The Dynamics of the China Logistics Industry

by

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Bachelor of Economics, International Shipping Management Shanghai Maritime University

Submitted to the Engineering Systems Division in Partial Fulfillment of the Requirements for the Degree of

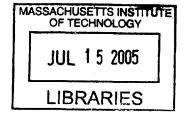
Master of Engineering in Logistics

at the

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Submitted to the Engineering Systems Division on May 6, 2005 in Partial Fulfillment of the Requirements for the Degree of Master of Engineering in Logistics

Abstract

As required by the WTO accession, China is opening its logistics industry to international logistics companies. What are these companies' strategies in the China market, and how are Chinese domestic logistics companies responding? The author interviewed four executives in charge of China business from three major international logistics companies and one international logistics user, and surveyed the literature to track the investments and plans of international and Chinese logistics companies. The thesis analyzes the strategies of third-party logistics (3PL) providers in the China logistic industry, namely international companies, and Chinese state-owned and Chinese private companies. The research finds that network expansion is the main strategy for the international companies, and the tendency is to operate independently. Infrastructure and extensive network are the state-owned companies' main assets, and niche market expertise is the private companies' strategy to survive and compete in the China logistics industry. These three types of players will coexist in the short term in China, while in the long term, when the international logistics companies have set up their infrastructure and network, there will probably a new round of shuffling.

Thesis Supervisor: Dr. Lawrence Lapide Title: Research Director, MIT Center for Transportation and Logistics

iv

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- Ms. Ling Wang, VP, Sinotrans Logistics
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Dedication

To my parents and my daughter, Daisy.

Table of Content

Abstractii	i
Acknowledgements	v
Dedication	v
Executive Summary	1
Chapter 1. Introduction	5
1.1. Background	5
1.2. Research Questions & Approaches	6
1.3. Conclusion	7
Chapter 2. Literature Review	9
2.1. China Economy Review	9
2.2. Literature on the China Logistics Industry	2
2.2.1. Companies' Logistics Operation	2
2.2.2. China Logistics Infrastructure	3
2.2.3. Foreign Investments and Local Responses	4
Chapter 3. Blueprint of China's Logistics Market	7
3.1. Pre-WTO Accession	
3.1.1. State-Owned Enterprises	7
3.1.2. Private Companies	8
3.1.3. Foreign Players and Joint Ventures	
3.2. Schedules of China's Logistics Industry Opening	
3.2.1. Civil Aviation	
3.2.2. Third Party Logistics Service	
Chapter 4. Players in the China Logistics Market	
4.1. Chinese Players	
4.1.1. State-Owned Players	
4.1.2. Private Players	
4.2. International Logistics Players	
4.2.1. Deutsche Post World Net/DHL	
4.2.2. TPG/TNT	8
4.2.3. Federal Express	
4.2.4. United Parcel Service	
Chapter 5. Future Strategies Analysis	
5.1. International Players	
5.1.1. Strategies for Infrastructure Growth	
5.1.2. Strategies for Business Growth	
5.1.3. Service Enhancement	
5.1.4. Talent – the Constraint	
5.1.5. Conclusion	
5.2. Chinese Logistics Companies	
5.2.1. State-Owned Players	
5.2.2. Private Players	
5.2.3. Merger & Acquisition	
5.2.4. Service Differentiation	
5.2.5. Cooperation	

5.2.6. Overseas Expansion	
5.2.7. Conclusion	
5.3. Role of the China Government	
5.3.1. Policy Direction	
5.3.3. Industry Standard, Society and Training	
5.3.4. Conclusions	
Chapter 6. Future Projection & Conclusions	
6.1. Future Projection	
6.1.1. SW Analysis	
6.1.2. Near Future Projection	
6.1.3. Mid-Future Scenario	
6.1.4. Risks Analysis	61
6.3. Conclusion	
6.4. Future Research	
Appendix A : Financing Warehousing	
Glossary	75
References	

List of Tables

Table 1 FDI in China, 2004	9
Table 2 Comparison of the Three Major Metropolitan Clusters	
Table 3 Trend of Logistics Development	
Table 4 Four international logistics companies in China	
Table 5 Schedule of China's Logistics Opening	
Table 6 SW Analysis of Different Players	

List of Figures

Figure 1 China Transport Volume & Growth, 2004	10
Figure 2 Three Major Logistics Regions	11
Figure 3 Financing Warehousing Model	67
Figure 4 Contractual Relationships in Financing Warehousing	.68

Executive Summary

In December 2001, China officially gained accession to the World Trade Organization (WTO). As required by the WTO, China is opening its logistics industry to the international logistics players. What are the international logistics companies' strategies in the China market? How are Chinese domestic logistics companies responding? The thesis takes a market research, pragmatic and qualitative approach to address these questions.

The industry and the strategies are too broad for a thesis to fully cover. The thesis analyzes the strategies of different three types of logistics players in the China logistic industry, namely the international logistics companies, China's state-owned companies and privately-owned companies. The thesis mainly researched one category of 3PL providers, those with parcel, courier and aviation services like UPS, FedEx and Deutsche Post World Net. This angle narrowed the research scope, yet still reflects the dynamics of the industry. For the Chinese companies, the thesis discusses two main types of players: the state-owned logistics companies and the privately-owned logistics companies.

The China logistics industry is growing fast. This is a function of the overall economic development of China and China's integration with the world economy. Because of the high demand for logistics services, many researchers have discussed the logistics infrastructure in China, and the logistics operations and strategies from the users' perspective (namely, the perspective of multinational corporations in China), but research on the foreign investment strategies in the industry and the local companies' response is limited.

China's logistics industry experienced three stages: when the industry was dominated by the state-owned companies; when the local privately-owned companies emerged; and when the international players entered the market and gained full rights to play under China's WTO commitment. These stages align with China's market opening and policy changes.

International logistics companies first entered China in the early 1980's. Because of the policy limits, they were able to form only joint ventures with Chinese companies. But as the government loosened the limitations, these international logistics companies were given more leeway, especially after China joined the WTO.

Because of previous limited operations in China, international logistics companies' reach and the network limited their development. Infrastructure and customer expansion therefore became a priority for these companies. Those who have the extensive infrastructure and customer base will have the largest market.

There are many means to growth. Direct investment, merger and acquisition, strategic alliances and franchising are popular among the international logistics companies in either building the infrastructure or the customer base. High-end, integrated logistics services, and good education and training programs help ensure the international logistics players gain bigger market shares. As China opened the industry to the international logistics companies, independence became a theme – even though joint venture still has attraction to some.

The Chinese state-owned companies are building themselves as asset-based logistics providers. They have traditional advantages: they have the government support, and over decades have built up an extensive infrastructure. They were the first movers in the industry. This gives them an advantage over the international and local, privately-owned companies. However, it's necessary for them to upgrade their old infrastructures and capabilities to cater to the modern logistics requirements. The privately-owned companies lack a nationwide network and infrastructure; they also lack the capital. So the realistic strategies for them are to develop into niche market players, as capital needs will always be a concern.

Both the state-owned and privately-owned Chinese companies hope to avoid direct competition with the international logistics companies. Low-end, labor intensive,

localized logistics services, such as a financing warehousing service, provide the opportunities. Desire for cooperation with international logistics companies is strong – this will help improve the Chinese logistics companies' service level, and give them the access to global reach. Because Chinese logistics companies are not strong enough to provide global, integrated logistics services, cooperation with international companies and becoming part of the global supply chain is a practical and realistic compromise.

Since the market is huge and is growing fast, these three types of companies have their own target market/customers. Their services, network, infrastructure and expertise are different too. This helps create an environment in which they can co-exist in the near term. However, after the international logistics companies build up their infrastructure and network, direct competition will increase. How the landscape of the China logistics industry will evolve is an interesting issue to explore in future research.

Chapter 1. Introduction

This thesis studies the strategies of international logistics companies, especially Federal Express, United Parcel Services, TNT Post Group (TPG) and Deutsche Post World Net (Deutsche Post, or DPWN), as examples of how international logistics companies invest in third party logistics (3PL) services in China, and how Chinese domestic logistics providers respond to the direct competition in the China market.

This topic is of current interest because China was the fastest growing market in the past decade, and will remain so in the following decades. The author hopes to assist readers in better understanding the dynamics of the China logistics market.

1.1. Background

On December 11, 2001, China officially joined the World Trade Organization (WTO). The entry into the WTO has a significant impact on 3PL market.

Before China's entry, international logistics providers could only play a limited role in China. There were huge limits on their activities. For example: foreign players were not allowed to invest in road transportation; in the freight forwarding sector, only foreign minority was allowed, and therefore a joint venture became a must; and, the laws regulated that the general manager or chairman of a joint venture must be a Chinese citizen.

As part of joining the WTO, China must remove most of those restrictions on the logistics industry, opening the market to the international logistics companies (ILCs), creating more opportunities for these companies in China. In turn, facing the fiercer direct competition from the ILCs, China's local logistics companies (CLC) need to evolve and respond. How will international and domestic players interact with each other and restructure China's logistic market in the near future?

1.2. Research Questions & Approaches

This thesis is aimed to answer this question. The author hopes to outline the ecosystem after China opens its logistics market: How will international and local logistics providers invest, compete and respond to each other's strategy? What will the market structure look like after China's accession to WTO? etc.

To address these issues, the author surveyed and interviewed leading international and Chinese logistics providers where possible, to outline the industry dynamics when ILCs are granted the full rights to play in the China market along with local companies. The author took a market analysis method to approach the problems.

However, the research scope would have been too huge to manage without being specifically defined, and it's almost impossible to exhaust the entire industry in such a big market. The viable research method was to mainly observe the strategies of TPG, Deutsche Post, UPS and FedEx as the major international logistics providers. They are all well known courier and parcel service providers, but their 3PL services are expanding quickly in China. These companies provide a comprehensive, if not holistic, view of how ILCs are investing in China.

As for Chinese logistics companies (CLCs), the choice was more diverse. This is because CLCs usually operate on small scales. Furthermore, unlike international companies that usually release important information to the shareholders, stock markets or the media, Chinese companies usually do not have such a mechanism to disclose information on their business, operations and strategies.

Meanwhile, it's unrealistic to limit the research to a few companies and sectors such as the parcel and courier service. In terms of size and business scope, no Chinese logistics company is comparable to the international giants. The author will basically limit the research to the 3PL providers, so as to have a good comparison. Although the research is generally limited to the target companies, these foreign companies can reflect to a significant extent the strategies of different kinds of ILCs. The research also projects the typical responses from Chinese companies, whether they are privately-owned, or state-owned companies.

1.3. Conclusion

Before China's accession to the WTO, there were restrictions on how foreign logistics companies could invest and operate in China. After that, China gradually removed the restrictions, and provided more opportunities for foreign logistics investors/providers. By the end of 2005, almost the whole China logistics market, except for domestic aviation and railroad transportation, will be theoretically open to foreign investment. This thesis intends to discuss how international logistics companies will invest in that large market, and how local players will cope with the competition from the former. The thesis will provide some insights into the dynamic, China logistics market.

Chapter 2. Literature Review

This chapter examines China's macro economy and its logistics economics. The research done on the topic of this thesis or those topics similar to this thesis are covered too.

2.1. China Economy Review

In the year of 2004, China recorded a GDP of \$13.65 trillion, or \$1649.6 billion at the exchange rate \$1=\$8.275. Compared with that of the previous year, the GDP increased by 9.5%. The foreign reserve increased by \$206.7 billion to \$609.9 billion.

The import and export summed \$1,154.8 billion, increased by 35.7%, among which export was \$593.4 billion, and import \$561.4 billion, with an international trade surplus of \$32 billion. Import and export increased by 35.4% and 36% respectively.

Foreign direct investments (FDIs) reached \$60.6 billion. The following table illustrates the rough distribution of the investments and the average investment per project.

Industry/Sector	Number of Projects	Contracted Investment (\$billion)	Finalized Investment (\$billion)	Average Investment (\$million)
Total	43664	153.48	60.63	1.4
Manufacturing	30386	109.74	43.02	1.4
Real Estate	1767	13.49	5.95	3.4
Leasing, Business Service	2661	6.74	2.82	1.1
Transportation, Warehousing & Postal Service	638	2.37	1.27	2.0
The others*	8212	21.14	7.57	0.9

Table	11	FDI	in	China,	2004

*The others include, but not limited to, agriculture, forestry, stock raising, fishing, mining, electricity, gas& water, construction, computer service & software, data transmission, retail and wholesale, lodge & accommodation, entertainment, culture, education & health, etc

Source: State Statistics Bureau of China, 2/28/2005

By 2002, more than 400 of the Fortune Global 500 had invested in China, mainly in three regions: the Pearl River Delta, the Yangtze River Delta and the Bohai Bay Triangle. The following table briefly describes the demographic and economic development of these three regions.

