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A Survey on the Outsourcing Usage of Logistics Service Users in China
-Focused on Area of Shanghai-

Qin-Qin Fu* · Jung-Han Bae** · Gwi-Ok Kim***

중국 물류서비스 이용자들의 아웃소싱 관행에 관한 조사연구

Qin-Qin Fu · 배정한 · 김귀옥

목 차

Key Words: 아웃소싱, 물류, 중국물류서비스 사용자

Abstract

본 논문은 중국 상해를 중심으로 로지스틱 서비스를 이용하는 기업들의 로지스틱 아웃소싱 실태에 대한 설문조사를 통하여 중국의 물류아웃소싱 관행에 대한 조사연구이다. 중국 상해에 소재하는 158개 제조기업을 대상으로 설문조사를 했다. 연구 결과는 첫째, 전형적 물류를 아웃소싱 하는 제조기업들은 서비스 제공업자들과 장기적 관계를 유지하고 또한 다수의 물류서비스업자들로부터의 물류서비스 구매를 선호했다. 둘째, 대부분의 서비스 이용기업들은 물류서비스 제공기업들에 대하여 만족했고, 물류기업들에게 자사의 물류를 아웃소싱 할 때, 자사의 고객만족도, 물류 수준과 수익개선에 긍정적 영향을 미치는 것으로 나타났다. 셋째, 물류서비스를 이용하는 제조기업들은 물류기업을 선택할 때 가격수준, 핵심적 경쟁력과 평판을 가장 중요한 요인으로 하는 것으로 나타났다. 넷째, 중국에서 3PL 등의 물류전문서비스 사업이 초기단계이지만, 앞으로 발전 잠재력이 매우 큰 것으로 조사되었다. 따라서 본 논문은 상해를 중심으로 중국에서 영업을 하고 중국 국내물류기업 또는 우리나라 투자기업을 포함한 외자물류기업들에게 물류서비스 이용기업들의 물류 아웃소싱 실태와 관행에 대한 정보를 제공함으로 물류서비스산업의 발전에 도움이 될 것으로 사료된다.

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* Main Author, Graduation of Graduate School, Yeoungnam University, Republic of Korea, fuqinqin_215@hotmail.com.
** Corresponding Author, Professor, College of Commerce and Economics, Yeoungnam University, Republic of Korea, jhbae@ynu.ac.kr, 053)810-2762
*** Co-Author, Time Lecturer, Yeoungnam University, Republic of Korea, gokim1211@ynu.ac.kr, 053)810-3628

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 had played a supportive role to primary functions of business 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 advantage.[1] Manufacturing 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 outsourcing.[2]

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. Recent years, since China has become one of the most important manufacturing centers in the world, the development of imports and exports has fueled the demand for outsourcing logistics. The need is more keenly felt by multinational companies (MNCs) that have ventured into China. These companies brought in their own outsourcing providers, established a logistics arm to handle the business, or joined hands with a Chinese partner. Companies like Dell, McDonald's, and Nokia have demonstrated the benefits of capitalizing on 3PLs' expertise, capabilities, and assets to facilitate nationwide distribution and logistics services. In contrast, many Chinese traditional manufacturing enterprises are the least likely to outsource logistics, as they normally have the in-house logistics department and people who are operating logistics. Another barrier to greater outsourcing for most Chinese companies is that they did not track their total logistics costs, and this makes it difficult for

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. Mgmnt*, Vol.40, 1998, pp.20-24.

them to understand the value outsourcing logistics can offer.

Fortunately, Chinese manufacturing companies have gradually realized outsourcing is an useful approach to lowering costs and gaining competitive advantage.

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

a) What are the corporate characteristics of the manufacturing companies which are using outsourcing logistics service in Shanghai, China?
b) The reasons for outsourcing logistics and what to expect from it?
c) The extent to which large manufacturers use logistics services in their operations.
d) Is Current logistic service in China a bit far from satisfactory?
e) How do manufacturing companies choose logistics service providers?: the choosing factor?

According to the answers to these questions, this study tries to find out the trends in outsourcing practices and give some helpful suggestions for the development of logistics industry in China.

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).

