

Flexible Risk Management and Performance Ability of Manufacturing Enterprises Based on Manufacturing Enterprises

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Abstract: The implementation of cost-leading strategies can bring positive performance to the company. The flexible efficiency capabilities characterized by resource specialization, mechanical structure, standardized processes, and competitive external relationships mainly play an intermediary role, thus supporting the enterprise's strategic endogenous theory. Flexible risk management capabilities can be divided into two types: cost leadership, enterprises choose to develop flexible efficiency that improves efficiency and reduces costs, and solve environmental uncertainties through comprehensive ability improvement, so as to effectively solve the problem that strategic risks are difficult to identify and measure, so that enterprise performance can be improved. The research results show that there is a significant positive correlation between the resilience risk of an enterprise and its operating performance.

1. Introduction

Manufacturing is the foundation of the country, a tool for the rejuvenation of the country, and the foundation of a powerful country. At present, the world's manufacturing industry has entered a period of profound transformation. It is necessary to further deepen the reform of the supply structure, improve the element market, strengthen the high-quality supply of production links, enhance the adaptability and elasticity of the supply structure, and increase the total factor productivity to better adapt to changes in the demand structure. The level of an enterprise's risk management capabilities will further expand or decrease the company's operating risks, the uncertainty of the external environment and the impact of internal operating risks, and then play a decisive role in the effect of transformation and upgrading, gaining and maintaining new competitive advantages. In the current environment, what risks will the strategic positioning and selection of manufacturing enterprises bring, how to effectively control and effectively resolve uncertainties, the impact of related risks on the company's performance, the effectiveness of risk management, etc., The solution of these problems is of great significance to manufacturing enterprises to effectively control uncertainties, including strategic risks, gain competitive advantages, and ultimately successfully achieve transformation and upgrading.

Regarding corporate risk and performance, many experts have conducted relevant research. Willumsen P explored how practitioners view the connection between project risk management practices and value creation. Stakeholders' views on value play an important role in how to create value through project risk management. Things that stakeholders consider important, such as the expected results of a project, affect the perceived value of a given project's risk management practices [1]. Babich V solves the problem of better integrating physical, financial, and information flows by combining the company's operational choices with its financial decisions, and combining the flow of information between the company and its customers and suppliers with the flow of information between the company and its investors [2]. Nobanee H uses the bibliometrics parameters analyzed by VOSviewer software to identify citations related to key topics of sustainability and risk environment. Sustainability remains an issue in a global perspective and has been challenging the views of individuals and/or organizations. Risk factors are also determined to be inevitable; therefore, everyone must be responsible to society to minimize the negative impact on the economy [3].

With the intensification of international competition, the transformation and upgrading of supply-side structural reforms, automation, intelligence, digitization and other industries, the transformation and upgrading of the manufacturing industry is urgent. Today's business environment is changing rapidly, and enterprise operations are already facing great uncertainty. In the process of transformation and upgrading, enterprises will face risks that are more difficult to identify, quantify and evaluate, affecting enterprise operations and performance, as well as the establishment of competitive advantages.

2. Flexible Risk Management and Performance Ability Analysis Methods

2.1 Flexible Risk Management

This paper analyzes the strategic risks of enterprises from the three aspects of macro-environment, market competition, organizational operation, strategic implementation and management quality. When studying the measurement of strategic risk, early models, single indicators that reflect fluctuations, and modern methods based on mathematics and computers are mainly used for analysis [4-5]. However, the disadvantages of this method are: first, the use of single indicators such as finance and finance to measure the strategic risks of an enterprise, it is difficult to make a comprehensive and objective evaluation of it comprehensively and objectively; and the existing measurement methods are based on historical lags and historical lags. Based on the identification of strategic risks, this measurement method cannot effectively make a timely and effective response to the future strategic risks of the enterprise. In terms of the control of strategic risks, scholars at home and abroad believe that to comprehensively measure and manage the strategic risks of enterprises, a multi-dimensional and multi-characteristic strategic risk management system is required, and a complete strategic risk control system needs to be established, especially at the level of strategic decision-making. Pay attention to the opportunities that may arise from risks [6-7].

