

A Survey on the Logistics Service

Providers in Shanghai

Fu Chin Chin(student, college of graduate, Yeungnam University)

Jung-Han Bae(Professor, Yeungnam University)

Gwi Ok Kim(Student, College of Graduate, Yeungnam University)

ABSTRACT This paper analyses the results of a survey questionnaire which is made for logistics service providers in Shanghai, China. Based on 177 valid providers' responses, the study results show that the logistics industry of China consists mainly of small and medium-sized companies. Furthermore, most of the logistics companies are highly capable of providing traditional logistics services and lack of the capability to provide other value-added logistics services. Their self-assessments indicate that they generally perform well in different types of performance measures. This study indicates that the market for 3PL services in China has a reasonable potential for further development, though 3PL practices are still at a nascent stage in China. This paper presents full details and implications of the results of the survey and then tries to provide some helpful suggestion for the development of Chinese logistics companies.

I. Introduction

1. Background and Research Purposes

With the increase of the global competition and the rapid progress of the IT technology, the logistics industry has become one of the most influential subjects of the 21st century. The scope and role of logistics have changed dramatically over recent years. In the past, logistics has played a supportive role to primary functions such as marketing and manufacturing. Now the scope of logistics has expanded beyond its traditional coverage of transportation and warehousing activities to

include purchasing, distribution, inventory management, packaging, manufacturing, and even customer service. More importantly, logistics has dramatically evolved from a supportive role characterized as passive and cost absorbing, to a primary role and critical factor in competitive advantage¹. Companies experiencing growing pressure to reduce costs and provide better service can improve their logistics by outsourcing to logistics firms, an option that can improve both efficiency and effectiveness. The Outsourcing Institute highlighted that companies gain a 9% costs saving and a 15% increase in capacity and quality, on average, through outsourcing².

Frankly speaking, subject to the constraints and restraints from many kinds of conditions, the stage of the development of the logistics industry in China is still relatively low now. Chinese government and the enterprises have paid much more attention than ever before to the theory of logistics after this industry being introduced into China. China's accession to the World Trade Organization (WTO) since December 11, 2001 sets China's logistics industry to grow even faster, bringing tremendous opportunities, as well as intense competitive challenges from global players. Facing with the increasing intensity of competition after China's WTO accession, logistics companies which offer basic and simplex logistics service now should review their business policies and how they propose to give value-added services to their customers so that they can survive in the global logistics market.

In general, this study seeks to answer the following questions:

- a) What are the corporate characteristics of the companies in the logistics industry in Shanghai, China?
- b) To what extent do logistics companies have the capability to provide different types of logistics services?

¹ Sum, C.C. and Teo, C.B. (1999), "Strategic posture of logistics service providers in Singapore", International Journal of Physical Distribution & Logistics Management, Vol. 29 No. 9, pp. 588-605.

² Elmuti, D., Kathawala, Y. and Maonippallil, M., Outsourcing to gain a competitive advantage. Indust. Mgmt, 1998, 40, 20-24.

- c) How do logistics companies perceive their service performance?
- d) Logistics service providers' selection factors perceived by logistics companies themselves.

According to the answers to these questions, this study tries to give some helpful suggestions for the development of Chinese logistics companies.

2. Literature Review

There has been a considerable and growing interest among the consultants, academics and researchers world-wide on logistics outsourcing. Fernie (1999) classified studies on logistics outsourcing into three types: (1) the outsourcing decision from theoretical perspectives; (2) broad conceptual views on the relationship between the logistics service users and their logistics service providers; and (3) empirical research on the users' perceptions of logistics service providers. The literature on logistics has dealt mainly with managing logistics activities from the perspective of the logistics users (Yeung et al., 2006, Sum and Teo, 1999). Studies that directly address logistics service providers are very limited. Two notable exceptions are a study of the strategic posture of Singapore's 3PL providers (Sum and Teo, 1999), and one examining the strategic posture of FF providers in Hong Kong (Kee-Hung Lai and T.C.E.Cheng, 2004). Our study tries to conduct a survey on the logistics services providers in Shanghai, China, a booming and immense logistics market.

The economic growth and huge market potential of China has attracted not only business attention, but also a growing amount of academic interest, although research on China's logistics is very rare. Peng et al. (2001) reported no comprehensive studies of logistics in China up to 2001, and our comprehensive search of the literature revealed few additional studies on China's logistics. Not surprisingly, authors have examined the challenges that China faces in developing logistics to meet the growing demand addressing specifically transportation, telecommunication, customs, and warehousing (Goh and Ling, 2003), and concerns of foreign firms in China (Ta et al., 2000). Chen et al. (2004) discussed logistics management in China using a case study of Haier, a multibillion dollar manufacturer of home appliances.

To the best of our knowledge, there have been no studies conducted that directly address logistics service providers in mainland China.