Lieb and colleagues have studied the outsourcing of logistics activities among the USA's large manufacturing companies (Lieb and Miller, 2002; Lieb and Bentz, 2004, 2005). Their findings indicate a growing use of 3PL services among USA companies both domestically and in their

exporting-importing operations. Outsourcing allows companies to concentrate more closely on the core business that are critical to their competitive edge, leaving the rest to specialist logistics firms (Bhatnagar et al., 1999). Outsourcing logistics activities to specialized logistics firms can help increase the efficiency and effectiveness of a company's logistics function, reflecting companies' desire to reduce operating costs while simultaneously improving customer service, and flexibility. As a consequence, some firms experience 30-40% reductions in logistics costs and greatly streamline global logistics processes (Lieb et al., 1993). These factors are particularly helpful for companies that often compete in a number of businesses that are logistically distinct due to varied customer needs (Sink and Langley, 1997).

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. 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 and Hong et al. (2004) examined the current status and future prospects of Chinese manufacturers'usage of logistics service, from a logistics user's outsourcing perspective.

The above studies provide a useful framework for the research methodology for analyzing the outsourcing logistics practices in China. This study tries to do survey on following issues: the organization-specific characteristics, the extent of usage of outsourcing logistics services, the reasons for outsourcing and the impact of the usage of outsourcing logistics services.

3. Methodology

A survey questionnaire was developed to collect informations on logistics outsourcing practices from manufacturing companies which are using outsourcing logistics service 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 sector.[3)]

From the top 500 exporting companies list which was made by Shanghai Customs District, and from the top 500 Fortune Companies list 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 chief logistics executive of each of the large manufacturing 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 in July, 2007, 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. After the two mailings, for the survey on large manufacturing companies, a total of 165 responses were received. In sum, there were 158 usable responses—93 in the first mailing and 65 in the second mailing—representing an effective response rate of 20.6%. This response rate is comparable to those obtained in previous studies of a similar nature.

Ⅱ. The Results of Survey on the Logistics Service Users in Shanghai

The manufacturing industry is the largest customer of logistics services providers. Manufacturers spent a total of 25 billion RMB (US$3.022 billion) on logistics in 2005 in China, up 26.8 percent from a year earlier, according to figures from the China Logistics Information Centre (CLIC).[4)]

1. Profile of the Respondent Companies

<Table 1> summarizes the organizational characteristics and basic business information of the respondent companies. Domestic and state-owned enterprises rely less on outsourcing logistics service, while the multinational companies (MNCs) view outsourcing as a means of logistics cost reduction. The result reinforces the view we mentioned hereinbefore that most of the demands for outsourcing logistics services in China today come from multinational corporations. About 70% of

3) National Bureau of Statistics of the People's Republic of China, 2005.
4) http://www.chinadaily.com.cn/english/doc/2004-11/30/content_395860.htm "Logistics industry is suffering from growing pains", China Daily.

foreign companies in Pearl River Delta and Yangtze River Delta outsourced part or all their logistics needs, but only 15% of domestic companies are doing so.

2. Factors Promoting Outsourcing Logistics Services

A review of the literature on the outsourcingof logistics services suggests that cost and service improvement factors are the main concerns for manufacturing firms when outsourcing logistics services. In this study, service improvement factors seemed to be the top priority among the outsourcing logistics services users, over cost-related factors, in the decision to outsource. Just over half of the respondents perceived that to improve operating efficiency (63.3%) and to attain greater flexibility of logistics operations (56.3%) were the main reasons for outsourcing. To reduce costs and to disperse the risks were second priority for the outsourcing logistics services users. (Shown in <Table 2>).

