

The relationship between strategic difference degree and organizational resilience—under the background of digital transformation

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Abstract: Strategic difference degree and organizational resilience play an important role in improving their own competitiveness and winning in the market competition. In this paper, the data of A-share enterprises from 2011 to 2022 are selected as a sample to test the relationship between the strategic difference degree and the enterprise organizational resilience. The research shows that the strategic difference degree is negatively correlated with the enterprise organizational resilience. That is, the greater the difference of enterprise strategy, the lower the level of organizational resilience. The study of this paper is of great significance to improve the resilience of enterprise organization. Choosing the right strategy and improving the organizational resilience of enterprises can help enterprises cope with the crisis they may face in the future, thus benefiting the long-term development of enterprises.

Keywords: Strategic Difference Degree, Organizational Resilience, Long-term Development

1. Introduction

The 20th National Congress of the Communist Party of China has included "achieving a high level of scientific and technological self-reliance and entering the forefront of innovative countries" in the development goals of China in the 21st century. The emergence of digital technologies such as artificial intelligence, the Internet of Things, cloud computing and big data has provided major opportunities for the transformation and upgrading of technological innovative enterprises. However, opportunities often coexist with risks, and unpredictable crisis events such as "black swans" may occur at any time, which will affect the survival and development of enterprises, and enterprises are faced with many uncertain factors in production and operation [1]. Therefore, enterprises need to adopt different strategies to find out the best strategy to deal with the problems they may encounter in the process of operation. Therefore, the strategic differences between enterprises may be obvious. In the era of VUCA, in order to cope with the impact of the external environment, enterprises must improve organizational resilience, so as to win the competition. Different from the fierce competition brought by the conventional strategy of the industry, adopting the differentiated strategy can avoid the industry competition, give play to the core competitiveness of the enterprise and obtain the extraordinary development opportunities and super profits. However, enterprises will also run counter to the national development logic due to different stakeholder concepts, different institutional logic and lack of control tools. Digital economy can drive the dynamic adjustment of enterprise organizational structure, optimize the allocation of factors, stimulate innovation vitality, and improve the refinement of enterprise management, thus giving enterprises strong risk coping ability and promoting the improvement of organizational resilience. It is of certain significance to help enterprises flexibly respond to challenges in a highly uncertain environment and restore and maintain market vitality [2]. Strategic difference refers to the different strategies adopted by enterprises to cope with external challenges. Organizational resilience is an intrinsic characteristic of enterprises, which can help enterprises cope with external risks and challenges. The degree of strategic difference is closely related to organizational resilience, which is related to the risk bearing ability and development prospects of enterprises.

The study on the strategic differences shows that in order to improve the enterprise core competitiveness, enterprises generally by optimizing the business model, improve the service level and the differences between the competitors, choose different from the industry conventional strategic mode, strategic deviation is the strategic differences. Strategic differences will lead to differentiated arrangements in organizational structure, process planning and business model in the face of external environment changes, which will have an impact on enterprise behavior activities such as resource

allocation and optimization of product image. There has been some consensus on the conceptual definition and key role of organizational toughness. Based on the internal relationship, this paper believes that organizational resilience is the ability of organizations to predict, avoid and adapt to environmental shocks, which can help enterprises to achieve rapid recovery and rebound in the impact, and realize the sustainable development of the organization [3]. Greater organizational resilience makes the enterprise to better bear the fixed costs of not changing with the sales volume, and avoid the bankruptcy caused by the rupture of the capital chain, which can effectively enhance the stability of the organization. At the same time, a stable organization can effectively reduce the variable cost of enterprises, and help enterprises to flexibly adjust the price and scale with the cost advantage when the sales volume is damaged, and adapt to the change of crisis [4]. All this shows that the external environment faced by enterprises affects organizational resilience.