Items	Bohai Bay Triangle	Yangtze River Delta	Pearl River Delta
			Guangdong
CONCERNMENT OF A CONTRACT OF A		0 1	
Cities Covered	Hebei Province etc	& Zhejiang Province	Province
Area ('000 sq.km)	70	99.5	42
% regional area		*	1
vs national area	0.73%	1.04%	0.44%
Population			
(million)	45	74.5	23
% regional			
population			
vs national			1.00
population	3.5%	5.8%	1.8%
GDP in ¥ B (\$B)*	826.1 (99.8)	1535.1 (185.5)	737.9(89.2)
% regional GDP			
vs National GDP	9%	17%	8%
Finalized FDIs (\$			
B)	6.90	12.75	12.54
Net Export (\$ B)	20.91	63.18	84.74

Table 2 Comparison of the three major metropolitan clusters

*Exchange Rate: \$1 = RMB8.275

Sources : 1. State Statistics Bureau of China; 2. Wang, H.; Bai, Q. (2003). Comparative Research on the Development of China's Three Metropolitan Clusters. Economy of Special Economic Zones. 2003, (6). [Online]:http://www.szeconomy.com/docc/bdlt.html (3/6/2005)

The following figure shows the freight turnover and growth in the year of 2004 in China:

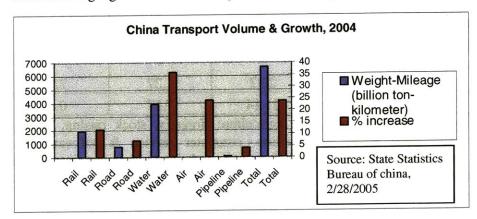


Figure 1 China Transport Volume & Growth, 2004

The economic dynamics correlates to the logistics activities. According to the China Logistics Report 2004 by the UK-based Transport Intelligence Ltd, these three regions are home to 75% of 3PL companies in China.



Figure 2 Three major logistics regions

The ports recorded a throughput of 4 billion metric tons with an increase of 21.3%, of which 1.15 billion tons was for import and export. China ports handled 61.5 million twenty-foot equivalent units (TEUs).

Research and Market claims in its report, China Logistics Industry 2004, that 'in the past three years (2001-2003), 70% of the logistics service providers experienced a 30% annual increase in business.' This corresponds to the estimates of Mr. Ding Junfa, the Executive VP of the China Federation of Logistics and Procurement.

Year	GDP	Total Logistics	Increase of	Total	3PL	Estimated
	Increase	Costs	Logistics	Logistics	Revenue	3PL Increase
		in ¥ B (\$B)	Costs	Costs vs GDP	in ¥B (\$B)	
2001	7.5%	2030 (245)	6.7%	21.1%	40 (4.8)	-
2002	8.3%	2200 (265)	8.4%	21.5%	60 (7.3)	50%
2003	9.1%	2500 (302)	13.6%	21.4%	80 (9.7)	33%
1-9/004	9.5%	1860 (225)	16.8%	21.6%	100 (12.1) *	25%

Table 3 Trend of Logistics Development

Source : Ding, J. (2004). Three Years after the WTO Accession and the China Logistics Industry. [online]: http://www.chinawuliu.com.cn/bake/uploadFace/20041228.htm (2/17/2005)

* Estimates. The number for 2004 is for the whole year.

The fast growing economy is pushing the logistics industry. The above numbers show that the growth of logistics business is accelerating with a speed faster than the GDP growth, and this growth is stronger particularly in the field of 3PL. Some claim that logistics will become the next driver of China's economic growth, and in the next decade, the logistics industry will grow at an average annual rate of $20\%^{1}$. Because of the generally low standard of logistics operations in China, there is much room for investment and improvement.

2.2. Literature on the China Logistics Industry

2.2.1. Companies' Logistics Operation

Because of the extensive presence of multinational corporations (MNCs) in China, many articles have been published on how the MNCs shall set their logistics strategies in China.

As trade and distribution are two totally different business areas in China, Bolton and Wei clearly defined the difference². According to their explanation (citing the China's WTO documents), trading rights are 'the rights to import and export goods. But still, only some special companies (usually part of the China government) are authorized to deal with the 'state-traded goods', which are usually strategic materials such as cotton, processed oil, and rice. The paper also listed a few risks in the China market, such as the 'regulatory fragmentation', which denotes the situation that multiple government bodies

have the rights to regulate and govern the logistics practice. One investor may have to face numerous government agents in order to have a business registered or a problem solved. Another example is local protectionism, which prevails in the entire China. The lack of logistics talent is a big issue for 'long-term success.'

Jiang discussed 'how international firms are coping with supply chain issues in China³, in the same-titled paper. To trade off between low labor costs and poor supply chain management in China, these firms are using the following models:

- 1. Cluster Approach, namely to ask their upstream companies to enter the China market together with them;
- 2. Non-Chinese 3PL Approach, when the firms do not have the 'power to force or convince their suppliers to follow them to China'; and
- 3. Localization, to outsource the supply chain issues to the local companies, or simply set up their own supply chain division.

2.2.2. China Logistics Infrastructure

As the logistics business and market are growing fast in China, much has been discussed about the current China logistics infrastructure, especially in the form of a market overview. Gates reviewed China's distribution infrastructure, and provided some basic numbers of the China logistics infrastructure⁴.

In a paper titled 'Logistics development in China', Goh and Ling presented a detailed review of the China logistics infrastructure, especially the current infrastructure conditions and future development of rail, road, water, air, telecommunications, customs and warehousing in China. They found that 'despite the improvements and advancements...the current logistics infrastructures (of the above-mentioned sectors)... are still lacking,' but the investments in the infrastructure were aggressive⁵.

The China Logistics Report 2004 by the UK-based Transport Intelligence raised 10 significant challenges haunting the China logistics industry. They are:

- 1. Poor Infrastructure;
- 2. Regulation;
- 3. Bureaucracy;
- 4. Poor Training;
- 5. Information Technology;
- 6. Undeveloped Domestic Industry;
- 7. High Transport Costs;
- 8. Poor Warehousing and Storage;
- 9. Regional Imbalance; and
- 10. Domestic Trade Barriers.

2.2.3. Foreign Investments and Local Responses

In addition to a huge number of news reports on foreign investments in the China logistics market, there are some papers that have more strategic views about the market.

Jiang and Prater discussed the existing problems of China's distribution system, and also tried to project the general future development of the industry⁶. The booming economy, the increasing use of the Internet, the WTO entrance and the policies favoring exportoriented businesses all promote the attraction of international logistics providers. However, the paper did not answer how the ILCs would invest in China. Hertzell, in his report titled 'China's Evolving Logistics Landscape', suggested forming alliances and organization building as 'ways to approach the (China logistics) market⁷'.

In an unpublished article, Clifford summarized some criteria when a foreign logistics company seeks to form a joint venture in China. His extensive consulting career for the China logistics industry leads him to state that partner's quality, network capacity, relationships, strategic fit and likelihood of forming a partnership are the five major considerations⁸.

But there are few papers or reports on how foreign logistics providers will in general invest and operate in China, and especially how local companies will interact with and respond to foreign logistics companies' movement. While people expect a dynamic logistics industry in China, how Chinese local companies and foreign logistics firms will interact with each other, and how the dynamics will be like, still remains a not well-discussed issue.

Chapter 3. Blueprint of China's Logistics Market

This chapter discusses the history of China's logistics market player components, and the timeframe of the market opening.

3.1. Pre-WTO Accession

This section briefly examines the evolution of China's logistics industry.

3.1.1. State-Owned Enterprises

Before the late-1980's, the concept of 'logistics' was nothing more than transportation and warehousing⁹, and China's 'logistics' market was dominated by Chinese state-owned enterprises (SOEs) in the leading regions, mainly Beijing, Tianjin, Shanghai and Guangzhou.

The representatives of these logistics companies were China National Foreign Trade Transportation Co (Sinotrans)¹⁰, China Ocean Shipping Company (COSCO), China Materials Storage and Transportation Co (CMST), and China Post etc. They were the 'tier-1' players, and had branches in provincial capital and medium-sized cities that developed the 'tier-2' players, and more local operators in small towns and cities ('tier-3'). The vertical system is still operating in today's China¹¹. These largest SOEs are still controlling over 90% of China's domestic logistics market¹².

Logistics outsourcing was rare – expect for one SOE to 'outsource' transportation or warehousing business to another SOE. This phenomenon had its historical root. Under the planned economy model copied from the USSR, SOEs together with less important collective enterprises, were responsible for the whole nation's economic activities. The rest of the non-logistics SOEs tended to handle all relevant business and non-business affairs (child care, school, health, catering etc). Fleet and warehouse were usually an indispensable part of many enterprises' activities¹³.

3.1.2. Private Companies

As China loosened its restrictions in the economy, private (compared to 'state-owned') sectors became active. Since 1980's, common Chinese citizens and private companies were allowed to operate vehicles and warehouses for commercial purpose. By the end of 1980's or in the early 1990's, many traditional transportation or warehousing companies switched to comprehensive logistics companies, among which Datian W. Group (DTW) and PG Logistics Group (PGL) are the representatives that grew to be national players. The concept of 'logistics' has become popular since the middle 1990's, when advanced logistics practices were introduced to China from America, Japan and Europe. But the logistics services are mainly limited to integrated physical distribution, although some are attempting Just-In-Time (JIT), Vendor Managed Inventory (VMI) or supply chain management and consulting.

3.1.3. Foreign Players and Joint Ventures

As China gave more room for domestic private economy, she also opened the market to foreign firms. International firms first entered the China logistics industry in the early 1980's, and flooded into China in the 1990's. A majority of largest international logistics companies have operations in China now.

The first phase was generally for the foreign firms to set up representative offices in Shanghai or Beijing, in the 1980's, in order to better understand the China market, business and politics cultures and explore business opportunities. For example, DHL entered China market as early as 1981, but only after 1986 did DHL start its business operation in the form of a joint venture with Sinotrans, a state-owned company then specializing in freight forwarding and ocean shipping.

Coincidently, the world's four largest courier service providers, UPS, FedEx, DHL and TNT all chose Sinotrans as their first partner when they initiated business in China. Because China hadn't opened its logistics market (including the courier and parcel service), joint venture was the only choice. As the biggest Chinese player in the logistics

field, Sinotrans has a national network, and its business is mostly import and exportoriented. Thus Sinotrans became the best choice. As an executive of DHL put it, it's best to find a right partner when you want to enter a new market (China)¹⁴. Sinotrans was the right one, though it's not necessarily the right one now – Sinotrans is no longer the sole channel for international logistics players to enter the China market.

	DHL (DPWN)	UPS	TNT (TPG)	FedEx
Entry China	1981	1988	N/A	1984
(Agency)				
Joint Venture				
with Sinotrans	1986	1996	1988	1986
JV Terminated	2052(?)	12/2004	5/2003	1995
Market Share	37%	15%	N/A	20%

Table 4 Four international logistics companies in China

Source: websites of each company including Sinotrans; Dow Jones & Co.; various news reports

After more than 18 years of partnering with Sinotrans, DHL (now a part of Deutsche Post World Net) has the biggest share of courier and parcel service in China. The business has been growing at 35%-50% in the past years, and its market share reaches over 37%, by far leading the followers: FedEx, UPS, and TNT.

3.2. Schedules of China's Logistics Industry Opening

After China's accession to the WTO, China is gradually opening its logistics market. However, just as Bolton, Wei¹⁵ and Transportation Intelligence pointed out, regulation, or regulatory fragmentation, is always a big issue in China¹⁶. Before we go into any details of the business dynamics, it's necessary to first learn what ILCs can do in China, and the timeline of what they can do in the future. Understanding feasible business scope will illustrate how far international logistics companies can go in China, and what kind of activities they will possibly take. The following table is a brief list of China's commitment to open the logistics market.

Services	12/2004, Conditions	12/2005, Conditions			
	Joint Venture Companies (JVCs) permitted to operate PRC-				
	flagged fleet,				
		xceed 49%. Chair of the board and			
	General Manager of the com	pany shall be appointed by Chinese			
Maritime Services		side			
Marime Cargo					
Handling, Custom					
Clearance, Container					
Station & Depot					
Service	JVCs with fore	ign majority permitted			
Marine Agency	JVCs with maximum	a 49% of foreign investment			
Internal Water	Not allowed. Only internation	nal shipping in ports open to foreign			
Transport	vesse	els permitted			
Freight Transport by					
Road	100% foreign equity pe	ermitted commencing 12/2004			
Freight Transport by	Majority foreign equity 100% foreign equity permitted				
Rail	permitted	commencing 12/2007			
Warehousing &					
Storage, Packing	100% foreign equity pe	ermitted commencing 12/2004			
		Wholly foreign-owned subsidiaries			
Courier and Parcel		permitted to handle international			
Services		parcel and courier services;			
(except for those		however, there is no clear			
currently specifically		indication that these company can			
reserved to		or cannot deliver domestic parcels			
Chinese postal	Foreign majority allowed;	and couriers. That's a grey area			
authorities	international parcel and	that international players can take			
by law, namely letters)	courier service only	advantage of.			
	Foreign majority equity				
	allowed, the foreign partner				
Freight Forwarding	must have consecutive 3				
Agency	years' experience.	100% foreign equity permitted			

Table 5 Schedule of China's Logistics Opening

Source: Part II – Schedule of Specific Commitments on Services, Addendum 2 to the Report of the Working Party on the Accession of China, dated 1 October 2001, by Working Party on the Accession of China, World Trade Organization. Ministry of Commerce, PRC. [online]: <u>http://www.mofcom.gov.cn/table/wto/03.doc</u>, 12/3/2004.