<Table 1> Profile of the Respondent Companies (n=158)

Company Characteristics	Frequency (Percentage)
The nature of your company (Ownership)	
State-owned company	15(9.5)
Joint venture company	44 (27.8)
Foreign company	69 (43.7)
Chinese-private company	30 (19.0)
Number of employees	
1 - 99	3 (1.9)
100 - 299	17 (10.8)
300 - 499	21 (13.3)
500 - 999	38 (24.1)
1000 - 2999	53 (33.5)
3000 - 4999	14 (8.9)
5000 or above	12 (7.6)
Level of turnover (RMB)	
Below 100 million	10 (6.3)
100 - 199 million	20 (12.6)
200 - 299 million	21 (13.3)
300 - 399 million	57 (36.1)
400 - 499 million	12 (7.6)
500 - 999million or above	17 (10.8)
1000 million or above	21 (13.3)
Length of business operations	
1 - 5 years	36 (22.8)
6 - 10 years	48 (30.4)
11 - 15 years	57 (36.1)
16 - 20 years	13 (8.2)
21 - 25 years	4 (2.5)
26 years or above	0 (0.0)

<Table 2> Reasons for Outsourcing (n=158)

Reasons for outsourcing	Frequency	Percentage
To reduce costs	68	43.0
To attain greater flexibility of logistics operations	89	56.3
To improve operating efficiency	100	63.3
To improve customer service	54	34.2
To focus on core business	48	30.4
To gain market knowledge	45	28.5
To accelerate company's restructuring	29	18.4
To disperse the risks	65	41.1

Notes: Total number of respondents = 158. In this question, respondents were allowed to choose more than one reason for outsourcing.

These results are in appreciably contrasted to the previous UK outsourcing logistics services survey (H. S. Jaafar and M. Rafio, 2005). In the UK survey, the cost-related factors were critically important as compared with service-related factors among the factors of decisions to outsource. This outcome reflects that manufacturing companies in Shanghai have recognized that they can improve their logistics services both efficiency and effectiveness by outsourcing to logistics firms.

This study also provides insights into the reasons for not outsourcing the logistics functions. Although there were just a few of our responders not outsourcing logistics services, we still can find out that the main reasons for not outsourcing the logistics functions were due to high costs of outsourcing, followed by the uncomfortable feeling of losing control over the logistics function and outsourcing logistics services not good enough.

Compared with our survey results with the UK survey 2003, we can find that in that survey, the main reason for not outsourcing the logistics functions was due to a manageable logistics function, followed by the uncomfortable feeling of losing control over the logistics function and the unsuitability of the logistics services offered for their products. They are similar except that high costs of outsourcing seemed to be the lowest priority among the reasons for not outsourcing in UK survey. The reason for this difference probably just as we mentioned before, the logistics costs in China could be 40~50% higher than that in developed countries such as North America, Europe and Japan.

3. The trends in the Working Arrangements

Many studies emphasize that the key to successful outsourcing is to form strategic partnerships and networks to replace simple market-based transactions and traditional bureaucratic hierarchical organizations, as customer relationships are seen as strategic resources of the business.[5] The results from the UK survey 2003 show a clear trend towards the development of longer term partnerships, that is, 2 - 5 years.[6] This reflects the move towards a better implementation of outsourcing. In our survey, 39.9% and 33.5% of the manufacturers respectively had between a 3-and 5-year relationship and between a 5-and 10-year relationship with their outsourcing logistics services providers. These results support the trend towards the development of longer term partnerships. (Shown in <Table 3>)

We also asked our responders that how many logistics providers they were using simultaneous now. To be honest, the results were a little surprised. Most of the responders (62%) are simultaneously using 3 to 5 outsourcing logistics providers. According to other scholars'point of view, lack of confidence and fear of facing a risk due to reliance on one particular logistics provider led companies to source from multiple service providers. Multiple outsourcing has both advantage and disadvantage. Having more than one logistics provider may increase operational flexibility due to the consequence of obtaining different operational strengths gained from different logistics providers. However, having too many logistics providers could lead to co-ordination problems in managing them. So, some of the manufacturing companies choose to designate a lead logistics provider (LLP) to manage operations and relationships involving multiple providers.

5) Webster, F.E., The changing role of marketing in the corporation. *J. Marketing*, Vo. 56, 1992, pp. 1 - 17.

6) H.S. JAAFAR & M.RAFIQ, Logistics outsourcing practices in the UK: a survey, *International Journal of Logistics*, Research and Applications, Vol.8, No.4, 2005, pp.299-312.

