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**A Study of the Significance of Relationship Risk
Management in Third Party Logistics in Small &
Medium Businesses in Tianjin, China**

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ABSTRACT

The aim of this research is to study the significance of relationship risk management between third party logistics providers (3PL) and small to medium sized businesses (SMBs) in Tianjin, thereby identifying the problems and improvement opportunities within 3PL's in Tianjin's SMB environment. According to the factors analysed, this study reveals the 3PL provider users perspective and looks to identify the improvement opportunities in the Tianjin SMBs environment.

The empirical research is used to explore the current implementation of 3PL industry in Tianjin; it also expresses which 3PL service is the most efficient; investigates the reasons for outsourcing to 3PL's or not outsourcing to 3PL in Tianjin SMBs as the case may be; investigates the future opportunity of the 3PL industry in SMBs in Tianjin; analyses their perspectives and current problems; reveals the importance of Guanxi in relationship management for solving problem in 3PL; investigates how they build Guanxi for their business; expresses tends of selecting a Guanxi in future; and identifies the future plan of using Guanxi in 3PL industry in Tianjin.

The results showed that use of 3PL has been widely accepted by Tianjin SMBs, and road freight is most efficient model in Tianjin. Moreover, currently, Guanxi still plays a significant role in relationship management in 3PL industry in Tianjin. With a high level of a large number of users are likely to maintain and moderately increase the use of international 3PL. However, treating usage of Guanxi in future, local companies are likely to slightly decrease the usage of Guanxi, foreign companies would keep high usage and increase to use Guanxi in their 3PL purpose.

The results of this study provide useful information for both 3PL providers and users. Providers should be aware of the most efficient services, the potential trends and develop their capabilities according in terms of these future requirements. The experience of the companies in this study also provides insights as to the benefits of the current development and how to address the problems in the future.

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Chapter 1 - INTRODUCTION

1.1 Introduction

This chapter sets out the background of the subject to provide a general overview of the study undertaken. The aim is to study the significance of relationship risk management between third party logistics providers (3PL's) and Small and Medium sized Businesses (SMBs) in Tianjin. The objectives and methodology for this research are based on reviews of previous research in similar circumstances and relevant papers. However, this research is bounded by limitations that are identified and explained subsequently.

1.2 The growth of third party logistics

Cheong (2006) stated that logistics has been an important part of every economy and every business entity. The worldwide trend in globalisation has led many companies to outsource their logistics function to 3PL providers, so that they can focus on their core competencies. Outsourcing has increasingly become a powerful alternative solution to the traditional and vertically-integrated firm where logistics is handled internally.

Knocept Analytics (2011) indicated that the 3PL provider is an integral part of the overall transportation and logistics services within an organisation, which in turn is driven by the global economic conditions. A report published by Fedex (2006) announced Western Europe invested more funds (65%) into use of 3PL's than Northern America (49%) and Asia (50%), and 32% of Asian enterprises outsource their logistics service function to 3PLs. In Europe the rate is 29%, in Northern America the number is 16%, which shows use of logistics outsourcing in Asia is more active than other areas of the world. Around the world, more than 70% of enterprises endeavour to outsource their logistics service function to 3PL's, because it has frequently been found to reduce

costs and shorten the order cycle period.

The global third party logistics market registered an impressive growth until 2008, but the trend dived in the year 2009 responding to the global economic recession and plummeting trade volumes. However, the economic revival has reflected a growth in overall logistics as well as the 3PL market.

1.3 The importance of “Guanxi” in relationship management

Nowadays, 3PL's play an important role for businesses operating in China. Like much of the world, there are more than 70% of businesses considering outsourcing of their logistic functions to 3PL providers. The relationship between business and a 3PL is like a bridge connecting the two parties. In China, “Guanxi” is the most significant aspect of performance management in any business relationship. Therefore, it is critical to explore the significance of Guanxi in relationship management.

Guanxi is a complicated area. A special feature of doing business in China will be Guanxi. It includes relationships with government bodies, investors, partners and even the relationship with company staff. For foreign investors doing business in China, it is therefore important that they learn to coordinate with the likes of the China government, especially focusing on establishing good relationships with the government to deal with foreign trade and economic cooperation (Lee, 2010)

The logical development of close relationships is the Chinese concept of Guanxi. According to Tim Amber business analyst of the London Business School, the kernel of Guanxi is doing business through value-laden relationships. In a highly centralised, bureaucratic state, the use of personal contacts was the only way to get things done. However, Chinese who are familiar with Guanxi are more cautious than foreigners. The obligations of Guanxi are very real. In the wrong place, at an inappropriate time, with unsuitable people, the obligations can become a trap that is hard to escape from. Therefore, doing business in China, companies not only have to focus on outsourcing

some logistic functions to 3PL providers, but also need to build and maintain a good Guanxi with them.

