



Institutional Change and Strategic Alignment: The Complete Mediating Effect of Firm Performance

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Abstract. This paper selects all the "three public consumption" sensitive listed companies from 2010 to 2015, and theoretically and empirically studies the action path and mechanism of institutional change on strategic consistency. Based on the theory of strategic coherence, from the perspective of institutional change, this paper deeply analyzes the impact mechanism of corporate performance and strategic coherence, and collects 776 observations from 158 sample companies for empirical research. The results show that corporate performance positively affects strategic alignment, while institutional change negatively affects corporate strategic alignment through the complete intermediary effect of corporate performance.

Keywords: institutional change; Enterprise performance; Strategic alignment

1 Introduction

For decades, organizational researchers have been studying the relationship between institutional change and strategic alignment, and two important factors are poorly understood: (a) the differentiation of firms' strategic responses to institutional change; and (b) the mediating stage through which institutional change affects strategic alignment.

First, previous studies on the impact of institutional change on strategic coherence mainly emphasized how institutional change affects the strategic plan of the firm, but seldom explored the differentiation of the firm's strategic response to institutional change. For example, previous studies have found that in the face of external environment changes, proponents of strategic coherence claim that firms will produce better performance if they stick to core strategies in the long run. While proponents of flexibility in strategic choice argue that business strategy needs to change as the environment changes. ^[1] Although these studies have examined how institutional change affects firm strategy, why firms respond differently has not been explored.

Second, previous studies have tended to treat institutional change and strategic alignment as opposite ^[2] end of a spectrum, but the intermediary stage remains largely unexplored. Institutional theory holds that the institutional environment a firm faces will affect its strategic behavior. According to the view of strategic coherence, the

organizational strategic coherence is a dynamic process in which the organizational strategy and the environment adapt to each other and coordinate. [3] Zajac et al. studied [4] the conceptual framework of environment-strategic relationship, and the concept of dynamic strategic coordination was its central concept and object of empirical analysis. Their empirical results tested the basic view of strategic coherence theory: the fit between organizational strategy and environment is beneficial to enterprises. The study reflects what Al-Surmi, Cao and Duan [5] call "external fit", that is, the alignment of strategy formulation with the environment. Policy factors are the external environmental factors faced by enterprises, which are objective factors that enterprises cannot control and influence at all. [6] At the same time, the institutional environment will affect the performance of enterprises. A developed institutional environment will improve the performance of enterprises, while an unfavorable institutional [7] environment will also have negative consequences. [8] High performing enterprise [9] systems teams usually develop a clear understanding of the strategic value of the plan, and they ensure that the project is aligned with the overall business strategy of the company. Therefore, institutional change has a great impact on corporate strategic alignment, and the inclusion of corporate performance in the theoretical framework of this paper is helpful to clarify the path and mechanism of action from institutional change to strategic alignment. Based on the theory of strategic consistency, this paper constructs a research mechanism of institutional change-corporate performance-strategic consistency. All listed companies related to "three public consumption" during the six years from 2010 to 2015 are taken as research samples. Based on the analysis of the influence of the institutional change of "three public consumption" on corporate strategic consistency, this paper discusses the mediating role of corporate performance between institutional change and corporate strategic consistency.

2 Theoretical Basis and Research Hypothesis

1. Consistency between institutional change and corporate strategy

Strategic consistency means the combination of corporate actions with changes in the business environment and the continuity [10] of corporate strategy. In fact, organizations seeking a particular strategy are also accumulating competencies and experiences associated with it all the time, and choosing to keep corporate behavior within the scope of these competencies and experiences is often the first choice of the firm, so understanding the limits of their organization's unique capabilities and tendencies may be more important [11] than trying to change them. Research has shown that in turbulent environments, if a firm does not change its strategy by becoming more flexible and avoiding mismatches, it will reduce its probability [12] of survival. Evolutionary theory research argues that strategic coherence (rather than aggression or speed) is a necessary condition for firm survival. It can be seen that when an enterprise faces changes in the external environment, its ability, willingness and inherent inertia may have an impact on the strategic adjustment of the enterprise, but these impacts are not direct, and [13] often related to the performance of the enterprise.

