# Working Paper NO. 242

# An insight about logistics strategies and logistics systems of Japanese companies in China $\sim\sim$ based on results of a questionnaire survey $\sim\sim$

LI, Ruixue<sup>®</sup>/ MAO, Min<sup>®</sup> / ZHANG, Jin<sup>®</sup>

Faculty of Economics, University of Toyama, Japan

June, 5th, 2009

<sup>&</sup>lt;sup>®</sup> Faculty of Economics, University of Toyama, Gofuku 3190, Toyama, 930-8555, Japan; email: liruixue@eco.u-toyama.ac.jp

<sup>&</sup>lt;sup>©</sup>College of Logistics, Southwest Jiaotong University, Chengdu, 610031, P.R.China; email: swjtumm@swjtu.edu.cn

<sup>&</sup>lt;sup>®</sup>College of Logistics, Southwest Jiaotong University, Chengdu, 610031, P.R.China; email: zhjswjtu@swjtu.edu.cn

# An insight about logistics strategies and logistics systems of Japanese companies in China

# $\sim\sim$ based on results of a questionnaire survey $\sim\sim$

Li, Ruixue Mao, Min Zhang, Jin

#### 1 Background

With the sustainable growth of the Chinese economy and Chinese domestic markets, many Japanese companies have increased investment in China in recent years and the proportion of their products sold in China is also on the rise. There is no question that establishing advanced logistics systems and improving logistics operations in Chinese markets become more important for Japanese companies which are seeking to reinforce their competitive advantage. In order to investigate the logistics operation situation of the Japanese companies in China, a questionnaire survey on the logistics of Japanese companies in the coastal areas of China (in the East and South of China), where the majority of Japanese companies in China are located, was carried out in 2005-2006 by Ruixue Li, one of author of this paper. Parts of the research results derived from the survey have been published (Li, 2006a, b, c, d; Li 2007a, b).

However, in the past two years, a lot of changes related to managerial environments happened one after another, such as the fluctuation of energy prices, the increased appreciation of RMB, Chinese currency, the rapid expansion of consumption markets in China, spectacular growth of local logistics service providers, and the worldwide serious economic and financial crisis. Both the international and Chinese situation changed greatly. How have Japanese companies in China modified their logistics strategies and logistics systems to adjust to these situations? How have Japanese companies in China improved their logistics performances since last survey carried out in 2005-2006? To give a clear picture of these matters and contribute the accumulation of information related to the situations and trends of logistics systems of Japanese companies in China, a second survey was carried out by the alliance of Faculty of Economics of University of Toyama, the Logistics College of Southwest Jiaotong University, and Tokyo Logistics Institute from July, 2008 to April, 2009. This project is being supported by a Japanese government subsidy for scientific research (Project No: 20377237).

Based on the statistics from the questionnaire survey, this working paper explores the current situation of the logistics systems of Japanese companies in China and the results show the characteristics and trends of these logistics systems. Moreover, according to the statistic results of the questionnaire survey, the current Chinese logistics service situation is also appraised.

#### 2 Questionnaire Survey

#### 2.1 Survey Method

The survey methodology has been organized into the following seven steps:

- (1) The establishment of a working team. The working team engaged with the questionnaire survey has been set up by the alliance of Faculty of Economics of University faculty of Toyama in Japan, the Logistics College of Southwest Jiaotong University in China, and Tokyo Logistics Institute.
- (2) Preparation of the draft questionnaire. After discussing about the results derived from the first survey conducted in 2005-2006, the working team revises the questionnaire, which was initially designed by Li and used during the first survey, in order to make it easier to answer. Also, the team prepares a Chinese vision of the questionnaire to accommodate the indigenization of Japanese companies as local staffs are in charge of logistics management in many Japanese companies. At the same time, the new draft defines the basic respondents, determines the investigating areas, selects the companies and about inquires the contacts of the respondents, etc. The related information is sorted out and tabulated.
- (3) The survey objectives and questionnaire. On the basis of the first questionnaire and the feedback of the first survey, in accordance with the investigating areas and combining both the international and domestic variations, the research group discusses and formulates the important points of the survey and the research objectives including logistics organizations, logistics information systems, logistics channels, logistics networks design and logistics operations.
- (4) *The final questionnaire*. Opinions of the experts are considered and the questionnaire is revised further after a heated discussion in the research group.
- (5) Preparation of the mailing list. According to the sorted enterprises information tables, the mailing envelopes and return envelopes are made and a letter of introduction is written, which is translated into both Chinese and Japanese.
- (6) Survey implementation. The Logistics College of Southwest Jiaotong University is responsible for issuing and receiving questionnaire and the contacts of the respondents.
- (7) *The statistics analysis*. Data analysis is carried out based on the questionnaire and the report on the questionnaire is completed.

#### 2.2 Sample Selection and Returning of the Questionnaire

Compared with the first survey, there are more Japanese companies and the scale has been enlarged this time, including 3,316 Japanese companies in China (3,312 questionnaires are mailed, and four e-mailed.), covering Beijing, Fujian, Guangdong, Jiangsu, Liaoning, Shanghai, Sichuan, Zhejiang and Shandong, nine provinces. Up to December, 30, 2008, 50 questionnaires have been answered and sent back (46 are mailed and four e-mailed.), among them, 14 from Jiangsu, 10 from Guangdong, 12 from Shanghai, 3 from Beijing, 6 from Liaoning, 1 from Fujian, 2 from Sichuan, 1 from Shandong and 1 from Zhejiang. There are 47 usable questionnaires and 3 unusable questionnaires are excluded (The three are from Guangdong, Fujian and Sichuan respectively). The usable questionnaires account for 94% of the returned questionnaires and the rate of validity is 1.42%.

#### 2.3 Questionnaire

This survey is a continuation of the first survey of the logistics systems of Japanese

companies in China in 2005-2006. The questionnaire has Chinese and Japanese versions and is made up of 6 parts including 50 items. The survey objective is to explore the logistics strategies and operation situation of Japanese companies in China in recent years.

The questionnaire constitutes:

- Part1. An overview of the enterprises  $(Q1 \sim Q7)$
- Part2. An overview of distribution channels in the Chinese markets of the enterprises (Q8~Q13)
- Part3. The logistics organizations of the enterprises(Q14~Q17)
- Part4. The logistics information systems of the enterprises(Q18~Q25)
- Part5. The logistics channels and networks of the enterprises(Q26~Q34)
- Part6. The logistics operation and performance of the enterprises(Q35~Q50)

#### 3 Feedbacks and Findings from the Survey

#### 3.1 An overview of the enterprises in the survey

Among the 47 valid answers, the businesses of the enterprises in the survey include manufacturing, retail, and trading, of which 40 are manufacturing enterprises, 3 retail and 4 trading. Each accounts for 85%, 6%, and 9% of the total respectively (Figure 1). According to the results from the received questionnaires, the Japanese companies in China in the survey mainly engage in manufacturing. The questionnaires from retail and trading are comparatively fewer. So the findings of the survey mainly show the logistics situation of Japanese companies in manufacturing. In fact, the majority of Japanese companies in China belong to manufacturing.

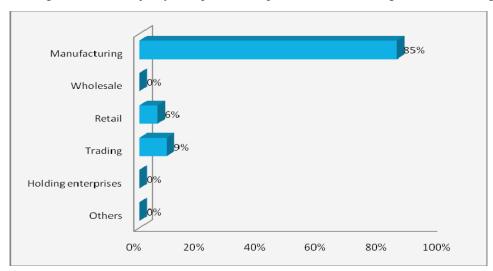


Figure 1 The proportion of the types of the sample enterprises (N=47)

In terms of the business types of the enterprises participating in the survey, there are 47 Japanese companies in all but they deal with a variety of types of business as is shown in Table 1. Seven enterprises of them do more than one businesses, accounting for 15% of the total, so it is obvious that most enterprises engaged in one business. In "others" business type in Table 1, there are 11 enterprises who chose the other 8 types of business, i.e. one in printing, one in the spare parts of vessel engines, one in chemical storage battery, four in automobile spare parts, one in the polymer material products, one in the logistics service of general trading Co., one in foodstuff processing machinery, one in metalwork, and one in retail trade.

Table 1 The types of business of the enterprises in the received questionnaires(N=47, multiple choice)

Types of Business	Enterprise Amount	Types of Business	Enterprise Amount	Types of Business	Enterprise Amount
Electronic machinery	8	Home appliance	3	Glass • earth-rock products	2
Chemistry	7	Rubber products	3	Nonferrous metal	1
Processing spare parts	5	metal products	3	Stationery	1
Transportation machinery	4	Cosmetics	3	Construction machinery	1
Foodstuff	4	Precision machinery	2	Others	11
Fabric • clothing	4	Pharmaceuticals	2	Agriculture and Forestry & aquatic product	0
Information and Communications	4	Groceries	2		

Figure 2 reflects the establishment of Japanese enterprises in China in the survey is in four phases. About half of them were established after 2001. On the whole, more enterprises were set up in recent years. Obviously, with the quickening of the internationalization and the growth of Chinese markets, Japanese companies in China opened more and more businesses motivated by the large markets in China, especially since 2001.

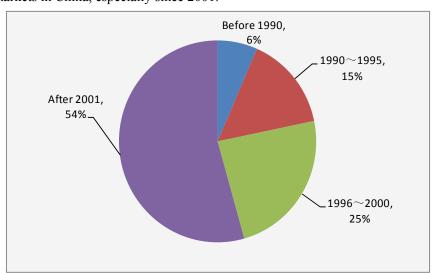


Figure 2 The period of establishment for the sample enterprises (N=47)

A total of 44 enterprises answered the question about the paid-in capital amount, shown in Figure 3. The enterprises capitalized at a hundred million to five hundred million Japanese yen are the most accounted for 27%. And paid-in capital amount of 18% of the enterprises is between ten hundred million and 30 hundred million, 14% of the enterprises between five hundred million and ten hundred million, 14% of the enterprises between 30 hundred million and 60 hundred million.

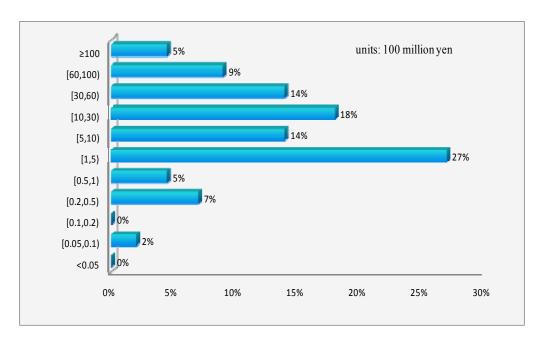


Figure 3 The paid-in capital amount of the sample enterprises (N=44)

Figure 4 illustrates the sales amount of the Japanese companies which answered the survey. Results show that the number of respondents with the sales between 1000 million to 5000 million Japanese yen is the largest, accounting for 31%. In addition, the sales amount of 18% of the enterprises is between 1000 million to 5000 million Japanese yen, with 16% between 100 million to 500 million Japanese yen and 13% between 500 million to 1000 million Japanese yen. As is indicated by the sales amount, most enterprises in the survey are medium and small-sized enterprises. Only 9% of the enterprises are large-sized and their sales amount reaches more than 50 billion Japanese yen.

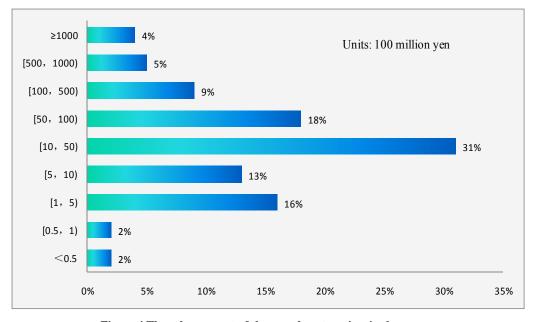


Figure 4 The sales amount of the sample enterprises in the survey

Figure 5 indicates the proportion of the yearly sales amount of the sample enterprises to that

of the Chinese domestic market. It is found that the yearly sales amount of 35% sample enterprises accounts for 90%-100% of that of the Chinese domestic market, 66% accounts for over 60% and more than 40% arrives at 72%. Therefore, data analysis shows that the majority of Japanese companies in China are emphasizing Chinese domestic markets and expanding sales in China.

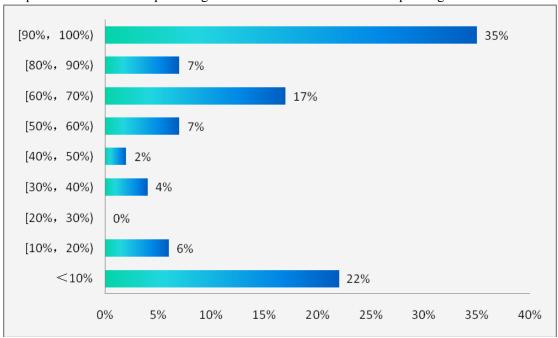


Figure 5 The market proportion of the yearly sales amount of the sample enterprises in Chinese domestic market (N=46)

The composition of capital of Japanese companies is shown in Figure 6. The wholly-owned subsidiaries of multiple Japanese groups have the largest proportion: 67%. Moreover, 13% of the Japanese companies are joint-ventures with local Chinese enterprises, in which Japanese investors hold majority of the proportion of ownership (more than or equal to 51%). Seven percent of the sample Japanese enterprises are joint-ventures with other foreign companies, in which Japanese investors have majority investment proportion (more than or equal to 51%). It can be seen that in the composition of capital, Japanese enterprises hold the dominant position. On the other hand, there are only nine percent of the sample companies with a majority ownership by the local Chinese enterprises.

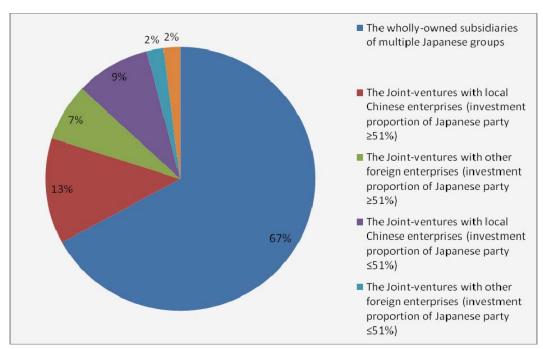


Figure 6 The composition of the capital of the Japanese companies in the survey (N=46)

#### 3.2 An Overview of the channels in Chinese market of Japanese companies

In this section, the general situation of the distribution channels of Japanese companies in Chinese markets will be investigated from the aspects of "the number of sales units (sales subsidiary, branch, and business office)" "the main sales areas", "the type of the distribution channels (direct or indirect) " and "the reasons for employing local wholesale enterprises as distributors", etc.

First of all, in terms of the number of the sales units, 44 respondents gave the valid answers shown in Figure 7. Half of them just set up one sales unit. 30% of the respondents established 2 to 4 sales units, 16% of the respondents established 5 to 9 and 6% established 10 or more (see Figure 7). It can be seen in Figure 7 that most Japanese companies in China do not depend on expansion of sales units to distribute the products in Chinese markets. The enterprises which have 30 or more sales units are dealing with management consulting businesses or retail businesses as they need more sales offices or outlets to maintain the corresponding market shares.