3.2.1. Civil Aviation

Civil aviation is not governed by relevant WTO documents, and the table does not contain relevant information. It is a bilateral issue between countries. Theoretically, China allows foreign investors to invest in¹⁷:

 public air transport on condition that the Chinese side controls the air transport enterprise with one foreign investment not exceeding 25%; and
 airport infrastructures that the Chinese side controls.

In spite of this regulation, it's hard to obtain a license from the Chinese authority for a joint venture in this industry. It requires political culture to understand this phenomenon. In other words, with the above rules, foreign investors now have the legitimate ground to file an application of investment in the field or a license for aviation operations, but the relevant authorities can always find reasons to postpone processing or declining it.

However, the bilateral agreement is real and tangible. Under the US-Sino Aviation Agreement signed on July 24, 2004, the number of flights between USA and China will 'soar to 249 a week from the existing 54 within six years, among which 111 will be freight carriers¹⁸.' For example, UPS hoped to triple its 6 China-USA freight flights per week by March 2005¹⁹, and FedEx hoped to increase its 11 flights per week to 23 by the end of 2004²⁰.

3.2.2. Third Party Logistics Service

In order to introduce advanced management techniques and logistics technologies to China, on June 20, 2002, China government issued The Notice on Issues Related to the Launch of Pilot Projects for the Establishment of Foreign-Invested Logistics Enterprises, via the Ministry of Foreign Trade and Economic Cooperation. According to this Notice, JVCs with foreign majority ownership are permitted, with a minimum registered capital of \$5 million, to include and integrate the following areas/services to provide a one-stop, comprehensive supply chain:

- Transport
- Storage
- Loading/unloading
- Processing
- Packing
- Delivery
- Relevant information processing
- Consulting for general road cargoes
- Domestic freight forwarding
- Managing and operating of logistics business with computer network.

This notice overlaps some of China's WTO documents/commitments, but is more flexible. For this reason, 3PL service was initially restricted to cities of Beijing, Shanghai, Tianjin, Chongqing and Shenzhen, and the provinces of Jiangsu, Zhejiang and Guangdong. While China allows these JVCs to set up subsidiaries in other cities/regions in China, there is in fact no restriction on regions where foreign investors can operate.

Chapter 4. Players in the China Logistics Market

This chapter discusses the different leading players in the China logistics market.

4.1. Chinese Players

Traditionally, China's logistics market is dominated by the state-owned enterprises (SOEs). It is estimated that in today's China, these SOEs are still providing 90% of the logistics services, but none of these has a market share over 2%. The market is very fragmented, and there is no dominant logistics company.

4.1.1. State-Owned Players

4.1.1.1. Sinotrans & China National Foreign Trade Transportation (Group) Co.

(Sinotrans Group)

Sinotrans (the group) was founded in 1950, one year after the foundation of the People's Republic of China. It integrates land, sea and air freight forwarding, provides ocean, air, road, rail and multi-modal transportation and express service, charters and manages ships, owns and leases warehouses, and serves as the ship agent in Chinese sea ports. It is one of China's giant state-owned companies that report to the State-owned Assets Supervision and Administration Commission of the State Council.

Sinotrans Group has a vast network in China (about 1000 subsidiaries) and abroad (about 30 offices), and has partnerships with 400 international agents. Its main assets are: a fleet of ships of over 2 million deadweight tons and of about 5000 vehicles; warehousing of over 6 million square meters, 59 container yards, 89 railway tracks, and 87 private ports and berths.

In February 2003, it had about 38% of its equity listed in Hong Kong Stock Exchange under the name of Sinotrans, of which 10% was offered to Sinotrans' strategic partners DHL, UPS and Exel. DHL (DPWN) alone accounted for 5% (half) of the 10%.

4.1.1.2. China Material Storage and Transportation Co. (CMST)

Similar to Sinotrans whose full company name starts with 'China', it's a state-owned company too. In the past four decades, CMST has evolved into a warehousing, distribution and retailing, processing, delivery, freight forwarding, import and export, and integrated logistics service provider. It has 64 warehouses with an area of 2 million square meters, freight yardage of 4.5 million square meters, and 129 private rail tracks.

4.1.1.3. COSCO Logistics

COSCO Logistics is a branch of COSCO, China Ocean Shipping Company. It was formed in 2002. Because of the parent company's network and infrastructure, in 2004 it ranked number 1 in China in terms of comprehensive logistics capacities. COSCO Logistics has 300 logistics facilities, covering 90% of the China market. The service is strongly marine transport related.

4.1.1.4. China Post Logistics & China Courier Service Corporation (CCSC)

China Post Logistics is a subsidiary of the State Postal Bureau. It was incorporated in 2003, and by integrating the State Postal Bureau's infrastructures and network, it has a nationwide network with over 20 province-level branches. Services include transport, warehousing, packaging/processing, distribution.

CCSC was formed in 1985, providing EMS (Express Mail) service. It has operations in more than 2,000 cities in China and has business agents in 200 countries. It owns over 10,000 vehicles, 3 sorting facilities in Shanghai, Beijing and Guangzhou.

As an arm of the State Postal Bureau, it monopolized the domestics parcel and express service, and is most impacted by the logistics opening policy. As a result, CCSC and China Post Logistics are considering merging to form a more efficient network and provide more integrated services.

4.1.1.5. China Rail Logisitcs

Founded in 2002, China Rail Logistics is initiated by China Rail Material Supply Company, one of the affiliated companies of the Ministry of Rail. The revenue of 2003 was about \$100 million.

The company has regional companies in China's transportation center cities, operates over 400 distribution centers (DCs) and operational units. It provides 3PL, large-scale project and value-adding logistics solutions. Based on the assets near the trunk railways, the company has a network that can access the most part of China.

4.1.2. Private Players

The number of private Chinese logistics providers is big, but only a few are operating on a nationwide scale.

4.1.2.1. Da Tian W Group (DTW)

DTW started operation in 1992 with air freight forwarding. In 1999, FedEx formed a partnership with DTW because DTW had an air freight forwarding license. The license is the 'pass' for FedEx to do air related business in China, and for this reason, every year FedEx has to pay about \$12 million dollars to DTW for the license.

Mainly thanks to this 'license fee', DTW evolved into a company with \$119 million in assets over a 12-year period from its original \$18,000, with a fleet of 1500 vehicles, warehouses of 200,000 square meters, and 93 subsidiaries all over China servicing over 500 cities. It has a management with diverse and international background. In 2001, DTW set up its own express service network in addition to the FedEx-DTW joint venture.

4.1.2.2. PG Logistics (PGL)

PGL started its business as a small rail freight station with a humble origin in the middle 1980's. In 1994, it diversified its business to integrated logistics service provider. It has a network of over 50 offices in China, and provides services to over 40 Fortune Global 500

firms in China. In 2002 PGL recorded a turnover of \$36.14 million, and is one of China's largest private logistics companies.

PGL had a very close business relation with P&G. In PGL's early period, P&G Guangzhou outsourced its logistics business to PGL while at the same time providing hand-on experience in logistics management. PGL learned the logistics management skills from P&G, its customer, and later expanded its integrated logistics services to various MNCs in China.

4.1.2.3. ZJS Express

ZJS Express was founded in 1994, and is focused on courier service. After 10 years of development, it now employs 8000 workers, owns 1500 vehicles, and has assets worth \$25 million. It has established a network of 300 offices in China covering over 2000 cities, towns and regions. In 2004, it recorded a turnover of over \$75 million.

4.2. International Logistics Players

Although the indigenous companies dominate the general China logistics market, ILCs are playing a more important role, and their market shares are increasing fast. Among which the most important are the four giant ILCs that started with parcel and courier services.

4.2.1. Deutsche Post World Net/DHL

Deutsche Post World Net (DPWN) has a uniformed brand and image for its logistics, courier and parcel, and transport service; that is DHL. DHL was first an independent brand called DHL Express, and the other components of DPWN include DHL Danzas Air & Ocean (international air and ocean freight), DHL Solutions ('customized, IT-based solutions along the whole supply chain'²¹) and DHL Freight (road transportation); the latter specializes in road transport and hasn't aggressively entered the China market.

DHL first entered China in 1981. In 1986, it formed a joint venture with Sinotrans in courier and parcel delivery. Mainly because of this earliest partnership, DHL-Sinotrans has the biggest market share in courier service. Both parties enjoy a very fruitful partnership. For this reason, in 2002 when the first partnership ended, DHL and Sinotrans renewed the cooperation agreement for another 50 years, till the year of 2052. In May 2004, DHL initiated its domestic delivery of parcels in China, and again, DHL led the market. In the courier and parcel delivery market, the partnership between DHL and Sinotrans is the most stable.

In 1991, Danzas formed a joint venture (Danzas-ZF) with China Welfare Institute (ZF), a non-profit organization headed by Deng Pufang, Deng Xiaoping's disabled son. In 1999, as an important step in Deutsche Post World Net's global strategy, Deutsche Post purchased Danzas. In 2002, Deutsche Post controlled DHL Express. DPWN entered the China market with the existing DHL and Danzas network.

By the beginning of 2005, DPWN (DHL) has over 2-million sq. ft of warehousing and DCs in China, covering over half of China's 34 provincial capitals. On 2/7/2005, another facility was opened – DHL's Shanghai Waigaoqiao Bonded Logistics Park, adding one more facility to DHL's physical distribution network.

In the past twenty years, DHL has invested about \$215 million in China. Out of its total investment of \$1.1 billion in Asia, that was only about 20% of DHL's investment in Asia. However, DHL plan to invest about \$273 millions in China from 2004-2008, or almost 2/3 of its \$400 million investment in Asia over the same period. Clearly, the investment is heating up in the China logistics market.

Of the \$273million investment plan, \$215 will be used to strengthen DHL's logistics infrastructure, which mainly includes vans, personal terminals, cargo hubs, turnover warehouses (warehouses for fast moving items, where the commodities don't stay long) and container stations. DHL currently has an air cargo hub in Shanghai, is expanding its Guangzhou hub, and is constructing its third one in Beijing.

In 2003, DHL acquired 5% of Sinotrans' shares with \$58million, becoming Sinotrans' biggest strategic investor. Sinotrans is China Sinotrans Group's Hong Kong listed holding company, and is the China Sinotrans Group's core business unit. It provides integrated logistics solutions and individual freight forwarding, ocean, air and road transport, port and warehouse operation. It is China's leading logistics company with nationwide network and facilities.

4.2.2. TPG/TNT

Similar to DHL, TNT is the uniformed brand of TPG²² (the TNT Post Group), together with TNT logistics and TNT express services. This step was meant to promote a uniformly recognized brand and maximize the brand image.

TPG entered the China market in the 1980's, and in 1988, formed a joint venture with Sinotrans for express service. In May 2003, when the 15-year agreement with Sinotrans ended, TPG terminated the cooperation with Sinotrans, and formed another joint venture with a little-known, 4-year-old company. The loose relationship between TPG and Sinotrans is believed to be the main cause. That is not only the reason for TNT to finally break up with Sinotrans, but also the reason for FedEx and UPS as well. Because DHL is Sinotrans' first partner, Sinotrans favors the partnership with DHL the best and made efforts to strengthen the alliance. That's why Sinotrans-DHL has the largest market share in the courier and parcel delivery.

In the field of integrated logistics service, TPG has a joint venture with the state-owned Shanghai Automotive Industry Corporation (Group) (SAIC), a Fortune Global 500 company. Each of the two companies has a 50% share in this \$30 million company named Anji-TNT Automotive Logistics Co. In 2004, Anji-TNT signed a 5-year, Euro100-million contract with Shanghai Volkswagen Automobile Corporation, one of Shanghai Automotive Industry Corporation (Group)'s joint venture with the Germany automotive giant. As a result of the joint venture partners, it is hoped that this first pot of gold will generate a snow ball effect for the company. Anji-TNT is now China's largest automotive logistics company.

4.2.3. Federal Express

FedEx entered the China market in 1984, and also formed a JV with Sinotrans. In 1995, FedEx left Sinotrans, because it was unsatisfied with Sinotrans' policy favoring DHL²³. FedEx established another JV with a leading logistics company called EAS, and in November 1999, FedEx parted with EAS to form a third JV in China with the then little known Da Tian W. Air Service Corporation (now DTW Group, or DTW for short). The joint venture FedEx-DTW is FedEx's only joint venture in its global presence.

Because DTW had an air freight operator's license, FedEx got a ticket to enter China's courier and logistics service market after leaving Sinotrans and EAS. Because FedEx had to split its profit and share with DTW at ¥100-million (about \$12.08-million) a year (for the license, or the market entry), DTW was able to quickly expand its nationwide network in just a few years, and has become one of China's leading private logistics companies.

In November 2003, FedEx and Kodak China declared a strategic alliance. By 2004, about 9,200 Kodak stores in China started collecting parcels for FedEx. This alliance helped FedEx expand its reach almost to small, rural towns.