Generally speaking, changes in the environment have an impact on business competitiveness, and institutional changes will affect corporate performance. Institutions have normative, cultural and cognitive characteristics, bringing coercive, normative and imitative pressures, which in turn shape the behavior and performance of enterprises. Institutional theory focuses on the dynamic role between institutions and organizations, in which strategic choices are the outcome. A favorable institutional environment may have a positive impact on business performance, but an unfavorable institutional environment can also have negative consequences. Institutional change may lead to the decline of firm performance or the rise of firm performance. As a kind of structure, "institutional factors" are negatively related to firm performance, possibly because the internal development strategy of the company can not adapt to the external environment.

In a rapidly changing environment, most organizations are forced to constantly adjust their strategies in order to remain competitive. To guide the execution of the strategy, stakeholders need a performance indicator that systematically assesses the appropriateness of the current corporate strategy. Therefore, for most companies, there is a strong case for a substantial strategic shift, even in the face of poor performance, that negatively impacts the strategic alignment of the business. When traditional companies do not perform well, the management will face higher pressure to make strategic changes to cope with the current development dilemma of the enterprise. Parisi^[14] called it the corporate change under pressure, that is, the situation of poor performance will prompt the company to change its strategy to better pursue profit. Consistent and appropriate action from the perspective of customers and other stakeholders is likely to improve business performance. Therefore, there is a positive correlation between business performance and strategic alignment.

To sum up, based on the above analysis, this paper proposes the following hypothesis:

H1: There is a positive correlation between corporate performance and strategic alignment.

H2: Institutional change negatively affects corporate strategic consistency through the complete mediating effect of corporate performance.

3 Research Methods

1. Data collection and sample research.

This paper selects all listed companies related to the "three public consumption" during the six years from 2010 to 2015, including aviation, automobile, wine, tourism, accommodation, catering and other industries, and adopts annual cross section and time series data. And the above samples were screened according to the following principles: (1) Excluding ST class, delisted companies; (2) Considering the particularity of the balance sheet of financial companies, this paper excludes financial listed companies and companies with financial operating units; (3) the insolvent companies are excluded; and (4) companies whose data cannot be filled out are excluded. A total of 158 sample companies with a total of 776 observations were obtained (113 in 2010, 118 in 2011,

126 in 2012, 135 in 2013, 136 in 2014, and 148 in 2015). The basic information and financial data of the sample companies mainly come from the CSMAR database and the Wind database. For incomplete data, supplement and collect them manually through listed companies' annual reports and websites such as Juchao Information Network. The data processing software used in this paper is SPSS.22.

2. Study variable measurement.

(1) Strategic consistency: Due to the absence of many sample advertising cost data and the fact that some sample advertising cost is attributed to sales cost, the method proposed by Yang Yan et al^[15] was used to calculate the ratio of R&D cost to income, the three major expense to income ratio, the inventory to income ratio, the growth rate of fixed assets and the ratio of property rights. The calculation method and steps are shown in Figure 1.

(2) Institutional change: The introduction of the "Eight Provisions" was in December 2012, which is a milestone in the occurrence of institutional change. Since this time is already the end of the fourth quarter of the 2012 fiscal year, and the policy layout and implementation need some time, so the 2010-2015 observation period of this paper is divided into two stages, 2010-2012 is the stage before the institutional change, and 2013-2015 is the stage after the political environment change. Therefore, the value of the institutional change variable of the sample enterprises from 2010 to 2012 is 0. The value of the institutional change variable of the sample enterprises from 2013 to 2015 is 1.

(3) Enterprise performance: Return on equity (ROE), as an accounting performance indicator, is comprehensive and can reflect the overall operating status of a company in an accounting period and reflect the profitability of equity capital. ROE is widely used in strategic research, and the lag effect of policies is taken into account^[16]. In this study, the average value of ROE disclosed in the annual report of the observation period and the one-year lag period is selected as the measurement index of enterprise performance.