1.4 Problem definition

The world economy decreased significantly from 2009 until now. Although the economy has started to recover, this has been slow and it is yet to reach pre crash levels. In contrast, the Chinese economy through this period has still managed to maintain a positive growth trend albeit small. Since the period of Chinese economic reform, China has become a huge potential market in the world. More and more countries have developed their trade relationships with China. Therefore, the 3PL industry has begun to play a significantly more important role in the relationship for international companies looking to trade in China.

According to Chinese business culture, Guanxi makes connection between businesses, especially within the relationship of 3PL's. Additionally, supply chain management is a new fast growth industry in China and there are now numerous businesses attempting to gain a share of the 3PL market. China has large and diverse geographic spread with many different cities each operating differently. This research cannot analyse every city in China under this topic. This study selected Tianjin, because it is an important heavy industrial city in China. Tianjin has the second largest port in China and its location is critical for reach into the west and north of China.

Nevertheless, there appears little detailed research that has been conducted about 3PL's in Tianjin. One study made by Yizhi Lu and John Dinwoodle (2002) was to investigate comparative perspectives of logistics services in China. They did in-depth interviews with several logistics services suppliers to find out China logistics industry perspectives. Additionally, there has been no comprehensive study reported in the literature that has focused on implementation of 3PL's in Tianjin and Guanxi in relationship management between 3PL's and SMB's in Tianjin.

In the last two decades, a lot of survey-based papers have been published in the academic journals to investigate the development situation and problems of 3PL in China. These studies have been carried out and published in academic journals (Lei, 2004), professional magazines (China 21st Century Logistics Times), academic thesis (Hong & Li, 2007), professional research (Dai & Wang, 2003) etc. Moreover, these studies have looked to identify the major issues, industry dynamics, current status and future prospects of the freight forwarding and 3PL industry from both users and service providers perspectives. However, most of these studies are descriptive in nature and statistical analysis of survey data is not involved.

Due to such lack of information, this study is designed to investigate the significance of relationship risk management in the 3PL industry in Tianjin. This thesis reports a survey of the Tianjin 3PL industry from the perspective of service users, and tries to address the concerns about descriptive and statistical analysis to provide deeper understanding

1.5 Aims and objectives

The aim of this research is to study the significance of relationship risk management in Tianjin and to identify the improvement and problems of 3PL in Tianjin SMB's environment. In order to achieve the goals of this research, the following supporting objectives are established.

Objective 1: To reveal characteristics of current 3PL implementation;

Objective 2: To reveal the reasons of using 3PL in SMBs in Tianjin;

Objective 3: To study the significance of relationship risks management (Guanxi);

Objective 4: To study the status of trust management applied to 3PL relationship management in SMBs in Tianjin;

Objective 5: To evaluate the satisfaction level of 3PL implementation; and

Objective 6: To understand the future plan of using 3PL providers and Guanxi in SMBs in Tianjin.

1.6 Limitation of study

This research focuses only on third party logistics relationship risk management in SMB's, and the location is limited to Tianjin. Moreover, this research study employs a convenience sample. It is prone to various biases and is not a generalised study. This study therefore is not a representation of the true population due to the limitation of funds and timeframe.

Chapter 2 – INDUSTRY REVIEW

2.1 Introduction

The term 3PL is now widely used. Freight forwarders, who have traditionally facilitated transport, are now being absorbed into the 3PL definition by offering extended services (Markides and Holweg, 2006). This chapter provides a brief history and current trends of 3PL industry. One of the most important elements in this chapter is the recognition of the current development situation and future plans of 3PL in SMBs in Tianjin. The aim is to explore the basic knowledge of implementation of 3PL. The discussion of industry review also focuses on similar 3PL implementation situation across the world.

2.2 Brief history of 3PL industry

The start point and history of 3PL can provide good understanding of 3PL. The background information of 3PL can be the beginning point that gives people a general idea of 3PL's. Understanding the history of the 3PL industry helps in analysing today's 3PL industry and in forecasting the future for the industry.

List (2010) revealed that the beginning of 3PL can be traced to the 1970's and 1980's as companies outsourced more and more logistics services to third parties. Over time these third party logistics services providers expanded their services to cover specific geographies, commodities, modes of transport and integrated their existing warehousing and transportation services that we now know as "3PL". In the 1980's, with the exception of a few companies with degrees of integration, for the most part the industry was largely separated. There were trucking companies, the railroads and then there were storage companies.

Another important stage in the evolution of the modern 3PL's was the use of IT for shipment tracking and warehouse management during the 1980's and into the 1990's.

Today, technology is among the core competitive advantages of 3PL providers. Not only do they integrate providers of warehousing and transportation services, but they leverage sophisticated logistics software and inventory management technologies.