In December 2003, FedEx signed a Framework Agreement with China's Guangzhou Baiyun International Airport. Though FedEx renewed its Subic Bay (in the Philippines) Cargo Hub for another 3 years as its Asia-Pacific hub, FedEx is seriously evaluating the development trend in China and, this agreement offers 'an elastic option for our future development', and the renewal of the agreement with Subic Bay Cargo Hub 'does not mean we have made a long-term decision', as David Cunningham, FedEx Asia Pacific President put it, after signing the renewal agreement with the Pilipino government on May 31, 2004²⁴. After the new Sino-US Air Accord signed in July 2004, FedEx had its

12 new lines approved by the US Federal Transportation Committee, and in 2004 FedEx launched its first 6 lines to China, all assigned to Guangzhou Baiyun International Airport.

On November 17, 2004, FedEx officially announced the opening of its FedEx China Business Region office in Shanghai. This is FedEx's only Business Region office of this kind its global network. This office has a CEO, a CFO, a CIO, human resources officers as well as sales and technical support divisions; and is to command all of FedEx's business development in China²⁵. From the number of employees, a complete set of senior officers and business divisions, this office looks more like a regional head office than a typical business office²⁶. After the opening of the China Business Region, FedEx Asia-Pacific was divided into 3 components: North Pacific, South Pacific and China. We can see from this division how strategically important China is to FedEx.

4.2.4. United Parcel Service

UPS formed a JV with Sinotrans very late, and the breakup came late too. On December 2, 2004, UPS agreed to pay Sinotrans \$100-million and buy out the JV's customers. The price will be paid in three installments: 40% (\$40-million) on 12/31/2004, 10% (\$10-million) on 12/31/2005 and the rest 50% (\$50-million) on 12/31/2006. This UPS-buyout will grant UPS the direct control over the fast-growing China market and existing Chinese customers. The next day after the declaration of the transaction, the stock price of the Hong Kong listed China Sinotrans Ltd dropped 7%.

Commencing January 2005, UPS will take over the customer relations directly in five Chinese major cities (Shanghai, Guangzhou, Shenzhen, Tianjin and Qingdao). By December 2005, UPS will directly manage the customer relations in all 23 operational cities under the current UPS-Sinotrans joint venture. This transaction covers 200 important Chinese cities that account for 85% of China's GDP. Coincidently, by December 2005, China will eliminate its last barrier in domestic parcel service.

On January 27, 2005, UPS reported a 100% business growth in the China market in 2004, whereas its global business climbed by only $9.2\%^{27}$.

Chapter 5. Future Strategies Analysis

This chapter is the core of the thesis. It describes the strategies of the players in the China logistics industry.

5.1. International Players

Richard Armstrong, the president of the Wisconsin-based 3PL research firm, Armstrong & Associates, said, "3PLs that expect to be competitive with major customers all have stepped up their strategic plans for global expansion," among which China is a focus²⁸.

This allegation coincides with giant ILCs' plan. UPS Asia Pacific President Ken Torok said, 'China is ... a must to UPS, not a choice²⁹'. More evident is TNT's strategy statement³⁰:

We intend to develop new home markets and other growth opportunities to solidify our position and to offer exciting career opportunities to our talented employees. We have identified three key areas for growth: China, freight forwarding and postal consolidation.

TNT plans to increase the number of subsidiaries in China from the present 25 offices to 100 by 2010, covering 1000 cities, employ 10,000 from currently 2500, establish a fleet of 2500 vehicles, and increase the warehouse space to 3.25million square meters.

In a fast growing market, an extensive presence ensures reach to customers. This is more important to ILCs as a foreign player in the market. Service coverage means market share. How to quickly establish an extensive presence in a short time becomes the top priority for international players.

In general, ILCs have aggressive plans in China. This section analyzes the strategies that the international players are taking and will take to enter, expand and play in the China market.

5.1.1. Strategies for Infrastructure Growth

As an executive of UPS said in an interview with the author, 'if we are not supposed to establish our domestic network (in China), what's the goodness of our business? Why cannot our customers bypass us and directly look for the 3PL providers that have (the network)?'

For the international players to stand firm in the China market, excellent logistics experience and solution is only a part of the success story. Since logistics involves the 'flow and storage' of goods (CLM), logistics providers also need physical infrastructures to support their service and expansion.

5.1.1.1. Direct Investment

Direct investment in facilities, such as distribution centers, logistics parks or sea/air ports, is a way to establish a physical presence. The international logistics companies usually first set up a bridgehead in the Yangtze River Delta (Shanghai) or the Pearl River Delta (Shenzhen), and then enlarge their network as soon as opportunities arise. This is self-explanatory: Yangtze River Delta is China's most economically dynamic region, and the Pearl River Delta is China's largest export-oriented economic region. The establishment in these regions can also help the ILCs reach the rest of China.

From Table 1 in Chapter 2, we have noticed that the average investment amount in logistics is number 2 in all categories, only after that in real estate. Here are a few examples of direct investments:

• DHL is building its Shanghai hub, is expanding its Guangzhou hub, and is planning to build a Beijing hub. In addition to a \$100 million Asian hub opened in Hong Kong in August 2004, DHL invested another 15,000 sq. m logistics center in Shanghai Waigaoqiao Bonded Area after a 16,500 sq. m logistics center in Beijing airport. This new center was opened on 2/7/2005, two days before Chinese Lunar New Year.

- FedEx will soon decide whether or not to use Guangzhou Baiyun International Airport as its Asian cargo hub.
- UPS has already declared that it will open a hub in Shanghai by 2007. In addition, UPS will use \$500 million in 2005 and 2006 to build 20 new warehouse and distribution facilities³¹.
- Maersk has invested 4 ports in mainland China, including Qingdao, Shanghai, Shenzhen Yantian and Dalian. The container berth that Maersk invests in Shanghai alone costs ¥2.4 billion (about \$290 million).

However, direct investment takes a long time to evaluate projects, approve and construct facilities before they can be launched into use. Direct investment also involves huge capitals, and requires a long period to recover the entire investment. For example, highways, bridges or ports may take 20-50 years to break even. Only the largest logistics companies are willing, and able to afford such long-term direct investment.

5.1.1.2. Merger & Acquisition

The quickest way to establish an existence and expand is through merger or acquisition, which enables the acquirer to own a network over night. It has been a very popular strategy for the ILCs in the China market, if not a dominant strategy so far.

M&A has been a theme for ILCs' growth and expansion. Here is a list of recent M&A examples:

- UPS bought Fritz (2001, \$450 million), and Menlo (2004, \$150 million cash + \$110 million debt)
- FedEx bought Kinko's (2004, \$2.4 billion)
- TNT acquired Wilson (2004, Euro 257 million <about \$310 million>)

 DHL (DPWN) spent over \$11 billion in the past 7 years to acquire, including Danzas (\$840 million, 1999), DHL Express (\$2.7 billion, 2002), and Airborne (\$1.05 billion, 2003).

In a recent public interview³², the managing director for strategic planning and development for UPS in China said, 'UPS' future expansion in China may involve acquisitions of either international or local companies'. And Klaus Zumwinkel, the CEO of DWPN, replied in an interview, 'we will consider (M&A) if there are suitable (target) enterprises.' His two criterias are: 1). strategic fit and core business fit; and 2). return on investment over 15%.

The titles of positions clearly illustrate the attraction of this approach. For example, TNT has a director for merger and acquisition for its China operation, and DHL has a position of (China) National Development Manager, as does UPS.

TNT has a Euro200-million investment plan in China. This amount will mainly be used to acquire 'substantial players³³' in the logistics field. If these targets don't have a nationwide network, they shall at least be a 'leading regional company with a potential for national expansion'. Right now TNT is negotiating for acquiring a Chinese logistics company. No more information about the target company is provided, except that its revenue is about \$100-million. In China, less than 10 logistics companies have revenue of over \$100 million. For example, a logistics company with revenue of \$55-million ranks number 12 in China's Top 100 Logistics Companies, and a Beijing-based company with revenue of \$25million in 2003 ranks number 39. All the top 10 logistics companies have a national network³⁴.

In general, DHL has a different strategy. In an interview with the author, a DHL executive said that generally DHL does not acquire any local or regional companies. They only aim at global companies. But China will be an exception for DHL. Although DHL has no immediate acquisition plan, things could change in the near future (about 2

years from now, as defined by the DHL executive). In considering DHL's acquisition targets, DHL emphasized two factors: 1), a good balance sheet, and a nice customer base especially those foreign invested enterprises or joint ventures with foreign equities; and 2), expertise in a special area such as electronic products logistics. Although DHL did not disclose the name of any company that DHL has targeted, the DHL executive repeatedly mentioned a specific company. All information about that company flowed very naturally from his memory, including the size, revenue, network, customers (sino-foreign JVs, solely foreign-owned enterprises), service scope and expertise, and development potentials. The knowledge about that company indicated DHL's long-lasting interest and focus - although DHL hasn't started negotiating for the acquisition, they have observed their target for a long time. They have an acquisition blueprint for their next major movement in China.

5.1.1.3. Franchising

Oxford English Dictionary so denotes: 'Franchising ... has become a method of very quickly establishing a distributive network for a product or service.' Since logistics services heavily depend on the distribution channels, it's very appealing to leverage franchising in the logistics industry.

An executive, the Director for Mergers & Acquisitions of TNT China, said on 2/2/2005 during a telephone interview that TNT has many plans in China. Among which the main effort is to franchise its business. TNT hopes to introduce it to the China market in spring of 2005. Literarily, franchising means 'the authorization granted to an individual or group by a company to sell its products or services in a particular area' (Oxford English Dictionary). In the logistics industry, there are a number of possibilities, but not limited to, as follows:

- network of facilities such as distribution centers or warehouses as franchising members;
- 2. transport capacities such as small or medium size trucking companies as franchising members under the uniform brand of TNT;

3. service chains like 7-11, such as dispersed, unorganized individual stores as franchising members, etc.

Because the franchising model is very special to TNT (and the logistics industry), and it is 'in a very important phase³⁵, for TNT to carry out the franchising model, TNT did not disclose too much information about this model. It is said that this franchising model is aimed at quickly establishing a trucking network covering the entire China, as there hasn't been a national player in the China trucking market.

According to the information available to the public, by the franchising, TNT hopes to make a 'breakthrough in the express service, expand its network, and set a foot in China's second and third tier cities, while establishing bases in major Chinese cities'. The franchising fees are set at \$100,000 (about \$12,085), the franchising period is five years, and the franchising partners will need to complete integrated, comprehensive training. It is reported that the franchising will become TNT's major model in China³⁶.

5.1.1.4. Strategic Alliance

As described in previous chapter, FedEx took a different approach to expand its network reach. The strategic alliance with Kodak was innovative yet unsurprising. These two companies can compensate for each other: Kodak has a long established network that penetrates the communities and neighborhood (which logistics companies are usually not very accessible to), and FedEx has a long-range international reach. The alliance will probably benefit FedEx more than Kodak – an international reach may not interest Kodak very much.

All ILCs formed different forms of strategic alliances when they first entered the China market in the 1980's and 1990's, as China did not allow their independent operations. ILCs had to form strategic alliance with local logistics companies, only in order to gain the access to the market. As China's policy changes, the nature of strategic alliance will change.

When the market is open, the necessity of such an alliance to enter a market will no longer exist, but strategic alliance can still compensate for the partners' weaknesses such as infrastructure (facility, warehouse etc), network (reach for the remote region, for example), capacity (ability to offer different services to common customers), etc. For this reason, strategic alliances will still prevail, which will be discussed in later sections in details.

5.1.2. Strategies for Business Growth

The ultimate pursuit of expanding physical infrastructure is to service the customers better. These two sides of the logistics service – infrastructure and customer network – are closely interrelated. Without an extensive infrastructure network, ILCs can't serve their customers better; without a large customer network, there is no need for a large infrastructure.

5.1.2.1. Strategic Alliance

Section 5.1.1.4. discusses strategic alliance as a means to the infrastructure network growth; it is also an effective tool to expand the customers, or secure long-term cooperation in the logistics business. The ILCs first entered China just as partners of other foreign investors, such as manufacturing firms like Motorola and retailers like KFC etc, to meet their needs. This co-existence will continue. Neither the customers nor the providers could live without each other.

This correlation is very evident in FedEx's case – the alliance with Kodak. When FedEx had about 9200 Kodak stores under its umbrella as a result of the alliance, its reach expanded explosively overnight. Customers who originally would turn to other sources for the service now could access FedEx. Converting these customers to FedEx becomes much easier.

However, strategic alliance can take different forms. Joint venture is one. This is the form most often employed by ILCs when the market was not open. Now, a JV can still bring significant benefits. JVs can facilitate the 'quick entry.' Although there are many other

factors in forming a JV, the quick pace of a JV is one of the most important factors. This approach is very attractive to small and medium ILCs that may not have the capital to buy, but want to extend their services and network³⁷.