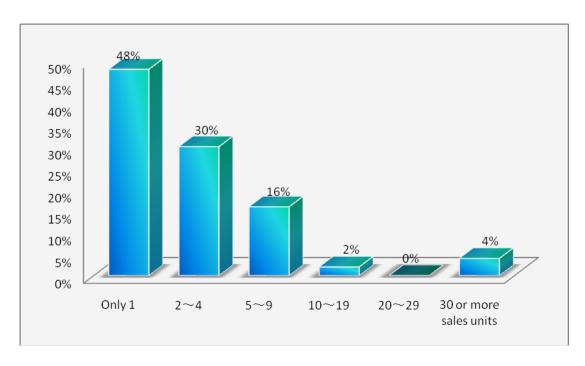


Figure 7 The number of the sales units of Japanese companies in China (N=44)

It can be seen from Table 2 that most sales areas are mainly located in the developed regions, in the East China (20%), the South China (16%) and the coastal region or inland big cities (14%). Only 6% and 3% of the enterprises have spread their sales areas to the northwest and southwest of China, where the economy is relatively backward. Clearly few Japanese companies have extended into the inland. The business focus is still on the developed regions of China. Moreover, 78% of the enterprises targeted one sales area. Only 22% of the enterprises targeted multiple sales areas.

Table 2 The sales areas of Japanese companies in China(N=46,  $\,$  multiple choice)

The sales areas	Enterprise Amount	Proportion	The sales Territory	Enterprise Amount	Proportion
East China	13	20%	North China	6	9.4%
South China	10	16%	Coastal region	5	8%
The coastal and big cities in inland regions	9	14%	Northwest of China	4	6%
Most Chinese territory	9	14%	Southwest of China	2	3%
Northeast of China	6	9.4%	Others	0	0%

As is shown in Figure 8, a total of 46 enterprises gave valid answers concerning distribution channels. 41% of the enterprises adopt direct distribution channels and 33% of the enterprises use both direct and indirect distribution channels. Generally speaking, 74% of the enterprises adopt the direct distribution channels. In contrast, the proportion of indirect distribution is small, just 13%. The other types include: selling all of the products to parent enterprises; merging the wholesale enterprises, employing an exclusive distributor and only made-to-order.

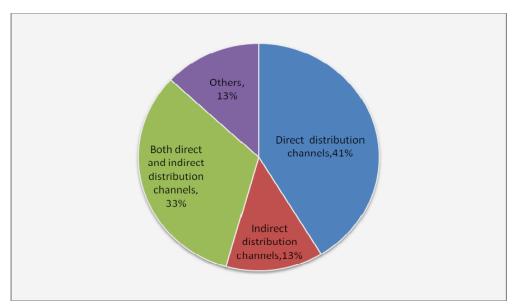


Figure 8 Different types of the distribution channels of the enterprises (N=46)

The proportion of direct distribution in the enterprises adopting both direct and indirect distribution is shown in Figure 9. More than 50% of these companies sell their products through direct distributions. The enterprises with direct distribution of 10% or below engage in manufacturing and retail. The enterprises with the direct distribution of 20% to 30% are chemical industries, software and manufacturing; the enterprises with direct distribution of 50% to 60% are manufacturing and the enterprises with the direct distribution of 60% to 70% and 80% to 90% are manufacturing.

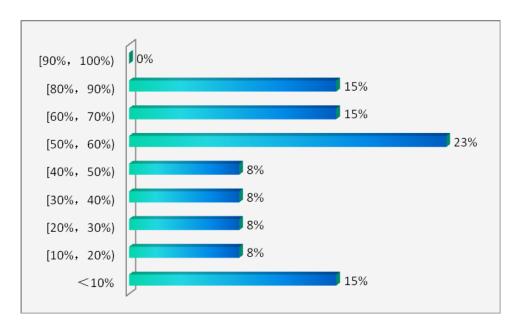


Figure 9 The proportion of direct distribution of the enterprises adopting both direct and indirect distribution (N=13)

Results show that about half of the survey enterprises use 5 or fewer than 5 wholesalers and 19% of the enterprises employ 5 to 9 wholesalers and 9% use more than 300 (shown in Figure 10). Overall most enterprises do not depend on many wholesalers and the enterprises employing 300 or more wholesalers are large-sized manufacturers.

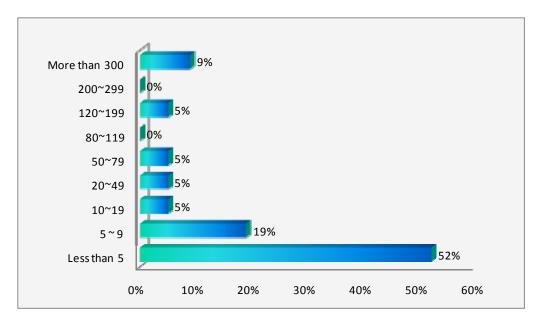


Figure 10 The number of the wholesalers employed by the survey enterprises (N=21)

For most Japanese companies, the purposes for choosing local Chinese wholesalers are shown in Table 3. Clearly the major purposes for choosing local Chinese wholesalers for Japanese companies are to avoid risk and take advantage of the existing distribution channels and logistics systems of the wholesalers. It is expected that total investment and risks can be lowered and sales networks can be expanded by the employment of local wholesalers' resources.

Table 3 The reasons the enterprises depend on the local Chinese wholesalers(N=39, multiple choice)

Reasons	Number of the enterprises	Percentage
To avoid the risks of payment collection	12	31%
To find a easy access into markets and increase sales with the help of the existing distribution channels of the local wholesalers	11	28%
To make use of wholesalers' abilities to collect information and markets trends	7	18%
Due to the inheritance of the partners' original complete distribution channels	3	8%
To make use of the distribution system of the wholesalers.	2	5%
Due to the difficulties of constructing the direct channels inland and in the countryside of China	2	5%
Depend on the local wholesalers in the initial stage in Chinese markets; sooner or later, direct channels will be set up.	1	2.5%
Other	1	2.5%

It can be concluded from Table 3 that to avoid the risk of payment collection, to find a easy access into the market to promote the sales with the help of the channels of the local Chinese wholesalers and to make use of the wholesalers' abilities to collect the information and markets trends have become the primary reasons why Japanese companies in China chose the local Chinese wholesalers as their distributors. Statistics show that 13 of the enterprises chose the local wholesalers for one reason, accounting for 57% of the total, and 17.39% of the enterprises for two reasons, 8.70% for 3 reasons and 17.39% for 4 reasons.

### 3.3 The Logistical organization

After understanding the distribution channels of Japanese companies in China, we will explore their logistics organizations and management systems mainly from the aspects of "the position of logistics organizations in the enterprises", "the business in logistics organizations'

charge" and "human resources of logistics organizations".

As shown in Table 4, about 1/3 of the respondents put the sections in charge of logistics administration under the umbrellas of the sales & marketing departments, mainly because of the logistical support for sales; in addition, logistics organizations are singled out as separate units in 20% of the enterprises paralleled with production departments and sales departments, which reflect that many enterprises have begun to realize the role of logistical competence. On the other hand, some enterprises pay more attention to the support role of supply logistics to their manufacturing. Those 15% of the enterprises have established logistics departments under the umbrellas of manufacturing departments. However, in this survey, no enterprise sets up a cross-functional team to manage logistics, and the proportion of the enterprises outsourcing all the logistics activities to logistics companies within the same groups is only 2%.

Table 4 The position of the logistics organizations in enterprises (N=46)

The position of the logistics organizations	Number of enterprises	Proportion
☐ Belonging to marketing & sales department	15	33%
☐ Independent functional department paralleling to production departments and sales departments	9	20%
☐ Belonging to the manufacturing department	7	15%
□ Others	6	13%
☐ Logistics activities are dispersed without integrated logistics management unit	4	9%
☐ Belonging to finance or accounting department	2	4%
Outsourcing logistics to the logistics subsidiary without a in-house logistics division.	2	4%
Outsourcing logistics to specialized logistics service provider under the same group or 3PL provider without a in-house logistics division.	1	2%
☐ Cross-functional team	0	0%

As indicated in Table 5, the basic logistics activities are most frequently outsourced to logistics service providers or 3PL providers, such as trunk transportation, storage, material handling, import and export related logistics (such as customs clearance) etc. On the other hand, fewer enterprises tend to outsource complicated and advanced logistics activities such as adjustment of supply and demand, establishing and improving logistics information systems, and value-added processing. Furthermore, the statistics show that, 25% of the enterprises in the survey outsource only one logistics activity and 75% outsource two or more than two activities. It can be concluded that logistics service companies play an important role in the operation of the Japanese enterprises, providing various logistics services.

Table 5 The logistics activities outsourced to logistics service providers or 3PL

(11 <b>-7/</b> ) Minimic Choice/	(N=47,	Multiple	choice)
----------------------------------	--------	----------	---------

logistics activities	Number of enterprises	Proportion	logistics activities	Number of enterprises	Proportion
Trunk transportation	24	11.4%	Reverse Logistics (returns, waste, etc.)	10	4.8%
Feeder transportation / end-delivery	16	7.7%	Promotional goods logistics	1	0.4%
Warehousing, Storage	22	10.5%	Demand (or shipments) forecasting	6	2.9%
Inventory management, inventory planning	13	6.2%	Adjustment of supply and demand	3	1.4%
Order processing	10	4.8%	Logistics cost management	12	5.8%
Logistics information transmission	15	7.2%	Improvement of logistics infrastructure and rebuilding of logistics	4	1.9%

			network		
Value-added processing	4	1.9%	Establishing and improving logistics information system	3	1.5%
Packaging	8	3.8%	Import and export related business such as customs clearance	15	7.2%
Material handling, shipment preparation	18	8.6%	Selection and management of logistics service providers	12	5.74%
Procurement (inbound) logistics	12	5.7%	Others	1	0.5%

As shown in Table 6, concerning the human resource situation of logistics divisions, about 40 percent of the respondent enterprises all depend on local Chinese staff, without any support from Japanese parent companies. On the whole, the trend to depend on local staff is much more obvious. Only 11% of the enterprises accept logistics experts and staff from their Japanese parent companies. Moreover, there are few local employees of Japanese companies in China, who are in charge of logistics, having made advanced studies in Japan.

Table 6 The human recourse situation of logistics division in sample enterprises(N=47, Multiple choice)

Human recourse mode	Number of enterprises	Proportion
Local staff, without special support from parent enterprise.	22	41%
At the beginning, the Japanese parent enterprise sends logistics experts. Then, running only by local staff.	6	11%
Outsourcing most logistics activities to specialized Japanese logistics service providers, obtaining the necessary information and knowledge from the contractor, without getting much related logistics knowledge from parent enterprise.	6	11%
The directors of logistics division, who are from Japanese parent enterprises, are not logistics experts.	5	9%
Without resident logistics experts, the logistics div. of Japanese parent company will send logistics experts to China for technology guidance and solutions made according to the request of the Chinese subsidiary.	5	9%
Because all the logistics activities are integrated into the logistics div. or logistics sub-companies of the headquarters in China, no special logistics technologies need to be introduced from the parent enterprise	3	6%
Although the logistics division directors are local employees, they had ever received advanced training in the logistics div. or logistics sub-companies of Japanese parent enterprise	2	4%
Others	2	4%

The biggest problem faced by the sample enterprises concerning the logistics management personnel can be seen in Table 7. About 41% of the enterprises think that the biggest problem in logistics management is lacking a system of training for the logistics related personnel. Secondly, about 21% of the enterprises think it is hard to find suitable logistics talent in China. In the choice of "other reasons", some enterprises think they lack logistics talent and experience as a result of excessive logistics outsourcing; some admit they have not adjusted to China's actual conditions in logistics management, who employ most non-local staff and so on.

Table 7 the biggest problem about the logistics management personnel in the sample enterprises (N=39)

The logistics management problems	Number enterprises	of	Proportion
Lacking a system of training logistics talents inside the enterprise	16		41%
Other reasons	8		21%
Without resident Japanese logistics professionals	4		10%
It is hard to hire suitable logistics talent because of the lack of logistics related professionals in China.	4		10%
Brain drain for local logistics talents	4		10%
The status of employee in the logistics div. is low, so they prefer to transfer	3		8%

#### 3.4 The logistics information system

The logistics information system plays an important role in the logistics operations. So, in this section, we investigate the logistics information system of the sample enterprises from the following aspects.

Regarding the question of "primary measures for receiving orders," a total of 47 enterprises effectively answer the question, shown in Table 8. The results show that traditional measures for receiving orders have been adopted. However, the advanced orders processing system has not been widely adopted. Fax and e-mail are still the main communication methods for the sample enterprises with theirs customers.

Besides, in the 47 enterprises investigated, 17 enterprises have a single approach to receive orders with a proportion of 36%, who mainly engage in manufacturing, chemistry, management consulting, bio-manufacturing. And 30 enterprises have two or more than two means of receiving orders, accounting for 64%. These enterprises are mainly in manufacturing and retailing.

Table 8 The primary measures to receiving orders for the sample enterprises(N=47, Multiple choice)

The main means to accept orders	Number of enterprises	Proportion
FAX	33	70%
E-mail	32	68%
TEL	11	23%
Business talks and negotiations	12	26%
Special web pages	9	19%
EDI. EOS	7	15%
Other	0	0%

Survey results show that the logistics information transfer means are diverse (in Table 9). The traditional information transfer means are mainly adopted and few enterprises transfer information based on information sharing. In the survey, 28% of the enterprises use a single way to transfer information, 46% of them use two means, 20% of them use three means, 4% of them use four means, and 2% of them use five means. However, for those enterprises using two means to transfer information, telephone, FAX or E-mail are mainly used at the same time.

Table 9 The main information transfer means between different units (N=46, Multiple choice)

Logistics information transmission means	Number of enterprises	Proportion
E-mail	35	76%
TEL· FAX	32	70%
Slips, monthly and weekly paper reports	11	24%
Dedicated data communication lines	11	24%
Web-based WAN	6	13%
Other	2	4%

The survey results indicate that most of the sample enterprises have introduced logistics information system. As shown in Table 10, the shipment / procurement databases and ERP systems are most frequently used, with a proportion of 32% and 26%. Secondly, WMS and order processing system, whose ratio reaches 22%, are also frequently used by the enterprises. However, SCM and ATP• CTP system are used less, accounting for only 7%. There also are 2 enterprises

which adopt the logistics information system of self development. The results suggest that the most survey enterprises introduce a commonly-used logistics information system. Remarkably, there are 6 enterprises that have not adopted any logistics information systems.

According to the survey results, 73% of the enterprises use one type of logistics information system and about 27% of the enterprises use two or more. Among them, 12% of the enterprises use two types of logistics information systems; 10% of them use three, and 5% of them use four. It can be inferred that it is difficult to realize the information sharing between different logistics information systems. The majority of enterprises adopt one type of information system to ensure the smooth operation of information transmission.

Table 10 The logistics information system introduced by the sample enterprises (N=41)

The logistics information system introduced	Number of enterprises	Proportion
Shipment /procurement databases	13	32%
ERP	12	26%
WMS	9	22%
Other	9	22%
Order processing system	9	22%
ATP· CTP	3	7%
SCM	3	7%
TMS	2	5%

In terms of IT vendors of the logistics information systems, the valid responses reach 38. According to the statistical results, the most common IT vendors are the in-house IT Div. of the Japanese parent enterprises, whose proportion reaches 31% of the total. And the other common vendors include the Japanese IT vendors in China and the local Chinese vendors. Both of these account for 24% of the total. However, Japanese IT vendors that belong to parent Japanese companies and the other foreign IT vendors are rarely adopted (Figure 11).