3. Methodology

A survey questionnaire was developed to collect information from logistics companies in Shanghai, China. The reason why this paper chooses Shanghai as place done the survey is that Shanghai is the most promising logistics city in China, even in Asia-Pacific. Statistics show that the logistics industry has become a mainstay industry for Shanghai. In 2005, its freight volume reached 678 million tons, of which port throughput was 443 million tons, making Shanghai port the largest in the world in cargo transport. Its container throughput amounted to 18.084 million TEUs and ranked No. 3 in the world. Shanghai's logistics added value was 255 billion RMB (US\$31.88 billion) in 2005, accounting for 13% of its GDP and becoming one of the top four in the service sector³. By the year 2010, Shanghai will have basically established a modern logistics service system with an internationally competitive edge, and built itself into an important logistics nexus of the world and one of the logistics centers in Asia-Pacific.

A total of 619 logistics companies are identified from the membership list of the Shanghai International Freight Forwards Association and this number accounts 60% of the total number of logistics companies in Shanghai. We chose our sample companies after the sample companies were cross-checked to avoid double mailing. Then, the questionnaires were mailed to the general manager of the sample logistics companies, as these target respondents were assumed to have good knowledge of the organizational characteristics, service capability and performance of their companies. Only one response was solicited from each sample company.

Each sample company received an initial mailing, which consisted of a covering letter explaining the purpose of the study, a copy of the questionnaire and a postage-paid return envelope. Approximately 1 month later, a second mailing identical in content to the initial one was sent to the non-respondents.

³ National Bureau of Statistics of the People's Republic of China, 2005

After the two mailings, for the survey on logistics companies, a total of 180 responses were received. In sum, there were 177 usable responses—117 in the first mailing and 60 in the second mailing—representing an effective response rate of 18.9%. This response rate is comparable to those obtained in previous studies of a similar nature.

II. Current Situation of Logistics Service Providers in China

1. Four Types of Logistics Service Providers in China

In China's logistics industry, four main distinct groups of different origins are entering where their competition is intensifying with each other. They are traditional state-owned transport and warehouse enterprises, private logistics enterprises, Sino-foreign or foreign-capital logistics enterprises and those affiliated to mammoth manufacturers.

The value of China's logistics and related markets has exceeded 2 trillion RMB (US\$242 billion) and there are 730,000 logistics enterprises in operation up to 2006. According to statistics, 36.9% of these logistics enterprises are private logistics enterprises. This amount is higher than state-owned logistics enterprises (4.9%) and Sino-foreign or foreign-capital logistics enterprises (10.7%). However, concerning business volume, 33.6% of these private logistics enterprises' annual revenue is less than CNY 10 million⁴.

(1) Large state-owned and state equity controlled logistics enterprises

Prior to 1980 under command economic conditions, China's logistics business could only be administered by state-owned enterprises and logistics was a monopoly industry, mostly for transportation and storage. Transportation was furthered divided into two subsections: consigned transportation and agent transportation. In consigned transportation, the logistics provider was only responsible for transportation itself; in agent transportation, the logistics provider was also responsible for finding the

⁴ http://www.dianliang.com/hr/cio/cidian/200607/hr_125779_2.html

sources of commodity supply. Their management mode suited the economic situation of their time: small-scale domestic enterprises, slow product renovation, partitioned management, production plans following directives from various government agencies, etc. Due to decades of massive investment by the government and through monopolistic operation, these enterprises acquired large assets and became relatively large-scale businesses.

Relying on their abundant capital and existing market share, in the past several years these enterprises very rapidly became China's new backbone logistics firms. The major trend of their reform is the transition toward comprehensive logistics service enterprises. However, due to the monopolistic nature of the industry and the partitioned asset management system, it will take time for these logistics firms to become truly comprehensive.

The following is a list of today's relatively powerful state-owned backbone logistics enterprises that operate nationwide:

- COSCO Logistics: operates worldwide, large enterprise logistics and international container transportation
- SINOTRANS LIMITED: personalized and set logistics services
- China National Post Logistics Ltd.: total and quality logistics services
- China Material Storage & Transportation Corporation, Ltd.: storage and land transportation logistics
- China Railway Logistics: China's largest railway transportation platform
- China Shipping Group: large domestic enterprise logistics and international container transportation
- China Merchants Logistics: complete and total logistics services

In particular, the state-controlled ocean shipping companies, such as COSCO SINOTRANS and China Shipping Group, offer a range of freight forwarding service to complement their standard liner activities. Traditional transportation companies typically maintain good relationships with central and provincial governments. The problems of these companies face include high proportion of excess employees and low efficiency. They have typically internally focused culture rather than customer- and performance-focused.

However, many of them are in the process of or about to start restructuring to improve efficiency and economics. It should be noted that some of them are upgrading their capabilities, such as IT systems, to enhance their competitiveness.