2.3 Introduction of 3PL

Economic situations of the time affect all business activities in the world. Following the changes to the world economy over recent years, many businesses have looked to include a strategy that leverages the benefits of use of 3PL's. Therefore, before studying the implementation of 3PL in various parts of the world, it is essential to investigate the features of worldwide economy.

2.3.1 Worldwide economy

- Recent economic development

The world economy is a vital resource for researchers, analysts and policy-advisors interested in trade policy and other open economy issues, embracing international trade and the environment, international finance, and trade and development (ISI Journal Citation Reports Ranking, 2008).

World Bank Report (2011) indicated that the global recovery continued robustly during the final months of 2010 and into early 2011. Vibrant domestic demand in developing countries, reduced drag on growth from a recovering financial sector, and improved labour market conditions in several high-income economies, helped to overpower the influence of a gradual tightening of monetary and fiscal policies, rising commodity prices, the political turmoil in the Middle-East and North Africa, and the natural disaster and nuclear catastrophe in Japan (Thomson & Reuters, 2011).

Figure 2.1 shows, after making a pause in the third quarter of 2010, industrial production in both high-income and developing countries expanded at more than 15% annualised rate toward the end 2010. Output once again began to slow in the first

quarter of 2011. But there was a recent fading in world industrial production growth from a 15% annualised pace in February to 8%.



Figure 2.1 Global industrial production (Source: World Bank, Thomson/Reuters, 2011).

In addition, The World Bank study (2011) stated that the expansion of global demand has been more stable than that of industrial production. GDP for the high-income and developing countries for which quarterly data that are available indicates that aggregate demand continued to expand during the last half of 2010 and into the first quarter of 2011 – albeit at a slower and more sustainable pace than earlier. By the final quarter of 2010, demand had caught up and industrial activity growth accelerated once more.

- Global growth of economy

From 2009 until now, most countries in the world have suffered significant pain from the crashing global economy. But from 2011, there have been signs of economies of many countries have started to recover. Global growth is now expected to be slow but remain robust. By understanding the growth of today's economy it is possible for companies to adjust their 3PL strategies.

The World Bank report (2011) showed that the global recovery has broadened to encompass more firms, more countries and more components of aggregate demand. Improving labour market conditions in high-income countries and strongly expanding domestic demand in developing countries augurs well for a continued maturation of the recovery that is now almost two years old (global industrial production began picking up in March 2009). Overall, global growth is projected to ease from 3.8% in 2010 to 3.2% in 2011, before picking up to 3.6% in each of 2012 and 2013. The slowdown for high-income countries mainly reflects very weak growth in Japan due to the after-effects of the 2011 earthquake and tsunami. Growth in high-income countries is expected to remain broadly stable at around 2.5% through 2013. For developing countries growth is projected to decline from 7.3% to 6.2% between 2010 and 2012 before stabilising in 2013, reflecting an end to bounce-back factors that served to boost growth in 2010 and the tightening of monetary and fiscal policies as capacity constraints become increasingly binding.

2.3.2 Worldwide 3PL industry perspectives

The world tends to globalisation significantly recently. The 3PL industry is an active cell which connects various parts of different enterprises in the world. In the last two decades the interest in 3PL has been growing industrially as well as academically. The common perspective is to consider 3PL as outsourcing of logistics activities.

Table 2.1 shows that the most frequently outsourced activities are transactional, operational and repetitive. These include domestic and international transportation (86% and 84% across all regions), customers brokerage (71%), warehousing (68%), and forwarding (65%). In Table 2.1, the less-used activities indicated more strategic, customer-facing, and IT-intensive. Examples include transportation planning, information technology, supply chain consultancy, and customer services (Cap Gemini, 2009).

| Outsourced Logistics Services | Percentages | | | | |
|--|-------------|---------------|--------|--------------|---------------|
| | All Regions | North America | Europe | Asia Pacific | Latin America |
| Domestic Transportation | 86% | 75% | 92% | 95% | 80% |
| International Transportation | 84 | 70 | 91 | 91 | 88 |
| Customs Brokerage | 71 | 73 | 61 | 78 | 74 |
| Warehousing | 68 | 71 | 72 | 65 | 52 |
| Forwarding | 65 | 61 | 57 | 82 | 66 |
| Cross-Docking | 39 | 40 | 42 | 42 | 20 |
| Product Labeling, PKG, Assembly, Kitting | 38 | 33 | 42 | 40 | 34 |
| Reverse Logistics | 38 | 31 | 43 | 47 | 26 |
| Freight Bill Auditing and Payment | 33 | 53 | 24 | 26 | 28 |
| Transportation Planning and Management | 32 | 32 | 33 | 34 | 20 |
| Information Technology (IT) Services | 30 | 28 | 34 | 30 | 26 |
| Fleet Management | 22 | 14 | 26 | 28 | 15 |
| Supply Chain Consultancy Services Provided by 3PL Providers | 21 | 21 | 19 | 25 | 20 |
| Customer Services | 13 | 10 | 13 | 15 | 14 |
| Order Entry, Processing and Fulfillment | 13 | 12 | 8 | 20 | 15 |
| LLP/4PL Services | 12 | 10 | 12 | 17 | 6 |