As shown in figure 11, 55% of the enterprises select Japanese IT vendors (both in-house IT Div. of Japanese parent enterprises. and Japanese IT vendors in China). This means that the sample enterprises are careful to choose the IT vendors based on Japanese vendors prior to local Chinese vendors. Also in "others" cases, three enterprises do not have IT vendors; two enterprises have their own department to provide information systems; one enterprise does independent research and development and one enterprise just uses Excel software.

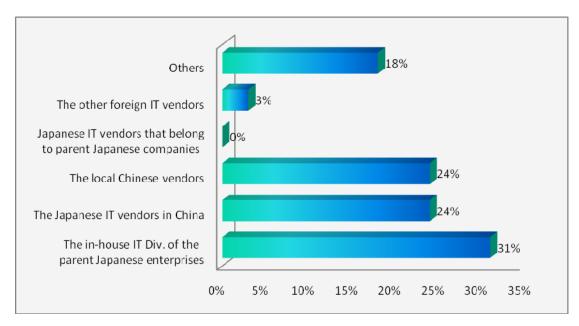


Figure 11 The types of IT suppliers of the introduced logistics information system (N=38)

Concerning the evaluation of the functions of the introduced logistics information systems, the answers mainly focus on "With general functions", "With insufficient functions" and "Hard to evaluate", and the proportions are 35%, 33% and 30% respectively (Figure 12). No enterprise thinks the logistics information system does not have basic functions or that it is a barrier to logistics activities. However, only 2% of the enterprises think their logistics information systems are satisfactory. Thus, it is concluded that the logistics information system support logistics activities efficiently, but there is much room for improvement.

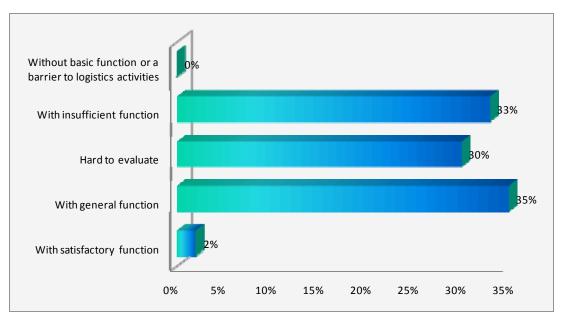


Figure 12 The function evaluation of the introduced logistics information systems (N=42)

The effects of the introduced logistics information systems are shown in Figure 13. About 60% of the enterprises consider the introduced logistics information systems effective and 6% consider them to have remarkable effects. Overall, most enterprises hold a more positive attitude to the logistics information system.

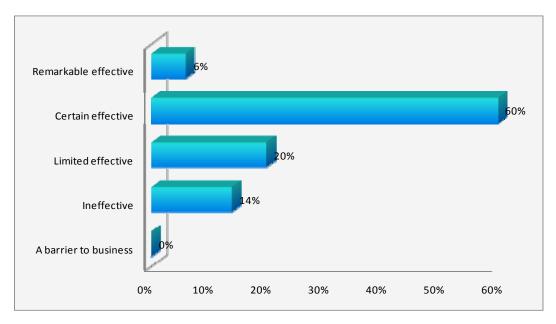


Figure 13 The effect of the introduced logistics information systems (N=35)

Further investigation regarding the sample enterprises that chose "Remarkable effective", "Certain effective" and "Limited effective" is carried out. As shown in Table 11, these sample enterprises think the most important function of the logistics information systems is the integration of inventory management. Moreover, according to the survey results, the sample enterprises also think the information system makes logistics operations more flexible and improves logistics efficiency. Therefore, it can be concluded that the logistics information systems play an important role in the sample enterprises.

In the statistical data, 46% of the enterprises only made one choice to the question of the effectiveness of the introduced logistics information system; 25% of the enterprises chose two; 18% of them chose three; and 11% of them chose four, which suggests that the effects of the logistics information systems need to be further explored.

Table 11 The effects of the introduced logistics information system of the enterprise (N=32, Multiple choice)

The effects of the introduced logistics information system	Number of enterprises	Proportion
Integration of inventory management	13	21%
Flexible adjustment between logistics activities and the other functions based on information sharing	8	13%
Reducing inventory	7	11%
Shortening deliveries / distribution lead time	7	11%
Reducing error in logistics operation	6	10%
Improving the stability and possibility of the delivery lead time	6	9%
Improving the efficiency of logistics operations	6	9%
Reducing logistics cost	5	8%
Improving demand forecasting precision	5	8%
Other	0	0%

Then further investigation of the sample enterprises that think the logistics information system is "ineffective" is carried out. As shown in Table 12, 50% of the sample enterprises consider that the introduced logistics information system can only be partially used.

Table 12 The reasons limiting the effectiveness of the introduced logistics information systems(N=14,

#### Multiple choice)

The reason limiting the effectiveness of the introduced logistics information system	Number of enterprises	Proportion
Unsuitable for internal business process and practices.	2	15%
Lacking information talents and unable to use the information system freely.	2	14%
Unnecessary to introduce the logistics information system.	1	7%
The introduced information systems are incomplete, only can be used partially.	7	50%
Other	2	14%

#### 3.5 The Logistics Facility Network

In this part, the situation of logistics facility network of the sample enterprises is discussed.

The survey results show that 43% of the enterprises deliver goods directly to customers; 21% of the enterprises deliver goods via one transfer node (Figure 14). Less than 10% of the enterprises deliver goods via more than two transfer nodes. That is the result of the regional distribution coverage of the sample enterprises.

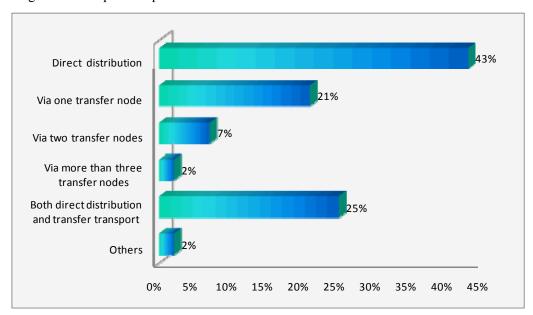


Figure 14 The average number of transfer nodes in the delivery process from the sample enterprises to customers (N=44)

In addition, many enterprises choose "Both direct delivery and transfer transport", accounting for 1/4 of the total. 11 enterprises chose this option, ten of which give a detailed proportion of the direct distribution and transfer transport (Table 13). The data indicate that the proportion of the direct delivery and transfer transport is approximately the same.

Table 13 Details of the mode adopting both direct distribution and the transfer transport

Serial number of enterprise	Transfer transport (%)	Direct delivery (%)	Others (%)
1	10	90	0
2	20	80	0
3	40	30	30
4	70	30	0
5	70	20	10
6	50	50	0
7	20	80	0
8	70	30	0
9	95	5	0
10	5	95	0

Next the usage situation of logistics nodes (including warehouse, logistics center, distribution center, freight transfer station, close-docking depot etc.) is discussed.

Figure 15 show that more than half of the enterprises utilize only one logistics node. This reflects a trend towards integration of logistics operation and joint distribution.

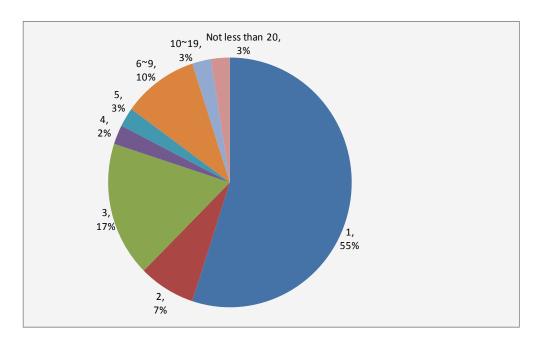


Figure 15 The number of logistics nodes utilized (N=41)

41 of the enterprises answered the question regarding the type of logistics facility utilized. There are 103 warehouses used by 41 of the companies. As shown in Table 14, about 66% of the enterprises choose to own and operate their own warehouses. 37% of the enterprises outsource to third party warehousing service providers. Moreover, the gap among the proportions of the private warehouse (36%), rental warehouse (28%) and common warehouse (34%) is small (Figure 16).

Table 14 The types of the warehouses utilized (Multiple choice) (N=41)

The types of the warehouse	Number of enterprises	proportion
Private warehouse (self-owned, self-operating)	27	66%
Rental warehouse(self-operating)	18	44%
Common warehouse (rental warehouse, outsourcing warehouse operation)	15	37%
Other	1	

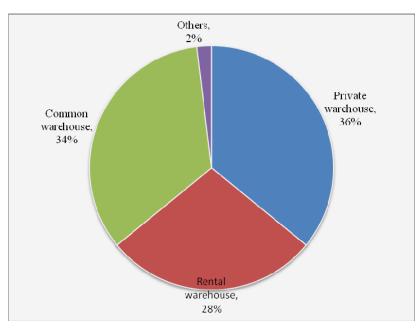


Figure 16 The proportion of different types of the warehouse

The important factors that the sample enterprises consider to choose external logistics facilities are surveyed. The results are shown in Table 15 and Table 16. Nearly half of the enterprises pay attention to "expense level (fee level)" and "operation ability and the quality" when choosing logistics facilities. This reflects that Japanese companies in China emphasize logistics cost and logistics quality.

Table 15 The most important factors of choosing external logistics facilities (N=30)

Factors	Number of enterprises	Proportion
Expense level	11	37%
Operation ability and the quality (storage, material handling etc.)	7	24%
The performance ability of value-added business	4	14%
The location with convenient transportation	3	10%
Whether it has performance experience for the similar goods	1	3%
The coverage and completeness of facility network	1	3%
The capacity of providing information fast and accurately	1	3%
The modernization of storage equipment and handling equipment in the facilities	1	3%
Other	1	3%

Table 16 The second important factors of choosing external logistics facilities (N=32)

Factors	Number of enterprises	Proportion
Expense level	8	25%
The location with convenient transportation	7	22%
Operation ability and the quality (storage, material handling etc.)	6	19%
The performance ability of value-added business	4	13%
Whether it has performance experience for the similar goods	2	6%
The modernization of storage equipment and handling equipment in the facility	1	3%
Other	2	6%
The coverage and completeness of facility network	1	3%
The capacity of providing information fast and accurately	1	3%

The result of survey shows that the average inventory (days) in the logistics nodes for less than one week account for 32%, less than three weeks 62%, more than two months only 6%

(Figure 17). The overall inventory level is not high. This may be the result of management policy to meet the varying market demands and the need to reduce the occupied capital by controlling the amount of inventory.

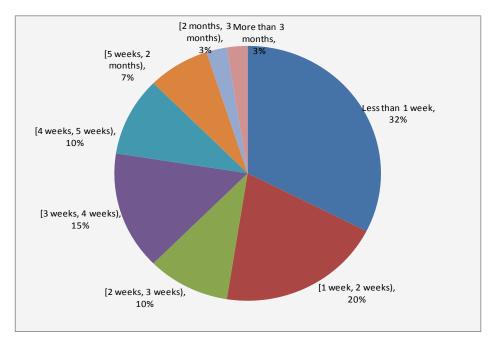


Figure 17 The average inventory (days) in the logistics nodes (N=40)

In the valid response questionnaires, the majority of enterprises feel satisfied or fairly satisfied with the current logistics facility network (Figure 18). However, 30% of the enterprises consider their current logistics facility networks need appropriate re-planning and adjustment.

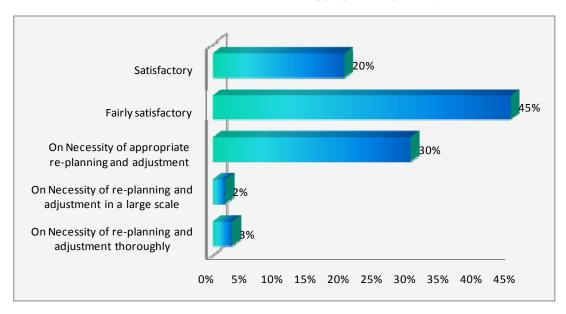


Figure 18 The evaluation of the current logistics facility network (N=40)

In terms of "the strategy adopted in order to carry out restructuring the logistics facility network", 35% of the enterprises choose "Consolidation"; 30% choose "Modernization", and 23% choose "Multi-function" (Table 17). Survey results show that enterprises pay importance to the "Consolidation" of the logistics nodes, that is, the enterprises intend to integrate inventory aimed

at reducing inventory levels instead of adopting a "Dispersal" strategy. The "Dispersal" is aimed at accessing markets more easily and improving customer service. It is common for Japanese companies in China to reduce their logistics cost by resource consolidation. And, along with the "Consolidation" of the logistics nodes, large-scaled logistics nodes are bound to develop in a multifunctional direction.

Table 17 the strategy adopted in order to carry out restructuring logistics facility network (Multiple choice) (N=40)

Strategy	Number of enterprises	proportion
Consolidation (Integrating, abolishing or merging the logistics nodes, reducing the total inventory)	14	35%
Modernization(Introducing the logistics equipment and information system, strengthening the functions of the logistics facilities, improving the operation efficiency)	12	30%
Multi-function (with different functions besides storage and inventory management in logistics nodes, such as inspection, needle detector, assembly, repair, order processing, returns processing, labeling, and attaching bar code and RFID)	9	23%
Collaboration (by the integration of logistics activities, thereby enhancing the utilization of warehouse and loading rate of distribution vehicles; or promoting joint logistics with other companies)	6	15%
Dispersal (more distribution centers in order to be closer to customers)	3	8%
Other	2	5%

#### 3.6 The logistics operation

In order to understand the logistics operation situation of Japanese companies in China accurately, this report carries out an in-depth analysis from the breakthrough point of "actual logistics outsourcing operation in the enterprises".

First of all, the types of outsourcing logistics businesses of Japanese companies in China are investigated. Figure 19 reflects that the outsourcing logistics businesses mainly focus on the businesses with low operation costs and high service level, that is, trunk line transportation (34%), feeder transportation and delivery (16%), and customs clearance (20%). The relative complicated logistics operations, which require more advanced ability, are mostly self-operated, such as distribution processing (2%) and promotion logistics (1%).

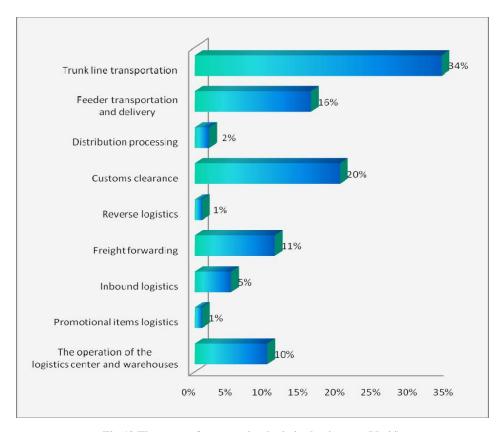


Fig 19 The types of outsourcing logistics businesses (N=44)

As shown in Table 18, the result of self-operating logistics business is almost opposite to that of the outsourcing logistics business (Figure 19). The key businesses and value-added services, such as freight forwarding and distribution processing, are mostly completed by the enterprises themselves. Customs clearance is mostly accomplished by professional enterprises, the ratio of the self-operation of logistics centers and warehouses is higher than outsourcing. Besides, it is founded that the sample enterprises tend to carry out the reverse logistics by themselves.