<Table 3> Working Arrangements of the Customers and their Outsourcing Logistics Providers (n=158)

		Percentage
Length of relationship with outsourcing logistics provider	Less than 3 years	23.4
	Between 3 and 5 years	39.9
	Between 5 and 10 years	33.5
	More than 10 years	3.2
No. of outsourcing logistics providers	One only	12.7
	Two	22.2
	Between 3 and 5	62.0
	More than 5	3.2

4. Types of Services Outsourced

Manufacturing companies use a wide variety of outsourcing logistics services. The range of services used by these logistics services' users is shown in <Table 4> with the same questionnaire items made for logistics companies. The table also includes the results of among so many logistics services which are the manufacturing companies consider increasing or decreasing to use in the future. As shown, respondents indicate that the most frequently outsourced logistics services are: direct transportation services 75%, warehousing 71%, shipment consolidation 73%, freight forwarding 79%, freight payment 76%, customs clearance 76%, EDI 65%, consulting services 70%, tracking and tracing shipment information 78%, and supply logistics planning 60%.

Carrier selection 39%, rate negotiation 36%, supply logistics planning 30%, order processing 26% and fleet management 23% are the top 5 logistics services which manufacturing companies consider increasing to use in the future. Warehousing 28% and customs clearance 17% are the logistics services which manufacturing companies consider decreasing to use in the future.

<Table 4> The Most Frequently Used Logistics Services (n=158)

Services	% Now Use	% Considering Use in the Future	% Considering not Use in the Future
Direct transportation service	75		
Warehousing	71		28
Shipment consolidation	73		
Freight forwarding	79		
Freight payment	76		
Customs clearance	76		17
Logistics information systems	37		
Carrier selection	39	39	
Rate negotiation	39	36	
Product returns	22		
Fleet management	32	23	
Packaging/labeling	33	18	
Order processing	34	26	
Assembling/reassembling	28		
Inventory management	20		
Consulting services	70		
Purchasing services	0		
Supply logistics planning	60	30	
Tracking and tracing shipment information	78		
EDI	65		
Cross-docking	20		

5. Levels of Satisfaction

To evaluate the levels of customers' satisfaction of the logistics services, the manufacturing companies were requested to rate logistics services performance on 13 questionnaire items spanning different typical performance measures, also using a five-point scale, where 1= very low and 5=very high.

The results in <Table 5> show that among the 13 items, the manufacturing companies perceive that they are particularly satisfied in handling customer complaints patiently (mean 4.45), responding to customer requests in a flexible manner (mean 4.44), making efforts to help in emergencies (mean 4.08), adjusting operations in a flexible manner to meet unforeseen customer needs (mean 4.06) and advising customers of potential problems in meeting their needs (mean 4.06).

A closer look at the results reveals that only one of the items received a value below the scale mean of 3.0—providing performance reports periodically—which is also the lowest mean in the logistics companies'responses. This suggests that both logistics services providers and users in Shanghai recognize there is communication gap between themselves.

<Table 5> Logistics Performance as Perceived by the Manufacturing Companies (n=158)

Performance Measures	Mean	1=Very Low(%)	2=Low (%)	3=Moderate(%)	4=High (%)	5=Very High(%)
Handling customer complaints patiently	4.45	0.0	2.5	6.3	34.8	56.4
Responding to customer requests in a flexible manner	4.44	0.0	2.5	7.6	33.5	56.4
Making efforts to help in emergencies	4.08	1.3	10.1	11.4	33.5	43.7
Adjusting operations in a flexible manner to meet unforeseen customer needs	4.06	1.3	1.3	12.7	33.5	42.4
Advising customers of potential problems in meeting their needs	4.06	1.3	10.1	11.4	35.4	41.8
Handling changes	3.95	1.3	12.7	16.5	29.1	40.4
Helping customer contact with insurance company to claim for compensation	3.90	3.2	6.3	21.5	35.4	33.6
Giving pre-alert notices of shipment/delivery problems	3.88	3.2	6.3	22.8	34.8	32.9
Providing emergency services	3.87	3.2	7.6	20.9	36.1	32.2
Helping customers in value analysis, cost reductions, problem solving, etc.	3.85	3.2	7.6	21.5	36.1	31.6
Helping customer to solve cargo transportation dispute	3.60	6.3	12.7	22.8	31.6	26.6
Recommending alternative actions when unforeseen problems arise	3.60	6.3	12.7	22.8	31.6	26.6
Providing performance reports periodically	2.99	16.5	17.7	29.1	23.4	13.3