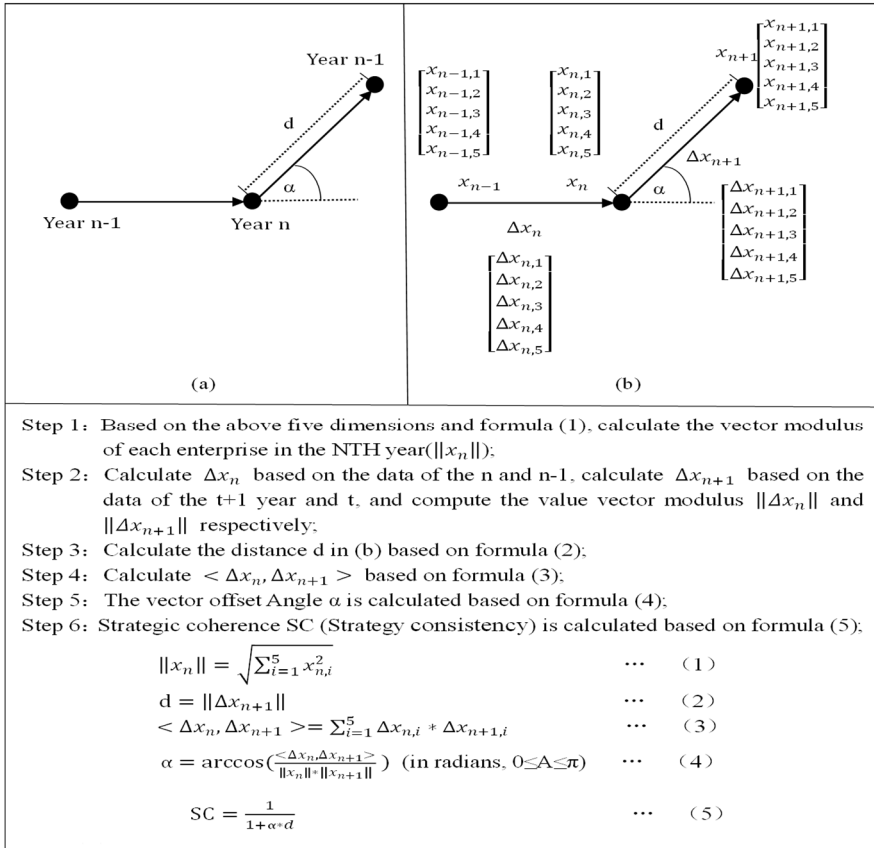


Fig. 1. Calculation of strategic alignment

(4) Control variables: Since the relationship between institutional change, corporate performance and strategic consistency may be affected by various factors, the following variables are specially controlled in this study: At the level of corporate attributes, variables such as Age, Size and Government are controlled;^[17] At the level of enterprise operation, considering the influence of highly liquid and redundant resources such as internal cash on enterprise performance and strategy, this study controls the Current Ratio, and takes into account the influence of labor input factors to control Employees' payables; At the level of corporate governance, Concentration and Mgtshare are controlled in terms of ownership structure. In addition, many studies have emphasized the important role of the openness of an individual CEO in maintaining or changing the status quo of corporate strategy.^[18] The so-called "CEO openness" refers to the personality characteristics of ceos who are good at changing the organizational status quo and seeking new institutional systems and strategic directions. This study draws on Datta et al., Lian Yanling and He Xiaogang's practices, and combines CEO age, CEO education level and CEO tenure^[4] in the enterprise as CEO openness indicators. And

this ^①variable is controlled; at the external environment level, considering the impact of the business environment of the enterprise, the average profit rate of the industry in which the enterprise is located is controlled at the industry level, and the Market index of the province where the enterprise headquarters is located is controlled at the regional level. The main variables are defined and measured as shown in Table 1.

