

Analysis of the Actuality of China's Military Logistics Based on The “Diamond Model”

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Abstract—As an important part of military support, the development of military logistics has a direct impact on the army's fighting capacity in modern wars. Deserves in-depth study. Potter's "Diamond Model" consists of four factors and two variables. Four factors include production factors, demand conditions, related industries and support industries, the enterprise's strategy, structure and competition. Two variables include opportunity and government. In this paper, we use "Diamond Model" to analyze the actuality of Chinese military logistics and find out the existing problems. In the end, we offer some proposals and countermeasures from the perspective of the state, the military and the third party logistics enterprises to enhance the construction of Military Logistics. This article is conducive to comprehending the actuality of Military Logistics in our country and has a positive significance to promote the development of Military Logistics.

Keywords—*Diamond Model; Military Logistics; actuality analysis; suggestions*

I. ACTUALITY OF CHINA'S MILITARY LOGISTICS

Compared with developed countries in the west, Chinese Military Logistics starts late. So the theory, system and operation mode are relatively backward[1]. Especially compared with the United States, Russia and other countries of the advanced military logistics mode, the connections are less between Military Logistics and civil logistics in China, and each system is relatively

independent and parallel operation. Logistics support has been separated for a long time [2].

The cause of this phenomenon is mainly affected by the long-term logistics system. For example, the logistics organization of our army overlapped, profession division, the lack of logistics personnel training system, weak foundation, lag-behind in technology development[3]. These factors have seriously hindered the development of China's Military Logistics, we must have a clear understanding of it.

II. "DIAMOND MODEL" ANALYSIS OF THE ACTUALITY OF MILITARY LOGISTICS IN CHINA

A. "Diamond Model" Theory

In 1990, Professor Potter Michael of Harvard University proposed the theory of National Competitive Advantage, that is the famous "Diamond Model" theory, in a book named National Competitive Advantage[4]. This theory is used to evaluate the competitiveness of the country or industry and the possibility of success.

The theory attributed elements of success to four factors that have a two-way effect and two variables. The four factors are: production factors, demand conditions, related industries and support industries, the enterprise's strategy, structure and competition. Two variables include opportunity and government[5]. The above elements build a diamond shaped network, it is known as the "Diamond Model". As shown in "Fig. 1".

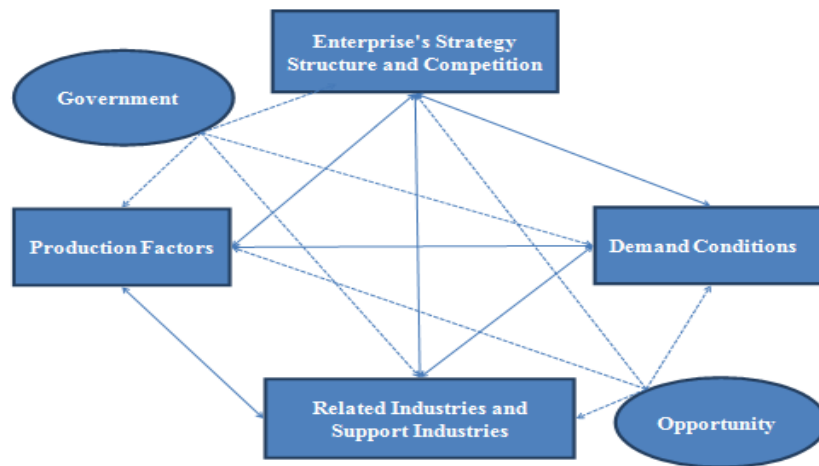


Figure 1. "Diamond model" structure diagram

B. "Diamond Model" Analysis of Military Logistics in China

As support points, the four factors interlock with each other and composition a dynamical competition system[6]. Government and opportunity are two variables, which have direct or indirect effects on above four factors.

1) Production factors

According to Potter's theory, production factors can be divided into general production factors and professional production factors. General production factors include highway system, financing, highly educated and motivated employees etc. They can be used in any industry. Professional production factors are limited in technical human, advanced infrastructure, professional knowledge and other areas which for a single industry.

To make a industry stronger, it is essential to develop professional production factors. Today, the demand for professional production factors is large, but the supply is obviously insufficient in our country. For example, advanced logistics human is deficient, infrastructure construction of logistics node is still weak, the ability to transform the knowledge resource into the productive force is weak.

2) Demand condition

Potter believes that, demand conditions are mainly refers to the market demand, especially the domestic demand. Obviously, the army is the biggest demander of the military logistics. In our country, troops' supply is a big problem. It is difficult to be efficiency and accuracy if we put military logistics aside and supply by troops solely. On the other hand, it will take up a lot of resources and energy.