(2) Private domestic logistics companies

The entry of MNC manufacturing enterprises into the Chinese market preceded the entry of international logistics companies by twenty years in China. Since the mid-1990s, with the development of MNC manufacturing enterprises in China, quality logistics services were needed. Due to their division of logistics services into transportation, storage and consignment, and due to the deficiencies in their management systems, the existing large state-owned logistics enterprises at that time could not serve as suitable MNC logistics partners. Meanwhile, foreign logistics companies were denied entry into the Chinese market at that time. This vacuum in the logistics market provided the opportunity for China's private domestic logistics enterprises to develop themselves.

EAS International Transportation Ltd. in Shanghai is a good example. This company was founded in 1985 and is an international enterprise in modern logistics business. In the past twenty years, EAS has gained notable achievement in building the unique operation platform to develop modern logistics business according to the demand of customers⁵.

There are many other private domestic logistics companies in China, such as St-Anda, PGL, Hurry Top, China Overseas logistics and Jinchuan Logistics. They are all medium-size Chinese logistics providers emerged in the last 10-20 years. These firms have enjoyed the fastest growth in the market due to their light-asset nature and high efficiency. They are more focused on geographies, services, and customers. But they have problems in lacking sufficient financial support for market expansion and internal management mechanisms and effective organization to support high growth and profitability.

(3) Foreign logistics companies

⁵ <http://www.qqcg.com/gysbh/R036/qyjj.asp>

In the 1980s, the MNCs began to invest in China, and since the domestic logistics enterprises could not provide serial logistics services, MNCs began to bring their logistics partners to China. However, in those days there were restrictions on foreign logistics investment in China. The foreign logistics companies that arrived early, such as TNT and DHL, simply cooperated with their Chinese agent companies or established a small number of logistics joint ventures. Since 2001, after China's entering into WTO, at the invitation of MNC manufacturing enterprises, a large number of international logistics companies have invested in China. According to the commitments of Chinese Government when entering WTO, China has completely opened up key transportation sectors including freight forwarding, courier express, road transportation, shipping agency, and warehousing by the end of 2005⁶. At present, most of the international logistics companies have invested in China.

Global ocean carriers, such as APL and Maersk, and large global forwarding companies and integrators, such as Panalpina, Exel, Danzas, TNT, FedEx, UPS and DHL set up logistics companies to provide a full range of freight forwarding and logistics service. These global logistics providers possess strong overseas network, advanced IT systems, industry expertise and experienced operations.

Foreign logistics companies have established offices in key manufacturing, trading and consuming cities in China now. Table 2.1 shows the number of branches of foreign logistics firms in main cities of China. Shanghai is founded to be the most popular business site because of its strategic significance of the Yangtze River corridor as China's chief transport and economic arena. Beijing, Guangzhou and Shenzhen also attract a significant amount of business. In addition, considerable presence of foreign logistics firms is found in Qingdao, Dalian, Tianjin, Xiamen and Nanjing. As foreign logistics firms are actively expanding their office network, the number of cities served by direct presence will be increased.

⁶ See the Protocol on the Accession of the People's Republic of China.

Table 2.1 The Number of Branches of Foreign Logistics Firms in Main Cities of China

Region	The number of branches of foreign logistics firms (2004)	
Beijing	25	
Tianjing	20	
Shanghai	33	
Chongqing	6	
Guangdong	Guangzhou	25
	Shenzhen	22
	Zhuhai	5
	Zhongshan	7
	Zhangjiang	4
	Shantou	3
Zhejiang	Ningbo	15
	Wenzhou	2
	Hangzhou	7
Fujian	Xiamen	19
	Fuzhou	15
Shanxi	Wuhan	7
	Xian	6
Liaoning	Dalian	20
	Shenyang	8
Shandong	Qingdao	21
	Yantai	5
Jiangsu	Nanjing	18
	Suzhou	10
Sichuan	Chengdu	7

(Source: National Bureau of Statistics of the People's Republic of China, 2004)

However, for foreign logistics companies they are being challenged by infrastructure and customer base and of lack of on-the-ground capabilities in China.

(4) Internal logistics departments of Chinese companies

With economic development expedited, competition between enterprises became more and more intense. For many rapidly developing industries such as electronics, automobiles and chain stores, the simple and partitioned storage and transportation services could no longer meet the needs of the enterprises. Unable to find new-type logistics service companies to act as their partners, the enterprises had to establish

their own departments, which delivered the materials to the factory and the products to the market according to each firm's production and sales requirements. Since the 1990s, a few of China's largest manufactures have transformed their in-house logistics division into a separate profit centers and have entered/are entering the 3PL business.

Internal logistics departments of Chinese companies, which were founded on the basis of manufacturing enterprises, such as Annto logistics, Haire logistics, Attend logistics, Ding Xin logistics, TCL, Bright Dairy & Food and Konka also provide services for some external customers, but internal customers still dominate.

Many of this kind of logistics companies have in depth knowledge of the industries that they serve and reasonable network coverage, but they are weak in sales and marketing. The fate of these players is uncertain, as their strategy and future position is strongly influenced by the parent companies.

In sum, these four distinct groups of logistics companies have their own advantages and disadvantages. The 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. 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. And, for foreign logistics companies they are being challenged by infrastructure and customer base and of lack of on-the-ground capabilities in China.