That does not mean JV is not appealing to the giant ILCs. JVs facilitate the access to certain markets, or quick building of, customers. For example, even though UPS bought out the customers in regions that generate over 85% of China's GDP, UPS and Sinotrans will continue cooperating in the rest of the regions (of 15% of China's GDP) where UPS' current network is not able to reach. At the same time, on 12/29/2004, Nippon Yusen Kaisha (NYK) formed a new JV with Shanghai Automotive Industry Corporation (Group) (SAIC)³⁸, the company that has a JV with TNT. If TNT can obtain a Euro100-million contract through the TNT-SAIC joint venture, it's natural for NYK to access similar long-term contracts through the joint venture, especially when people expect China to become the world's second largest automobile market; by 2010, China will manufacture 10-15 million automobiles³⁹.

5.1.2.2. Merger & Acquisition and Buyout

Just as ILCs merge or acquire in order to develop infrastructure, or as ILCs form strategic alliances to access customers, acquisition is helpful in establishing the customer network. In the UPS' buyout from Sinotrans, the main purpose is for 'UPS to buy the customers at \$100 million'. Sinotrans recognizes that in the past, the customers belonged to the Sinotrans-UPS joint venture, and the buyout was to ensure the smooth transfer of these customers.

Observers predict that in the near future, merger and acquisition will be a theme for the ILCs to enter the China market. A most recent example is EAS, formerly a partner of FedEx in the second half of 1990's. On January 20, 2005, Kerry Logistics acquired EAS, one of China's leading logistics companies. Kerry Logistics is a logistics company under the Southeast Asian richest billionaire's enterprise tree.

Sagawa Express serves as a very unique yet interesting example in trying to expand the customer network. It took different approaches at different times in China.

Sagawa formed a JV with a giant Chinese state-owned company with a paid up capital of \$10-million in the summer of 2004. It soon 'found' that it had been 'operating' in China for many years and about 900 companies in the Yangtze Delta Region were its 'agents'.

In the past when Sagawa was not strong enough, it acquiescently allowed these small 'agents' to use its brand and logo to market the service, although these 'agents' also did business via UPS, TNT or FedEx. Now that Sagawa has a reputation and is able to do business in China through a strong JV, Sagawa wants to integrate the agency channel. That's why in late 2004, Sagawa sent numerous legal letters to these 'agents', warning that Sagawa would sue them if they did not stop infringing on Sagawa.

But Sagawa soon changed its strategy. It demanded these 'agents' to switch to Sagawa as a sole agent (which means these agents can only do business within Sagawa's network and system; they are not allowed to use other channels like DHL, TNT or UPS).

As one 'agent' analyzed, Sagawa had trouble setting up its own network, and it also took time and huge cost to establish its own network, so Sagawa did not intervene in their business in the past. Now Sagawa wants the small agents as sole agents to help Sagawa develop customers and increase its market share⁴⁰. This is another kind of 'merger or acquisition', although the result is still pending whether this strategy works or not.

If this strategy is successful, Sagawa will soon set up its solely owned or controlled distribution network, without taking too much time or spending too much money.

5.1.2.3. Independence

As the market opens, and regulatory restrictions and market access are no longer a problem, the question becomes, 'what should my operating mode be'? Some foreign logistics firms have already decided to pursue the WOFE (wholly-owned foreign

enterprise) approach⁴¹. Independent operation is a theme for many ILCs, especially those who have operated for many years through JV.

Independence, however, is not a revolution that could take place overnight. It is a long-term strategy, and there is a clear track that we can trace in the case of FedEx and TNT.

In 2003, TNT terminated the cooperation with Sinotrans. It formed a JV with a 4-year old, very small (800 employees altogether), little-known company called 'Ultra Mach'. This is not a match at all, as TNT had a history of over 250 years and revenue close to \$15 billion in 2003. No other reason can explain this kind of asymmetric 'marriage'. The partnership between Ultra Mach and TNT is equal to TNT's advanced independent operation in China, except that it aligned with Chinese laws by a 'legal coat'. This kind of partnership will allow TNT's independent operation in China immediately after China opens the market. There is no bargaining space for the small partners, and the price that TNT has to pay to a small partner will be minimal, compared to that of a large partner.

The ILCs started their plan for independence before the market opening, and FedEx is far ahead of its competitor TNT. After leaving Sinotrans, FedEx first chose a partnership with a weaker-than-Sinotrans logistics company EAS. After three years, FedEx chose a weaker-than-EAS logistics company DTW, although DTW is now a leading company. Similar to TNT, FedEx's strategy is also to form JV with weaker partners, not strong ones.

Another rationale is that unlike large partners, small partners have little stake at the negotiation table. The ILCs then do not have to worry about losing control of the joint venture. The ILCs can concentrate on the core business and vastly increase market share as quickly as possible.

During an interview, a UPS Asia-Pacific executive said that UPS is launching a campaign in China called 'Brown Initiative'. This campaign targets at direct operations that will eliminate the words 'joint venture' and 'agent' from its dictionary in most regions of China. UPS will have its own fleet and service people with the UPS brand and logo, finally leading to 'the first foreign company to have a wholly owned operation in the express parcel business in China⁴²', when by the end of 2005 China lifts the restrictions on ownership.

DHL renewed a cooperation agreement, because the joint venture of Sinotrans-DHL is the market leader and it is unreasonable to expect DHL to give up this leading position and seek independent operation. However, out of the four giant ILCs that formed JVs with Sinotrans, three have terminated the cooperation with Sinotrans. FedEx left Sinotrans in 1995, TNT in 2003 and UPS in 2004.

5.1.3. Service Enhancement

For the purpose of this research, the author interviewed four executives (one from UPS, TNT, DHL respectively, and another from Amway China Limited as the customer of logistics services). All of them believe that the ILCs' main customers are MNCs, not local companies. This positioning is reasonable, given the fact that a majority of Fortune Global 500 has offices and facilities in China, and China's import and export volume reached \$1 trillion.

Traditionally, the ILCs are the shadow of the MNCs, and the ILCs 'serve primarily multinational companies'⁴³. In the 1980's, as a result of China's opening policy, and to take advantages of China's low-cost labor, MNCs started manufacturing in China. The initial market for these products was not China, however. ILCs entered China logistics market to meet the international distribution needs, to ship the products from China to their ultimate destinations in Europe or North America. For example, UPS and Motorola are long-term global strategic partners. When Motorola established its manufacturing facilities in China, UPS naturally hoped to follow Motorola to pursue the logistics service. Without the feed of MNCs to ILCs, the ILCs would have problem surviving in China; without the support of ILCs, the MNCs would have suffered severe supply chain problems.

As more MNCs establish business in China and China gradually becomes one of the markets for the products, the supply chains of the MNCs will get increasingly complicated. The need for sophisticated in-China and cross-border logistics and supply chain management remains strong, even though an increasing number of Chinese indigenous logistics companies will be sharing the market.

Given the limits of the ILCs that will be discussed in the Appendix (Financing Warehousing), ILCs will focus on enhancing their sophisticated services to the MNCs to draw the highest return. For example, TNT-1 Solution refers to the integrated service under one company. The solution specifically includes the high-value air freight forwarding that generally generates a 4-6% profit compared to sea's 1-2%.

Expertise in a certain field is another effective strategy for ILCs to manage their resources more efficiently. For example, TNT wants to excel in the automotive logistics, and it does succeed in achieving this goal - to become China's largest automotive logistics service provider. FedEx and DHL are more focused on high-value spare parts inventory management, and UPS aims at 'high-value, high-technology commodities⁴⁴.'

As these ILCs usually have advanced technologies and management techniques, these expert services can help the ILCs concentrate on one field and achieve the best return. The generally high-value commodities like automotive products, electronics or spare parts need high value-adding and time sensitive services. These services conversely will generate high return for these ILCs. Given the limited hands and high costs, this strategy makes more sense to them. This strategy will produce loyalty among the customers, and contrarily, also attracts peripheral services: transportation, supply chain consulting, etc.

5.1.4. Talent – the Constraint

Before the mid 1990's, there was no concept of 'logistics' in China. This resulted in the shortage of logistics professionals. Although in the recent years the government and educational institutions initiated many logistics education programs, the number of newly forged logisticians cannot meet the market demand. The insufficient supply of well

educated logistics professionals will be a big constraint and challenge in a long term. Ken McCall, TNT China CEO, estimated that by 2010, China will need one million logistics professionals, but there are only about 50,000 in reserve. In contrast, some Chinese researches claim that China lacks 6 million logistics professionals, and for those senior logistics managers and logistics professionals with IT background, the demand will grow at 15% per year⁴⁵. How to train and retain the talent becomes a critical factor in the ILCs' success in China.

It is intuitive to use high salaries to attract professionals. ILCs can always offer salaries higher than what the Chinese indigenous local or state-owned companies can. However, given the extremely limited number of quality people, even high salaries cannot buy enough talent. The ILCs will need to recruit employees from various educational backgrounds, and lower their requirements. For example, a certificate or diploma in logistics cannot be a prerequisite to employment, and there aren't enough diploma or certificate holders to cater to such a requirement.

In-house training offers a viable and realistic solution. This may be the only viable solution. TNT has a clear training strategy. In November 2004, the TNT China University, an alliance with Aetna School of Management of Shanghai Jiaotong University, was officially launched. TNT also has an Internship Program, which is very unique among the foreign enterprises in China, and an internal Exchange Program with TNT Europe and North America. The University and the two programs will train TNT's Chinese employees, and the long-term target is to train logistics professionals for TNT's sustainable development in China. Other firms have similar in-house training programs.

As TNT has a franchising plan in which each franchising member shall enroll in a training program, the shortage of talent will be alleviated, or, in another word, the number of trained professional will grow along with the business growth.

5.1.5. Conclusion

China interests the ILCs as it becomes a world economic 'powerhouse'. ILCs are trying various means to entering, exploring, and expanding in this market. However diverse the approaches are, the main theme across ILCs is expansion, whether infrastructure, customers, services and talent. The main purpose of their current strategy is independence.

5.2. Chinese Logistics Companies

Compared to the giant international counterparts, CLCs are operating at a very preliminary scale. According to the Ministry of Commerce of China, there are about 730,000 registered firms with a word 'logistics' in their company names, but only a few are operating with scalable economy. Most of these large companies are controlled by either the central government or local governments, and a few are privately owned. The rest of the majority are purely transportation or warehouse companies that may own one truck or one small warehouse. The state statistics show that in 2002, China had registered 5.36 million trucks under 3.56 million operators. That means, on average, one truck operator owns 1.5 trucks. That is the reality of most China logistics firms. So how can they compete with the giant international logistics companies?

5.2.1. State-Owned Players

After decades of development with the government support, the SOEs have an extensive infrastructure and customer networks in China. These giant SOEs 'consider their huge assets and wide networks as key advantages over new entrants⁴⁶.' This is their biggest asset not only against new entrants, but also against the existing competitors.

But the infrastructures are usually in very poor conditions. For example, Sinotrans, who claims to have one of the best information systems in China, has a webpage that takes minutes to get connected. If one clicks on a link to search something (news, etc), it takes again minutes to return the page, usually an 'error' message. The conditions of infrastructure are frustrating and the information systems are underdeveloped.

The infrastructures, such as warehouses built decades ago, can only provide elementary storage. It will cost a lot to upgrade these facilities to include the updated information/ intelligence systems, positioning systems, temperature/humidity control, and sorting/ automatic identification systems etc. The existing infrastructure can hardly meet the higher requirements of integrated, efficient logistics services.

The SOEs won't have to worry too much about the network, and they have a traditional customer base. But in order to meet the higher and higher logistics requirements, these giant SOEs need to improve the quality of the assets and infrastructures, upgrade the existing facilities or build new facilities. If these SOEs cannot provide up-to-date facilities, they will lose their competitive advantage very quickly.

So reconstructing (updating, newly building) their asset-based infrastructure is their priority. For example, Sinotrans' first strategy in logistics is 'Based on the traditional advantages, to integrate the Group's resources and set up an integrated logistics platform⁴⁷'. Sinotrans will use the \$100 million from UPS to build a 51,800-square-meter DC near the Beijing Capital International Airport. It also acquired a cold storage transport company (with a large fleet of refrigerator trucks), and invested in three berths in Lianyungang that have an annual throughput of 10.8 million tons. Sinotrans is also negotiating owning its private fleet of aircrafts, in order to share China's sky (Sinotrans does not have aircrafts right now). And 'China Rail United Logistics sees the logistics platform it is building...as part of its strategic objective to become a prominent 3PL and 4PL in China⁴⁸'.

With the extensive infrastructures and a workforce that is of higher quality than the private Chinese companies, these giant SOEs are able to offer integrated logistics services to their customers. Particularly, they will be asset-based logistics providers.

5.2.2. Private Players

5.2.2.1. Expertise

One of the most noteworthy developments in the China logistics industry is the emergence of specialized logistics services, especially among the private logistics companies.

Although there are fast growing private companies, compared to the ILCs or SOEs, they are still operating at a very small scale. One tool for them to survive the fiercer competition is not to compete against the giants (foreign or indigenous) in the fields of network or infrastructure, but in specialized services.

For most emerging private logistics companies, 'small and refined' is a more realistic strategy than 'big and complete' strategy. They do not need to do everything well to survive; they only need to do one thing well to succeed. A nationwide network and extensive infrastructure are a luxury that only a few leading companies can have.