Table 1. Description of the main variables

Types of variables	Variable code	Variable name	Measurement and description	
Dependent variables	SC	Strategic coherence	The calculation process is shown in Figure 1	
Mediating variables	Performance	Business performance	Take the average of the "return on equity ROE" disclosed in the year of the observation period and the one-year lag annual report	
	Institution	Institutional change	Dummy variable, the value of enterprises in 2010-2012 is 0, and the value of enterprises in 2013-2015 is 1	
Independent Variable	Age	Age of business	Year of observation period minus year of establishment of business	
	Size	Size of business	The natural logarithm of the total assets of the firm in the observation period	
	Government	State-owned or not	Dummy variable, the actual controller of the enterprise has a government background, is 1, otherwise 0	
	Current Ratio	Current ratio	Take the "current ratio" disclosed by the enterprise in the annual report of the year of the observation period	
	Employees	Payroll payable to employees	The natural logarithm of the enterprise's employee compensation payable in the year of the observation period	
	Control variable	Concentration	Concentration of ownership	Helfand index of the proportion of the top ten shareholders in an enterprise during the year of observation
		Mgtshare	Executive ownership	Take the "shareholding ratio of senior executives" disclosed by the enterprise in the annual report of the year of the observation period
		CEO	CEO openness	See footnote ^① for the calculation
		Industry	Industry profit margin	Calculate the average operating profit rate of enterprises in the same industry according to the CSRC industry classification standard (sub-category)
		Market	Marketization index	The marketization index of the province where the enterprise headquarters is located in the observation period

4 Empirical Analysis and Results

1. Results of descriptive statistics and correlation coefficient analysis.

Table 2 shows the descriptive statistics and correlation coefficient analysis results of the main variables. Descriptive statistics report the mean value and standard deviation of each variable. The correlation coefficient analysis results show that the correlation coefficient between institutional change and firm performance is negative, and the correlation coefficient between institutional change and strategic consistency is also

^① The calculation process of CEO openness index is as follows: (1) The age of CEO, the education level of CEO and the tenure of CEO in the enterprise, in which the education level of CEO is measured based on the highest education level of CEO, 1= secondary school and below, 2= junior college, 3= undergraduate, 4= master, 5= doctoral; (2) The negative conversion of CEO age and CEO tenure (multiplied by negative 1), because these two indicators are negatively correlated with the degree of openness; (3) The three indicators of CEO age, CEO tenure and CEO education level after conversion are standardized and summed, that is, the index of CEO openness is obtained.

negative, while the correlation coefficient between firm performance and strategic consistency is positive. This indicates that institutional change and firm performance may have different impacts on strategic consistency, which is consistent with the hypothesis of this study to some extent. At the same time, the correlation coefficient among all variables is less than 0.35, indicating that the multicollinearity problem is not big, and the reliability of subsequent regression results can be basically guaranteed.

Table 2. Descriptive statistics of samples and Pearson's correlation table

Variable	Mea n	S.D	1	2	3	4	5	6	7	8	9	10	11	12	13
1.SC	0.65 6	0.203	1.000												
2.Perfor- mance	0.09 0	0.138	0.231 ***	1.000											
3. Institu- tion	0.54 0	0.499	- 0.019	- 0.100	1.000										
4. Age	15.0 30	5.036	0.066 -	- 0.033	0.290 ***	1.000									
5. Size	22.1 86	1.422	0.055	0.284 ***	0.081 **	0.064 -	1.000								
6. Gov- ernment	0.37 2	0.484	0.031	0.101 ***	- 0.054	0.079 **	0.334 ***	1.000							
7. Cur- rent Ra- tio	1.92 7	1.613	0.189 ***	0.082 **	- 0.024	- 0.261	- 0.183	- 0.151	1.000						
8. Em- ployees	17.4 18	1.901	0.083 **	0.312 ***	0.088 **	0.113 ***	0.781 ***	0.342 ***	- 0.209	1.000					
9. Con- centra- tion	0.60 7	0.164	0.094 ***	0.214 ***	0.020	0.323 ***	0.298 ***	0.144 ***	0.108 ***	0.281 ***	1.000				
10.Mgt- share	0.03 1	0.092	- 0.017	- 0.034	0.068	0.156 ***	0.143 ***	0.249 ***	0.216 ***	0.238 ***	0.153 ***	1.000			
11.CEO	0.00 0	1.969	- 0.014	0.063 -	0.181 ***	- 0.068	0.021	0.036	- 0.054	0.023	0.088 **	0.149 ***	1.000		
12.Indus- try	- 1.88 9	17.655	0.002	0.000	0.121 ***	0.005	0.098 ***	- 0.039	0.033	0.073 **	0.031	0.037	- 0.015	1.000	
13.Mar- ket	7.43 5	1.965	0.028	0.090 **	0.274 ***	0.063 -	0.196 ***	0.022	- 0.013	0.243 ***	0.315 ***	0.165 ***	0.077 **	0.135 ***	1.000

Note: ***, ** and * are significant at 1%, 5% and 10% levels respectively, the same below.

