



JOURNAL OF APPLIED SCIENCES RESEARCH

ISSN: 1819-544X EISSN: 1816-157X

JOURNAL home page: <http://www.aensiweb.com/JASR>

2015 June; 11(10): pages 29-34.

Published Online 25 June 2015.

Research Article

Research on the Risks of Strategy transformation from Original Equipment Manufacturing (OEM) to Original Design Manufacturing (ODM)

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Received: 28 March 2015; Revised: 14 May 2015; Accepted: 31 May 2015

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ABSTRACT

Promoting the transformation and upgrading of processing trade has become an important subject of Chinese foreign trade development. But as one of the main paths, upgrading from OEM to ODM is a major strategy transformation with significant strategic risks. Through the establishment of the state-transition model of enterprise strategy system under strategy transformation, by comparing the important characteristic of the OEM with that of ODM the required transition and coordination of strategic elements from OEM to ODM was discussed, and from the perspective of state transition the risks of strategy transformation from OEM to ODM were analyzed in the aspects of external environment, resources and capabilities, knowledge, structure, process and coordination. It was discovered that the strategy transformation from OEM to ODM is not only the change of strategy itself, but also the integral shift of enterprise strategy systems. It is proposed that enterprises should adopt the appropriate tactics according to their own strengths and the external conditions, carefully deal with various relations and reduce the transformation cost to ensure the success of strategy transformation.

Keywords: OEM, ODM, strategy transformation, risk, enterprise strategy system.

INTRODUCTION

Since China's reform and opening-up, the growth of China's processing trade effectively promotes the development of foreign trade and has played a great role in promoting China's economic development. Lying in the low end of the global value chain, China's processing trade is mainly OEM with low technology content and added value, and the enterprises are of very weak compress-resistance ability and cannot bear the change of the international markets. In recent years, rising prices of elements such as labor, raw materials, especially the worldwide recession and external demand decrease caused by the international financial crisis, significantly impact negatively on the processing trade. More and more small and medium-sized manufacturing enterprises have to face hard choices:

either running risks to implement strategic transformation, or awaiting one's doom. Therefore, promoting the transformation and upgrading of processing trade and accelerating the change of the growth pattern of China's foreign trade have become the important subject of Chinese foreign trade development.

There are many direction and way for OEM businesses to transform and upgrade. Generally, the OEM enterprise upgrading has the following three ways: one is the technology route, namely the transformation from OEM to ODM; second is the brand way, that is, the transformation from the combination of OEM and ODM to OBM or the direct transformation from OEM to OBM; three is the OEM diversification into industries with more value-added potential the based on the technology relevance [1]. But for most Chinese manufacturers, it is impractical

to create brand and self-build sales channels in the vast international market relying on existing resources and conditions. Most of the manufacturers should try to upgrade from OEM to ODM [2].

The process of enterprise strategy transformation is not smooth, but with heavy risks and traps [3]. The practice of enterprise strategy transformation shows that almost 40% of transformation ended in failure. As one of the main ways of transformation and upgrading of processing trade, the shift from OEM to ODM is a major strategy transformation with significant strategic risks, may even with fatal danger. So the research on strategy risk of transformation from OEM to ODM is with important theoretical significance and practical value.

On the upgrading from OEM to ODM, the academic circles have redundant theory-expound and macro-analysis on the OEM-ODM-OBM upgrade path, but insufficient analysis and empirical research on micro-mechanism for enterprises in transformation and upgrading between the three phases of OEM, ODM and OBM in turn [4]. On the strategy transformation, the following problems remain to be solved: how to conduct the interdisciplinary research, how to empirically study the dynamic problems of strategic transformation, how the stiffness characteristics of the various internal factors in an organization affecting the strategy transformation and how the strategy transforming under the background of China's reform and opening-up [5]. On the risks of strategy transformation, the current perspectives of research on risk of strategy transformation lay particular stress on the risks brought by the environmental uncertainty after strategy transformation, and do not study the strategy transformation in the strategy chain of the old strategy, the new strategy and follow-up strategy with inner link of environment, resources and capabilities, organizational learning, and the operating system [6].

In general, the current researches on risks of strategy transformation pay insufficient attention on the risks caused by the changes of the enterprise internal and the strategy itself, even more ignore the fact that the enterprise strategy exists in an enterprise strategy system constituted by environment, resources and abilities, organizational learning and strategy operating, and do not conduct in the process of strategy system shift from the old to the new.