Given the large market size that is still growing fast, and given the diverse logistics needs over a vast country, this rationality helps the Chinese private logistics companies to survive and grow. Currently, there are many specific logistics services. They are: port logistics, automotive logistics, supermarket logistics, medical and pharmaceutical logistics; steel logistics; tobacco logistics; postal logistics; foodstuff logistics; refrigeration logistics; fresh and live logistics; petroleum and chemical logistics; home appliance logistics; book and publication logistics; etc.

'The size and scope of China's market could allow these more specialized players to develop into big business themselves⁴⁹.' Even if these players cannot evolve into nationwide, integrated service providers, they can build themselves up as the largest or the best players in their respective niche market.

This strategy complies with the marketing strategies. Because of limited resources, a company needs to concentrate on core competitive advantages. Sometimes it has to give up the markets in the other, non-competitive fields. By building a competitive advantage, a company increases its bargaining power with the supplier and customer, raises the entry

threat from potential players, differentiates itself from the substitutes, and augments its market position with the existing competing players. This is a sustainable and realistic approach.

5.2.2.2. Capital Requirements

The private companies do not lack the motivation to succeed, and they do not lack the market to expand; but they do lack the capital to grow. China's four largest commercial banks that dominate the financing market are owned by the government, and were supposed to finance the SOEs (especially the large SOEs) in the planned economy. Although this situation has changed, private companies have more difficulties than the SOEs in borrowing from the banks. Whether these companies can get funded is critical to their growth, and sometimes, to their survival.

Logistics companies are seeking more aggressive channels to fund their business. Going public is very popular. For example, ZJS Express (which means Home Delivery in a Hurry), China's largest private courier service company, seeks to get listed on the Hong Kong exchange by the end of 2005. The founding president thinks his company has an adequate network, information systems, talents and competitive prices, but lacks the capital to support sustainable development.

It is scheduled that another private logistics company, Changan Minsheng Logistics Company will officially get listed in Hong Kong Stock Exchange in May, 2005. The initial public offering (IPO) is expected to raise \$300 million. Another Shanghai-based logistics company, Hao Hai International Holding, the only private logistics provider in Shanghai that owns a bonded warehouse, plans to go public on the Stock Exchange of Singapore, to raise about \$18 million (or ¥150 million). This company may become Shanghai's first logistics company to raise funds abroad.

Money is important, but is not the only motivation. As the indigenous private logistics companies are still in their initial growth period, they also need to build a name. Even the leading private logistics companies like DTW and PGL have plans to go public. They do

not necessarily lack the financial support from local governments and banks, but governments and banks cannot help market their brand overseas. To go public at an overseas stock exchange is a great chance to build a name outside China.

5.2.3. Merger & Acquisition

There are not too many M&A cases among the CLCs. For example, Sinotrans 'will consider (M&A) if the target has reached a certain scale, has a high market share and a network⁵⁰. It is planning to acquire or has acquired a few small companies (like the refrigeration trucking company) in China.

However, M&A and Strategic Alliances are traditionally not the mainstream strategies of Chinese companies, and they are neither the emerging strategies. This has historical and realistic roots.

Chinese culture values 'blood authentic', and Chinese companies always value the trueborn branches. If the company set up branches one by one, these branches are considered the company's own branches; otherwise there is always a hint that the branches do not truly belong to this company. In China's 5,000 years of history, in order to compete, businessmen have made every effort to destroy the competitors' business, but few have simply bought the others' business either to eliminate the competitors in the marketplace, or to expand their own business.

The lack of local M&A also has realistic considerations⁵¹:

First, CLCs are not strong enough. Except for a few exceptional top SOEs, all CLCs are at their initial phase of growth. They are not strong enough to merge or acquire others.

Second, there prevalently exists local protectionism. If a logistics company based in region A wants to merge another in region B, the government of B will become very alert: will the transaction harm the local economy? Why shall this business be acquired by 'foreigners', not locals? This concern significantly lowers the chance of a successful deal.

Third, there are governance problems. As the parent company may not consider the acquired companies as its own, the employees of the acquired companies won't consider themselves a part of the parent company, resulting in management difficulties. The parent company's strategies and policies will not be executed as thoroughly as expected. If the parent company removes the original managers (to ensure 'authentic blood' or policy execution), the entire workforce may leave with the original management, leaving only the skeleton company to the acquirer.

Because the market is growing so fast, one can set up its own branches and start business easily. There is no need to initiate M&A. 'At the present, these companies are busy in enlarging their own market and do not have extra hands or time to merge the others'. An Amway executive so claimed in an interview.

5.2.4. Service Differentiation

First of all the key weaknesses of CLCs is a shortage of qualified people to handle daily operations, which cause poor service level, result in tons of complaints and end with customers going away.

The lack of well trained professionals and the recent introduction of logistics services means CLCs are operating on very low levels, at a low price, and at the low value-adding services. 'Their ability to offer value added services in a cost-effective and efficient way on their own is very limited⁵².'

Lack of well educated and well trained professionals is the cause of low levels. In the competition for talent, the CLCs are in an inferior position. The people in these two industries are, on average, ill-educated and trained. As a capital, technology and knowledge intensive service, high quality logistics service requires well trained professionals. Local companies, logistics companies or not, are not able to afford the salaries that ILCs are offering now. The salary gap between local companies and foreign companies can be 2-10 times. The service level is low.

The CLCs lack the experience in integrated, complex logistics services and supply chain management. The China logistics industry is rooted in warehousing and transportation. The concept of 'logistics' was first introduced in the middle of 1990's⁵³, and the concept of 'supply chain' in this century. As new players in the marketplace, their skills and services are rudimentary compared to those of ILCs. They are only starting to learn supply chain management and value-adding services are rare.

In the interviews with three executives from ILCs and one executive from Amway China Ltd (as a logistics user and independent observer), all used 3 'L's to describe China's indigenous logistics standard: Low Skills, Low Levels and Low Prices. It's safe to draw such a conclusion regarding the CLC's performance.

Because of this dilemma, CLCs have to compete mainly in an arena other than that of the ILCs - the domestic logistics customers with low returns and less complex requirements. For example, financing warehousing is a service in which ILCs are not very interested in, but in which the CLCs have advantages. By leveraging these kinds of strategies, the CLCs can avoid a face-to-face competition with the ILCs and still retain market share.

Detailed description of the financing warehousing is provided in Appendix A.

5.2.5. Cooperation

Because of the low skills, learning through practice and cooperation is a priority for CLCs. By providing service to MNCs, CLCs began to learn modern logistics theory and practice in daily operations, to finally grow up and to expand their market with continually high standard requirements from MNCs. PGL's successful story is one of the good examples of this kind.

While PGL just started its logistics services, P&G was looking for a partner to outsource the logistics business. By the year of 1996, PGL became P&G's general agent for the rail freight. Under P&G's hands-on training, PGL's workers learned how to manage a warehouse, how to report the inventory level, and even how to maintain the warehouse in a clean condition. By providing these low-end services to an MNC and meeting higher and more complex requirements, PGL evolved into a modern 3PL provider. ZJS Express also showed interest in cooperating with ILCs. For example, it has been contacting the French Post and all the four giants (DHL, FedEx, UPS, TNG) for further cooperation or partnerships.

Cooperation is not only a means to learning and growth, but also a tool to revolutionize the minds and business logics. For example, Hao Hai International Holding, the Shanghai-based logistics company that wishes to go public in Singapore, wants to introduce an international logistics company as its strategic investor. This investor will be a 'top player, who will not only expand Hao Hai's international business, but also bring advanced management techniques and values to the company,' the president said in a public interview.

Cooperation is also a means to secure business. China Shipping has formed a strategic alliance with its logistics user BaoSteel - a customer-service provider alliance. COSCO and Changhong Electronics, China's leading electronic manufacturer, have a partnership since 2004 too. But all these companies are giant SOEs, and traditionally these companies have strong ties. However, the strategic alliance is not a new approach to attack the market.

As CLCs are establishing themselves as specialized players in niche markets, they become part of longer supply chains⁵⁴. They are either the core player of the long supply chain, or participate in the chain initiated or dominated by other players. This kind of cooperation can establish a win-win-win situation between the downstream and upstream logistics players, and the customers.

For those giants, cooperation is still a must. 'Asset-heavy incumbent companies are now actively looking for technical and operational knowhow, opening up opportunities for foreign companies to work with them.' That UPS bought out the customers from

Sinotrans does not mean to cease cooperation. Sinotrans will serve as UPS' agent in regions that account for 15% of China's GDP and that the current UPS network is not able to cover. In a news article, a Sinotrans executive declared that the company is planning to operate its own fleet of aircraft, 'after all, UPS will still need a fleet to help them deliver services in China'. That is to say, even giant SOEs want to play a role in the global supply chain. The giant SOEs are 'receptive to partherships and other cooperative arrangements with leading foreign third-party logistics companies who have real technical, operational, and solutions know-how'⁵⁵.

At the 2004 Boao Asia Forum 2004 Shenzhen International Logistics Conference held in the middle of December 2004, many logistics executives thought that in order for CLCs to enter the foreign markets, these companies should seize the time when the ILCs enter the China market, seek the proper partners, learn from them and establish a long-term, broad network for their future development. Similar to ILCs, China logistics companies also need some channels to help them open and enter the foreign markets⁵⁶.

5.2.6. Overseas Expansion

There is no clear indication that CLCs are aggressively expanding their international presence at this moment. They are keeping their eyes on their home base. The Chinese logistics market is huge, and it has provided enough space for CLCs to develop. Furthermore, the majority of CLCs are still not strong enough to expand their business abroad.

It's wise and realistic not to adventure outside the rich and big home that is not yet fully exploited. Although the giant logistics companies have overseas offices established in the 1980's and 1990's as their overseas branches to support their international transportation, their businesses are heavily dependent on agents. For example, Sinotrans has business in 200 countries, but there are only 40 overseas offices. The most international business is done via the agents. As Contrill claimed, 'don't expect a wave of Chinese 3PLs to land on Western shores soon. The pace of change in China is slow by Western standards and there is much to do in the home market⁵⁷.

5.2.7. Conclusion

China logistics market is growing fast, providing chances to all kinds of players at various service levels and standards. The CLCs are operating at the low-end of the market, with low returns. For this reason, cooperation with MNCs or ILCs are very attractive to CLCs to learn and improve their logistics techniques.

M&A is typically not adopted for market growth, and CLCs are not strong enough to expand abroad. The home market is big enough for them to increase their market share and grow up. For those giant CLCs, network and infrastructure are their assets that can help provide leverage in the marketplace, and for those small and regional players, the expertise in a special area can help them survive and grow.

5.3. Role of the China Government

The Chinese government aptly realized the underdevelopment of its logistics industry. China's overall logistics costs are over two times of those in the US. In 2003, the logistics costs accounted for the 8.5% of US GDP, and in China it was 21.4%. In 2003 and 2004, the overheated economy consumed more food, oil, coal and electricity than the distribution systems could offer at their maximum capacity, and resulted in the nationwide attention to the logistics issues. This event prompted a wave of new laws and regulations to promote the development of the logistics industry and practice. In general, the Chinese governments are taking two steps: infrastructure building and policy making.

5.3.1. Policy Direction

The policies are meant to direct the development of the logistics industry and practices. As the US government uses the interest rate to influence the economy growth direction, the China government uses laws and regulations to deter, promote or guide the economy.

On January 1, 2004, China's first Act of Port took effective. It grants the same treatment to all kinds of investors and operators of ports in China, whether state-owned, private and foreign. This act in fact grants the foreign investors the national treatment.

In August 2004, nine ministry-level government arms⁵⁸ jointly released a regulation, The Notice on the Promotion of China's Modern Logistics Industry. This notice has two historical breakthroughs:

- 1. It officially and for the first time treats the logistics industry as an industry: In the past, only transportation and storage were considered an industry in this field, and logistics has a very vague concept in terms of the legal status;
- 2. It coordinates the conflicts among originally separate supervisory government institutions, facilitating the development of the industry: In the past, a business involving different government institutes had to have the approval of respective government arms. For example, a foreign freight forwarder had to get approvals from at least three ministry-level authorities: the Ministry of Communications for a license in freight forward, Ministry of Commerce (formerly Ministry of Foreign Trade and Economic Cooperation, namely MOFTEC) for a license of foreign investment, and the Administration of Industry for the corporation registration, and these government bodies might have had conflicting opinions regarding issuing a license to such an investor. Now these ministries will coordinate to provide one voice.

This notice has four parts that aim to:

- 1. Create an administrative environment that promotes the development of the industry, including: eliminating redundant regulations on the incorporation of logistics firms; and unifying the items of taxations on logistics companies and reducing the tax rates.
- 2. Create an economic environment that favors the development of the industry, including: encouraging enterprises to separate their non-core logistics business from their core business and outsource to third parties and professional logistics providers; easing the financing and loan process to logistics companies;

simplifying import and export procedures; encouraging foreign investment in the industry; and establishing more distribution center parks to provide high efficient logistics services.