Tab 18 The self-operating logistics businesses of the enterprise (multi-selection) (N=35)

Business	Quantity
Freight forwarding	13 (37%)
Reverse Logistics	11(31%)
Distribution processing	9(26%)
The operations of logistics centers and warehouses	9(26%)
Trunk line transportation	8(23%)
Procurement logistics	7 (20%)
feeder transportation and delivery	6(17%)
Customs clearance	5(14%)
Promotion logistics	2(6%)
Other	4(12%)

Because of the diversity of the outsourcing logistics businesses and due to some other reasons, the sample enterprises tend to choose and use more than one 3PL providers. The enterprises which have chosen more than one 3PL provider account for over 80% of the total. Most of them choose three to five 3PL firms (Figure 20). In addition, as shown in Figure 21, in term of the type of logistics service providers, the 3PL firms used by sample enterprises mainly are "both local Chinese enterprises and Japanese enterprises" or "the local Chinese companies". Considering the local enterprises and the other foreign enterprises, it is obvious for sample

enterprises to choose and use the local logistics service providers. In recent years, because of the rapid development of local 3PL and the low-cost logistics orientation of Japanese companies, the local 3PL providers have been paid increasing attention.

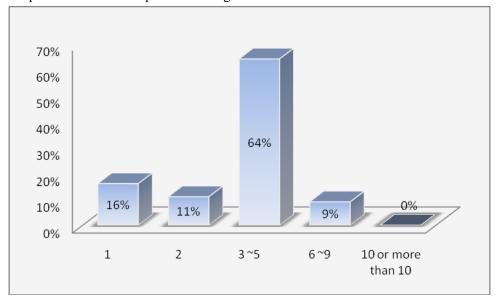


Fig 20 the quantity of using 3PL providers (N=44)

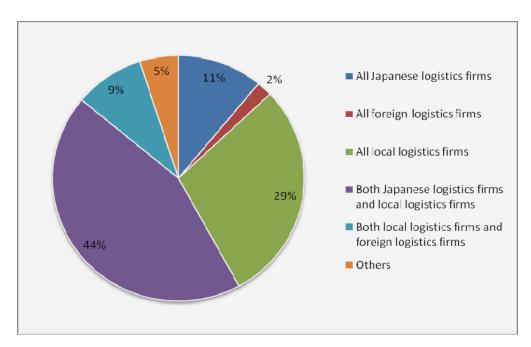


Fig 21 the type of logistics service providers used by sample enterprises (N=44)

Note: the foreign logistics service provider means one established by foreign investors, not Chinese and Japanese investor.

Table 19 shows there are two main contract forms with logistics service providers: one is one-year contract period (55%) and the other is without a contract period (34%), in which the contractor can be changed at any time. 90% of sample enterprises choose one-year or less-than-one-year contracts, which is more flexible and easier to change. And there is 2% sample enterprises to choose six-month contracts. Only 5% of the enterprises sign a more-than-two-year contract. It is concluded that it is not common for sample enterprises to form a stable strategic

partnership with 3PL firms, which may be the result of the local habits of signing short-term contracts in the logistics industry. And almost all the logistics service providers with more than 2-year contracts are Japanese logistics companies.

Tab 19 The contract form with 3PL enterprises (N=44)

Contract form	Quantity
Six-month contract period. During which carefully consider whether to renew the contract	1(2%)
One year contract period. If both sides have no objection when the period expires, the contract will be extended automatically.	24(55%)
Two-year contract period. If two sides have no objection when the period expires, the contract will be extended automatically.	2(5%)
No contract period. The contractor can be changed at any time	15(34%)
Others	2 (5%)

As Table 20 shows, mostly the logistics department or top management is in charge of choosing logistics service providers; and the marketing department, the related departments of the parent enterprise and the procurement department also have responsibility in choosing in some Japanese companies. However, the share of a task team on logistics, sales units and production units is small in choosing logistics service providers.

Table 20 The units that make the decision to choose logistics service providers  $(N\!\!=\!\!44)$ 

Unit in charge of choosing logistics service providers	Quantity
The enterprise's logistics department	16
The enterprise's top management	13
The enterprise's marketing department	7
Related departments of Japanese parent enterprise	5
The enterprise's procurement department	5
The enterprise's task team (for example, a special team to promote logistics business outsourcing)	0
The enterprise's sales units	0
The enterprise's production units	0
Other	4

The data shows that nearly 1/3 of the enterprises regard that "service quality ", "service region and service network ", " service scope" and "cost level" are the important indicators that should be considered when choosing logistics service providers (Table 21). It is found that the low logistics cost is not the most important criterion of evaluating logistics service providers in this survey. It tends to focus on logistics cost before. However, it is worth mentioning that more than half of the sample enterprises agree that "the scale and strength" is the most important factor. It can be inferred that the scale and strength of a logistics service provider is the guarantee of service quality, service scope, service capacity, credit, and low cost. In addition, 26% of the sample enterprises pay attention to whether the logistics service providers have capabilities and characteristics of 3PL firms, such as logistics solutions designing and logistics planning.

Table 21 the most important factors concerning choosing logistics service providers (multi-selection) (N=43)

Factors	quantity	proportion
The enterprise scale and strength (such as the number and tonnage of truck, truck quality, the area, level and quality of logistics facilities, types and quantity of qualification and permits, number of material handling equipments, staff number, annual sales, earning power)	25	58%
The service quality (such as on-time delivery rate, inventory differences, accident rate, error rate, reputation)	16	37%
The service region and service network (such as with capability to provide nation-wide or regional service with qualification and license)	15	35%
The service scope (such as the possibility of providing comprehensive logistics services)	14	33%

The cost and expense level	14	33%
Capacity in solutions designing and logistics planning	11	26%
Logistics commissioned experience of similar industry	7	6%
Enthusiasm and sense of managers	5	16%
Capacity of information providing and sharing, the condition of the information system construction	5	16%
Staff ethics and service spirit	3	7%

As is indicated in Table 22, concerning the question of "the future logistics policy", 40% of the sample enterprises intend to make use of the advantages both outsourcing and self-operating. And 38% of the enterprises will basically adopt the outsourcing policy, as well as not depend on certain 3PL providers and outsource their logistics businesses to several 3PL providers. With 12% of the enterprises planning to expand in the outsourcing businesses to the excellent local 3PL providers, it shows most sample enterprises will adopt outsourcing polity to a certain extent. Correspondingly only 13% sample enterprises plan to "strengthen the in-house logistics department or set up a logistics sub-enterprise to complete logistics businesses by themselves as far as possible". Additionally, only 12% sample enterprises plan to expand the outsourcing businesses to the excellent local 3PL providers. Thus, it can be seen that few Japanese companies are satisfied with the services provided by the local 3PL firms.

Table 22 The future logistics policy: outsourcing or self-operating (multi-selection) (N=40)

Logistics policy	Quantity	Proportion
Tend to make use of the respective advantages of outsourcing and internal logistics in different logistics businesses	16	40%
Basically tend to adopt outsourcing policy, but not depend on certain 3PL firms and outsourcing to several 3PL firms	15	38%
Tend to strengthen the in-house logistics department or set up a logistics sub-enterprise to complete logistics businesses by themselves as far as possible	5	13%
Tend to expand the outsourcing businesses to excellent local 3PL firms	3	12%
Other	2	5%

Based on the above analysis, a lot of sample enterprises think the logistics businesses should be outsourced to several different professional logistics firms. They divide the logistics businesses mainly by "region", "transport route" and "transport mode"(Fig 22).In the present Chinese logistics industry, few logistics enterprises can provide advanced logistics services which integrate several logistics activities to meet customers needs. Coupled with the vast area of China, most of the logistics firms can only provide a single logistics service in a certain geographical area, so Japanese companies have to employ several 3PL firms simultaneously based on their own businesses.

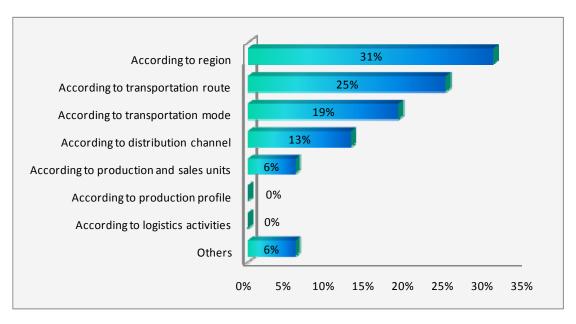


Fig 22 The division criteria of outsourcing logistics businesses scope (N=15)

After investigating the logistics operations of Japanese companies in China regarding logistics outsourcing strategies, the logistics operation level of sample enterprises should be investigated from specific operational indicators, such as "logistics cost", " lead time", " on-time delivery rate ", "inventory turnover " and " damage rate ".

And the logistics cost is mainly examined from the following two aspects: "the ratio of external logistics costs to sales amount" and "the ratio of internal logistics costs to sales amount". Figure 23 and 24 reflect the ratio of the external logistics costs to sales amount is below 3% in 71% enterprises and the ratio of the internal logistics costs to sales amount is limited below 5% in nearly 90% enterprises. As a whole, the logistics cost is low, and the low logistics cost strategy of Japanese companies in China is obviously effective.

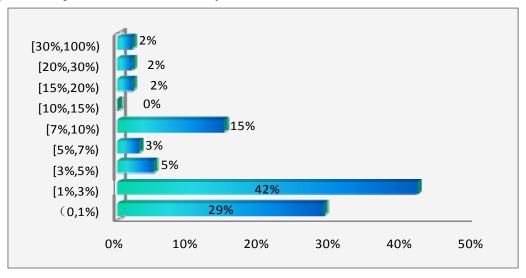


Fig 23 The ratio of the external logistics costs (payment to the outsourcing logistics firms, including logistics sub-enterprises) to sales amount (N=41)

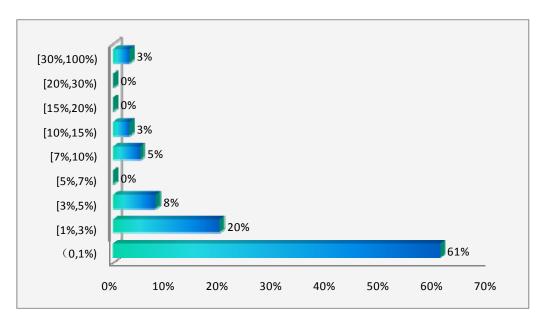


Fig 24 The ratio of the internal logistics costs (the related logistics costs except external logistics costs) to sales amount (N=42)

To our surprise, 80% of the Japanese companies in China which just use Japanese logistics firms as their logistics subcontractors pay external logistics costs less than 3% to their sales amount. On the other hand, 27% of the sample enterprises which just use local logistics firms as their logistics subcontractors pay external logistics costs more than 7% to their sales amount, but none of the sample enterprises which only use Japanese logistics firms do so. 64% of the Japanese companies in China which only use local logistics firms pay external logistics costs less than 3% to their sales amount and 27% of them pay more than 7% to their sales amount (Fig. 25). It is impossible to simply conclude that Japanese logistics firms generally have more competitive advantages due to lower cost ratio to sales amount. Extra investigations related to this issue should be conducted to find the facts to explain this issue. However, as shown in Fig. 24, the major of Japanese companies in China enjoy low logistics cost with the help of logistics firms.

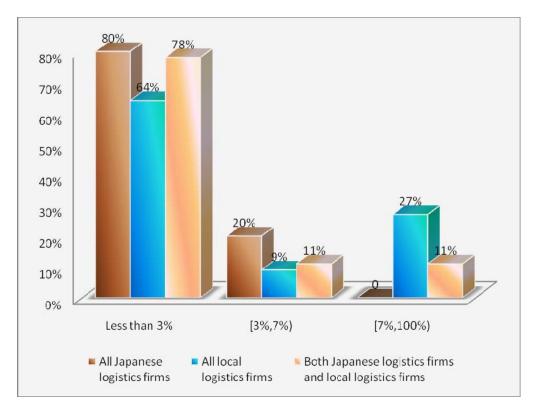


Fig 25 The comparison of the ratio of the external logistics cost to sales amount

The investigation results of the lead time(Order Cycle Time) of the sample enterprises are shown in Figure 26. The lead time of 24% sample enterprise is more than 100 hours. In addition, 26% sample enterprises could deliver within 24 hours, and almost half of the enterprises complete the delivery in 48 hours. Taking the vast area of China into account, longer lead time is not surprising. However, it is concluded that the lead time of most of Japanese companies in China is becoming shorter with the increasing sales amount in China.

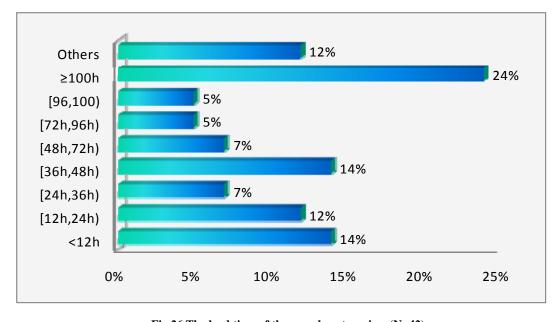


Fig 26 The lead time of the sample enterprises (N=42)

In comparison with the types of the commissioned logistics service providers, the delivery time of about 60% Japanese 3PL firms is within 24 hours. The delivery time is longer if consigned only to the local Chinese 3PL firms. The delivery time of 40% Chinese 3PL firms is more than 72 hours (Figure 27). When it is consigned to both local and Japanese 3PL firms, the delivery time is "within 24 hours" (37%), "between 24 and 72 hours" (32%) and "more than 72 hours" (26%). It can be seen Japanese logistics service providers have obvious advantages over local Chinese enterprises in the delivery time.

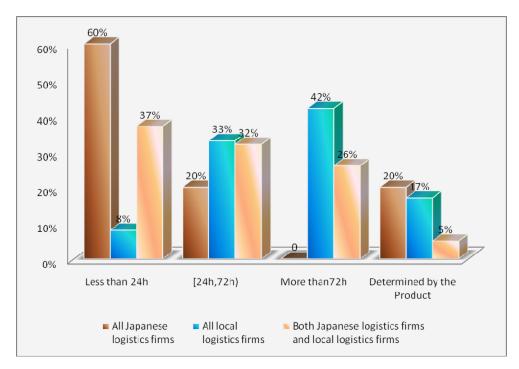


Fig 27 The comparison of the delivery time of the 3PL firms

With respect to the delivery time, the results indicate that on-time delivery rate of 63% of the 3PL firms reaches above 98%, and only 12% 3PL firms is below 90% (Figure 28). When only consigning to Japanese logistics firms, the on-time delivery rate of 80% Japanese 3PL firms could get to 98%, especially rate of 40% Japanese 3PL firms can reach 100%. Correspondingly, the on time delivery rate is lower when all are consigned to the local logistics firms and the on-time delivery rate of 36% Chinese 3PL firms is below 90% (Fig 29). This shows that Japanese logistics firms generally do better in on-time delivery.