The innovation point of this paper lies in that both strategic difference and organizational resilience can affect the market competition of enterprises, and a better understanding of the relationship between the two is of great significance for enterprises to improve their competitiveness, so as to stand out in the market competition. Among them, the strategic difference will bring more uncertain strategic choices to enterprises, and choose appropriate strategies according to the characteristics of the industry and their own development needs, which is of great significance to reduce the operational risks brought by the differentiation strategy. At the same time, the organizational resilience of enterprises plays an important role in responding to the changes of the external environment and improving their own stability and ability to resist risks. Greater organizational resilience is of greater benefit to the future development of enterprises. Therefore, the combination of strategic differences and organizational resilience and discussion can better clarify the relationship between the two, and can play an important role in guiding the development of enterprises.

2. Theoretical analysis and research hypothesis

The increasing degree of strategic differentiation may have an inhibiting effect on organizational resilience, especially in terms of resource acquisition, allocation, and management challenges. First of all, the degree of strategic variance often brings high operational uncertainty and management complexity. When implementing differentiation strategies, enterprises usually need to face diversified competitive threats and ever-changing environmental conditions in the market. Such high uncertainty will increase the difficulty of resource allocation and may weaken the adaptability of enterprises in crisis situations [5].

The increase of the degree of strategic difference may lead to more challenges and risks for enterprises. As differentiation strategy requires more market exploration and experimentation, enterprises not only need to invest more resources to develop and maintain their unique market positioning, but also need to face higher operational risks and management complexity. The combination of these factors may weaken the stability of the enterprise and make the organization more vulnerable to negative shocks when dealing with emergencies and uncertainties [6].

In addition, firms with a high degree of strategic differentiation may experience greater management pressure. In order to adapt to the changing market environment and customer needs, enterprises may need to adjust their strategy and resource allocation frequently. Such frequent adjustments not only consume a lot of management resources, but can also cause companies to be slower to respond to crises, which inhibits their organizational resilience. With high strategic variance, enterprise managers often need to make more decisions, which may lead to excessive investment or waste of resources, thus further weakening the stability and resilience of the organization [7].

Despite the fact that strategic differentiation can drive innovation, the complexity and uncertainty it brings may also make companies vulnerable when facing unfavorable conditions. Highly differentiated companies may encounter difficulties in resource integration and internal coordination, which may limit their ability to remain resilient and flexible during crises. Moreover, companies that excessively pursue differentiation may neglect the establishment of robust infrastructure and risk management mechanisms, thus exhibiting weaker adaptability when facing unexpected events [8].

To sum up, the higher the degree of strategic difference, the weaker the ability to respond to the crisis, and the worse the stability and resilience of the organization. Based on the above analysis, the following assumptions are made:

H1: The greater the strategic difference, the less resilient the enterprise organization.

3. Research design

3.1 Sample selection and data sources

Based on the research of Hu Zhiliang et al.(2024) [9], this paper selects the data of A-share enterprises from 2011 to 2022 as the sample, and performs the following elimination: (1) The samples of companies with ST and *ST are excluded; (2) The financial company index is excluded; (3) Samples with missing data were excluded, and the final sample size was 29,003 pieces of data. The main data in this paper are from CSMAR and manual sorting.

3.2 Variable definition

(1)Strategic difference degree

Strategic difference degree (DS) is the explanatory variable of enterprise strategy difference, indicating the degree to which the six strategic dimensions of the enterprise i deviate from the industry average in the t year. Based on Hu Zhiliang et al.(2024) [9], first select six key areas of resource allocation, respectively for advertising and propaganda (sales expenses / revenue), research and development investment (intangible asset net value / operating income), capital intensity (number of fixed assets / employees), renewal degree of fixed assets (fixed assets / fixed assets), management cost (management expenses / operating income) and enterprise financial leverage [(short-term borrowing + long-term borrowing + bonds) / equity book value). Secondly, the index of the six strategic dimensions of each enterprise is respectively minus the average of the index in the same industry, and then divided by the standard deviation of the index to standardize and take the absolute value, so as to get the degree that each enterprise deviates from the average level of the industry in each strategic dimension. Finally, the six standardized strategic indicators of each company are averaged to obtain the strategic difference index (DS). The larger the index is, the greater the strategic difference between the enterprise and the competitors in the same industry in the same year is, and the more extreme the strategy of the enterprise is.