In the fierce market competition, companies' business activities are facing more and more uncertainties, and in addition to traditional risks, more unpredictable and quantifiable risks are also increasing [8]. On the one hand, since a single competitive strategy and a combination of competitive strategies will produce essential differences, therefore, differences in strategies will lead to differences in strategies. In the implementation process, because different strategies require resource allocation, process control, and organizational structure, there must be certain risks when implementing strategies. In addition, in the formulation and implementation of strategies, enterprises must fully take into account the rapid changes in the business environment, which

means that the formulation and implementation of strategies will interact closely with the external environment, which greatly increases the uncertainty of the implementation strategy. Therefore, when an enterprise formulates, selects, and implements strategies, it will bring strategic risks to the enterprise [9-10]. Environmental uncertainty can increase the risk of the strategy. Environmental uncertainty will amplify strategic risks. The elastic lifting path is shown in Figure 1.

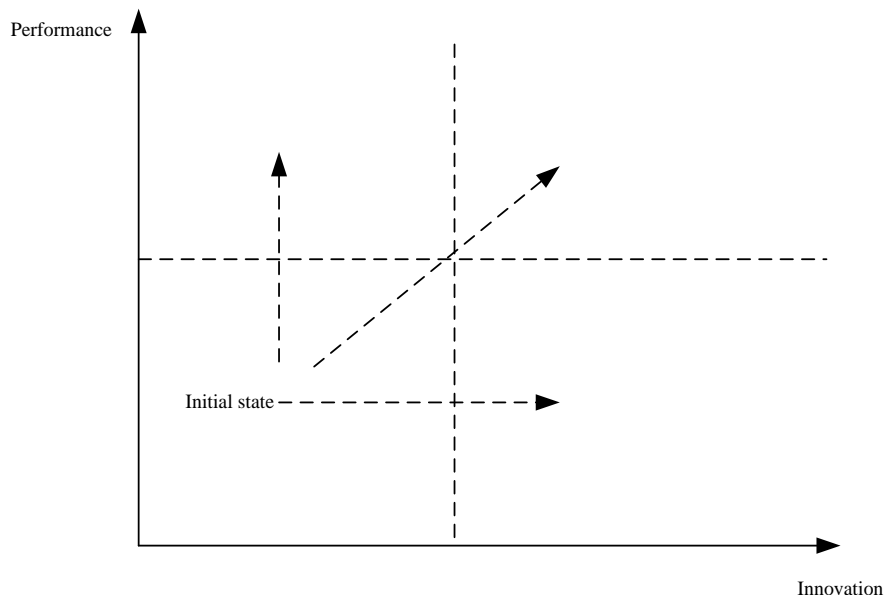


Figure 1: Flexible risk enhancement path

Flexible risk management is an important way to solve these problems. First of all, the theory of elastic risk management focuses on the adaptability of enterprises, shifting the research perspective from outside the organization to within the organization, from studying the impact of external uncertainties on corporate goals, to how enterprises evaluate and construct their own capabilities in the face of uncertainty, and solve difficult-to-quantify strategic risks by evaluating their own capabilities [11]. Secondly, resilience refers to the various abilities of an enterprise, especially the ability to learn, adapt and develop. It is the ability of an enterprise to continuously change its business model and business strategy in a dynamic environment, so as to gain a continuous competitive advantage. Risk management from a flexible perspective focuses on evaluating one's own abilities, with “efficiency” and “innovation” as the core, emphasizing the improvement of value, and can flexibly integrate the stability and resilience of the organization according to different strategies, thereby improving the organization's goals and thereby promoting the value creation of the enterprise [12].