Both the state-owned and privately-owned Chinese companies hope to avoid direct competition with the international logistics companies. Desire for cooperation with international logistics companies is strong. Because this will help improve the Chinese logistics companies' service level, and give them the access to global reach. Chinese logistics companies are not strong enough to provide global, integrated logistics services in the near term, 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 four types of companies have their own target market. 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 and unavoidable.

2. Third party logistics growing rapidly in China

The rationale for outsourcing logistics is to achieve cost saving through economics of scale. Small or middle sized companies may not always have economies of scale to economically manage logistics operations, but this is precisely one of the advantages for third-party logistics (TPL) companies. China's market for TPL is still in its early stages. Also, TPL is a relative new concept for most of the Chinese companies. A 3PL company normally provides process-based services rather than a function-based logistics services, which generally aims at the integration and full control of a part or whole process of customers' logistics network. Indeed, the process expertise, as well as economies of scale, is 3PL's core competencies.

How many third party logistics companies in China now? Some say more than 10,000. Others say about 15,000. One of the difficulties in estimating the size and scope of the 3PL industry is that it is difficult to draw the line between 3PLs, FFs and carriers. However, of Chinese local logistics companies, the vast majority focus on a single function in the supply chain – such as traditional transportation and warehousing. Currently, No one accounts for more than 2% of the market share. Business China magazine estimated the third party logistics have penetrated only 2% of China's total logistics activities⁷.

Confident of the future of China's logistics industry, businessmen with vision are setting up 3PL companies to tap the market. Actually, there are now quite a few large multinational 3PL providers companies in China, including UPS, FedEx, APL,

⁷ Dr Fu Yuning, President of China Merchants Group, The Logistics Industry in China: From Dawn to Sunrise, Speech to American Chamber of Commerce 14th Leadership Series Luncheon, Wednesday, July 9, 2003

Nippon Express, Maersk and other top players. Most of them have also established footholds in various Chinese cities. Besides foreign 3PL companies, traditional state-owned transportation and storage enterprises such as COSCO, Sinotrans, China National Materials Storage and Transportation Co, and China Post have also expanded into 3PL to meet the needs of globalization.

Undeniably, there is an increasing tendency for companies in logistics industry to transform themselves into advanced 3PLs, as the latter have more business opportunities in the market.

III. The Results of Survey on the Logistics Service Providers in Shanghai

1. Profile of the Respondent Companies

Table 3.1 summarizes the organizational characteristics of the respondent companies with respect to their firm ownership (nature of the firm), firm size (number of employees), business volume (annual revenue) and firm age (length of business operations). Most of the 177 respondent companies were small in size, with approximately 72% employing fewer than 100 employees. Around 60% had annual revenues of less than CNY200 million (US\$1=RMB7.513). Nearly 60% had been in business for less than 10 years.

Just as we have mentioned hereinbefore, according to statistics, 36.9% of those logistics enterprises in China are private logistics enterprises. This amount is higher than state-owned logistics enterprises (4.9%) and Sino-foreign or foreign-capital logistics enterprises (10.7%). In this survey result, Chinese-private companies account 44.6% of the total respondents; this number is much higher than other three kinds of companies.

According to the statistic of China International Freight Forwarder Association (CIFFA), over 80% of China's freight forwarding companies and logistics companies are medium and small companies. As a service industry, compared with manufacturing companies, logistics companies need less registered capital and fewer working equipment. And, before the 'Reform and Open Policy' in China, there were

nearly no logistics business in China. The logistics business has been increasingly booming since the 1990s in China. So, there is no doubt that most of the logistics companies' age is less than 10 years.

Classified by logistics services users' product categories, many of the logistics companies focus on the following areas: mechanical and electrical products (57.6%), household appliances (51.4%), automobile and accessories and energy products (48.6%). (Shown in Table 3.2) Furthermore, it also shows that the high technology companies are more in favor of outsourcing than are traditional industries.

In the Denmark survey 2001, the author made conclusions that 'many Danish logistics companies are 'niche firms', serving a narrow range of geographic markets and types of goods'. However, the current logistics market situation in China seems to be different. Almost all the respondents companies' customers come from various industries. This in some way reflects that the competition of current logistics market is quite intense in China, especially after China fully opened the logistics market by the end of December, 2005. The first task for logistics companies in China now is how to survive rather than chosen a narrow range of geographic markets and types goods.