(2)Enterprises organizational resilience

Tissue toughness (Score). Based on relevant research [10], this paper is based on the data of Chinas Shanghai and Shenzhen A-share listed companies from 2011 to 2022, and uses the standard deviation of the monthly stock return rate of enterprises in that year to measure the organizational resilience of enterprises in that year. The lower the standard deviation of the monthly stock yield, the higher the stability of the risk.

3.3 Model building

Based on the above theoretical analysis, to verify the impact of strategy difference on organizational resilience, the following regression model is constructed:

$$\begin{aligned} \text{Score} = & \beta_0 + \beta_1 DS + \beta_2 \text{Size} + \beta_3 \text{LEV} + \beta_4 \text{ROA} + \beta_5 \text{NetProfit} + \beta_6 \text{Board} + \beta_7 \text{FIXED} \\ & + \beta_8 \text{Intangible} + \varepsilon + \gamma + \theta \end{aligned} \quad (1)$$

Score, the explained variable in the regression model, is enterprise resilience. The DS indicates the strategic variance degree. According to the hypothesis, when the resilience of the enterprise organization increases, the strategic difference degree increases and β_1 is positive. When organizational resilience increases, strategic differences decrease, β_1 is negative.

Drawing on existing studies, this paper controls the following variables: Size, LEV, ROA, NetProfit, Board, FIXED, Intangible. The ε is a random disturbance term, γ is the industry fixed effect, θ is the year fixed effect. Specific variable definitions are shown in Table 1.

Table 1: Variable definition table

Type	Symbol	Definition
explained variable	Score	Enterprise organization resilience:standard deviation of the monthly stock yield
explanatory variable	DS	Strategic difference degree:the absolute values of the six strategic dimensions were averaged
controlled variable	Size	Company size:total assets take the natural log
	LEV	Financial leverage:The ratio of the total ending liabilities to the total assets
	ROA	Capital earnings rate:ratio of net profit to average total assets
	NetProfit	Net interest rate on sales:the ratio of the net interest margin to the sales revenue
	Board	Board size:number of members of the corporate board
	FIXED	The ratio of fixed assets to total assets
	Intangible	The ratio of intangible assets to total assets
	γ	Industry dummy variables
θ	Year dummy variable	

4. Empirical analysis

4.1 Descriptive statistics

Descriptive statistics for the main variables are shown in the Table 2. The mean value of strategic difference degree (DS) is 0.421, the standard deviation is 0.299, the maximum value is 5.166, and the minimum value is 0, which indicates that the fluctuation of strategic difference degree of the enterprise is obvious. The mean value of organizational resilience (Resilience) was 0.892, the standard deviation is 0.055, the maximum is 0.998 and the minimum is 0.903, indicating the small resilience of organizational resilience.

Table 2: Results of the descriptive statistical analysis

Variable	N	Mean	SD	Min	p50	Max
Score	29003	0.892	0.055	0.026	0.903	0.998
DS	29003	0.421	0.299	0	0.349	5.166
Board	29003	2.125	0.196	1.609	2.197	2.708
Size	29003	22.36	1.285	19.59	22.18	26.45
ROA1	29003	0.038	0.065	-0.373	0.036	0.247
Lev	29003	0.435	0.201	0.032	0.430	0.908
NetProfit	29003	0.060	0.178	-1.544	0.063	0.538
FIXED	29003	0.214	0.159	0.002	0.183	0.719
Intangible	29003	0.047	0.051	0	0.034	0.343

4.2 Basic regression analysis

The benchmark regression results are shown in Table 3, which examines the impact of strategic disparity on the resilience of enterprise organizations. The regression results show that the coefficient of enterprise organizational resilience is significantly negative on the basis of 1%, indicating that the difference of enterprise strategy is significantly negatively correlated with organizational resilience, that is, the greater the difference of enterprise strategy, the less the organizational resilience.