2.2 Enterprise Cost and Performance

By adopting a cost-leading strategy, enterprises can gain a greater competitive advantage and achieve better economic performance. On the one hand, the implementation of the cost advantage strategy is bound to reduce the cost of raw materials, production, and labor, and can effectively control operating costs, so that the company can better provide customers with low-cost goods and services. Such prices are more attractive to consumers, especially in emerging countries. Compared with developed countries, consumers in emerging markets have relatively low disposable incomes, so they are more sensitive to prices and pay more attention to product performance and performance, so they have a certain disregard for the production of cheap commodities[13]. On the other hand,

because consumers' consumption behavior presents a more complex consumption method, compared with consumers in developed countries, consumers in emerging market countries are relatively lagging behind in brand awareness, and consumers have a relatively low degree of brand awareness, and they are not very sensitive to product branding, differentiation and other related concepts. The sensitivity of consumers to the price of products or services and the characteristics of lower requirements for product characteristics make it extremely possible for enterprises to obtain a competitive advantage through the implementation of cost-leading strategies[14].

From the perspective of the enterprise itself, the cost-leading strategy can directly benefit the enterprise in terms of reducing production costs, reducing labor costs, increasing profits, and obtaining higher economic benefits. In the emerging economy, companies that implement cost advantage strategies have established a relatively stable supply network and sales channels[15]. Therefore, the company can achieve continuous and stable profitability through the established reliable supply network and reliable sales channels. In low-cost operation, the company has a wealth of low-cost operation experience, and the established low-cost image can better cater to customers' awareness and expectations of products and increase profit opportunities. The differentiation strategy is to carry out different development and market investment in different products from different angles. This is a strategy with slow short-term effects, high costs, and uncertain effects. This has led many companies to seek cost-oriented strategies to obtain greater benefits.

The institutional characteristics of emerging countries also make it more likely to establish a competitive advantage by implementing cost-leading strategies. On the one hand, market research shows that the awareness of intellectual property protection in developing countries is relatively weak, and the relevant laws and regulations are not perfect, which will seriously affect the value of differentiated goods and services, thereby affecting and combating the differentiated strategies of enterprises, thereby reducing the opportunity to use differentiated strategies to establish a competitive advantage. On the other hand, due to the lax regulatory environment, a large number of counterfeit, unbranded products and counterfeit products have appeared in the market, thereby exacerbating the complexity of consumption, which will worsen competition to some extent, thereby further reducing the possibility of companies making profits by providing differentiated products and services, and it will also make consumers more sensitive to brand loyalty.

2.3. Principal Component Analysis

Principal component analysis mainly uses orthogonal processing to eliminate the correlation between various variables. This method can not only maintain most of the information in the original data, but also reassemble the original data, remove redundant and duplicate parts, and obtain some irrelevant main components, so as to achieve dimensional reduction of the data. In this article, we use the principal component analysis method to analyze the resilience risk and performance of the enterprise. The method is as follows:

It is preferred to form a matrix based on the collected data, which mainly includes the number of analyzed data and the number of observed sample variables.

$$X = \begin{matrix} X_1 & X_{11} & X_{12} & X_n \\ X_2 & X_{21} & X_{21} & X_{2n} \\ X_3 & X_p & X_p & X_{np} \end{matrix} \quad (1)$$

The sample covariance matrix is

$$\text{cov}(X, Y) = E\{[X - E(X)][Y - E(Y)]\} \quad (2)$$

In principal component analysis, although the stable process can provide us with a good basis for analysis, under actual circumstances, it is difficult to achieve stable stability. Therefore, in practice, we often talk about a weaker smoothing.

3. Empirical Research on Elastic Risk and Performance

This article takes S enterprise as an example. There are two main data sources: the first time and the second time. Triangular verification composed of multiple data sources to ensure the authenticity and correctness of the data, thereby improving the correctness and credibility of the research results. In order to reduce the impact of subjective biases and cognitive biases on the experimental results, the coding work at each stage is carried out by three people, two people are mainly responsible for coding, back-to-back coding in a standard way, and the results are compared. If there are differences, then submit opinions to a third party and discuss them repeatedly until they are inconsistent. The results obtained are shown in Table 1:

Table 1: Financial flexibility and Corporate risk.