2. Results of regression analysis.

In order to investigate the mediating effect of firm performance, the following three regression equations were established to test the mediating effect between firm performance and institutional change and strategic alignment: (1) A model was built to test

whether the relationship between institutional change and firm performance was significant; (2) Construct a model to test whether the relationship between institutional change and strategic alignment is significant; (3) Construct a model to test the relationship between institutional change, firm performance and strategic consistency (to test whether the mediating effect is completely mediating or partially mediating). The specific empirical results are shown in Model 2, Model 3 and Model 4 in Table 3. Model 1 in Table 3 puts control variables to test the relationship between them and enterprise performance. On the basis of Model 1, institutional change variables are added to Model 2 to test the relationship between institutional change and firm performance. The results show that there is a significant negative impact between institutional change and firm performance ($\beta=-0.145, p < 0.01$). Model 3, on the basis of Model 2, replaced firm performance with strategic alignment to test the direct relationship between institutional change and strategic alignment. The results showed that there was no significant relationship between institutional change and strategic alignment ($\beta=-0.028, p>0.1$). Model 4 added firm performances on the basis of Model 3 to test whether the mediating effect of firm performance is completely mediating or partially mediating. The results showed that there was no significant relationship between institutional change and strategic consistency ($\beta=-0.028, p>0.1$) There was a significant positive relationship between firm performance and strategic alignment ($\beta=0.185, p < 0.01$). The above results indicate that the effect of institutional change on strategic alignment acts through a completely mediating mechanism of firm performance, which supports the research hypotheses H1 and H2 in this paper.

Table 3. Analysis of regression results

Variables	Performance		SC	
	Model 1	Model 2	Model 3	Model 4
Contant	0.007 (0.033)	0.007 (0.033)	0.002 (0.035)	0.000 (0.035)
Age	0.010 (0.037)	0.057 (0.039)	0.002 (0.041)	0.012 (0.041)
Size	0.059 (0.055)	0.065 (0.054)	0.051 (0.058)	0.063 (0.057)
Government	0.002 (0.037)	0.010 (0.037)	0.020 (0.039)	0.022 (0.038)
Current Ratio	0.133*** (0.036)	0.141*** (0.035)	0.208*** (0.038)	0.182*** (0.038)
Employees	0.264*** (0.056)	0.261*** (0.056)	0.136** (0.059)	0.088 (0.059)
Concentration	0.118*** (0.040)	0.122*** (0.040)	0.056 (0.042)	0.033 (0.042)
Mgtshare	0.003 (0.037)	0.002 (0.037)	0.043 (0.040)	0.043 (0.039)
CEO	0.057* (0.034)	0.031 (0.034)	0.023 (0.037)	0.029 (0.036)
Industry	0.028 (0.034)	0.018 (0.033)	0.006 (0.036)	0.003 (0.035)
Market	0.027 (0.037)	0.011 (0.038)	0.003 (0.040)	0.001 (0.040)
Institution		0.145*** (0.037)	0.028 (0.040)	0.001 (0.040)
Performance				0.185*** (0.038)
Adj R Square	0.126	0.143	0.041	0.069
F-value	12.111***	11.718***	3.782***	5.394***
N	776	776	776	776

Note: ***, **, * means significant at 1%, 5%, and 10% levels, respectively; Standard error values in parentheses, the same below.