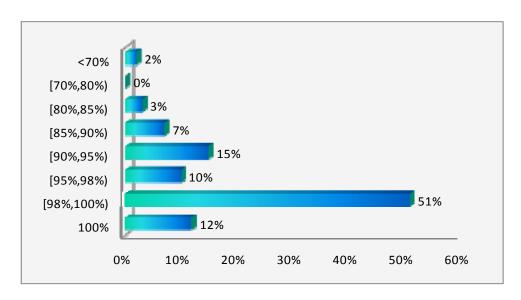


Fig 28 The on-time delivery rate of the 3PL firms (N=42)

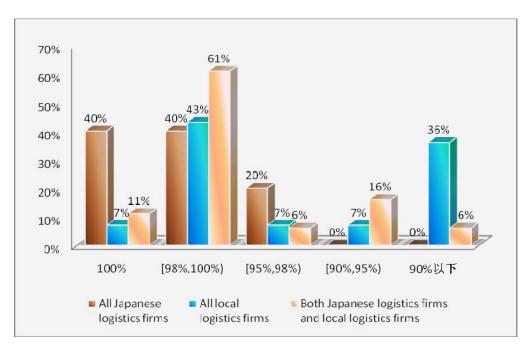


Fig 29 The comparison of the on-time delivery rate of 3PL firms  $\,$ 

The investigation results of the average order fill rate rate are shown in Fig 30. Generally speaking, the average is high. In fact, more than 60% sample enterprises reach above 98% of order fill rate and only 5% sample enterprises are below 85%.

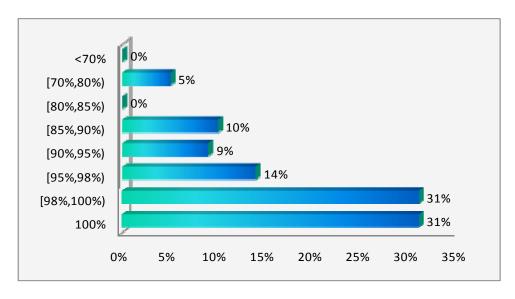


Fig 30 The average order fill rate of the sample enterprises (N=42)

#### Note: average order fill rate = the item and quantity of delivery ÷the item and quantity of order×100%

The inventory turnover of 49% sample enterprises is over seven times per year (Fig 31). 27% sample enterprises is more than 15 times per year. The Japanese enterprises in China have fast inventory turnover because Japanese companies make efforts to reduce their inventory in order to respond to the market demands flexibly. On the other hand, there are 19% sample enterprises with below 3 times/year of inventory turnover which is determined by the characteristics of certain industries and products.

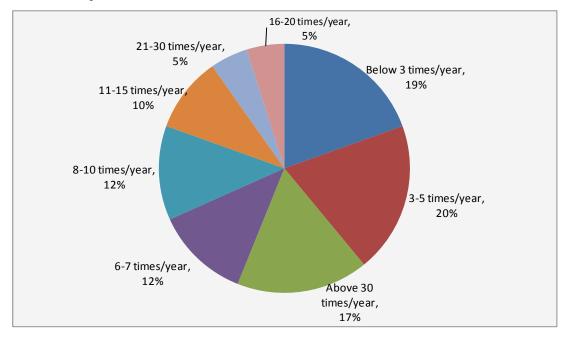


Fig 31 The inventory turnover of the finished goods (N=40)

The quality of the logistics operation has also been examined from the aspect of the error rate. The results are shown in Figure 32, in which the error rate of 30% the sample enterprises is below 1/1000, 20% below 1/10000, 20% below 1/10000, and 15% below 1/10000. In terms of the

types of the commissioned logistics service providers (in figure 33), when consigned to Japanese logistics service providers, the error rate of half Japanese 3PL firms is controlled below 1 / 50000. When consigned to both local and Japanese logistics service providers, 42% of the 3PL firms have error rate under 1 / 50000, and 33% of the only local 3PL firms arrive at the same level. So it can be concluded that Japanese 3PL firms are good at reducing error rate of logistics operation with paying more attention to product protection.

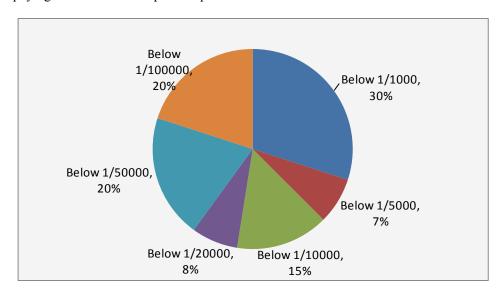


Fig 32 The error rate (such as damage, lost, wrong picking, wrong delivery and inconsistent quantity) of sample enterprises in logistics operations

Note: error rate = quantity of error goods +the quantity of goods

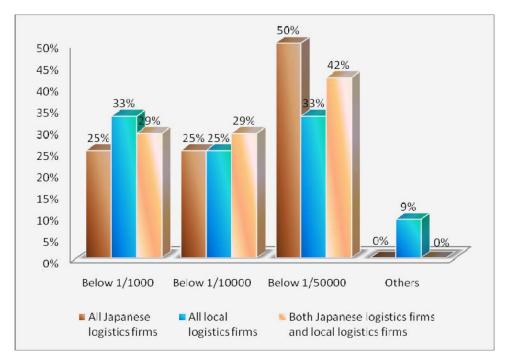


Fig 33 The comparison of error rate (such as damage, lost, wrong picking, wrong delivery and inconsistent quantity) of 3PL firms in logistics spot

Note: error rate = quantity of error goods  $\div$ the quantity of goods

#### **4 Conclusions**

These three parts above are the statistical analyses of the questionnaire survey. Although the results are not exactly consistent with the reality owing to the limited number and the distribution of the samples, they can reflect the current situation and the tendency of the logistics operations of Japanese companies in China overall. Generally speaking, the results are identical with the first survey, that is, in the process of the management and operation of Japanese companies in China, the low-logistics-cost strategy is the core.

With the rapid expansion of Chinese domestic markets, Japanese enterprises have increased the proportion of the products sold to Chinese domestic markets correspondingly. That is, there has been a great change in the population of the customers. In the past, their products were chiefly sold to high end markets such as Japan or the other developed countries. However, now the percentage of the products sold to Chinese domestic markets is increasing and the focus of the marketing transfers to Chinese domestic markets is changing as well.

Therefore, in such case, it is vital for Japanese companies know how to lower the total cost of their products to compete with the local enterprises and the other foreign enterprises.

However, with the global competition becoming more and more intense, there are limited opportunities to lower the total cost by means of the improvement of technology and management. For this reason, logistics, as the new source of the profits, attracts wide attention. The enterprises hope to lower the total cost of the products by the improvement of the logistics management and operations. In such circumstances, low-cost-logistics strategies appear

The survey shows that a low-cost logistics strategy embodies the following two aspects: the localization of outsourcing and the intensification of the stock.

#### Localization of outsourcing

The so-called localization of outsourcing refers to the outsourcing of the logistics business of Japanese companies in China to the local logistics service providers not to Japanese logistics enterprises. It can be inferred from the data and analyses shown in Figure 21 that the proportion of the local logistics enterprises is increasing day by day.

#### Postponement of inventory

Postponement of inventory means to reduce the times of freight transfer during the process of transportation and to set up a shorter logistics channel to realize the consolidation of stock as much as possible so that the total logistics cost can be reduced. That is, to deal with changeable markets with less stock. From Figures 14, 15, and Table 13, it can be concluded that there is a tendency toward intensification of stock.

To set up a more efficient and more effective logistics network, the principle for most enterprises concerning the development of logistics nodes focuses on "consolidation" and "modernization" (Table 17). In order to control the total inventory, a large number of the enterprises even deliver goods to customers directly or via short channel (Figure 14). According to the survey, it can be concluded that strategic trends emphasizing the consolidation of the logistics nodes to reduce inventory is still obvious.

Although the localization of outsourcing and the postponement of inventory are effective in lowering logistics costs, meanwhile, some negative impacts have been reported. For example, there is a larger gap in quality of service between the local and Japanese logistics service providers, as reflected in Figures 17, 20 and 24. Compared with the local logistics service providers, Japanese logistics service providers are superior in running time and the quality control of

logistics operation and protection of the freight. It is clear that to benefit the low cost without a consideration of quality of logistics, a lot of the local logistics service providers might be employed, which will result in the deterioration of the quality of customer service.

In this respect, the results of the survey imply that Japanese companies in China have adjusted their strategies of localization correspondingly. While considering the cost, the quality of customer service is one of the most important elements in choosing logistics service providers. Because the quality of service provided by many local logistics enterprises is not very good, the number of the Japanese enterprises planning to employ more local logistics firms is less (Table 20). What's more, when choosing 3PL firms, more Japanese enterprises pay more attention to the service quality. As shown in Table 21, the service quality and scale of 3PL firm has been considered as more important factors than "cost and expense level". The cost of Japanese logistics enterprises is high, but their quality of service is also high; the cost of the local logistics enterprises is low, but their service quality is also low, on the whole, which forms trade-off. More Japanese companies in China employ both local and Japanese logistics enterprises. Japanese logistics enterprises are employed to guarantee the quality of the core and for the parts of low value, the local logistics enterprises are hired. Only in this way can the best combination between the cost and quality be realized.

Postponement of inventory could lengthen the lead time of delivery and lowers the quality of service, which could make the customers unsatisfied. Moreover, the ability to deal with the requirements of the customers also becomes weakened and consequently the sales opportunities would be lost. Therefore, when constructing the logistics facility network, the enterprises should focus on not only the "consolidation" but also the "modernization" and "integration" of the logistics nodes. While the logistics nodes are integrated, the ability to respond to the markets and satisfy the customers should also be guaranteed and the investment in the information system should be increased.

Furthermore, the current situation of using logistics information systems in Japanese companies in China is not as good as expected. The way to place orders and transfer the information of medium and small-sized enterprises is still by traditional telephone and FAX (Table 8 and 9). That is because the leading-in of the information systems is very expensive, and the updating of the materials is very quick, so the maintenance of the logistics information system costs a lot, which will undoubtedly add more burdens to medium and small-sized enterprises. The traditional telephone and FAX are not only cheap, quick and flexible, but also can give the customers the most cordial feeling. Thus, how to improve the flexibility and compatibility and reduce the cost of the logistics information systems has become an area of interest to the developer of the logistics information systems.

#### Acknowledgements

The authors thank Mr. Yasuo Shigeta and Mr. Susumu Hasegawa, who are executives of Tokyo Logistics Institute, for their supports on the survey. The authors also thank some graduated students of Southwest Jiaotong University who assisted the survey. All errors are those of the authors.

#### Appendix A: the Japanese vision of the questionnaire

お手数でございますが、FAX でご返信を賜る場合、下記番号までお願います

# FAX送信先: 0086-28-8760-1148

郵便でご返送を賜る場合、同封の返信用封筒をご使用願います。

# 第二回在中国日系企業における物流システム構築

## の実態に関するアンケートの質問票

実施機関:富山大学経済学部物流システム研究室

協力機関: 西南交通大学物流学院 / 東京ロジスティクス研究所

#### ご記入担当者のお役職:

記入方法:該当番号に○を付けていただきます様お願い申し上げます。

尚、記入が必要な場合はそれぞれ空白欄にご記入頂きます様お願い申し上げます。

#### Part1. 貴社の企業概要についてお尋ねします。

- Q1. 貴社の業態を教えてください
- ① 製造業 ②卸売業 ③小売業 ④商社・貿易 ④持ち株会社(投資型企業)
- ⑤ その他(具体的に)
- Q2. 貴社の業種(食料品、繊維・衣料品、化学、医薬品、精密機器、家電、電子機器、情報・通信、建設機器、輸送用機器、日用雑貨、加工部品、文具、化粧品、金属製品、非鉄金属、ゴム製品、ガラス・土石製品、農林水産、などなど)をご記入ください。

A2. (

- Q3. 貴社の中国での設立時期を教えてください。
- ① 1990年以前 ② 1990年~1995年 ③ 1996年~2000年 ④ 2001年以降
- Q4. 貴社(中国現地法人のみ、以下同じ)の資本金を教えてください。
- ①500 万円未満 ②500 万~1 千万円未満 ③1 千万~2 千万円未満 ④2 千万~5 千万円未満
- ⑤5 千万~1 億円未満 ⑥1 億~5 億円未満 ⑦5 億~10 億円未満 ⑧10 億~30 億円未満
- ⑨30 億~60 億円未満 ⑩60 億~100 億円未満 ⑪100 億円以上
- Q5. 貴社の概ねの売上高(年商)を教えてください。
- ① 5 千万円未満 ② 5 千万~1 億円未満 ③ 1 億~5 億円未満 ④ 5 億~10 億円未満 ⑤ 10 億~50 億円未満⑥ 50 億~100 億円未満 ⑦ 100 億~500 億円未満 ⑧ 500 億~1 千億円未満 ⑨ 1 千億以上
- Q6. 貴社の売上高(年商)のうち、中国国内市場向けの販売分が占める割合を教えてください。

- ① 10%未満 ② 10%~20%未満 ③ 20%~30%未満 ④ 30%~40%未満 ⑤ 40%~50%未満
- ⑥ 50%~60%未満 ⑦ 60%~70%未満 ⑧ 80%~90%未満 ⑨ 90%~100%
- Q7. 貴社の出資構成の形態を教えてください。
- ① 現地系企業との合弁で、日本側は51%以上(51%を含む)の出資率を有する
- ② 現地系企業との合弁で、日本側は50%以下(50%を含む)の出資率を有する
- ③ 100%出資の子会社(複数のグループ企業による出資をも含む)
- ④ 現地系以外の企業 (例えば、台湾系や欧米系など) との合弁で、日本側は 51%以上(51%を含む)の 出資率を有する
- ⑤ 現地系以外の企業 (例えば、台湾系や欧米系など) との合弁で、日本側は 50%以下(50%を含む)の 出資率を有する
- ⑥ その他(具体的に )

# Part2. 貴社の中国市場(香港・マカオ・台湾を除く)における流通チャネルの概況についてお尋ねします。

- Q8. 貴社の中国各地で設立している販売拠点(販売子会社、支社、支店、営業所、営業のための事務所など)の数を教えてください。
- ① 1ヶ所のみ ② 2ヶ所~5ヶ所未満 ③ 5ヶ所~10ヶ所未満 ④ 10ヶ所~20ヶ所未満
- ⑤ 20ヶ所~30ヶ所未満 ⑥ 30ヶ所以上
- Q9. 貴社の中国における大体の販売地域を教えてください。(複数選択可)
- ① 中国全土のほとんど ② 沿海部地域 ③ 沿海部地域および内陸地域の大都市 ④ 華南地域
- ⑤ 華東地域 ⑥ 華北地域 ⑦ 東北地域 ⑧西南地域 ⑨ 西北地域
- ⑨ その他(具体的に
- Q10. 貴社の販売チャネルのタイプを教えてください。
- ① 直接販売(卸売企業を経由せず、一般消費者や小売企業もしくはユーザー企業に直接販売する)
- ② 間接販売 (卸売企業 (代理店など) を経由して販売する) (→ ご記入後、Q11・Q12 へお願いします。)
- ③ 直接販売と間接販売を併用する。 (→ ご記入後、Q11・Q12・Q13 へお願いします。)
- ④ その他(具体的に)
- Q11. (Q10 で②、③を選んだ方に回答をお願いします) 貴社の利用している卸売企業 (代理店など) の数を教えてください。
- ① 5 社未満 ② 5 社~10 社未満 ③ 10 社~20 社未満 ④ 20 社~50 社未満 ⑤ 50 社~80 社未満
- ⑥ 80 社~120 社未満 ⑦ 120 社~200 社未満 ⑧ 200 社~300 未満 ⑨ 300 社以上
- Q12. (Q10 で②、③を選んだ方に回答をお願いします)貴社は現地卸売企業を代理店として起用する主な理由を教えてください。(複数選択可)
- ① 卸売企業の既存販路を活用して速やかに市場にアクセスし販売を一気に拡大するため。
- ② 代金未回収のリスクを回避するため。
- ③ 卸売企業の配送機能を活用するため。
- ④ 卸売企業の情報収集力、市場把握力を活用するため。