Table 3.1 Profile of the Respondent Companies (n= 177)

Company Characteristics	Frequency (Percentage)
The nature of your company (Ownership)	
State-owned company	33 (18.6)
Joint venture company	38 (21.4)
Foreign company	27 (15.3)
Chinese-private company	79 (44.6)
Number of employees	
1-99	127 (71.8)
100-499	24 (13.6)
500-999	13 (7.3)
1000-4999	10 (5.6)
5000 or above	3 (1.7)
Level of turnover (RMB)	
Below 100 million	73 (41.2)
100-199 million	40 (22.6)
200-299 million	24 (13.6)
300-399 million	15 (8.5)
400 million or above	25 (14.1)
Length of business operations	
1-5 years	46 (26.0)
6-10 years	55 (31.1)
11-15 years	35 (19.8)
16-20 years	26 (14.7)
21-25 years	15 (8.5)
26 years or above	0 (0.0)

Table 3.2 Type of Customer Served Top Seven (n= 177)

Type of Customer	Frequency	Percentage
Mechanical and electrical products	102	57.6
Household appliances	91	51.4
Automobile and accessories	86	48.6
Energy products	86	48.6
Construction materials	81	45.8
Farm products	74	41.8
Textile	70	39.5

Notes: Total number of respondents = 177. In this question, respondents were allowed to choose more than one type of customer.

2. Importance of Reasons Customers like Expanded Outsourcing Logistics Service

Table 3.3 shows respondent perceptions of reasons their customers prefer expanded logistics service offerings. The most important reason is to reduce costs (59.3%), followed by to focus on core business (56.5%). This outcome reflects that logistics companies in Shanghai think that the cost-related factors are critically important as compared with service-related factors among the factors of decisions to outsource.

Table 3.3 Reasons for Outsourcing (n= 177)

Reasons for outsourcing	Frequency	Percentage
To reduce costs	105	59.3
To focus on core business	100	56.5
To attain greater flexibility of logistics operations	75	42.4
To improve customer service	73	41.2
To disperse the risks	64	36.2
To improve operating efficiency	61	34.5
To gain market knowledge	29	16.4
To accelerate company's restructuring	19	10.7

Notes: total number of respondents = 177. In this question, respondents were allowed to choose more than one reason for outsourcing.

3. Logistics Services Capability

To examine the ability of logistics companies in Shanghai to provide different types of logistics services, we developed a list of 21 items covering the different logistics services that are generally expected of a logistics service provider. The items were developed by referring to previous logistics research on service and performance evaluation (Kee-Hung Lai & T.C.E.Cheng, 2004; Lieb, R. & Miller, J., 2002) and from discussions with academics and practitioners in logistics. The survey targets were requested to indicate, using a five-point scale, where 1= very low

capability and 5= very high capability, their view of their ability to perform each of the 21 logistics service categories. Table 3.4 summarizes the results, ranking the service categories in descending order of the perceived capability of the respondent companies to perform the services except the less chosen ones.

As demonstrated by Table 3.4, logistics firms in Shanghai provide a wide range of services. In the analysis, a respondent giving a value of 3.0 or above on an item was considered as possessing the capability to perform that particular service item. Alternatively, if a respondent gave a value of below 3.0 on an item, this was taken to mean that the respondent lacked the capability to carry out that particular service item⁸. Items that did not have a response were treated as those logistics companies do not provide certain logistics service. The results show that, among the 21 service items, 20 items are chosen by most of the respondent companies, only purchasing services seems has not been provided widely. Freight forwarding is the one that the respondent companies perceived that they have the highest capability of performing (mean 4.58), followed by direct transportation service (mean 4.45) and customs clearance (mean 4.27). On the basis of the self-reported evaluation by the respondent companies, the results suggest that the respondent companies have high levels of perceived capability to perform “traditional” logistics services. However, the respondent companies seem to lack the capability to provide services in cross-docking (mean 2.81), followed by assembling/reassembling (mean 2.96), product returns and inventory management (mean 3.02). And also, the respondent companies seem to lack the capability to provide services in purchasing services, because only 12 respondents chosen this service. Another plausible alternative explanation is possible lack of demand for such service.

To summarize, the respondent companies generally possess the well capability of performing traditional logistics services such as freight forwarding, direct transportation service, customs clearance, shipment consolidation, tracking and tracing shipment information and warehousing. They are also capable of performing

⁸ Kee-Hung Lai & T.C.E.Cheng, A Study of the Freight Forwarding Industry in Hong Kong, International Journal of Logistics: Research and Applications Vol.7, No.2, June 2004

logistics services involving the use of basic logistics information technology. These services include receiving and sending shipment notices using electronic data interchange (EDI) and logistics information systems. The results suggest that logistics companies in Shanghai have been investing in basic information technology to enhance their service capability. Nevertheless, they appear to lack the capability to provide advanced logistics services such as purchasing services which requires relatively large investments in human and physical assets and in information technology infrastructures. One plausible reason for their lack of service capability in these “value-added” services is that most of the respondent companies are of small and medium size. They thus lack the financial resources, persons with those abilities and operating scale to expand the scope of their services to include these categories in their services menu. Or, the other plausible alternative explanation is possible lack of demand for such services. After all, purchasing services is one kind of advanced logistics services. Even in the U.S.A, this kind of service is in its starting stage.