6. Chosen Factors

Just as we mentioned hereinbefore, the level of manufacturing enterprises' demands for logistic services is rising continually in recent years. The most direct representation of the rising level of logistic demands is that logistics services users' standards in their choice of logistic enterprises have gradually upgraded: at the very beginning, concerns were mainly shown for such most fundamental conditions as the serving capabilities of logistic enterprises, their business categories, and prices; then attention were paid to such quality elements as speed, accuracy, specialty, security, and steadiness; finally, special attention will be paid to credit status. <Table 6> lists logistics service provider

selection factors, as perceived by users. The five most important factors are rate or price levels (mean4.43), and reputation in the logistics services market (mean 4.28), third-party logistics service provision ability (mean 4.06) and prior relationship with the logistics company (mean 4.06).

<Tables 7> shows the information sources used for identification and selection of outsourcing logistics service providers. It appears that directories published by professional logistics networks and referrals from consulting firms are rarely used in the identification, qualification and selection of potential outsourcing logistics service providers. Most of the manufacturing companies choose the information source of recommendations from sister companies or business partners.

<Table 6> Importance of Logistics Service Provider Selection Factors (n=158)

Selection Factors	Mean	1=Very Low (%)	2=Low (%)	3= Moderate (%)	4=High (%)	5=Very High (%)
Rate or price levels	4.47	0.0	1.9	6.3	34.8	57.0
Pick-up and/or delivery cargo reliability	4.43	0.0	2.5	7.6	33.5	56.3
Reputation in the logistics services market	4.28	0.0	2.5	11.4	41.8	44.3
Third-party logistics service provision ability	4.06	1.3	10.1	12.7	33.5	42.4
Prior relationship with the logistics company	4.06	1.3	10.1	12.7	33.5	42.4
Punctual time performance	3.96	1.3	5.1	21.5	40.5	31.6
Problem solving ability	3.93	2.5	6.3	20.9	36.1	34.2
Geographic coverage / International scope	3.83	3.2	7.6	23.4	34.8	31.0
Quality of personnel	3.83	3.2	7.6	23.4	34.8	31.0
Financial stability	3.70	1.3	11.4	27.8	35.4	24.1
Multi-modal transportation capabilities	3.59	6.3	12.7	24.1	30.4	26.6
Compatibility of cultures	3.59	7.6	10.1	23.4	33.5	25.3
Ability to provide EDI	3.49	7.6	12,7	24.1	34.8	20.9
ISO certification	2.95	16.5	22.8	23.4	24.1	13.3
Enterprise size and asset ownership	2.82	18.4	23.4	29.1	16.5	12.7

<Table 7> Information sources used for identifying logistics service providers

Sources of information to identity logistics service providers	Percentage
Directories published by professional logistics networks	20
Referrals in management magazines and journals about a particular logistics provider	37
Advertising from logistics services providers, such as pamphlets, magazine ads, conference exhibitions	37
Recommendations from sister companies or business partners	76
Referrals from consulting firms	25
Recommendations of the company's personnel	49

Notes: Total number of respondents = 158. In this question, respondents were allowed to choose more than one information sources used for identifying outsourcing logistics service providers.

7. The Impact of Using Outsourcing Logistics Services

Respondent manufacturing companies were asked to categorize the impact of the using outsourcing logistics services in a number of areas, including various corporate issues and also financial impact. Their responses are shown in <Table 8>.

77.2% of users reported a positive or very positive impact on customer satisfaction, while 72.4% reported a positive or very positive impact on sales/revenue improvement. Almost 68% of the respondents reported a positive or very positive impact on logistics service levels. 58.2% of users reported a positive or very positive impact on logistics costs reduction.

There are two very interesting things worth to be noticed. First, only 17.8% of users reported a positive or very positive impact on systems development/support. Second, in the survey done in the U.S.A. in 2000[7], the positive impact on logistics costs reduction and logistics service levels were higher than on customer satisfaction, but in our survey, the outcomes are opposite.