- ⑤ 合弁相手の既存の卸売企業経由の販路を引き継いだから。
- ⑥ 内陸部や農村部における商圏で直接チャネルの構築は困難なため。
- ⑦ 現地販売はまだ初期段階にあり、やむを得ず現地の卸売企業を利用しているが、いずれは直接チャネルに切り替える方針である。
- ⑧ その他(具体的)
- Q13. (Q10 で③を選んだ方に回答をお願いします)貴社の直接販売の割合を教えてください。
- ① 10%未満 ② 10%~20%未満 ③ 20%~30%未満 ④ 30%~40%未満 ⑤ 40%~50%未満
- ⑥ 50%~60%未満 ⑦ 60%~70%未満 ⑧ 80%~90%未満 ⑨ 90%~100%

#### Part3. 貴社の物流・ロジスティクス組織についてお尋ねします。

- Q14. 貴社における物流・ロジスティクス管理業務を担当する部署の位置づけを教えてください。
- ① 製造部門や営業部門と並ぶ独立した機能部門となっている
- ② 営業部門の傘下に置かれている。
- ③ 製造部門の傘下に置かれている。
- ④ 経理・会計部門の傘下に置かれている。
- ⑤ 機能横断的なチーム・部署となっている。
- ⑥ 物流・ロジスティクスの関連業務は各機能部門、各生産拠点、各営業拠点に分散管理されており、 それらを統括する明確な独立部署は設置していない。
- ⑦ 物流子会社に物流業務を全面的に委ねているため、社内に物流業務を担当する部署を設置していない。
- ⑧ 同じ企業グループにある物流専門企業、3PL 企業に物流業務を全面的に委ねているため、社内に物流業務を担当する部署を設置していない。
- ③ その他(具体的に)
- Q15. 貴社の物流・ロジスティクス部署もしくは貴社の物流業務を全面的に受諾している物流子会社、 3PL 企業の具体的な管轄範囲を教えてください。(複数選択可)
- ① 幹線輸送 ② 二次・末端配送 ③ 保管、貯蔵 ④ 在庫管理、在庫計画の策定 ⑤ 注文処理
- ⑥ ロジスティクス情報の伝達 ⑦ 流通加工 ⑧ 包装 ⑨ 荷役、出荷準備 ⑩ 調達(仕入)物流
- ⑪ 返品、廃棄物などの静脈物流 ⑫ 販促品物流 ⑬ 需要(もしくは出荷量)予測 ⑭ 需給調整
- ⑤ 物流コスト管理 ⑥ 物流拠点整備の推進、拠点網の見直し
- ① ロジスティクス情報システム整備の推進とその見直し ® 通関などの輸出入関連業務
- ⑨ 委託先の物流専門業者の選定、管理など
- 20 その他(具体的に)
- Q16. 日本親会社の物流部門・物流子会社からの人的支援に関する状況についてお伺いします。以下の項目のうち、貴社の状況に当てはまる項をお選びください。(複数選択可)
- ① 物流部門が設立された当初から、日本親会社から物流専門人材が派遣され、物流部門の責任者を務めている。
- ② 物流部門設立当初だけ、日本親会社から物流スペシャリストが派遣されていた。その後、すべて現 地スタッフに委ねている。
- ③ 物流部門の責任者(兼任を含む)は日本親会社からの派遣社員だが、物流分野以外(例えば、販売 や会計、情報など)の専門家である。

- ④ 常駐の物流専門家はいないが、貴社の応援要請に応じて日本親会社の物流部門から物流スペシャリストが出張ベースで派遣され、技術指導や課題解決に当たる。
- ⑤ 物流部門はすべて現地スタッフで構成されており、彼達(彼女達)の創意工夫によって運営されている。親会社からの人的支援を特に受けていない。
- ⑥ 物流部門の責任者は現地スタッフであるが、彼(彼女)は日本親会社の物流部門・物流子会社で研修を受けていた。
- ⑦ 中国におけるグループ企業の物流業務は中国統括会社の物流部門・物流子会社に統合しているため、 親会社から物流技術をとくに受けていない。
- ⑧ 物流業務の殆どを特定の日系物流専門企業に委託しており、委託先から必要な情報や知識を得ている。親会社からは関連知識の移転をとくに受けていない。
- ⑨ その他(

Q17. 物流・ロジスティクスの管理者確保という点で、貴社は最も感じている問題点をお教えください。

- ① 物流・ロジスティクスに明るい日本人駐在員がいない。
- ② 中国で物流・ロジスティクス関連の専門人材は不足しており、現地採用により人材確保が困難である。
- ③ 社内で物流・ロジスティクス関連の人材を育成する体制はまだ出来ていない。
- ④ 物流・ロジスティクスの現地人材を採用してもなかなか定着しない。
- ⑤ 物流・ロジスティクス管理業務の担当者は社内におけるステータスが低く、スペシャリストになる モチベーションが低いため、物流・ロジスティクス部署に定着するより他の部署(販売や製造)へ の配置転換を望んでいる。
- ⑥ その他(具体的に

#### Part4. 貴社の物流(ロジスティクス)情報システムについてお尋ねします。

Q18. 貴社の主な受発注手段を教えてください。(複数選択可)

- ① 電話による受発注 ② FAX による受発注 ③ E-mail による受発注 ④ EDI・EOS による受発注
- ⑤ 専用 Web ページによる受発注 ⑥ 営業担当者の商談による受発注
- ⑦ その他(具体的に )
- Q19. 貴社の拠点間(本社事務所、工場、営業拠点、物流センターなど)の主な物流情報伝達手段を教えてください。(複数選択可)
- ① 電話・FAX ②専用のデータ通信回線 ③ Web ベースの WAN ④ E-mail
- ⑤ 伝票、月次・周次報告書などの紙メディア
- ⑥ その他(具体的に)
- Q20. 貴社の導入している(導入中も含む)物流・ロジスティクス関連のパッケージソフトを教えてください。(複数選択可)
- ① SCM (需要予測、需給調整など) ② ERP (統合業務システム) ③ WMS (在庫管理、倉庫管理など)
- ④ TMS (輸配送管理、貨物追跡管理など) ⑤ ATP・CTP (納期回答など) ⑥ 受注処理システム
- ⑦ 出荷・調達に関するデータベースの構築
- ⑧ 具体的に )
- Q21. 貴社の導入している(導入中も含む)物流・ロジスティクス関連のパッケージソフトのベンダー(提

供元)はどれですか。	
① 親企業の IT 部門 ② 親企業傘下にある日本の IT ベンダー ③	在中国日系 IT ベンダー
④ 日系以外の在中国外資系 IT ベンダー ⑤ 中国現地系 IT ベンダー	_
⑥ その他(具体的に	)
Q22. 貴社の導入している物流・ロジスティクス関連の情報システムの	の機能充実具合についてどう思いま
すか。	
① 非常に充実している。 ② 大抵の機能を有する。 ③ どちらも	言えない。 ④ まだ充実していな
۱۱ <sub>0</sub>	
<ul><li>⑤ 必要最低限の機能も備えず、ロジスティクス活動に支障を来たし</li></ul>	かねない。
Q23. 貴社の導入している物流・ロジスティクス関連の情報システム	の効果についてどう思いますか。
① 非常に大きな効果が得られている。 ② 一定の効果が得られてい	
③ 限定的な効果しか得られていない。 ④ 殆ど効果が現れていない	
⑤ 効果どころか、かえって業務上の障害・負担をもたらした。	
<ul><li>(①、②、③のいずれを選んだ方はQ24 へお願いします。④か⑤を追</li></ul>	異人だ古け 025 へお願いします)
(①、②、③いい,y Nu を 選んにかな Q24・、心願い しょ y 。 使か ③でき	
Q24. (Q23 で①、②、③のいずれを選んだ方にご回答願います。) 』	<b>も牡丹脚法・ロジフテッカフ間浦の</b>
情報システムを導入することによって、いかなる効果を得ていますな	
① トータル物流コストの削減 ② 在庫管理の一元化 ③ 在庫水準 ムの短縮	岸の削減 ④ 料品・配送サートタイ
⑤ 配送リードタイムの一貫性の確保 ⑥ 需要予測の精度の向上	
⑦ 情報共有に基づく物流とその他の諸機能(調達・製造・販売など	)との円滑か調敷
⑧ 物流現業の効率化 ⑨ 物流現業におけるエラーの減少	/ こ ヘン   11月/よ   加 正
⑩ その他(具体的に	)
してい他(条件がに	,
Q25. (Q23 で④か⑤を選んだ方にご回答願います。) 貴社の導入し <sup>~</sup>	ている物流・ロジスティカス関連の
情報システムの効果を阻害する主な要因をお選びください。(複数選	
① 導入した情報システムは社内の業務プロセスや慣行に不適応なた	
② 社内に情報システムに精通する人材が居なくて、システムをまた。	
	と使いこなしていないため。
③ そもそも情報システム導入の必要性がなかったため。	
④ 情報システムの導入は不完全な形となっており、部分しか使えた	£('/Z'8)。
⑤ その他(	)
	. 1
Part 5. 貴社の物流チャネル・物流拠点ネットワークについてお伺い	<u> </u>
Q26. 貴社は販売先までの商品配送過程において平均的に経由する中	<b>郷加占の粉な粉らてください</b>
① なし(販売先へ直送) ② 1回経由 ③ 2回経由 ④ 3回以上	
	歴田 切 中枢拠点框田空と直送室
を併用	,
⑦ その他(具体的に	)
007 (000 本色大温) おナカフ、グロ体度、ナナ \ 中が町でしませ	よてな だねの 塩皂 マスキ
Q27. (Q26 で⑤を選んだ方のみ、ご回答願います。) 中継配送と直送/	ょてれてれの物重刮台を教えてくた
	2 m/h /
① 中継配送% ② 直送% ③ そ	その他( )%

- Q28. 貴社の利用している物流施設(倉庫、物流センター、配送センター、デポ、トランスファーセンターなど)の数を教えてください。
- ① 1 箇所 ② 2 箇所 ③ 3 箇所 ④ 4 箇所 ⑤ 5 箇所 ⑥ 6 箇所~10 箇所未満 ⑦ 10 箇所~20 箇所未満
- ⑧ 20 箇所以上
- Q29. 貴社の利用している物流施設の類型別の数を教えてください。
- ① 自社倉庫(自社保有・自社運営) \_\_\_\_\_箇所 ② リース倉庫(賃貸建物・自社運営) \_\_\_\_

\_\_\_\_箇所

- ③ 営業倉庫(営業倉庫業者に保管などの現業を委託) \_\_\_\_\_\_箇所
- ④ その他(具体的に

) \_\_\_\_\_\_\_\_箇所

)

- Q30. 貴社は外部の物流施設を選定する際に一番重視する要素を教えてください。
- ① 料金水準 ② 立地の交通利便性 ③ 施設内の保管機器・荷役機器の近代化
- ④ 構内のレイアウトの適切さ、清潔さ ⑤ 同様な商品を取り扱う経験の有無
- ⑥ 拠点ネットワークのカバー範囲、充実度 ⑦ 保管や荷役などの現業の能力と品質
- ⑦ スピーディかつ正確な情報提供などの対応能力
- ⑨ 保管だけでなく、在庫管理・輸配送・流通加工などを含む複合的な業務能力
- ⑩ その他(具体的に
- Q31. 貴社は外部の物流施設を選定する際に2番目に重視する要素を教えてください。
- ① 料金水準 ② 立地の交通利便性 ③ 施設内の保管機器・荷役機器の近代化
- ④ 構内のレイアウトの適切さ、清潔さ ⑤ 同様な商品を取り扱う経験の有無
- ⑥ 拠点ネットワークのカバー範囲、充実度 ⑦ 保管や荷役などの現業の能力と品質
- ⑧ スピーディかつ正確な情報提供などの対応能力
- ⑨ 保管だけでなく、在庫管理・輸配送・流通加工などを含む複合的な業務能力
- ⑩ その他(具体的に
- Q32. 貴社のすべての物流施設におけるトータル平均在庫日数を教えてください。
- ① 1 週間未満 ② 1 週間~2 週間未満 ③ 2 週間~3 週間未満 ④ 3 週間~4 週間未満
- ⑤ 4週間~5週間未満 ⑥ 5週間~2ヶ月未満 ⑦ 2ヶ月~3ヶ月未満 ⑧ 3ヶ月以上
- Q33. 貴社の現在の物流拠点ネットワークに満足していますか。
- ① 満足している。 ② どちらかといえば満足している。 ③ 若干見直す必要がある。
- ④ 大幅に見直す必要がある。 ⑤ 抜本的な再構築をする必要がある。
- Q34. 貴社は現在の物流拠点ネットワークを見直すとするならば、どのような方向へ見直していくでしょうか。(複数選択可)
- ① 集約の方向:拠点網を統廃合し、トータル在庫を圧縮する。
- ② 分散の方向:より市場に近づくべく、配送センターを増やしていく。
- ③ 近代化の方向:物流機器や情報システムを施設内に取り入れ、物流拠点としての諸機能を強化し作業効率を高める。
- ④ 複合化の方向:保管や在庫管理以外の機能(例えば、検品、検針、組付け、補修、受注処理、返品

処分、値札の取り付け、バーコードや IC タグの貼付などなど)を拠点内に取り込む。

- ⑤ 共同化の方向:同一グループに属する企業同士の物流業務を統合することによって、倉庫利用効率 や輸配送積載率の改善を目指す。或いは同業他社との共同物流を推進する。
- ⑥ その他(具体的に )

# Part 6. 貴社の物流オペレーションについてお伺いします。

- Q35. 貴社が外部の物流専門業者に委託している物流現業を教えてください。(複数選択可)
- ①幹線輸送 ② 二次・末端配送 ③流通加工 ④通関 ⑤ フォワーディング ⑥ 調達・仕入れ物流
- ⑦ 静脈物流 ⑧ 販促品物流 ⑨倉庫・物流センターの運営・管理 ⑩その他 ( )
- Q36. 貴社の直接利用している物流専門企業の数を教えてください
- ① 1 社のみ ② 2 社 ③ 3 社~5 社以下 ④ 6 社~10 社以下 ⑤ 10 社以上
- Q37. 貴社の直接利用している物流専門企業の類型を教えてください。
- ① すべて日系物流企業 ② すべて日系以外の外資系 ③ すべて現地系 ④ 現地系と日系を併用
- ⑤ 現地系と日系以外の外資系を併用 ⑥ 日系と日系以外の外資系を併用
- ⑦ その他(具体的に)
- Q38. 貴社と物流専門企業との契約形態を教えてください。
- ① 契約期間を明記せず、いつでも委託先を換えることができるようにしている。
- ② 契約期間を半年以内としつつ、その間、契約を更新するか慎重に見極める。
- ③ 契約期間を1年とし、双方に異議が無ければ自動更新する。
- ④ 契約期間を複数年(2年間以上)とし、双方に異議が無ければ自動更新する。
- ⑤ その他(具体的に)
- Q39. 委託先の物流専門業者の選定作業は、どのような部門によって行われますか。
- ① 日本親会社の関係部門 ② 貴社の経営陣 ③ 貴社の物流部門 ④ 貴社の営業部門 ⑤ 貴社の調達部門
- ⑥ 貴社の特別チーム (たとえば、物流業務のアウトソーシングを推進するための特別チーム)
- ⑦ 貴社の各営業拠点 ⑧ 貴社の各生産拠点
- ⑨ その他(具体的に
- Q40. 貴社は委託先の物流専門業者を選定する際、選定先企業についてどういう点を最も重視するのでしょうか。(複数選択可)
- ① 提供できるサービスの範囲(例えば、複合的な物流サービスを提供できるかどうか)
- ② 提供できるサービスの地理的広域性・ネットワーク (例えば、免許保有と運営能力などの面おいて 特定の地域に限定されず広域的にサービスを提供できるかどうか)
- ③ 同じ業種の物流を受託する経験の有無 ④ ソリューション提案力、物流企画力 ④ コスト、料金 水準
- ⑤ 企業規模と実力(例えば、トラック台数・トン数、トラックの質、物流施設の面積、施設のレベルや質、ライセンス数、荷役設備、従業員数、年商、収益力など)
- ⑥ 業務品質(例えば、納期遵守率、在庫差異、事故率、ミス率、業界での評判など) ⑦ 経営者の意