Table 3.4 Logistics Services Capability as Perceived by the Logistics Companies

Services	Mean	1=Very Low (%)	2=Low (%)	3=Moderate (%)	4=High (%)	5=Very High (%)	N
Freight forwarding	4.58	0.0	2.3	7.3	20.9	69.5	177
Direct transportation service	4.45	0.0	2.3	7.3	33.3	57.1	177
Customs clearance	4.27	0.0	2.8	11.3	41.8	44.1	177
Shipment consolidation	4.10	1.1	9.0	13.6	31.1	45.2	177
Tracking and tracing shipment information	4.06	1.1	10.2	12.4	33.8	42.4	177
Warehousing	3.92	3.0	6.1	21.2	35.2	34.5	165
Freight payment	3.74	6.1	11.0	20.9	26.4	35.6	163
EDI	3.74	6.1	11.0	20.9	26.4	35.6	163
Carrier selection	3.72	1.2	11.0	27.6	35.0	25.2	163
Consulting services	3.61	6.4	12.3	22.8	31.0	27.5	171
Rate negotiation	3.47	10.1	14.3	20.8	28.6	26.2	168
Packaging/labeling	3.35	7.2	16.8	28.1	29.3	18.6	167
Logistics information systems	3.32	10.5	15.2	26.5	27.8	20.0	151
Supply logistics planning	3.31	9.0	14.4	31.7	26.9	18.0	167
Fleet management	3.14	15.1	19.3	22.8	22.1	20.7	145
Order processing	3.07	15.4	17.3	28.8	22.4	16.1	156
Product returns	3.02	15.3	17.1	30.7	23.3	13.5	163
Inventory management	3.02	15.3	17.1	30.7	23.3	13.5	163
Assembling/reassembling	2.96	16.4	22.1	23.8	24.6	13.1	122
Cross-docking	2.81	18.4	23.3	29.4	16.6	12.3	163
Purchasing services	3.67	0.0	0.0	33.3	66.7	0.0	12

4. Logistics Performance

To evaluate the service performance of the logistics companies, the survey targets were requested to rate on a five-point scale, where 1= very low and 5= very high, their perceived performance on 13 questionnaire items spanning different typical performance measures for logistics services. These items were developed with reference to Kee-Hung Lai & T.C.E.Cheng, (2004), along with discussions with academics and practitioners in logistics.

The results in Table 3.5 show that the respondent companies regarded themselves as performing well in all of the 13 performance measures, as they indicated scores towards the upper end of the five-point scale, i.e. mean >3.0, where 5.0 represents the maximum positive evaluation and 1.0 represents the maximum negative evaluation. Among the 13 items, the respondent companies perceived that they are particularly good at helping customers to solve cargo transportation dispute (mean 4.60), making efforts to help in emergencies (mean 4.50) and giving pre-alert notices of shipment or delivery problems (mean 4.43). A closer look at the results reveals that none of the items received a value below the scale mean of 3.0. This suggests that logistics companies in Shanghai recognize the different performance aspects of their services and give them equal attention when carrying them out. However, in order to maintain a 'balanced' focus on their service performance, it is desirable for them to devote more effort to providing periodic performance reports to their customers (mean 3.60), which they perceived as their "weakest" area among the 13 measures.

Table 3.5 Logistics Performance as Perceived by the Logistics Companies (n= 177)

Performance Measures	Mean	1=Very Low (%)	2=Low (%)	3=Moderate (%)	4=High (%)	5=Very High (%)
Helping customer to solve cargo transportation dispute	4.60	0.5	0.5	6.5	23.6	69.0
Making efforts to help in emergencies	4.50	0.0	0.9	7.4	31.9	59.7
Giving pre-alert notices of shipment/delivery problems	4.43	0.0	1.9	7.9	36.0	54.2
Providing emergency services	4.32	0.5	1.9	11.6	37.7	48.4
Responding to customer requests in a flexible manner	4.31	0.0	0.9	12.6	40.9	45.6
Handling customer complaints patiently	4.25	0.0	0.9	14.4	43.3	41.4
Adjusting operations in a flexible manner to meet unforeseen customer needs	4.21	0.0	1.9	15.3	43.1	39.8
Handling changes	4.19	0.0	0.9	17.6	43.5	38.0
Recommending alternative actions when unforeseen problems arise	4.18	0.5	1.4	16.2	44.0	38.0
Helping customer contact with insurance company to claim for compensation	4.18	0.5	1.4	16.2	44.0	38.0
Advising customers of potential problems in meeting their needs	4.07	0.9	2.8	18.2	44.9	33.2
Helping customers in value analysis, cost reductions, problem solving, etc.	3.96	1.4	5.1	21.3	40.3	31.9
Providing performance reports periodically	3.60	7.0	10.2	24.7	31.6	26.5

5. Logistics Service Provider Selection Factors

To evaluate the relative importance of the logistics service provider selection factors, as perceived by providers themselves, the survey targets were requested to rate on a five-point scale, where 1= very low and 5= very high. According to the reference to Paul D.Larson & Britta Gammelgaard, (2001), along with discussions with academics and practitioners in logistics, we developed a list of 15 items covering the different selection factors when choosing an outsourcing logistics provider.