Therefore, this research attempts to establish the state-transition model of enterprise strategy system under strategy transformation, to discuss the required transition and coordination of strategic elements from OEM to ODM, and to analyze the risks therein and the countermeasures.

2. The state-transition model of enterprise strategy system under strategy transformation:

In today's environment of rapidly changing

global competition, the time frame of enterprise strategy is continuously shortening, timely and effective strategy transformation determines the success or failure of enterprise competition, and the sustainable competitive advantage is achieved by "short to long".

Porter (1980) thought that in the final analysis competitive advantage depends on the value an enterprise creating for customers [7]. Environment, resources, capabilities and strategy constitute a general framework of enterprise strategy analysis. So the difference between the value the strategy operating system with the core competitiveness of an enterprise created for customers based on the resources and knowledge on the premise of keeping adaptation to the environment and that of competitors is the direct source of competitive advantage. Strategic operating system is in fact the organization system on the strategic perspective, which can be divided into strategy subsystem, structure subsystem and process subsystem [8]. So, the six strategic elements, i.e strategic environment, strategic resources and capabilities, strategic knowledge, strategy, structure and process, interact and depend on each other and constitute the enterprise strategy system. On the function, there are matching and coordination relationships among the strategic elements that strategy should adapt to the environment, resources and capabilities should support the strategy, strategy knowledge should update the system dynamically, and the strategy, structure and process should match each other.

Wang Ying-luo, Liu Yi and Li Yuan (2004) defined strategy transformation as that in order to dynamically adapt to the change of external environment and internal conditions or to continuously capitalize on the potential opportunity an organization shifts from the original strategy to the new one so as to constantly create new strategic situation and competitive advantage [9]. Strategy transformation reflects the holistic, multi-level, discontinuous and comprehensive changes of enterprise's strategy, organizational structure and management system [10]. Therefore enterprise's strategy transformation is not only the transformation of the strategy itself, but also the integral shift of the enterprise strategy system. Figure 1 shows the state-transition model of enterprise strategy system under strategy transformation.

3. The required transition and coordination of strategic elements from OEM to ODM:

Synthesizing the conclusions of Hobday [11], Zhang Yi-qun [12], Chang Li-Hua, *et al.* [13, 14], Mao Yun-Shi and Dai Yong [15], the important differences between the features of OEM and ODM are shown in table 1.

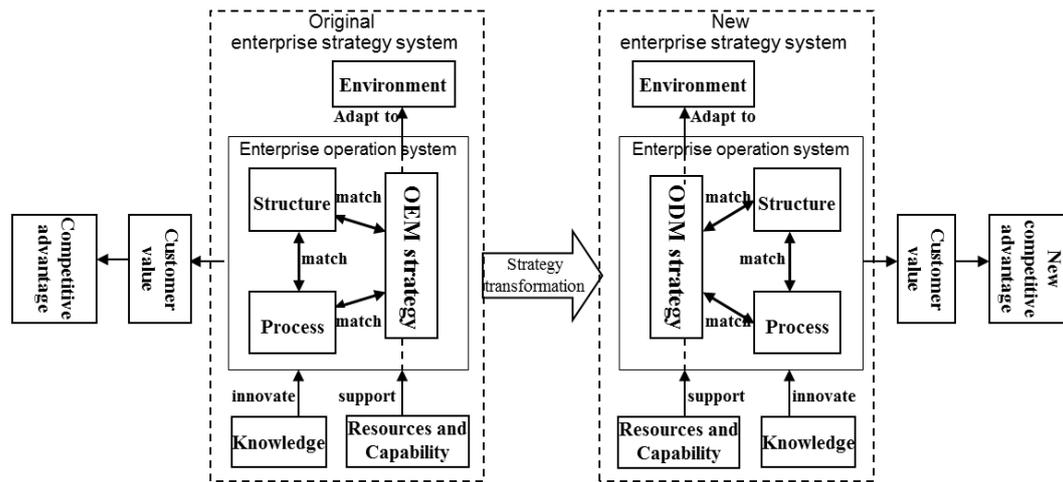


Fig. 1: State-transition model of enterprise strategy system under strategy transformation.