124	a	ᅶ.	그선도
石人	ヤ	思	耐火

- ⑧ 情報提供能力、情報システムの構築状況 ⑨ 従業員の職業倫理観やサービス精神
- ⑩ その他(具体的に
- Q41. 貴社の自前で遂行している物流業務を教えてください。(複数選択可)
- ① 幹線輸送 ② 二次・末端配送 ③ 倉庫・物流センターの運営・管理 ④ 流通加工 ⑤ 通関
- ⑥ フォワーディング ⑦ 調達・仕入れ物流 ⑧ 静脈物流 ⑨ 販促品物流 ⑩ その他 ( )
- Q42. 貴社の今後、物流業務のアウトソーシングか内部化かに関する方針を教えてください。
- ① 一括で信頼できる日系 3 PL 企業に委託するつもり
- ② 優れた現地 3 PL 企業に業務委託を拡大していくつもり
- ③ 物流部署を強化し、あるいは物流子会社を設立するなど、なるべく自前で物流業務を遂行していく 方針
- ④ アウトソーシングと自社物流のそれぞれのメリットを生かす形で、使い分けする方針
- ⑤ 基本的にアウトソーシングする方針だが、特定の 3 PL 企業に依存するではなく、複数の物流専門業者を使い分ける方針
- ⑥ その他(具体的に )
- Q43. (Q42 で⑤を選んだ方のみ、回答をお願いします。) 複数の物流専門業者の起用について、どのような軸で使い分けしていますか。
- ① 地域別 ② ルート別 ③ 輸送機関別 ④ 販売チャネル別 ⑤ (生産や販売) 拠点別 ⑥ 製品群 別

)

- ⑦ 物流活動 (保管、輸送、フォワーディング、流通加工など) 別
- ⑧ その他 (具体的に
- Q44. 貴社の概ねの支払物流費(委託先に支払う分、業務を請け負っている物流子会社・系列物流企業も含む)の売上高比を教えてください。
- ① 1%未満 ② 1%~3%未満 ③ 3%~5%未満 ④ 5%~7%未満 ⑤ 7%~10%未満
- ⑥ 10%~15%未満 ⑦ 15%~20%未満 ⑧ 20%~30%未満 ⑨ 30%未満
- Q45. 貴社の概ねの自社物流費(支払物流費以外の物流関連コスト)の売上高比を教えてください。
- ① 1%未満 ② 1%~3%未満 ③ 3%~5%未満 ④ 5%~7%未満 ⑤ 7%~10%未満
- ⑥ 10%~15%未満 ⑦ 15%~20%未満 ⑧ 20%~30%未満 ⑨ 30%未満
- Q46. 貴社の納品リードタイム (受注から納品までの時間、Order Cycle Time) を教えてください。
- ① 12 時間以内 ② 12 時間~24 時間以内 ③ 24 時間~36 時間以内 ④ 36 時間~48 時間以内
- ⑤ 48 時間~72 時間以内 ⑥ 72 時間~96 時間以内 ⑦ 96 時間~1 週間以内 ⑧ 1 週間以上
- ⑨ その他(具体的に)
- Q47. 貴社の配送リードタイムの遵守率(約束しているリードタイム内に配送できる概ねの比率、On-Time Delivery) を教えてください。
- ① 100% ② 98%以上~100% ③ 95%以上~98% ④ 90%以上~95% ⑤ 85%以上~90%
- ⑥ 80%以上~85% ⑦ 70%以上~80% ⑧ 70%以下

Q48. 貴社の平均注文充足率(納品品目数と数量÷受注品目数と数量×100%、Order Fill)を教えてください。

- ① 100% ② 98%以上~100% ③ 95%以上~98% ④ 90%以上~95% ⑤ 85%以上~90%
- ⑥ 80%以上~85% ⑦ 70%以上~80% ⑧ 70%以下
- Q49. 貴社の完成品の平均在庫回転率 (Finished Goods Inventory Turns) を教えてください。
- ① 3回転以下/年 ② 3~5回転/年 ③ 6~7回転/年 ④ 8~10回転/年 ⑤ 11~15回転/年
- ⑥ 16~20 回転/年 ⑦ 21~30 回転/年 ⑧ 30 回転以上/年
- Q50. 貴社の物流現場において、破損、紛失、誤選、誤配、量的過不足といったミスやエラーの概ね発生率 (ミス・エラー商品の点数:取り扱い点数)を教えてください。
- ① 1/1000以下 ② 1/5000以下 ③ 10000/1以下 ④ 1/20000以下 ⑤ 1/50000以下 ⑥ 1/100000以下
- ⑦ その他(具体的に

# アンケート調査は以上で終了です。ご協力、誠に有難うございました!

# 問い合わせ先

西南交通大学物流学院 毛敏

610031,中国四川省成都市二環路北一段 111 号

電話: 0086-28-87601148

FAX: 0086-28-87601148

E-mail: swjtumm@sohu.com

富山大学経済学部 李瑞雪

日本国〒930-8555 富山市五福 3190

)

電話:0081-76-445-6492

FAX: 0081-76-445-6419

E-mail: <u>liruixue@eco.u-toyama.ac.jp</u>

# Appendix B: the Chinese vision of the questionnaire

如果您用 FAX 回信,烦请您发送至以下号码。

FAX号码: 028-87601148

邮寄赐复,请使用返信信封

# 第二次在华日资企业的物流体系问卷调查

实施机构: 富山大学经济学部物流系统研究室

合作机构: 西南交通大学物流学院 / 东京物流研究所

填写方法:请在相应答案的号码上画〇 必要时,请在括号内填上具体内容

# Part1. 关于贵公司的企业概况

- Q1. 贵公司的企业类型
- ①制造业 ②批发业 ③零售业 ④贸易公司(商社) ⑤控股公司(投资型企业)
- ⑥其他(具体的:
- Q2. 请将贵公司的行业类别填入 A2 内(食品, 纤维・服装, 化学, 医药品, 精密机器, 家电, 电子机器, 信息・通讯, 建设机器, 运输机器, 日用杂货, 加工零部件, 文具, 化妆品, 金属产品, 有色金属, 橡胶产品, 玻璃・土石产品, 农林水产等)
- A2. (
- Q3. 贵公司在中国的成立时期
- ①1990年以前 ②1990年~1995年 ③1996年~2000年 ④2001年以后
- **Q4.** 贵公司(仅限中国当地法人,下同)的资本金(单位:日元)。
- ①<500万日元 ②500万<资本金<1千万日元 ③1千万<资本金<2千万日元
- ④2 千万≤资本金<5 千万日元 ⑤5 千万≤资本金<1 亿日元 ⑥ 1 亿≤资本金<5 亿日元
- ⑦5 亿≤资本金<10 亿日元 ⑧10 亿≤资本金<30 亿日元 ⑨30 亿≤资本金<60 亿日元
- ⑩60 亿≤资本金<100 亿日元 ⑪ ≥100 亿日元
- Q5. 贵公司年销售额约为
- ①<5千万日元 ② 5千万<销售额<1亿日元 ③ 1亿<销售额<5亿日元
- ④ 5 亿≤销售额<10 亿日元 ⑤ 10 亿≤销售额<50 亿日元
- ⑥ 50 亿≤销售额<100 亿日元 ⑦ 100 亿≤销售额<500 亿日元
- ⑧ 500 亿≤销售额<1 千亿日元 ⑨ ≥1 千亿日元
- Q6. 贵公司的年销售额中,中国国内市场的销售额所占的比例。
- □ <10% □ 10%≤比例<20% □ 20%≤比例<30% □ 30%≤比例<40%
- ⑤40%≤比例<50% □ 50%≤比例<60% □60%≤比例<70%

□80%≤比例<90% □90%≤比例<100%

#### Q7. 贵公司的资本构成情况

- ①与本土企业合资,日本方面占51%以上(含51%)的出资率
- ②与本土企业合资,日本方面占50%以下(含50%的)的出资率
- ③100%独资子公司(含多个集团公司共同出资)
- ④与本土以外的企业(譬如,台湾企业和欧美企业等)的合资,日本方面占51%以上(含51%)的出资率
- ⑤与本土以外的企业(譬如,台湾企业和欧美企业等)的合资,日本方面有50%以下(含50%)出资率
- ⑥其他(具体的:

#### Part2. 贵公司在中国大陆市场流通渠道的概况。

- Q8. 贵公司的中国各地设立的销售单位(销售子公司,分公司,支店,营业所,以销售业务为目的的事务所 等)的数量。
- ①只有1处 ② 2处~4处 ③ 5处~9处 ④ 10处~19处
- ⑤20 处~29 处 ⑥30 处以上
- Q9. 贵公司在中国境内大概的销售区域。(可多选)
- ①中国境内大部分 ②沿海地区 ③沿海地区及内陆地区的大城市 ④华南地区
- ⑤华东地区 ⑥华北地区 ⑦东北地区 ⑧西南地区 ⑨西北地区
- ⑩其他(具体的:
- **O10.** 贵公司的销售渠道的类型。
- ① 直接销售(不经批发企业,直接销售给消费者和零售企业或用户企业)
- ② 间接销售(经由批发企业(代理商等)销售)(→请接着回答 Q11 · Q12。)
- ③ 直接销售和间接销售并用。 (→请接着回答 Q11 · Q12 · Q13。)
- ④ 其他(具体的:
- Q11. (在 Q10 选②、③的请回答本问题)贵公司采用的批发企业(代理商等)的数量。
- ① 5家以下 ② 5家~9家
- ③ 10 家~19 家 ④ 20 家~49 家 ⑤ 50 家~79 家
- ⑥ 80 家~119 家 ⑦ 120 家 ~199 家 ⑧ 200 家~299 家 ⑨300 家及其以上
- Q12.(在 Q10 选②、③的请回答本题)贵公司选择本土批发企业作为代理商的主要理由。(可多选)
- ① 为了借助批发企业现有的销路迅速打入市场并扩大销售。
- ② 为了规避货款回收的风险。
- ③ 为了借助批发企业的配送功能。
- ④ 为了借助批发企业的信息收集能力、市场把握能力。
- ⑤ 因为继承了合作伙伴原有的完备的批发销售渠道。
- ⑥ 因为在内陆、农村构建直接渠道很困难。
- ⑦ 在中国市场处于起步阶段,不得不暂时利用本土的批发企业,不过,迟早会转换为直接渠道。
- ⑧ 其他(具体的:
- Q13. (在 Q10 选了③请回答此题)贵公司直接销售所占的比例。
- ①<10% ② 10% < 比例 < 20% ③ 20% < 比例 < 30% ④ 30% < 比例 < 40%

- ⑤40% 《比例 < 50% ⑥ 50% 《比例 < 60% ⑦ 60% 《比例 < 70% ⑧ 80% 《比例 < 90%
- ⑨90%≤比例<100%

# Part3. 关于贵公司的物流组织。

- Q14. 贵公司赋予物流管理业务部门的地位。
- ①与生产部门、销售部门平行的独立职能部门
- ②隶属于营销部门
- ③隶属于制造部门
- ④隶属于经营管理/会计部门
- ⑤跨部门的小组 (cross-functional Team)
- ⑥在各个机能部门、生产部门、经营网点内分散管理物流相关业务,因此没有设置总括物流业务的明确的、独立的机构。
- ⑦将物流业务全面委托给了物流子公司,所以公司内部没有设置管理物流业务的部门。
- ⑧将物流业务全面地委托给了同企业集团旗下的物流专业公司或 3PL 企业,所以公司内部没有设置管理物流业务的部门。
- ⑨其他(具体的:
- Q15. 贵公司的物流部门或全面承接贵公司物流业务的物流子公司、3PL 企业的具体业务范围。(可多选)
- ①干线运输 ②二次·末端配送 ③保管、储藏 ④库存管理、库存计划的制定 ⑤订单处理
- ⑥物流信息的传输 ⑦流通加工 ⑧包装 ⑨装卸、出货准备 ⑩采购(进货)物流

退货,废弃物等的逆向物流 @促销品物流 需求(或出货量)预测 供求调整

物流成本管理 @推动物流设施网点的完善及网点的重建 @配备物流信息系统并改进

报关等的进出口关联业务 物流专业公司的选定和管理等

其他(具体的:

- **Q16.** 关于来自日本母公司的物流部门或物流子公司的人力支援的状况。在以下的项目中,请选择符合贵公司的状况选项。(可多选)
- ①从物流部门设立之初,日本母公司就一直派遣物流专业人材担任物流部门的负责人。
- ②只是在物流部门成立之初,日本母公司派遣物流专家。之后,全部交给本土职员运作。
- ③虽然物流部门的负责人(含兼任)是日本母公司的派遣职员,不过,却是物流领域以外 (譬如,销售和会计、信息等)的专家。
- ④虽然没有常驻的物流专家,不过,日本母公司的物流部门会根据贵公司的请求派遣物流专家出差来进行 技术指导和解决问题。
- ⑤物流部门全部由本土职员构成,依靠他(她)们自身的努力和智慧来运作和发展。没受到来自母公司特别的人力支援。
- ⑥虽然物流部门的负责人是本土职员,不过,他(她)曾在日本母公司的物流部门,物流子公司进修过。
- ⑦由于集团公司在华的物流业务汇总到中国地区总部的物流部门·物流子公司,没有特别从母公司引进物流技术。
- ⑧大部分的物流业务外包给特定的日资专业物流企业,从承包方获得必要的信息和知识。没有特别从母公司接受关联知识。
- ⑨其他(具体的:
- Q17. 在物流管理人员这方面,贵公司认为目前最大的问题是。

- ①没有常驻的精通物流的日本专门人才。
- ②在中国,物流相关的专业人材缺乏,难以聘用到合适的物流人才。
- ③公司内部还没有形成培养物流相关人才的体制。
- ④聘用的本土的物流人才,流动性强,容易流失。
- ⑤物流管理业务的担当者因为在公司内部的地位很低,促使他们成为物流专业人才的动机低。他们更期望调换到其他部门(销售、制造),而不是固定在物流部门。
- ⑥其他(具体的: )