VARIABLES	High elasticity and efficiency	Low elastic efficiency
	Experimental group	Control group
LEV	0.773**	0.771**
	0.052	0.057
STATE	-0.021*	-0.077*
	0.042	0.036
FAGE	-0.004	0.027
	0.019	0.013

The regression results show that there is still a significant positive correlation between financial flexibility and corporate risk-taking, and the cross-product of financial flexibility and the shareholding ratio of supervisory funds is still significantly positively correlated, which is consistent with the previous conclusions.

From this, our conclusion on the correlation between the company's resilience risk and performance is shown in Figure 2.

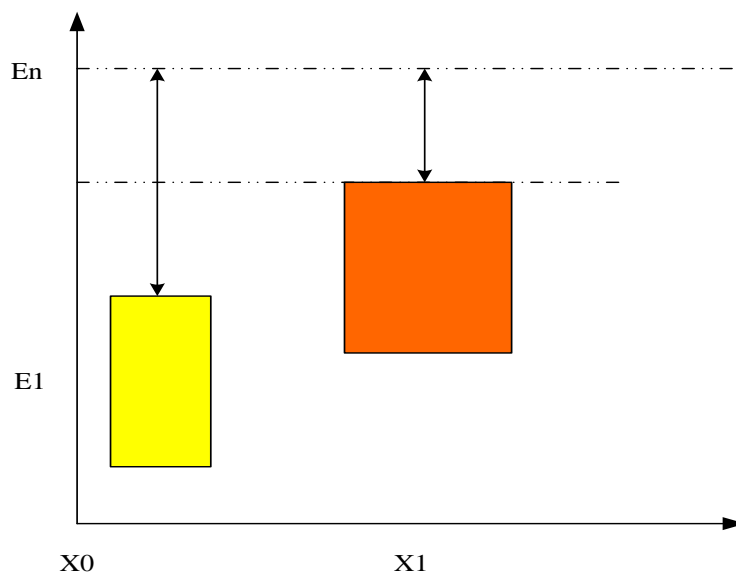


Figure 2: The relationship between elastic risk and corporate performance.

In Figure 2, the horizontal axis represents time, and the vertical axis represents the capabilities of the enterprise. Among them, X represents the target ability, that is, the ability that the enterprise needs to have in order to achieve the set goal. E represents the ability of the enterprise to show.

Taking S enterprise as an example, the return on assets (ROA) and total asset turnover rate (circle) of the enterprise are shown in Figure 3.

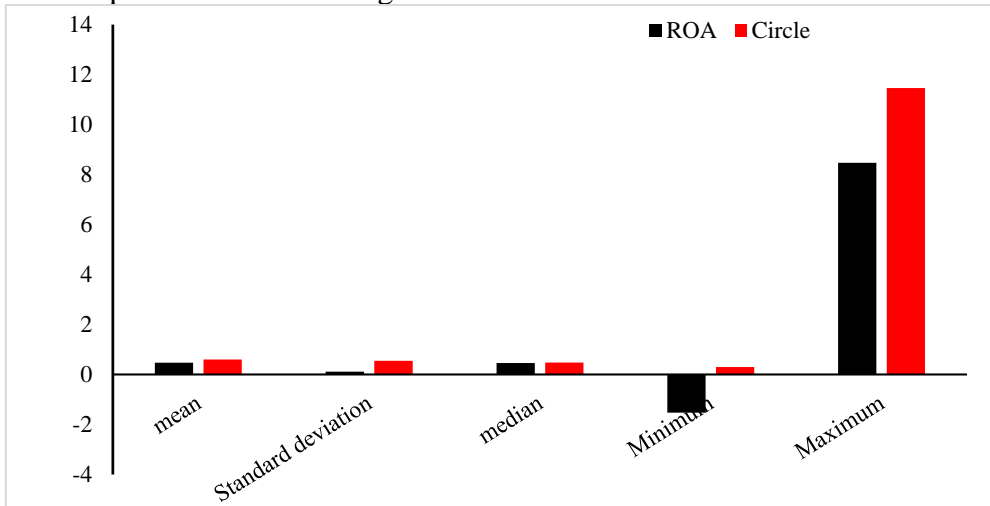


Figure 3: Return on corporate assets (ROA) and total asset turnover rate (circle)

It can be seen that the return on assets of S enterprise is very different from the total asset turnover rate, and it needs to be further optimized. We have also analyzed its financial flexibility and corporate risk-taking in recent years. The results are shown in Figure 4.