- 3. Promote the logistics standards, and train more logistics professionals.
- 4. Supervise and administer the industry development. The notice aims to establish a cross-ministry mechanism to coordinate the regulations and policies, plan the blueprint of the industry, solve the problems, and push the development of the industry.

If this notice is a guideline for China's logistics industry development and has indirect impact on the industry, then another regulation has a direct impact on the daily logistics operations: the Notice on Reducing the Rates of Vehicle Tolls, jointly issued by the State Development and Reform Commission and the Ministry of Communications and effective on January 1, 2005. This notice reduces the tolls rates for trucks and trailers above 10 tons by 20% to 30%. The implication of this notice is very clear: the government wants to encourage professional and special large-sized trucks to replace the dominant light trucks, and promote the development of professional trucking companies.

On February 16, 2005, the Ministry of Commerce and the General Administration of Industry and Commerce jointly released the Advice on the Relevant Problems of Registration and Administration of International Freight Forwarding Enterprises. This advice expressly changes China's approval system to a registration system, which means, companies of international freight forwarding no longer need approval from the governing authorities to do business; they only need to register with the governing authority to start their business.

5.3.3. Industry Standard, Society and Training

Realizing the extreme shortage of logistics professionals, the China government started to launch various logistics programs. Approved by the China central Government (the State Council), the China Federation of Logistics and Procurement (CFLP, or the Federation) was founded in 2004. It is China's CLM (now CSCMP), and is a semi-government, semiprivate organization. It is China's first national, cross-industrial professional society in the areas of logistics, procurement and supply chain management. The Federation aims at setting the industry standard, promoting logistics awareness and practice, and conducting logistics certification authentication.

Right now, 97 educational institutions have logistics programs, enrolling over 6000 students, ranging from certificate, diploma to graduate education. The Federation has started training the logistician, advanced logistician and assistant logistician qualification certification. Over the past three years, about 10,000 people have received some kind of short training. Although these numbers are far from sufficient to feed the market, the education and training sectors are trying to catch up with the development of the industry.

5.3.4. Conclusions

The China government understands the importance of the logistics industry to the country's sustainable development. The infrastructure building, policy making and logistics professional education all aid the quick and healthy development of the logistics industry.

Chapter 6. Future Perspective & Conclusions

This chapter projects the possible future dynamics of the industry, the potential problems and risks in the China logistics industry, and the research fields that need further studies.

6.1. Future Projection

This section aims at the future evolution and risks of the China logistics industry.

6.1.1. SW Analysis

SW (Strength and Weakness) analysis is an effective tool to help us understand the competitive advantages of all the players. The following table is a summary of the strengths and weaknesses of the three different players in the China logistics industry, based on the analysis in previous chapters or the author's personal experience in the China logistics industry for over 10 years.

Factors	SOE Players	Private Players	ILCs
Customers			
SOEs	+	0	-
Non-SOE Local Customers	0	+	-
MNCs	0	0	+
Infrastructure/Network			
Nationwide Network	+	0	0
International Network	-	-	+
Services			
Integrated Logistics Services	0	-	+
Expertise (Specialized Services)	0	+	0
Service Level	-	-	+
Management			
Management Skills	0	0	+
Motivations	0	+	+
Flexibility	-	+	+
Low Labor Cost	+	+	-
Talent Sufficiency	-	-	_
Capital Availability	+	-	+
Culture			
Cultural Adaption	+	+	-
Localization	+	+	-
Guznxi (relationship)	+	+	0

Table 6 SW Analysis of Different Players

Remark: '+' denotes that a player is strong in this specific field, '-' denotes that the player is weak in the field, and '0' denotes that the player is marginally good in the field.

6.1.2. Near Future Projection

The above table clearly indicates that the different players have different interests, strengths and weaknesses in the market. We are able to forecast a few rough scenarios for the near future (about 3 years from now) of the China's logistics industry:

1. The three types of players will have their own respective market in the near future.

The division of their respective customer bases tells us that the different players are able to co-exist for a few years. Although there is some overlapping in the customer bases, basically, their customers are generally well divided between the three types of the logistics companies. There won't be very fierce competition for the customers, and each player can have its own market.

2. The division of their respective positioning also helps the different players stay in the market in the near future.

Generally speaking, the SOEs are asset-and-network-based companies. They own large network and heavy assets. The private players are specialists in niche markets, and the ILCs are advanced, integrated service providers. The three types of players won't compete fiercely in the marketplace.

3. Cooperation, or strategic alliance, will still be a very popular theme among the different players.

Because the players have strengths and weaknesses in different fields, cooperation or strategic alliance can help the players compensate for their weak areas and make full use of their strength. 'Local companies with strong asset positions but low skills ... would make a good match for sophisticated international players with global networks, ample investment funds and high China aspirations⁵⁹.

There is a need, especially on the Chinese companies' side, for cooperation. Compared to the international giants, all CLCs are medium or small size enterprises. It will be hard to protect their originally small market with marketing levers. Cooperation can help the companies to survive, learn and grow. The question is, how much is the price?

The ideal solution is to become an indispensable part of the ILCs' supply chain with the CLCs' asset – either the infrastructure or the expertise in an area. For example, it is impossible that the ILCs are versatile enough to offer all logistics services at an expert level. From time to time, it'll be necessary for them to outsource part of their logistics services to private players, who are a specialist in that field. By forming strategic alliances, the ILCs are able to offer their customers an integrated, one-stop service, while the private players can participate in the supply chain as one of the important players.

In short, as the market is growing fast, in a short period, the players will be focusing on enlarging their share in their respective market. Before each player can stand firm on their own ground and strong enough to take more revolutionary steps, there won't be very dramatic changes.

6.1.3. Mid-Future Scenario

In the mid future, however, there may be a round of industry reshuffling. This is because China's indigenous companies are vulnerable, and the ILCs' network expansion will be complete in a few years time.

6.1.3.1. Vulnerabilities of CLCs

First, China's indigenous logistics companies are young and weak. Although they are growing at an annual growth rate of 20-30%, their foundation is not firm. For example,

China's 26 listed logistics companies (mostly state-owned companies) totally raised ± 5.5 billion⁶⁰, equivalent to \$665 million. This means, the average fund that these companies raised from the capital market is less than \$26 million. As only the best (and, usually the largest) players are able to get listed in China's stock market, one can imagine what size of China's leading logistics companies is. Once the international capital attacks these companies, they will be easily overwhelmed by the flood of foreign capital.

Second, they lack long-term and sustainable strategy. In the Ultra Mach-TNT transaction, the management of Ultra Mach 'did not even hesitate a second to hand the company to TNT', and the senior managers received considerable rewards⁶¹. In another case, observers criticized Sinotrans' selling of their customers for \$100 million to UPS as a short-sight action and a 'suicide'. The transaction is regarded as sacrificing the long-term interest for the short-term financial statement, and the stock price of Sinotrans dropped the day after the transaction was declared.

A sarcastic opinion is from a DHL executive, who is a Chinese and who has been in the industry for about 20 years. He said that those CLCs who are striving to become the largest or best players in the niche market, or to get listed at overseas stock market, are doing so to make them more attractive to be acquired. In his opinion, the purpose of leading the niche market or going public is only meant to increase their bargaining power, and sell themselves at a better price when an acquisition offer is before them. Although this opinion is arbitrary without strong supportive evidence, this opinion appear logical.

6.1.3.2. ILCs' Long-Term Strategy

The ILCs are quickly establishing their presence and network in China. As described in Chapter 5, the current strategy of the ILCs is not to crush the local companies or compete for more business, but to set up the nationwide infrastructure network. It may take 2-3 years to complete and integrate the initial network engineering, as shown by UPS' buyout, FedEx' strategic alliance with Kodak, or TNT's franchising.

So what will happen after they build the infrastructure network, understand the culture, localized their business and exhaust the Fortune Global 500? Will the giants be satisfied with the present hundred million dollars of revenue in China, compared to their tens of billions revenue worldwide? In the past seven years, Deutsche Post World Net has spent about \$11 billion to acquire and grow from 1997 revenue of Euro14.1 billion to 2004 revenue of Euro43 billion⁶². For international giant logistics companies like DPWN and UPS, money is not a problem when buying into a market. One billion dollars can buy all of China's listed logistics companies right now. China's hosting of the 2008 Olympic Games will provide a world stage for the logistics companies to play and compete, thus making the China logistics pie looks more appealing. If the ILCs want to benefit more from the games and play a bigger role, nothing can prevent them, except for political intervention.

6.1.3.3. Conclusion

So it remains a question as to how the industry dynamics will be like in the mid future. It is up to the ILCs – how they will play then. It's very possible that the industry will reshuffle, as the ILCs will have the time, infrastructure and network to do more aggressive investments.

6.1.4. Risks Analysis

For the international logistics companies, China is a lucrative market. Capital will flood into the hot land. However, risks exist that the ILCs must be aware of.

6.1.4.1. Legal, Political & Military

China's bureaucratic governments regulate the various aspects of business. The policies governing a business can be issued by various government departments, and sometimes the policies conflict with one another, leaving the investors at loose ends.

A thorough understanding of how the bureaucratic government runs is important. In order for a foreign business to succeed, the investors need to be familiar with the latest policies. Market competition in China does not always rely on advanced techniques, but on how quickly one can react to the new policies. In China's modern history, there are precedents that one regulation is passed and then another law is released to revoke the previous regulation. Or sometimes, conflicting laws exist at the same time, or there are no laws at all governing a certain activity or business. It requires high political skills to tackle these issues.

Since the release of the Notice on the Promotion of China's Modern Logistics Industry in August 2004, the China government has been trying to consolidate the government resources to set up a one-voice mechanism regarding the logistics business and investment. While the efforts are admirable, the results are still worth observing. Just as an article title says, 'China: Reforms May Take Awhile⁶³', government and policy changes always are slow, although China is on a no-return road in opening up the logistics industry.

In addition to the policy-related issues, there is a Taiwan problem that may involve military actions. Since the Nationalist government was swept out of the mainland China in 1949, Taiwan has been ruled separately from the communist system. The separation tendency increased since the mid-1990's, and the inauguration of the pro-separation Chen Shui-bian intensified the cross-strait relation. In response to the increasing separation tendency, China's top legislative body, the National People's Congress, passed a law on March 13, 2005, authorizing the State Council (the Central Government) and the Central Military Commission to use force if the island moves toward formal independence. To make things more complex, 'U.S. President George W. Bush has pledged to help Taiwan defend itself against any Chinese attack⁶⁴'. This pledge exposes the US firms to more political risks.

6.1.4.2. Social & Economic

China is in transition to an open market economy, and unrest prevails in China. In the past decade, the gap between the rich, coastal regions and the poor, inland regions has been increasing; the gap between the cities and the rural regions has been increasing; the gap between the richest and the poorest (in cities or in rural regions) has been increasing.

Laid-off workers appeal to street demonstrations from time to time, here and there, although seldom are these events publicly reported by the government-controlled media. The nation is severely divided in terms of their wealth, education and future. If the situation does not change, it could lead to more severe social instability.

There have been concerns with China's economic overheating and potential hard landing. These are potential risks. In the 1993-1994, China did experience a hard landing.

6.1.4.3. Exchange Rate

In the past 2 or 3 years, there has been pressure from especially Japan and the USA for China to loosen its exchange rate controls. The relaxation is supposed to appreciate the Chinese Yuan (or Remminbi, RMB for short) and depreciate the US dollar.

If the China government finally appreciates the value of RMB, it means that the value of the existing investments in China will appreciate, but the future investments require more funds in terms of US dollars, and future income, will appreciate in terms of US dollars. The appreciation of Chinese currency will basically favor the international investors, but still investors will need to pay attention to China's foreign currency policy, and evaluate the potential impact on their operations.

6.1.4.4. Act of God & Force Majeure

Given the large territory of China and complex natural conditions, international logistics companies need to take into consideration natural risks. For example, if one investor has extensive infrastructure in China, earthquake, flood, and typhoon, etc are the factors that he may wish to consider. In 1976, an earthquake devastated the entire city of Tangshan, some 120 miles away from Beijing, killing over 160,000 people. Tangshan is now one of the industrial cities in the Bohai Bay Triangle economic region. Frequent flooding occurs along the Yangtze River, China's economic artery, once every 4 or 5 years. Physical infrastructures are subject to the mercy of these natural disasters.

In 2003, SARS burst in to a worldwide focus, which almost shut China entirely off from the rest of the world, and the US West Coast port shutdown in 2002 blocked the supply chains both from Asia to the US and from the US to Asia.

6.3. Conclusion

Right now, the international logistics companies are busy expanding their infrastructure network to reach more regions and customers in China. As China lifts restrictions on the logistics industry, independent operation is a theme among the ILCs. The Chinese state-owned companies are strengthening their infrastructure lead and transferring to assetbased logistics providers, and the private players are building their brand name and expertise in the market place.

The three types of players have different focuses, market positions and customer targets. Because the market is growing very fast, they are able to co-exist peacefully in their respective field in the near future, until about 2008. Cooperation among different players (especially between ILCs and SOEs, and ILCs and private players) will prevail.