Table 3.6 lists logistics service provider selection factors, as perceived by providers. The three most important factors are pick-up and/or delivery cargo reliability (mean 4.45), rate or price levels (mean 4.41), and third-party logistics service provision ability (mean 4.36). It is interesting to note that ability to provide EDI falls far down the list and ISO certification is the last. These results are identical to those reported by Paul D.Larson & Britta Gammelgaard, (2001). The reason why ISO certification ranks the last could be that almost all Shanghai providers are assumed to be certified, rendering ISO impotent as a criterion for provider selection.

6. Prospect of the Logistics Industry

Finally, the respondent logistics companies were requested to provide their views on a five-point scale where 1=very pessimistic and 5=very optimistic of the future prospects for logistics industry development in Shanghai. The results show that over 50% responded that they were optimistic about the logistics industry development in Shanghai. (Shown in Table 3.7)

Table 3.7 Prospects for Logistics Industry in Shanghai as Perceived by the Respondent Logistics Companies (n= 177)

Mean	1=Very Pessimistic (%)	2= Pessimistic (%)	3= Neutral (%)	4= Optimistic (%)	5=Very Optimistic (%)
3.56	2.8	6.2	37.3	39.5	14.1

Table 3.6 Importance of Logistics Service Provider Selection Factors (n= 177)

Selection Factors	Mean	1=Very Low (%)	2=Low (%)	3=Moderate (%)	4=High (%)	5=Very High (%)
Pick-up and/or delivery cargo reliability	4.45	0.0	2.3	7.3	33.3	57.1
Rate or price levels	4.41	0.0	2.8	8.5	33.9	54.8
Third-party logistics service provision ability	4.36	0.0	4.0	9.6	32.8	53.6
Punctual time performance	3.92	2.8	6.2	21.5	35.0	34.5
Problem solving ability	3.86	3.4	5.1	24.3	36.7	30.5
Geographic coverage / International scope	3.83	3.4	7.3	22.6	36.7	30.0
Reputation in the logistics services market	3.62	6.2	12.4	22.6	31.1	27.7
Quality of personnel	3.50	7.3	13.5	23.7	32.8	22.7
Prior relationship with the logistics company	3.46	10.2	14.1	20.9	28.8	26.0
Multi-modal transportation capabilities	3.46	6.2	14.7	25.4	33.9	19.8
Financial stability	3.35	11.3	15.8	22.6	27.1	23.2
Enterprise size and asset ownership	3.03	14.1	18.1	31.1	24.3	12.4
Ability to provide EDI	3.01	15.8	16.9	30.5	23.7	13.1
Compatibility of cultures	2.84	17.0	23.7	30.0	16.9	12.4
ISO certification	2.74	18.1	24.9	31.1	16.9	9.0

IV. Implications and Conclusions

This paper analyses the results of a survey of the logistics companies in Shanghai. The study tries to provide a useful reference for companies in the industry for continuously development by improving their services. The key findings of this survey are summarized as follows:

- The majority of the companies in the industry are small or medium, with fewer than 100 employees. The implication is that they might lack the operations scale and resources to offer an advanced value-added logistics services. This point to the possibility of merger and alliances as a means of achieving scale economies and improving services in the industry.
- Companies in the industry are highly capable of providing traditional logistics services such as freight forwarding, direct transportation service, warehousing, customs clearance; but they seem to be lack of the capability to provide other value-added logistics services such as purchasing service which is expected of an advanced 3PL service provider. Perhaps this is because many of them are small and lack of the financial strength to invest in the physical assets and capital-intensive information technologies needed to provide such service.
- From the self-assessment of the respondent companies, the logistics companies in Shanghai generally perform well in different types of performance measures. The self-assessment results in the survey indicate that they are aware of the different aspects of their service performance and have achieved a balanced level in performing their services except 'providing periodic performance reports to their customers', which they perceived as their "weakest" area among the 13 measures. It implies that there might be some communication problems between logistics companies and their customers. Logistics companies need to pay more attention on it.
- From the results of the relative importance of the logistics service provider selection factors, as perceived by providers themselves, the most four important factors for choosing outsourcing logistics providers are pick-up and/or delivery cargo reliability, rate or price levels, third-party logistics service provision ability and punctual time performance. It implies that besides the price item, logistics companies gradually realize high quality of service and providing value-added advanced service are also very important for a company to survive in this industry.
- The respondent companies tend to hold an optimistic view of the logistics industry development in Shanghai. This was exactly the results we were expecting before we did the survey. Since all over the world regard Shanghai as one of the logistics centers in Asia-Pacific, there is no surprise that logistics companies in Shanghai have confidence in this industry.

Just as we known, after China's completely opened its logistics market at the end of December, 2005, large and developed foreign logistics companies have gradually entered into Chinese logistics market. So, this paper makes the main conclusions of providing some helpful suggestion for the development of Chinese logistics companies, especially the middle and small logistics companies facing with the intense competition.