Table 1: Comparison of important features of OEM and ODM.

Strategy Characteristics		OEM	ODM
External environment	Global value chain	Gradually formed, but outsourcing is mainly in manufacturing	Further developing, R&D link with manufacturing in global value chain
	Cost	At first as the comparative advantage, and gradually weakening	Input-output ratio in R&D link is higher, compared with developed country technical personnel cost is lower
	Enterprise network	Massive economy	Industry cluster, associated industries and productive service supporting system is relatively perfect
Resources and capabilities	Financing	Accumulating funds	The funds accumulated is enough to financing product R&D
	Talent	Gradual accumulating key personnel	The talent accumulated is enough to complete the R&D task
	Technology	Accumulating from nothing, step by step strengthening	Having mastered core technology, can develop new products according to the requirements of the markets
	Core competence	Low-cost, high-quality and high-efficient manufacturing capacity	Rapid and high-quality product design ability
Knowledge	Basic knowledge	Knowledge of product manufacturing	Knowledge of manufacturing + knowledge of product R&D
	Technology learning	Learning by doing: the formation of assembly skills and basic production capacity	Learning by using: the formation of the comprehensive production capacity; with technology innovation and product design ability
	Technology innovation	Inadequate innovation motivation, insufficient reserves of patents and knowledge, low degree of independent innovation	Having very clear knowledge of and ability to predict the market demand and its dynamic states, resources for technology innovation are guaranteed
Structure	Organizational design	Smaller Management scope and gradually standardization and internationalization	Management scope and management span increased, demand a higher level of management; management object change
	Structure of organization	U-shaped structure suitable for the cost leadership	Structures suitable for the project management of product development, such as the matrix structure, etc.,
	Core department	Manufacturing department	Technology research and development department
Process	Business process	Manufacturing	Combination of R&D and manufacturing
	Marketing	Passive pull by importers: sales depended on the buyer	Senior product sales: marketing own-designed products

	Customer relationship	Cooperation: communication is confined to the order and delivery	Cooperation: communication of the fine items of new designed products, such as performance, appearance etc., in addition to the order and delivery
	Enterprise culture	Emphasis on cost control, pay attention to discipline, centralization and unification	Emphasis on innovation, open cooperation, loose and failure-tolerating atmosphere

Through the horizontal comparison it can be found that from OEM to ODM the strategic elements has undergone significant state transition, such as the global value chain and enterprise network in the element “external environment”, financing, talents and technology in element “resources and capabilities”, the basic knowledge and technology

innovation in element “knowledge”, the organization structure and core department in element “structure”, business process, customer relationship and enterprise culture in element “process”, and there are requirements of coordination among the strategic elements.

Table 2: Risks of the strategy transformation from OEM to ODM and the countermeasures.

Risks	Sources of risks	Countermeasures
Risks of the transition of external environment	<p>a. upgrading in the global value chain will be restricted by the power relationships embedded in the value chain</p> <p>b. in a social intellectual property rights are short of protection</p> <p>c. enterprises in the network are more competitive than complementary, lack of communication and collaboration</p>	It is the responsibility for the government to deal with risks from the external environment. One is the protection of intellectual property rights. The second is to build a good public service platform to promote enterprise network from the massive economy to industrial cluster. The third is to improve the government efficiency, to reduce the burden of enterprises, to promote investment and trade facilitation and to keep the policy stable and expectable.
Risks of the transition of resources and capabilities	the inertia risks, acquisition risks and integration risks[16]	It is the duty for the enterprise to deal with risks from the transition of resources and capabilities, knowledge, structure, process, and the inharmoniousness among strategic elements
Risks of the transition of knowledge	<p>a. the insufficient of motivation in learning and innovation</p> <p>b. the deviation of learning and technology direction or the lack of activation by external knowledge</p> <p>c. no guarantee of resources required for technology innovation or too-high R&D cost to bear the failure of innovation.</p>	<p>(a) Selecting the appropriate ways to acquire resource and capabilities and effectively integrate them.</p> <p>(b) Constructing the mechanism of promoting learning and innovation and giving preference to the innovation pulled by markets.</p> <p>(c) Speeding up the coalescing of the R&D department and other ones.</p>
Risks of the transition of structure	<p>a. difficulty in the integration of R&D department and other departments</p> <p>b. difficulty in the establishment of a new organization structure adapt to the ODM</p>	<p>(d) Setting up the management system for new product development and developing the enterprise culture of openness and cooperation.</p>
Risks of the transition of process	<p>a. organizational inertia</p> <p>b. unfamiliarity with the characteristics of the new product development</p>	<p>(e) Adopting the correct tactics for strategy transformation according to the internal and external conditions. Enterprises should objectively assess their own resources and capabilities, accurately insight into the opportunity of the external environment, correctly identify the direction of the transformation, and promptly seize the moment of the strategy transformation.</p>
Risks of inharmoniousness among strategic elements	The strategy elements are hard to achieve and maintain the ideal state synchronously, with strategy’s insufficient fitness to the environment, or resources and capabilities’ deficient support for the strategy, or strategy knowledge’s inadequate dynamic updating for the system, or defective matching among the strategy, structure and process. Consequently the matching and coordination cannot reach the requirements of normal operation of enterprise strategic system, i.e. the dynamic inharmoniousness among strategy, strategic environment, resources and capabilities, knowledge, structure and process hinders the enterprise to create value for customers and to achieve competitive advantage.	Enterprises should flexibly control the transformation progress and properly handle the various relationships to decrease the resistance and cost of strategic transformation. Enterprises should strengthen the coordination among various strategic elements and control the strength of the inharmoniousness among strategic elements to ensure the success of the transformation.