However, in the mid future (after 2008), the industry may reshuffle. By that time, the ILCs will have finished their network and infrastructure building in China. With the support of their own infrastructure and network, the ILCs will be able to localize their services. At that time, the competitive advantages that the CLCs are enjoying now will decrease, and the direct competition is expected. Because CLCs, compared with the ILCs, are not strong enough, it will be a tough time for the Chinese indigenous logistics companies.

6.4. Future Research

There are two major categories of logistics providers: air and courier service based companies with UPS, FedEx, TNT as representatives, and ocean transportation based logistics providers with APL Logistics and Maersk Logistics as representatives. This paper mainly studied the first category – and their strategies in China.

Admittedly, this approach simplifies the situation. Although the first category of logistics companies can reflect a portion of the overall strategies of both categories, it's not complete. Further research on the strategies of the second category of players can help generate a holistic view of the dynamics of the China logistics industry.

Another field that needs continuous attention is the strategies of Chinese logistics companies. Unlike the ILCs, the CLCs usually don't have a regular and healthy news release system. They are very conservative towards the media, reluctant to speak to them. This culture greatly limits the effectiveness of the research. As China changes quickly, the management skills, logistics techniques, global and strategic views, and international positions of Chinese firms will change too. How will CLCs play in the long term – if they grow strong enough – will be of interest to the business world, not just the logistics industry.

A third field is the dynamics of the China logistics industry after 2008. As the author projected, 2008 will see the 2008 Olympics Games in China, and the China logistics industry will be more open than it is now. Because the ILCs will have set up their own network and infrastructure in China, and the CLCs will have completed their infancy period, direct competition may occur. But what the dynamics of the industry will be like still remains unanswered. If one can project the market structure of the mid-future China logistics industry, we will able to forecast the future vision too.

Appendix A : Financing Warehousing

-- A Value-Adding 3PL Service, A Differentiation Arena

Chinese 3PL providers are introducing a new value-adding service, financing warehousing, to their customers. It is a combination of traditional warehousing and financing. The 3PL customers can use their own inventories/commodities to secure loans from banks, the banks can expand their business, and the 3PL providers can make profit from this value-adding service. The financing warehouse creates a win-win-win situation, and helps the 3PL providers in the face of foreign competition.

This appendix outlines how the model works, its impact on the relevant parties, how Chinese logistics providers use it as a tool to compete with international logistics providers, and what the current market is like.

The Business Model

When a customer sends and the 3PL provider receives raw materials or finished products for storage, the 3PL provider issues a warehouse receipt. This receipt is both a proof of ownership and a transferable security that the customer can endorse and transfer. In financing warehouse, the customer hypothecates ('mortgage' current assets with ownership transferred) this receipt to secure a loan from banks. The simplified model is as follows:

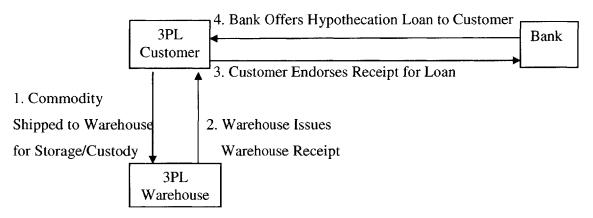


Figure 3 Financing Warehousing Model

So how will the customer pay the loan? When the customer receives proceeds from processing the materials or sale of the commodities, the fund will be remitted to a special account with the bank, just as the hypothecation agreement requires. The bank will deduct a certain amount from the incoming fund as the customer's payback of the loan. The bank then transfers the balance of the fund to the customer's regular account, under the disposal of the customer. Thus, the bank safeguards its loan, and the customer is able to use the loan to get the business to continue.

In reality, this business is more complex than the above diagram shows. For example, the order of these steps may be reverse. Sometimes the step 4 becomes the first step; step 1 becomes step 2, and so on. In this case, the bank first lends money to the customer, and then the customer instructs its supplier to ship/deliver the materials/commodities to the warehouse assigned by the bank, making the materials under the monitor and control of the bank.

When necessary, the hypothecation loan can be 'revolving'. This greatly facilitates the customer's procurement, production and distribution, and saves a lot of repetitive, caseby-case negotiation time.

In this business, theoretically there exist at least three contracts, or three different legal relations:

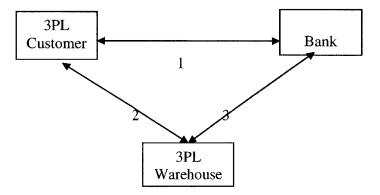


Figure 4 Contractual Relationships in Financing Warehousing

- 1. Between the 3PL Customer and Bank, there is a loan/hypothecation agreement;
- Between the 3PL Warehouse and the 3PL Customer, there is a storage agreement, by which the customer consigns the materials to the warehouse, who stores and ships the commodities in a safe condition as the customer's agent;
- 3. Between the 3PL Warehouse and Bank, there is a custody agreement, by which the bank entrusts the warehouse to keep the targeted materials under the warehouse's custody, and the warehouse monitors and controls the types and quantity of the materials as the bank's agent.

But in the real world, the contracts 2 and 3 are usually combined into one, where all three parties are involved to store, manage, monitor and control the inventory.

Under this business model, the regular business procedure of the customer is not affected. The bank allows the customer to process or sell the hypothecated materials under normal business procedures. But the bank requires the logistics provider to monitor and track the materials, and control the delivery and shipping of these inventories. If the customer is able to pay back the hypothecation loan as per the agreement after processing or selling these materials, the bank will not intervene in the customer's regular business operations.

Embedded Risks

The 3PL providers shall be aware of the risks they are exposed to:

1, Fluctuation of the value of the materials. If the value depreciates significantly, the 3PL provider is exposed to market risks once the 3PL's customer is not able to enforce the loan/hypothecation agreement and the storage agreement;

2, Legal issues. If the materials under a 3PL provider's custody/storage are found illegal (for example, smuggled commodities), then the 3PL provider is exposed to legal and

economic risks. It will be a problem whether the 3PL provider can recover the storage and management costs;

3, Fire, theft, etc. The 3PL provider will have to be responsible for the safety of the materials, and compensate either the customer or the bank.

Generally speaking, the 3PL providers are exposed to all these risks, whether or not they provide financing warehousing. But under the financing warehouse business, these risks become significant because the 3PL providers' own interest is more dependent on the service they provide and the value of the materials that they store.

The Significances of Financing Warehouse

The financing warehouse is very helpful in China, where the credit system is not well developed, and 80% of small and medium enterprises (SMEs) have difficulties in securing loans from financial institutes. A recent paper disclosed that in 2004, China's largest bank, the Commercial and Industrial Bank of China (CIBC) lent to only 2% of China's SMEs. And CIBC is the most aggressive bank in loaning to SMEs in China⁶⁵. To the 3PL providers, this service can help them expand their business scope and add value to their traditional service.

After SMEs purchase raw materials or manufacture finished products before they can finally sell them, they may encounter a shortage in current capital. The financing warehouse helps SMEs to activate the values of these inventories before the values are eventually realized. The inventory therefore won't harm a company's current capital; it instead lubricates the whole supply chain, from procurement, manufacturing to sales, and from financing support to logistics service. The business helps a company establish its credit record, and the integration of logistics and financing in one package greatly increases the customer's business efficiency.

To the banks, a reliable 3PL provider serves as a warrantor to reduce their loan risks, and the bank can improve the loan efficiency too. The financing warehouse increases their willingness to offer bank facilities to initially not favorite SMEs, and helps banks expand their business scope.

On the other hand, financing warehousing adds value to 3PL providers' service. They evaluate the materials, monitor these commodities, assure customer credit to the bank, and when necessary, sell or auction the forfeited inventories. Their security is guaranteed, just like the banks, against the inventories.

When financing is a big issue to SMEs, the logistics providers can use financing warehousing to attract more customers and strengthen the relationship with them. SMEs, on average, lack the ability to handle logistics affairs effectively and efficiently for three reasons. First, logistics service requires intensive capital. Not all SMEs can afford managing the logistics by themselves. Second, logistics is a knowledge intensive business. Not all SMEs are capable of handling the logistics issues themselves. Third, logistics requires economy of scale. Not all SMEs have the scale by themselves. Therefore, outsourcing is their best solution, and if logistics outsourcing can come along with financing, the ties between SMEs and logistics providers are tightened.

In the competitive logistics market, any profit-generating service may determine whether a company can remain in business. In China, SMEs account for 99% of all kinds of businesses, or, there are about 10 million SMEs in China. They generate 60% of China's GDP, or, equivalent to \$800 billion. On average, China's logistics costs account for 21% of the GDP. In July 2004, China's inventory level is \$115 billion⁶⁶. If the inventory level of SMEs is only half that of national average, it is still a \$35-billion market (\$115 billion x 60% x 50%). Those who win SMEs can sustain the competition, or stand out. This is a significant competitive advantage of Chinese companies over international logistics companies.

An Effective Competitive Tool

The financing warehouse is important to Chinese domestic logistics providers. For several reasons, they can use this business to leverage their competition against international logistics providers.

First, this business is very 'grass rooted'. The target of this business is local small and medium enterprises, which lack the necessary, able people to communicate with international logistics providers. Chinese domestic logistics providers are able to use their linguistic/dialectic advantages, and benefit from their close relationship very quickly and effectively. The relationship built between customers and domestic logistics providers only gets stronger and stronger as both parties have interests tied in transactions. International logistics providers, given the cultural and linguistic limitations, will find it hard to have a big share in this market.

Second, in terms of location, Chinese domestic logistics providers have easy access to the SMEs and find it much easier to provide the financing warehousing service. The demand exists not only in big cities where international logistics company are present, but also more in small cities and rural regions. International logistics providers, given their limited orbit in the vast China market, will find it difficult to reach out to the local, regional financing warehouse market. Their business arms may simply be not long enough. According to Transport Intelligence Ltd's China Logistics Report 2004, '(the logistics outsourcing's) appeal to the rapidly expanding smaller and medium sized shippers mostly relies more on the logistics companies' ability to offer regional and national distribution network' (Report, page 100). It may take years for the foreign logistics company to set up their network to start this business at a considerable scale.

Third, financing warehousing requires close collaboration among three parties – logistics providers, customers and banks. Only those very familiar with local customs, practices and business cultures can handle this business. Local protectionism may also prevent international players from taking an active role.

Finally, it is hard for international players to really get deeply involved in such a laborintensive business. The logistics providers will have to negotiate and coordinate with customers and banks, and monitor and track the materials/commodities, etc. Here, high technology application or advanced management techniques are inferior to the closeness of the 3PL companies' relationship with the customers and banks, and the resources invested in the service. Whether international players will be satisfied with the reward (input-output ratio) is dubious.

Conclusion

The financing warehouse was elected as No. 1 among the Ten Logistics Innovations of Year 2004, and Chinese logistics companies have brought this business to a significant level.

So far, hardly any international players have started this business. However, China's domestic logistics providers are enthusiastic about this 'innovative' service. For example, China Materials Storage & Transport Co (CMST), one of China's largest logistics providers that have a national network (including warehouses), has doubled its financing warehousing business from 2002 to 2003. The bank facility limit offered to CMST reached Chinese RMB2-billion (or, \$241 million). Assuming the turns of the bank facility are 4 (CMST's inventory turns are 8, according to its average inventory of 3 million tons and throughput volume of 25 million tons), then CMST's revenue is \$964 millions a year, close to \$1-billion. Another regional logistics company in Southern China also recorded \$500 million of revenue for this service in 2003.

This business model applies to many different categories of products/materials. According to China Materials Storage & Transportation Co., the materials/products they can hypothecate range to almost everything from ferrous metals, non-ferrous metals, construction materials to food, paper or coal, from home appliances to automobiles or chemical products, from raw materials to semi-products or finished goods. There is not a very clear indication of what industry or what kind of materials/products most fit into this service and what do not. The application's prospects are promising.

All the risks require the 3PL provider to improve their management, and the value that the financing warehousing provides strengthen the 3PL providers' market position. While many domestic logistics providers can do this business easily, it's hard for international players. This is an invisible barrier that helps to maintain Chinese companies' advantages, and avoid direct competition with foreign companies. It's a useful strategy when one group is not a competitor of another.

The belief is popular that this innovative service will proliferate among Chinese logistics companies very quickly, and it has great promise under China's current business environment. It will become a forceful tool for local logistics companies to survive, grow and compete with the foreign logistics companies.

Glossary

CLC	Chinese Logistics Company
DHL/DPWN	Deutsche Post World Net
Euro	European Dollar (Euro1 = 1.3 ; $1 = 0.77$)
FedEx	Federal Express
ILC	International Logistics Company
IPO	Initial Public Offering
JV	Joint Venture
JVC	Joint Venture Company
M&A	Merger & Acquisition
MNC	Multinational Corporation
RMB	Renminbi (Chinese Yuan. Currency Sign: ¥. \$1 = ¥8.275; ¥1 = \$0.121)
SOE	State-Owned Enterprise
TEU	Twenty-foot Equivalent Unit
TNT/TPG	TNT Postal Group
UPS	United Parcel Services
VMI	Vendor Managed Inventory
WOFE	Wholly-Owned Foreign Enterprise

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