In addition, as the product of the Military-Civil Integration, the development of Military Logistics is the trend of reform. The Third Plenary Session of the party's eighteen explicitly proposed to promote the depth development of Military-Civil Integration. Promoting the development of Military Logistics vigorously meets the needs of the army. It is an inevitable choice.

3) Performance of related industries and supporting industries

For relevant support industry, Potter's explanation: solidarity network advantage[4]. Due to the need of development, there are usually direct links between different kinds of relevant industries. No wonder there are "promotion effects " exist.

Military Logistics is closely related to many industries in national economy. Infrastructure construction makes traditional transportation industry develop rapidly. Emerging equipment manufacturing industry, the third party logistics industry have became important forces to promote the logistics industry. Related industries, such as warehousing, packaging, distribution processing, education, agriculture and other related industries also have a certain degree of development in recent years. They all laid a solid foundation for the development of logistics industry. The development of the related industries is the direct cause of the development of Military Logistics.

4) Enterprise strategic structure

In National Competitive Advantage, enterprise strategic structure means how to create, organize and manage the company[4]. This factor should make some changes when analysis on Military Logistics' present situation. It is reasonable to change "enterprise strategic structure" to "the organization of the army".

At present, the main problem of the organization is the implementation is not clear. Logistics involves the transport, storage, handling, packaging, distribution processing, information processing and other links. Correspond to different departments of the army. Now, relevant rules and regulations for the Military Logistics need to be strengthened[7].

5) Opportunity

In general , there are several situations to form the opportunity[2]:

Invention and innovation of basic science and technology.

Traditional technology appears fault.

Production costs increased rapidly.

Significant changes in global financial market or exchange rate.

Global or regional market's demand increase sharply.

Policy decisions of foreign governments.

Wars.

The nature of opportunity is a factor of uncertainty. Not all opportunities are beneficial. For example, after the emergence of micro electronics technology, some countries' advantages of traditional motor industry have been broken such as the United States, Germany. Rising international oil prices will increase the cost of the transport industry, which will bring adverse effects to the logistics industry. The implementation of China's Military Logistics relies heavily on the third party logistics enterprises. So the development of Military Logistics is closely related to the international and domestic dynamics. For example, after the incident---"SARS" occurred, China established the emergency logistics system in time. In the "5 • 12" earthquake, emergency logistics system plays an important role in the support of relief.

In fact, the "opportunity" of the military field has a more direct and extensive influence on Military Logistics. For example: Russia and the United States' mature model provides a sample for the development of Military Logistics in china. Non war military operations, such as African peacekeeping, the Gulf of Aden military operations' material and oil support also promotes the development of Military Logistics to a great extent.

6) Government

Relationship between the government and other elements is neither positive nor negative. Government subsidies, education, capital markets and other policies will affect the "four factors" directly.

For military logistics, governments' influence mainly reflected on the policy guidance and the support of the third party logistics enterprises. In 2009, China's State Council promulgated the Revitalization Plan of Ten Major Industries, Logistics Industry Adjustment and Revitalization Plan is the only production and service planning. It's obvious that the government's attitude towards the development of logistics industry is firm. On the other hand, the development of military logistics rely on a large number of third party logistics enterprises. Government's support to the third party logistics enterprises will also lead to the development of the local logistics industry, expanding employment, stimulating domestic demand, effectively stimulate the development of the third industry, and promote the economic development of the whole society[8].

III. CONCLUSIONS AND SUGGESTIONS

The development of Military Logistics closely relate to the construction of the state and the army. Because there is no differences between Military Logistics and Local Logistics in essence, so we can improve from three angles of the state, the army and the third party logistics enterprises.

A. For The State

1) Government supports

Industries' development can't be separated from government supports, Military Logistics is no exception. In June 2011, the Chinese government promulgated the *Eight Supporting Measures to Promote the Development of Logistics Industry*, means the government began to pay attention to logistics industry. Today, we can see the results anywhere, such as reduce the tax burden, open up "Green Channel" for fresh agricultural products etc.

First of all, the state should give Military Logistics a "Relief", remove the shackles of outdated and unreasonable regulations. Secondly, integrate existing facilities and resources, promote the innovation and application of logistics technology. Try to increase military subsidies and relief tax, prepare for the development of Military Logistics. In addition, policy supports for the third party logistics enterprises are essential, governments should create a good external environment for participation.