Table 3: Results of benchmark models

VARIABLES	(1) Score
DS	-0.0037** (-2.43)
Board	0.0031*** (2.87)
Size	0.0051***

	(22.04)
ROA1	-0.0333***
	(-4.78)
Lev	-0.0178***
	(-11.48)
NetProfit	0.0093***
	(4.34)
FIXED	0.0043***
	(2.68)
Intangible	0.0041
	(0.91)
Constant	0.7707***
	(145.89)
Observations	29,003
R-squared	0.700
year FE	YES
Industry FE	YES

4.3 Robustness check

4.3.1 Adding control variables

Considering the variables that may be missed in this paper, the current ratio (Liquid), accounts payable ratio (REC) and inventory ratio based on the previous study (INV). The results of Table 4 (1) demonstrate the robustness of the conclusions of this paper.

4.3.2 Fixed effect of province accession

Table 4: Robustness check results

VARIABLES	(1) Add the control variables	(2) Increase the fixed effects
	Score	Score
DS	-0.0033**	-0.0035**
	(-2.09)	(-2.28)
Board	0.0032***	0.0031***
	(2.92)	(2.89)
Size	0.0050***	0.0051***
	(22.33)	(21.97)
ROA1	-0.0350***	-0.0341***
	(-4.97)	(-4.86)
Lev	-0.0189***	-0.0180***
	(-10.51)	(-11.49)
NetProfit	0.0097***	0.0091***
	(4.47)	(4.23)
FIXED	0.0046***	0.0040**
	(2.78)	(2.39)
Intangible	0.0046	0.0055
	(1.04)	(1.21)
Liquid	-0.0001	0.7712***
	(-0.60)	(143.20)
REC	-0.0013	/
	(-0.44)	/
INV	0.0056***	/
	(2.99)	/
Constant	0.7704***	/
	(143.98)	/
Observations	28,737	29,003
R-squared	0.700	0.700
year FE	YES	YES
Industry FE	YES	YES
Province FE	/	YES

Due to different provinces of strategic aggregation and environmental regulation strength may produce heterogeneity, so this paper on the basis of control year and industry fixed effect added province

fixed effect, the results found that after the control province fixed effect, the results show that the greater the strategic difference, the lower the enterprise organization toughness. The conclusions of this study have not changed. Specific results are shown in column 2 in Table 4.

5. Conclusions

This paper uses the sample of A-shares 2011—2022 to study the impact of strategic disparity on the resilience of enterprise organization. The study found that the degree of strategic difference and the resilience of enterprise organization are negatively related. In addition, this paper further explored the relationship of strategic difference degree on tissue toughness by increasing control variables and increasing fixed effect robustness test, and the regression results were consistent with the benchmark regression conclusions. Therefore, the following enlightenment: (1) enterprises should pay more attention to the impact of their strategic positioning on the future in the process of production and operation, choose appropriate strategies according to the industry characteristics and their own development needs, and strive to reduce the operational risks brought by the differentiation strategy.(2) Enterprises should actively improve their organizational resilience. Actively respond to the external environment, establish flexible organizational structure and process, improve organizational learning ability, carry out creative innovation activities, so as to achieve the collaborative evolution of the internal and external environment, promote the matching of the organizational operation management mode and the external environment, and activate the resilience of the organization.(3) The strategic difference degree is negatively related to the resilience of enterprise organization. Choose appropriate strategies to improve the resilience of enterprise organization and better cope with the crisis that enterprises may face in the future. To improve the ability of enterprises to identify potential risks and take measures to respond to crises and achieve recovery and transcendence.

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