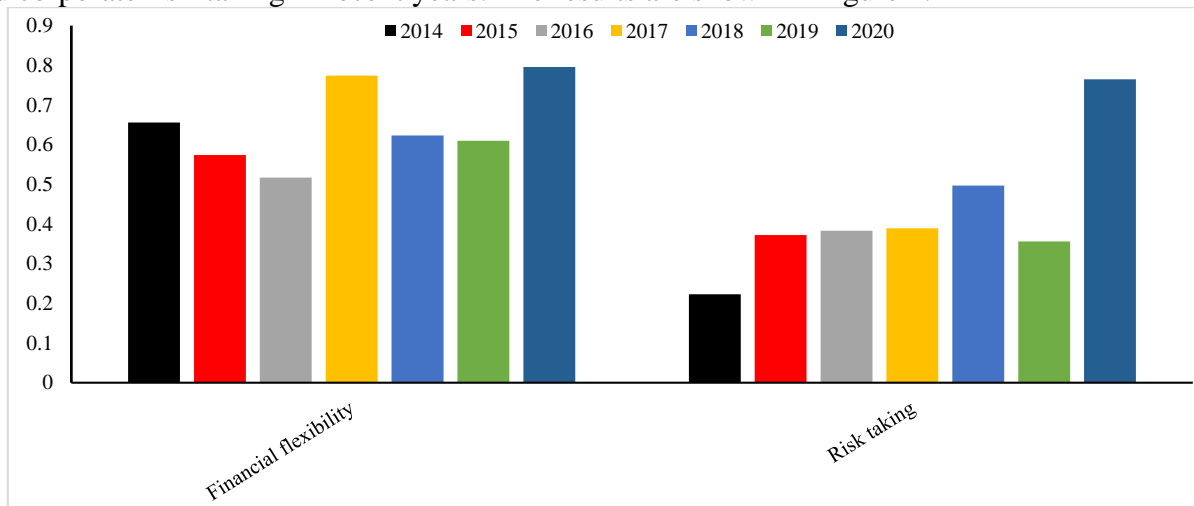


Figure 4: Corporate financial flexibility and corporate risk taking

Reduce manufacturing costs, remove the contact between enterprises and consumers, reduce customer costs, reduce customer prices, and reduce customer prices. Based on data, real-time information sharing with upstream and downstream enterprises in the supply chain has been realized, communication and negotiation have been reduced, work efficiency in all aspects has been improved, costs have been reduced, and resource integration in the supply chain has been promoted, creating value for upstream and downstream enterprises.

4. Conclusion

Manufacturing enterprises should pay attention to the needs of customers. Compared with traditional suits, the flexible production and customization model has more personalized elements, which are more in line with the personalized requirements of customers, and reflect the characteristics of the differentiation of tangible products. At the same time, this production model saves coordination and communication time with suppliers and upstream and downstream enterprises, speeding up the speed of value delivery and realizing the differentiation of value delivery services. In the case of taking the production and business model as the solution, unlike the previous stage, different product supply elements have been added to different strategic dimensions, thus providing a reference for the transformation and upgrading of other companies under the “Internet+”. Therefore, this hybrid strategy includes strategies such as low-cost production, low-price sales cost advantage strategy, high differentiation, new supply, and rapid delivery of value. Under the guidance of cost advantage strategy and differentiation strategy, enterprises can achieve a mixed strategy through effective behavior and innovative behavior.

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