done a lot of discussions from the theoretical logic, we have obtained the basic verification results at the empirical level. However, our regression results may still have the possibility of errors or even wrong results, so this paper

conducts robustness tests from the following two aspects. After a series of robustness tests, the conclusion of this paper has not changed.

6. Conclusion

The empirical results show that:

(1). Too much or too little government regulation burden is not conducive to the improvement of enterprise economic performance, and there is an inverted U-shaped relationship between government regulation burden and enterprise economic performance, that is, there is an optimal solution of government regulation burden.

(2). Because the sales strategy and non-market strategy are similar, it is a short-term strategy that can get quick performance feedback, while the R&D strategy belongs to a long-term strategy. Therefore, the government regulation burden has an inverted U-shaped relationship with the investment level of sales strategy and non-market strategy, and a positive U-shaped relationship with the investment level of R&D strategy.

(3). The increase of sales strategy investment level, R&D strategy investment level, and non-market strategy investment level will negatively affect the economic performance of enterprises.

(4). On the whole, there is an inverted U-shaped influence relationship between the government regulation burden and the economic performance of enterprises, but the effects of different strategic investment levels are not consistent, and the sales strategic investment level plays a major intermediary role, followed by the non-market strategy and finally the R&D strategy.

7. Discussion

The findings of this study contribute to research on government regulation burden as follows:

(1). In terms of research findings, previous articles thought that too much or too little government regulation burden is not conducive to the improvement of enterprise economic performance, which is different from previous studies. Based on the perspective of enterprise strategic choice, this paper systematically analyzes and empirically tests the influence of government regulation burden on enterprise economic performance, and finds that there is an "inverted U-shaped" relationship between them, which improves the theoretical model of the relationship between government regulation and enterprise economic performance.

(2). In the aspect of theoretical innovation, this paper attempts to combine the theory of multiple institutional logic with the theory of strategic balance and analyze the intermediary effect of market strategic input level and non-market strategic input level between government regulation burden and enterprise economic performance. The relevant conclusions expand the

application of institutional logic theory at the enterprise strategic level and provide empirical evidence for the related research of strategic balance viewpoint.

(3). In the aspect of empirical research methods, this paper uses the multiple mediating effect model to further judge the differences between the overall mediating effect and individual mediating effect, as well as the mediating effect differences among sales strategy input level, R&D strategy input level, and non-market strategy input level, which enriches the empirical research contents in related fields.

8. Implication

The analysis of this paper has certain theoretical and practical significance for both government and enterprises. For transition economies, there is great uncertainty and discontinuity in the policy system. Regulators usually have two choices: heavy regulation and light regulation. Heavy regulation corresponds to "hard constraints and soft incentives", while light regulation corresponds to "soft constraints and strong incentives". Although heavy regulation and light regulation can play a certain role in restraining and stimulating, there is also a strong correlation between government regulation and enterprise economic performance, but too much or too little government regulation burden can't help enterprises achieve the best economic performance. Through theoretical analysis and empirical test, this paper proves that there is an optimal solution to the burden of government regulation, which can not only create a standardized and efficient business environment but also strengthen the punishment for enterprises' illegal behavior and vicious competition behavior, thus helping enterprises to improve their economic performance. For Chinese listed companies under the new normal, to alleviate the economic pressure and the burden of government regulation, enterprises should pay attention to balancing the relationship among sales strategy, R&D strategy, and non-market strategy, and resolve the conflict between bureaucratic logic and market logic, to gain core competitiveness and organizational legitimacy, and finally achieve the highest economic performance of enterprises.

9. Limitations

On the one hand, this paper mainly analyzes the intermediary path between government regulation burden and enterprise performance, ignoring the influence of the external environment. Future research can do some scenario analysis, for

example, discuss the difference between government regulation burden and enterprise performance in different environments. On the other hand, this paper empirically tests the relationship between government regulation burden and enterprise performance and provides some empirical evidence. In the future, the case study can be used to dig deep into some special samples to broaden the theoretical boundary.

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