4. Results:

The purpose of enterprise strategy transformation under pressure of the external environment and the promotion of internal factors is to obtain sustainable competitive advantage in the constantly development[17]. So a successful strategy transformation is that the enterprise completes the strategy transition smoothly and forms new competitive advantage after the strategy transition. From Figure 1 it can be seen that a successful strategy transformation should satisfy two conditions: one is the completion of the transition of the strategic elements (the environment, resources, knowledge, structure, process, etc.) based on reasonable cost (time, money, brain drain, loss of market, etc.), the another is the enterprise strategy system after the transition can work harmoniously to normally and stably create value for customers.

Strategy transformation risks are the possibility of that the enterprise cannot completes the strategy transition smoothly and forms new competitive advantage. Although the inducements of the risks of strategy transformation are various, the root is from the transition and configuration of the enterprise strategy elements. In combination with Table 1 and Figure 1 it can see that there are two major sources of strategy transformation risks from OEM to ODM, one is that the strategy elements cannot successfully transit from OEM strategy system to the ODM strategy system, another is that the strategic elements of the new ODM strategy system cannot match and coordinate. Table 2 shows the risks of the strategy transformation from OEM to ODM and the countermeasures.

From Table 2 it can see that there are two major kinds of sources of strategy transformation risks from OEM to ODM, one is that strategic elements cannot successfully realize the transition from OEM strategy system to the ODM strategy system, another is that the strategic elements of the new ODM strategy system cannot match and coordinate. If an enterprise has the strength and the conditions also allow, the strategy transformation from OEM to ODM should not be given up because of the risks existing and the key is how to deal with them. It is the responsibility for the government to deal with risks from the external environment and the duty for the enterprise to deal with risks from the others.

5. Conclusion:

From the above research the following conclusions can be drawn:

- (a) That the strategy transformation from OEM to ODM is not only the change of strategy itself, but also the integral shift of enterprise strategy system;
- (b) That the differences of strategic elements between OEM and ODM are significant;
- (c) That there are multiple risks in strategy transformation from OEM to ODM;

(d) That the government shall create good external environments for enterprises transformation and upgrading;

(e) That enterprises should adopt the appropriate tactics according to their own strengths and the external conditions, carefully deal with various relations, reduce the transformation cost, to ensure the success of strategy transformation.

The innovation of this research is that it established the state-transition model of enterprise strategy system under strategy transformation, systematically analyzed the risks of strategy transformation from OEM to ODM from the perspective of state transition and put forward the corresponding countermeasure suggestions for the government and enterprises respectively.

ACKNOWLEDGEMENT

The paper is supported by the project of Humanities and Social Sciences Planning Foundation of the Ministry of Education of China (No. 11YJAZH005), the humanities and social science research project of the Department of Education of Hubei Province in 2013 (No. 13g042) and the constructing program of the key discipline in Huaihua University.

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