2) Macro-control

Military logistics network covers the whole country, it's necessary to put Military Logistics in a comprehensive consideration. On the one hand, the state should have a long-term plan for the development of Military Logistics, make a comprehensive judgment for the development of the international situation, provide good domestic environment for Military Logistics. On the other hand, the state should provide specific guidance for logistics enterprises to fully explore the market potential and establish their competitive advantage in the fierce market competition.

B. For The Army

1) Sound organizational structure

At present, Military Logistics' characteristics put forward an objective requirement to changing the existing organizational structure. Relate departments should improve policies and regulations as soon as possible. All departments have rules and laws in implementation process. At the same time, the army should seize the opportunity of reform. Integrate overlapping sectors, establish a full-time department, improve the organizational structure to adapt to the new needs of Military Logistics.

2) Strengthen theoretical research and personnel training

The development of Military Logistics can't be separated from the support of theory and talent. At the present stage, Military Logistics theories and the supply of talent can't keep up with the needs of the situation obviously[9]. On the one hand, professional military academies and institutes are numbered. On the other hand, army's special environment means there is a certain gap between the most advanced theoretical achievements and the army.

For this situation, the army must increase more supports and investments to academies and research institutes. In addition, it's necessary to broaden the channels of talent sources, recruit more logistics talents by local training.

C. For The Third Party Logistics Enterprises

As foreign logistics enterprises settled in China, China's logistics market competition became more fierce. Now various enterprises pay much attention to integrate and improve of their own. With the development of the logistics industry, logistics enterprises should try to enhance their own strength, focus on improving the market competitiveness. Try to be fine, professional and efficient to cooperation in the upstream and downstream business better. Innovative business cooperation and service model, meet the needs of the market efficiently[10]. Recomposing by various ways and improving the value by modern

technology, become bigger and stronger gradually. At the same time, enterprises must follow the market rules, integrate and eliminate backward enterprises which is uncompetitive and inefficient by the market's strength.

REFERENCES

- [1] Shi Yu-min, Liu Chen-yu, Li Wei-ling, "To Strengthen the Theoretical Study of Military Logistics", *Value Engineering*, vol. 17, 2011, pp. 14-16, doi:10.14018/j.cnki.cn13-1085/n.2011.17.111.
- [2] Huang Da-peng, Li Liang-chun, "Current Situation and Development of Military Logistics at Home and Abroad", *Value Engineering*, vol. 14, 2014, pp.22-23, doi:10.3969/j.issn.1006-4311.2014.34.009.
- [3] Meng Jun, Wu Lei-ming, Zhu Feng et al, "Status Quo and Development Trend of Inspiration From Russian Army's Military Logistics System and Mechanism", *Journal of Academy of Military Transportation*, vol. 12(6), Jun. 2010, pp. 89-92 , doi:10.3969/j.issn.1674-2192.2010.06.022.
- [4] Potter Michael, "National Competitive Advantage", 2002, Huaxia Press.
- [5] Pan Yu-Juan, Cao Xiao-Shu, " 'Diamond Theory' and Logistics Industry Analysis of the Regional Central Cities", *Urban Insight*, vol. (02), Feb. 2009, pp.146-154, doi:10.3969/j.issn.1674-7178.2009.02.015.
- [6] Yang Jie, Zhang Lin, Ju Xun-zhi, "Analyzing the Comparative Advantages of Shandong Construction Industry Based on Porter's Diamond Theory", *Value Engineering*, vol. 29(23), Sep. 2010, pp. 24-25, doi:10.14018/j.cnki.cn131058/n.2010.23.144.
- [7] Qu Jing, "Study on the Evaluation of the Regional Logistics Industry Competitiveness Based on the 'Diamond Model'", *Logistics Sci-Tech*, vol. 9, Sep. 2014, pp. 71-74, doi: 10.3969/j.issn.2095-3283.2014.09.023.
- [8] Zhou Hong, Du Hui, "Research on the logistics competitiveness of China's cross-border electricity suppliers Based on the Diamond Model", *Logistics Technology*, vol. 34, Sep. 2015, pp. 4-6, doi: 10.3969/j.issn.1005-152X.2015.09.002.
- [9] Zhang Jian-fang, "The Discussion of Talents Cultivation Pattern in Military Logistics", *Sci-Tech*, vol. 7, Jul. 2009, pp.130-132, doi:10.3969/j.issn.1002-3100.2009.07.044.
- [10] Hong Shui-kun, "Twelfth Five Year Plan" and China's Logistics Development Opportunities", *China Logistics and Purchasing*, vol. 13, Jul. 2011, pp. 28-31, doi:10.16079/j.cnki.issn1671-6663.2011.13.012.