7) Lieb, R. & Miller, J. The use of third-party logistics services by large US manufacturers, the 2000 survey, *International Journal of Logistics, Research and Applications,* Vol. 5, 2002, pp.1-12.

<Table 8> Impact of using outsourcing logistics services (n=158)

Issue	1=Very Negative	2= Negative	3=No Impact	4= Positive	5=Very Positive
Logistics service levels	0.0	10.1	22.2	57.6	10.1
Logistics costs reduction	0.0	19.0	22.8	50.6	7.6
Customer satisfaction	0.0	7.6	15.2	39.1	38.1
Systems development/support	4.4	25.9	51.9	9.9	7.9
Sales/ revenue improvement	0.0	7.6	20.0	59.8	12.6

8. User Plans for the Future

The percentage of large manufacturers in Shanghai using of outsourcing logistics services reached 88.6% in the survey. And more than 50% of the users identified they have used outsourcing logistics services for more than 5 years. Users were asked how they would modify their use of outsourcing logistics services if they were given complete corporate responsibility to make that decision. As shown in <Table 9>, in the survey 71.5% of users indicated that they would at least moderately increase the use of such services, 10.8% would stay at the same level and 13.9% would substantially increase use. No user indicated that they would eliminate the use of outsourcing logistics services.

Actually, according to statistics released at China's Second International Logistics Exhibition, China's logistics market is expected to top US$144.8bn by 2010, Shanghai will account for about 15% of the business, equal to about US$21.7bn.[8)]

Users were asked what they considered to be the most significant development in the logistics market-place in China during the past year. The most frequently cited development was the continued expansion of the logistics services offered by logistics services providers that were noted by 58 respondents. 33 others believed that the wave of mergers and acquisitions in the logistics industry was the most significant development of the past year. The continued global expansion of major logistics services providers were mentioned by 33 respondents. 21 others cited the expansion

8) http://gbcode.tdctrade.com/gb/www.tdctrade.com/shippers/vol25_3/vol25_3_logistics02.htm, "China logistics to exceed US$100 billion by 2010".

of Internet-based logistics services. The only other development mentioned by 13 respondents was the improvements in logistics software/systems. (Shown in <Table 10>).

<Table 9> How Respondents Would Modify
Their Companies' Use of Outsourcing Logistics Services (n=158)

Nature of Modification	Frequency	Percentage
Stay at the same level	17	10.8
Moderately increase use	113	71.5
Substantially increase use	22	13.9
Moderately decrease use	6	3.8
Eliminate use	0	0.0

<Table 10> The Most Significant Market Developments during the Past Year (n=158)

Market Developments	Frequency	Percentage
The expansion of Internet-based logistics services	21	13.3
The wave of M&A in the logistics industry	33	20.9
Improvements in logistics software/systems	13	8.2
The continued expansion of the logistics services offered by logistics services providers	58	36. 7
The continued global expansion of major logistics services providers	33	20. 9

The continued expansion of the logistics services offered by logistics services providers is considered to be the most significant development in our survey results. Just as we have mentioned forenamed, 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. Logistics companies which offer basic and simplex logistics service before should review their business policies and how they propose to give value-added services to their customers.

Compared with our survey results with the U.S.A. survey 2000, we can find that the expansion

of Internet-based logistics services which was considered to be the most significant development has only been chosen by 13.3% of chinese manufacturing companies'respondents. That might be because American Internet-based logistics services market is one of the most developed in the world. However, it is just a rising market in China.

Similar, the logistics services users in U.S.A. and in Shanghai both thought that the wave of M&A in the logistics industry and the continued global expansion of major logistics services providers had a relation to significant developments in the logistics market-place during the past years. In fact, this is decided by the characteristic of the logistics industry itself. First, logistics industry features more links. Its business should be carried out with holistic approach from marine, land and air, which calls for participation into more links. Secondly, the logistics is of scale. From market demand, the price can be above its average cost only though sizable market scale. On the other hand, nationwide network is a must for logistics industry since its business proves stretch out home and broad. By doing so, receiving, storage, sorting, transport and delivery can move smoothly. Thirdly, logistics companies should step into international arena based on networks. The development and efficiency of modern logistics should be addressed with modern logistics network featuring rational structure, favorable arrangement, complementary function and high efficiency. Optimized resources are concerned most within network.