5 Conclusion

This paper analyzes the relationship between institutional change and strategic alignment, and further discusses the mediating effect of firm performance on the relationship between institutional change and strategic alignment. Based on the sample data of 158 "three public consumption" sensitive enterprises from 2010 to 2015, the following conclusions are drawn: There is a significant negative correlation between institutional change and corporate performance, that is, the introduction of the "eight provisions" makes the performance of "three public consumption" sensitive enterprises decline. There is no significant relationship between institutional change and strategic consistency. There is a significant positive relationship between enterprise performance and strategic consistency, that is, enterprises with good performance are not greatly impacted by the "eight provisions" and still maintain the previous development strategy. The results show that the influence of institutional change on strategic consistency works through the complete intermediary mechanism of firm performance, that is, when the firm realizes that the change of external environment has a negative impact on firm performance, the firm will take appropriate strategic actions to adapt to the change of external institutional environment, so as to improve its performance.

References

1. Ouakouak, M. L., & Ammar, O. (2015). How does strategic flexibility pay off in terms of financial performance? *International Journal of Business Performance Management*, 16(4), 442-456.
2. Anwar, J., & Hasnu, S. A. F. (2017). Strategic patterns and firm performance: comparing consistent, flexible and reactor strategies. *Journal of Organizational Change Management*, 30(7), 1015-1029.
3. Contador, J. C., Satyro, W. C., Contador, J. L., & Spinola, M. D. M. (2021). Taxonomy of organizational alignment: implications for data-driven sustainable performance of firms and supply chains. *Journal of Enterprise Information Management*, 34(1), 343-364.
4. Zajac, E. J., Kraatz, M. S., & Bresser, R. K. (2000). Modeling the dynamics of strategic fit: A normative approach to strategic change. *Strategic management journal*, 21(4), 429-453.
5. Al-Surmi, A., Cao, G., & Duan, Y. (2020). The impact of aligning business, IT, and marketing strategies on firm performance. *Industrial marketing management*, 84, 39-49.
6. Wang Xia, & Wang Jingda. (2015). Study on the influence of "Eight Regulations" on the financial performance of listed wine companies. *Economics and Management Research*, 36(1), 139-144.
7. de Brito, R. P., & Brito, L. A. L. (2020). The influence of institutional changes on industry effects. *Journal of Business Research*, 119, 610-618.
8. Wu, Y., Eesley, C. E., & Yang, D. (2022). Entrepreneurial strategies during institutional changes: Evidence from China's economic transition. *Strategic Entrepreneurship Journal*, 16(1), 185-206.
9. Li, W., Liu, K., Belitski, M., Ghobadian, A., & O'Regan, N. (2016). e-Leadership through strategic alignment: An empirical study of small-and medium-sized enterprises in the digital age. *Journal of Information Technology*, 31, 185-206.

10. Iborra, M., Safón, V., & Dolz, C. (2020). What explains the resilience of SMEs? Ambidexterity capability and strategic consistency. *Long Range Planning*, 53(6), 101947.
11. Fehre, K., Kronenwett, D., Lindstädt, H., & Wolff, M. (2016). Lost in transaction? The transfer effect of strategic consistency. *Business Research*, 9, 101-131.
12. Lin, C. S. (2017). Untangling the relationship between strategic consistency and organizational performance: An empirical analysis of moderator variables. *Journal of Management & Organization*, 23(4), 483-503.
13. Dominguez CC, M., Galán-González, J. L., & Barroso, C. (2015). Patterns of strategic change. *Journal of Organizational Change Management*, 28(3), 411-431.
14. Parisi, C. (2013). The impact of organisational alignment on the effectiveness of firms' sustainability strategic performance measurement systems: an empirical analysis. *Journal of Management & Governance*, 17, 71-97.
15. Yang Yan, Chen Yijie, & Chen Shou. (2015). The impact of strategic change on firm performance: based on the moderating role of monetary policy. *Management Review*, (1), 66-75.
16. Li Li, Gao Hongli, Gu Chunxia, & Xue Donghui. (2013). Industry entry choice and performance of Private enterprises from the perspective of political relevance: An empirical study of private listed enterprises from 2005 to 2010. *Nankai Management Review*, 16(4), 12.
17. Liu Bing, Luo Chaoliang, & Fu Zhengping. (2016). Are venture capital and entrepreneurship always a perfect match? *Nankai Management Review*, 19(1), 14.
18. Bass, B. M., & Bass Bernard, M. (1985). Leadership and performance beyond expectations.

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