Firstly, Chinese logistics companies should change their mind. China's logistics industry is still thinking in a "traditional" way now. For most enterprises, the understanding of "logistics" is still limited to the integration of transportation and storage. However, in developed countries, the

function of logistics covers the design, execution and management of the logistics demands of a customer's supply chain. Its key feature is to use information and professional logistics knowledge to 'provide quality services with minimum cost.' So, Chinese logistics enterprises should first learn to have an in-depth understanding of logistics, and then gain the capacity to provide comprehensive quality services.

Secondly, as mentioned hereinbefore, 3PL is a booming phenomenon in China now. This study indicates that the market for 3PL services in China has a reasonable potential for further development, though 3PL practices are still at a nascent stage in China. However, some challenges are ahead as well. For example, providing value-added service is one of the 3PL's core competencies; it commonly needs advanced information technology infrastructures which is exactly the weakness for Chinese logistics industry.

Thirdly, the logistics industry in China nowadays is full of many small-scale so-called "logistics businesses" that are incapable of providing quality services in a professional matter. For these small-sized logistics companies, it is very important for them to grow stronger within occupied market by newcomers. Integration, alliance and cooperation are required to achieve a large-scale operation and take advantage of existing resources. So, M&A can be a win-win strategy for both Chinese logistics companies and foreign logistics companies now. By ways of doing so, Chinese logistics companies can quickly gain developed technologies and make use of foreign capital; foreign logistics companies can build up their infrastructure and network much easier than all done by themselves. Since the economy of scale is one of the 3PL's core competencies, this is also a shortcut for transforming into 3PL companies for these small-sized logistics companies.

In sum, the future of developing logistics industry in China is brilliant. Our findings in this paper provide important insights for logistics companies in Shanghai. In particular, the industry players can use the results reported in this study to gauge their service capability and performance. For instance, they can use the industry average (i.e. the mean value) in each of the 21 service items on service capability and in the 13 items on service performance for benchmarking purposes in their efforts to improve their services. As a result, they can gauge whether certain areas of their service lag the industry norm. The benchmark information is also valuable for service users to evaluate whether their service providers are up to the standards of the industry in Shanghai and are qualified to be awarded a long-term service contract.

References

- [1]. Berglund, M., Laarhoven, P., Sharman, G. and Wandel, S. (1999), "Third-party logistics: is there a future?" *International Journal of Logistics Management*, Vol. 10 No. 1, pp. 59-70.
- [2]. Chen, C.H., Lin, B.S., Li, L.L. and Chen, P.S. (2004), "Logistics management in China: a case study of Haier", *Human Systems Management*, Vol. 23 No. 1, pp. 15-27.
- [3]. Elmuti, D., Kathawala, Y. and Maonippallil, M., Outsourcing to gain a competitive advantage. *Indust. Mgmt*, 1998, 40, 20-24.
- [4]. Fernie, J., Outsourcing distribution in UK retailing. *J. Business Logistics*, 1999, 20, 83-95.
- [5]. Fu Yuning, President of China Merchants Group, The Logistics Industry in China: From Dawn to Sunrise, Speech to American Chamber of Commerce 14th Leadership Series Luncheon, Wednesday, July 9, 2003
- [6]. Goh, M. and Ling, C. (2003), "Logistics development in China", *International Journal of Physical Distribution & Logistics Management*, Vol. 33 No. 10, pp. 886-917.
- [7]. Kee-Hung Lai & T.C.E.Cheng, A Study of the Freight Forwarding Industry in Hong Kong, *International Journal of Logistics: Research and Applications* Vol.7, No.2, June 2004
- [8]. Peng, M.W., Lu, Y., Shenkar, O. and Wang, D. (2001), "Treasures in the China house: a review of management and organizational research in greater China", *Journal of Business Research*, Vol. 52 No. 2, pp. 95-110.
- [9]. Sum, C.C. and Teo, C.B. (1999), "Strategic posture of logistics service providers in Singapore", *International Journal of Physical Distribution & Logistics Management*, Vol. 29 No. 9, pp. 588-605.
- [10]. Ta, H.P., Choo, H.L. and Sum, C.C. (2000), "Transportation concerns of foreign firms in China", *International Journal of Physical Distribution & Logistics Management*, Vol. 30 No. 1, pp. 35-54.
- [11]. Yeung, J., Selen, W., Sum, C.C. and Huo, B. (2006), "Linking financial performance to strategic orientation and operational priorities: an empirical study of third-party logistics providers", *International Journal of Physical Distribution & Logistics Management*, Vol. 36 No. 3, pp. 210-30.
- [12]. National Bureau of Statistics of the People's Republic of China
- [13]. Protocol on the Accession of the People's Republic of China

Websites:

http://www.dianliang.com/hr/cio/cidian/200607/hr_125779_2.html

<http://www.qqcg.com/gysbh/R036/qyjj.asp>