Both logistics companies at home and broad have viewed expansion, networks nationwide and leapfrogging development as their ultimate goal under fierce competition in China now. Therefore, M&A in this sector is in the next stage. The fact that numbers of big companies standing shoulder by shoulder will come as consequence of domestic competition in this sector. It's very important for domestic companies to grow stronger within occupied market by newcomers.

Ⅲ. Implications and Conclusions

The data generated in this user survey have a variety of implications. They include the following:

i. Compared with the multinational companies, domestic manufacturing enterprises rely less on outsourcing logistics service.
ii. For the main reasons for manufacturing firms when outsourcing logistics service, improving operating efficiency and attain greater flexibility of logistics operations seem especially important. This is not to say that cost reduction is unimportant but that it is clearly not the only - and perhaps often not the most important - reason to use outsourcing logistics service.

iii. It provides strong support for the trend towards the development of a longer term partnership, as more manufacturing firms buy logistical services on a long-term contractual basis.

iv. The declining number of manufacturing firms who were relying on single outsourcing may reflect the feelings of insecurity due to poor service that might be provided by that particular logistics provider and thus the need to turn to multiple outsourcing. Hence, logistics service customers prefer to have various alternatives in order to meet their service requirement and reduce the fear of failure by any provider, rather than relying on a single source of service.

v. When manufacturing firms use outsourcing logistics service, it seems that they concentrate on routine activities such as freight forwarding, warehousing, direct transportation service and freight payment rather than more integrated and tactical functions such as inventory management and cross-docking. The process of finding and selecting outsourcing logistics service providers seems to rely heavily on service quality and input from internal and external business partners.

vi. Users are generally most satisfied with the impact of outsourcing logistics services on customer satisfaction, and are less satisfied with their impact on systems development/support. It implied that respondents do not necessarily expect logistics outsourcing to produce benefits in all of these areas. For example, an outsourcing logistics application that seeks to improve customer satisfaction might actually increase logistics costs or have no impact on them.

This study has presented several key findings on logistics outsourcing practices based on a survey of the customers' perceptions of logistics service in Shanghai, China.

First, many Chinese traditional manufacturing enterprises are the least likely to outsource logistics, as they normally have the in-house logistics department and people who are operating logistics. Another barrier to greater outsourcing for most Chinese companies is they didn't track their total logistics costs, and this makes it difficult for them to understand the value that outsourcing logistics can offer. So, they should first learn to have an in-depth understanding of logistics they actively use.

Second, it revealed that outsourcing is less cost-driven than previous studies have demonstrated. Various aspects of service are more or equally important to cost in the market characterized by fierce competition. It provides strong support for the trend towards the development of a longer term partnership, as more manufacturing firms buy logistical services on a long-term contractual basis. Logistics companies should take this as a challenge to provide better services to meet customer service requirements in the process of maintaining existing customers and attracting new

ones.

Finally, from the survey, most users of outsourcing logistics services in Shanghai are satisfied with their providers and believe that outsourcing logistics services have led to positive influence. With a high current level of satisfaction, a large number of these firms are likely to increase their usage of outsourcing logistics services moderately or substantially. We believe that the future of developing logistics industry in China is brilliant.

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<Abstract>

A Survey on the Outsourcing Usage of Logistics Service Users in China

Qin-Qin Fu · Jung-Han Bae · Gwi-Ok Kim

This paper analyses the results of the survey questionnaires which are made for logistics services users in Shanghai, China. Based on 158 valid users' responses, the study results show that the typical outsourcing logistics users prefer to set up long term relationship with providers and buy services from multiple providers. Most users are satisfied with their providers and believe that outsourcing logistics services has led to positive impact on their customer satisfaction, logistics service levels and revenue improvement. Price levers, core competences, reputation are critical in the selection of an outsourcing logistics provider for users in this study. 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 provides some helpful suggestion for the development of Chinese logistics industry and Chinese logistics companies.

□ Key Words: outsourcing, logistic service, logistics service usages