#### Part4. 关于贵公司的物流信息系统。

- Q18. 贵公司接受订单的主要手段。 (可多选)
- ①电话接受订单 ② FAX 接受订单 ③ E-mail 接受订单 ④EDI·EOS 接受订单
- ⑤专用网页接受订单 ⑥销售人员谈判接受订货
- ⑦其他(具体的: )
- **Q19.** 贵公司的各单位之间(总公司办事处,工厂,营销网点,物流中心等)的主要的物流信息传递手段。(可多选)
- ①电话·FAX ②专用的数据通信线路 ③基于 Web 的 WAN ④ E-mail
- ⑤票据、每月·每周等的纸媒体报告
- ⑥其他(具体的:
- Q20. 关于贵公司引进的(包含引进中) 物流相关的信息系统。(可多选)
- ①SCM(需求预测,供求调整等)②ERP(企业资源计划系统)③WMS(在库管理,仓库管理等)
- ④TMS(运输配送管理,货物追踪管理等)⑤ ATP·CTP(交货期回答等)⑥订单处理系统
- ⑦出货·采购的数据库的构建
- ⑧其它(具体的: )
- Q21. 关于贵公司引进的(包含引进中)物流相关的信息系统是哪类 IT 供应商?
- ①母公司的 IT 部门 ②母公司旗下的日本 IT 供应商 ③在华的日资 IT 供应商
- ④日资企业以外的外资 IT 供应商 ⑤中国本土的 IT 供应商
- ⑥其他(具体的:
- Q22. 贵公司认为引进的物流相关的信息系统的功能如何?
- ①非常充实 ②具有一般的功能 ③不好评价 ④还不够充实
- ⑤不具备必要的最基本的功能,甚至可能给物流活动带来障碍。
- Q23. 贵公司认为引进的物流相关信息系统的效果
- ①效果非常显著。②有一定的效果。③效果有限。④几乎没有效果。
- ⑤不仅没效果,反而带来了业务上的障碍、负担。
- 选了①②③任意一个的请您接着回答 Q24。选了④或者⑤请直接回答 Q25。)
- **Q24.** (在 Q23 选了①②③任意一个的请回答本题。)贵公司通过引进的物流相关的信息系统产生了什么样的效果? (可多选)
- ①物流总成本降低 ②库存管理的一体化 ③库存量降低 ④短缩了交货/配送提前期

⑥基于信息共享上的物流和其他各个功能(采购、制造、销售等)的灵活调整
⑦提高了物流现场作业的效率 ⑧减少了物流现场作业错误
⑨其他(具体的: )
Q25. (在 Q23 选了④或者⑤的请回答本题。) 阻碍贵公司引进的物流信息系统发挥效果的主要原因是什么?(可多选) ①因为引进的信息系统不适应公司内部的业务流程和习惯做法。 ②因为公司内部没有精通信息系统的人才,还不能将系统运用自如。 ③因为原本就没有引进信息系统的必要。 ④因为引进的信息系统是不完整的,只能部分使用。 ⑤其他(
Part5. 关于贵公司的物流渠道、物流网络。
Q26. 从贵公司到客户的商品配送过程中,平均通过中转节点的数量。 ①没有(直送客户) ②经由 1 次 ③经由 2 次 ④3 次以上 ⑤经由中转节点和直送并用 ⑥其他(具体的: )
<b>Q27.</b> (在 <b>Q26</b> 选⑤的请回答)中转配送和直送各占的比例。 中转配送%直送% 其他(
<b>Q28.</b> 贵公司利用的物流节点(仓库、物流中心、配送中心、货物中转站、转运中心等)的数量 ①1 处 ②2 处 ③3 处 ④4 处 ⑤5 处 ⑥6 处~9 处 ⑦10 处~19 处 ⑧20 处及其以上
Q29. 贵公司利用的各类型物流设施的数量。 ①本公司仓库(本公司保有、本公司运营)所 ②租赁仓库(租赁的仓库・本公司营运)所 ③营业仓库(将保管等的现场作业外包给营业仓库业从业者)所 ④其他(具体的: )所
Q30. 贵公司在选择外部物流设施的时候最重视的要素是什么? ①费用水平 ②位置的交通便利性 ③设施内的仓储设备、装卸设备的现代化 ④内部布局是否适当,是否干净 ⑤有无承接过同类商品的经验 ⑥网络的覆盖范围与充实度 ⑦ 保管和装卸等的现场作业的能力、业务品质 ⑧快速且准确的信息提供能力⑨除了保管,还包含在库管理、运输配送、流通加工等的综合性、增值性业务的操作能力 ⑩其他(具体的:

④提高了配送提前期的可靠性和稳定性 ⑤需求预测的精度的提高

Q32. 贵公司所有的物流据点的总平均库存天数。

- ①<1 周 ② 1 周 < 总平均库存天数<2 周 ③ 2 周 < 总平均库存天数<3 周
- ④ 3 周≤总平均库存天数<4 周 ⑤ 4 周≤总平均库存天数<5 周
- ⑥ 5 周 ≤ 总平均库存天数 < 2 个月 ⑦ 2 个月 ≤ 总平均库存天数 < 3 个月 ⑧ ≥ 3 个月

#### Q33. 贵公司对现在的物流网络满意吗?

- ①满意。②从某种程度上来说满意。③需要进行适当的重新规划和调整。④需要大幅度重新规划和调整。
- ⑤需要彻底重新规划调整。

#### Q34. 贵公司如果重新规划现在的物流网络,准备怎样进行(基本方针)? (可多选)

- ①集约化方向:整合、撤销、合并物流节点,压缩总量库存。
- ②分散化方向:增加配送中心,以更接近市场。
- ③现代化方向:引进物流设备和信息系统,强化物流设施内的各项功能,提高作业效率。
- ④复合化方向:将保管和在库管理以外的功能(譬如:验货、检针、组装、修理、订单处理、退货处理、贴标签、贴条形码和 RFID等)也放在物流节点内做
- ⑤共同化方向:通过整合集团内各企业的物流业务,从而提高仓库利用率和运输配送车辆的装载率;或者推动与同行业其他公司的共同物流。
- ⑥其他(具体的: )

# Part6. 关于贵公司的物流运作。

- Q35. 贵公司外包给外部专业物流企业的物流作业是哪类型业务。(可多选)
- ①干线运输 ②二次・末端配送 ③流通加工 ④报关 ⑤货代 ⑥采购(进货)物流
- ⑦逆向物流(静脉物流)⑧促销品物流 ⑨仓库・物流中心的营运・管理

⑩其他(

- Q36. 贵公司直接采用的专业物流企业的数量。
- ①1 家公司 ②2 家公司 ③3~5 家公司以下 ④6~9 家公司 ⑤10 家公司及其以上
- Q37. 贵公司的直接利用的专业物流企业的类型。
- ①全部是日资物流企业 ②全部是日资以外的外资企业 ③全部是本土企业 ④本土企业和日资企业并用 ⑤本土企业和日资以外的外资企业并用
- ⑥其他(具体的:
- Q38. 贵公司和专业物流企业的合约形态。
- ①不写明合同期间,任何时候都可以更换承包者。
- ②合约期间为半年,在这期间,慎重考虑是否更新合同。
- ③合约期间为1年,期满时如果双方没有异议自动更新。
- ④合约期间为多年(2年以上)如果双方没有异议自动更新。
- ⑤其他(具体的: )

#### Q39. 由哪个部门来选定外包的物流企业?

- ①日本母公司的相关部门 ②贵公司的经营管理层③贵公司的物流部门④贵公司的营销部门
- ⑤贵公司的采购部门 ⑥贵公司的特别小组(譬如,推进物流业务外包的特别小组)
- ⑦贵公司的各营销网点 ⑧贵公司的各生产单位

⑨其他(具体的: )

- Q40. 贵公司在选择专业物流企业的时候,最重视什么? (可多选)
- ①能提供的服务范围(譬如,是否能提供复合性、综合性的物流服务)②能提供的服务在地理的广阔性、网络性(譬如,在资质、执照持有和营运能力等方面不会限定在某一地域,能广域性地提供服务)
- ③有无同类产业的物流受托经验④解决方案设计能力、物流规划能力⑤成本、费用水准
- ⑥企业规模和实力(譬如,卡车数·吨位,卡车质量,物流设施的面积,设施的水平和质量,持有资质、许可证的种类和数量,装卸设备,工作人员数,年销售额,收益力等)
- ⑦业务质量(譬如,交货期遵守率,库存差异,事故率,错误率,在业界的评价等) ⑧经营者的热情和意识 ⑨ 信息提供能力,信息系统的构筑状况⑩工作人员的职业道德观和服务精神⑪其他(具体的:
- Q41. 贵公司自己完成的物流业务(企业自营物流业务)。 (可多选)
- ①干线运输 ②二次·末端配送 ③流通加工 ④报关 ⑤货代 ⑥采购/进货物流
- ⑦逆向物流(静脉物流)⑧促销品物流 ⑨仓库・物流中心的营运・管理

⑩其他( )

- Q42. 贵公司今后物流业务的方针,是外包还是自营。
- ①打算一揽子外包给值得信赖的日资 3PL 企业。
- ②打算扩大给优秀的本土 3PL 企业的外包业务。
- ③打算强化企业内部的物流部门,或设立物流子公司,尽量自己完成物流业务。
- ④打算利用外包和内部物流的各自优点,分别采用于不同的物流业务。
- ⑤打算基本上采取外包的方针,但不依靠特定的 3PL 企业,业务外包给多个专业物流企业
- ⑥其他(具体的: )
- Q43. (在Q42选⑤的请回答。)外包给多个专业物流企业时,以什么标准来划分外包范围?
- ①按地域划分 ②按运输路线划分 ③按运输方式划分 ④按销售渠道划分 ⑤按(生产和销售)单位划分 ⑥按产品群划分 ⑦按物流活动(保管、运输、货代、流通加工等)划分

⑧其他(具体的: )

- **Q44.** 贵公司支付的物流费用 (支付给外包公司的部分、也包含承包业务的物流子公司) 与销售额的大致比例。
- ① <1% ② 1% ≤比例 <3% ③ 3% ≤比例 <5% ④ 5% ≤比例 <7% ⑤ 7% ≤比例 <10%
- ⑥ 10%≤比例<15% ⑦ 15%≤比例<20% ⑧ 20%~≤比例<30% ⑨ ≥30%
- Q45. 贵公司自身大概的内部物流费(支付物流费以外的物流相关成本)与销售额的比例。
- ①<1%② 1%≤比例<3% ③ 3%≤比例<5% ④ 5%≤比例<7% ⑤ 7%≤比例<10%
- ⑥ 10%≤比例<15% ⑦ 15%≤比例<20% ⑧ 20%~≤比例<30% ⑨ ≥30%
- Q46. 贵公司的交货提前期(lead time)(接受订单到交货的时间,Order Cycle Time)。
- ①12 小時以内 ②12 小时~24 小时以内 ③24 小时~36 小时以内 ④36 小时~48 小时以内
- ⑤48 小时~72 小时以内 ⑥72 小时~96 小时以内 ⑦96 小时~100 小时以内
- ⑧100 小时以上 ⑨其它(具体的:
- Q47. 贵公司的交货提前期(lead time)的遵守率(在约定的 lead time 内能配送的大概比率, On-Time

#### Delivery).

- ①100% ②98%<遵守率<100% ③95%<遵守率<98% ④90%<遵守率<95%
- ⑤85%<遵守率<90% ⑥80%<遵守率<85% ⑦70%<遵守率<80% ⑧70%以下

Q48. 贵公司的平均订单履行率(交货品种数和数量÷接受订货品种数和数量×100%, Order Fill)。

- ① 100% ②98% <履行率 < 100% ③95% <履行率 < 98% ④90% <履行率 < 95%
- ⑤85% < 履行率 < 90% ⑥80% < 履行率 < 85% ⑦70% < 履行率 < 80% ⑧ < 70%
- Q49. 贵公司成品的平均库存周转率(Finished Goods Inventory Turns)。
- ①3 次以下/年 ②3-5 次/年 ③6-7 次/年 ④8-10 次/年 ⑤11-15 次/年
- ⑥16-20 次/年 ⑦21-30 次/年 ⑧30 次以上/年
- **Q50.** 贵公司的物流现场中,破损、遗失、误选、错送、数量不符之类的错误发生比率(错误商品的数量÷处理数量)。
- ①1/1000 以下②1/5000 以下③1/10000 以下④1/20000 以下⑤1/50000 以下⑥1/100000 以下
- ⑦其它(具体的)

#### 问卷调查到此结束。真诚地感谢您的合作!

西南交通大学物流学院 毛敏 日本富山大学经济学部 李瑞雪

610031 四川省成都市二环路北一段 111 号 日本国 930-8555 富山市五福 3190

电话: 028-87601148 电话: 0081-76-445-6492 Fax: 028-87601148 Fax: 0081-76-445-6419

E-mail: <a href="mailto:swjtumm@sohu.com">swjtumm@sohu.com</a> E-mail: <a href="mailto:liruixue@eco.u-toyama.ac.jp">liruixue@eco.u-toyama.ac.jp</a>

# References

- Byrne P. M. Supply Chain Mastery: One Key to Success in China. Logistics Management 2006; 45, 7; 30-32.
- Hong J, Chin A T H, Liu B. Logistics Outsourcing by Manufacturers in China: A Survey of the Industry. Transportation Journal; Winter 2004; 43, 1; 17-25.
- Hong J, Liu B. Logistics Development in China: A Provider Perspective. Transportation Journal; Spring 2007; 46, 2; 55-65.
- Jabns C, Moser R, Lockstrom M. Taking Supply Chain Management in China to the Next Level. Supply & Demand Chain Executive; Aug/Sep 2006; 7, 5; 40-41.
- Jiang B, Prater E. Distribution and logistics development in China: The revolution has begun. International Journal of Physical Distribution & Logistics Management 2002; 32, 9/10; 783-798
- Kerr J. 10 Key Challenges for the Chinese Logistics Industry. Logistics Management; Feb 2005; 44,2; 64-68.
- Teagarden M. B. Sino-U.S. Joint Venture Effectiveness. Unpublished dissertation, University of Southern California; 1990.
- Pearson J N, Carter J R, Li P. Alliances, Logistics Barriers, and Strategic Actions in the People's Republic of China. International Journal of Purchasing and Materials Management; Summer 1998; 34, 3; 27-36
- Wang Q, Zantow K, Lai F, Wang X. Strategic postures of third-party logistics providers in mainland China. International Journal of Physical Distribution & Logistics Management 2006; 36, 10; 793-819
- Lin C Y. Factors affecting innovation in logistics technologies for logistics service providers in China. Journal of Technology Management in China; 2007; 2, 1; 22-37.
- Li R (李瑞雪) 中国進出日系企業の物流採点――日系製造企業に対するアンケート調査から:第1回 製造より100倍難しい物流, Logistics Planning. Sep 2006a; 52-55
- Li R (李瑞雪) 中国進出日系企業の物流採点――日系製造企業に対するアンケート調査から:第2回 日系企業86社の物流状況を調査, Logistics Planning. Oct 2006b; 70-73
- Li R (李瑞雪) 中国進出日系企業の物流採点――日系製造企業に対するアンケート調査から:第3回 拠点集約で在庫圧縮・コスト低減優先, Logistics Planning. Nov 2006c; 70-73
- Li R (李瑞雪) 中国進出日系企業の物流採点――日系製造企業に対するアンケート調査から:第4回 輸配送は外部、センター運営は内部化の傾向, Logistics Planning. Dec 2006d; 54-57
- Li R (李瑞雪) 中国進出日系企業の物流採点――日系製造企業に対するアンケート調査から:第5回 見えてきた「現地化」と「在庫」戦略, Logistics Planning. Jan 2007a; 81-83
- LiR(李瑞雪) 中国進出日系企業の物流採点――日系製造企業に対するアンケート調査から:第6回「現地化」と「延期化」でさらに変化へ、Logistics Planning. Feb 2007b; 68-70