Table 2.1 Shippers Currently Outsource a Wide Variety of Logistics Services (Source: Cap Gemini, 2009)

Cap Gemini (2009) explored that one of the new features of the 2009 study is that, in addition to current outsourcing, shipper respondents are also asked to provide the logistics activities that are likely to be outsourced in the future. Interestingly, many of the activities that are outsourced less often right now are prime candidates for future growth, such as product labeling, packaging, assembly and kitting; reverse logistics; freight bill auditing and payment; transportation planning and management; supply chain consultancy services provided by 3PL providers; customer services; LLP/4PL services; and order entry, processing and fulfillment.

Hoek (2000) suggests that the findings indicate the importance of transportation, warehousing and administration related services and it confirms the continuing growth of logistics outsourcing. There appears to be a weak demand for value adding solutions such as information systems, 3PL and manufacturing related services.

2.3.3 Economy status in China

In 2009, the world economic crisis started from America. Then Canada and Europe, Japan and most countries got involved in the economic crisis. However, China as a developing country still held on to a positive trend in its economy during this economic crisis. China's current economy situation influences foreign investors' business strategies and the world economy development. Therefore, the following study will analyse why China has a different economic situation.

- **Chinese economy perspectives**

Lee (2010) indicated that the economy of China is the world's second largest after the United States, with a nominal Gross Domestic Product (GDP) of \$4.99 trillion and Purchasing Power Parity (PPP) of \$8.77 trillion in 2009. China is also the fastest growing major economy in the world with an average growth rate of 10% for the past 30 years. China is the second largest trading nation in the world and the largest exporter and second largest importer of goods. China will become the world's safest and largest investment economy in the near future considering the following factors: huge market potential, rich labour resources, comparative advantage in labour cost, sound corporate governance and a stable and safe market. All these factors will further attract the inflow of foreign capital into China. In short, Chinese economy will grow even faster in the future.

Xu (2005) stated that the Chinese economy is expected to grow at an annual rate of 8% during the period of the 11th five-Year Plan. That means China will achieve its goal of quadrupling its GDP from 2000 to 2020 ahead of schedule. China has reasons to maintain rapid economic growth over the next 20 years, although the rate may decline slightly. Angresano (2009) revealed that taking into account the top priorities of China's policymakers, which has remained rapid and balanced economic growth, with a growing interest in reducing inflation, the Chinese economy has performed very well. China's real GDP growth rate has remained relatively high over the past three decades.

Inflation has increased in the past two years, although it declined modestly starting mid 2008.

- Chinese economy future trends

In the next ten years, China's economy will still increase at a rate of 7%-8%. In 2020, should price index remain the same as today, GDP will amount to RMB 38 trillion (US\$6 trillion) and per capita GDP will reach RMB 26,000 (US\$ 4,000).

However, the level of per capita GDP is still very low in China at the moment as the GDP per capita growth is slow. GDP per capita will have to be further increased in order to raise China's standard of living by bridging the present income gap between the rich and poor. Satisfaction of consumers' needs can be the main driver in raising China's living standards. Domestic demand will increase as the economy grows. Therefore extensive production of goods and services can further push and sustain the economy's growth (Lee, 2010).

Chinese labour force will get even bigger as China is urbanizing at a fast pace, changing from a rural and agricultural society to an urban and industrialized society. Through this transition, more manpower can be utilized. Urban infrastructure will be further enhanced and an increase in urban population will bring about higher consumption level, thus driving the economy further.

Lee (2010) stated that the presence of such a big market, coupled by the increase in consumption power of the population brought about by urbanization, will create greater prospects for almost every industry. Markets will become more efficient and industries will grow even faster than before. Domestic demand for goods and services, creating better opportunities for production and investment will grow.

- Status of Small & Medium size businesses (SMBs) in China

In China, SMBs have a steep growing trend. More and more foreign investors join the

3PL market as small or medium sized firms. Accompanying reform of China, more and more private businesses joint the market competition. Most of the private businesses are small or medium sized, because they have limited funds and are short of experience. News of Ministry of Industry (2011) announced that according to the results of Statistics China, 99% of China's registered businesses are SMBs. Nationwide, SMBs carry 50% of national tax income, 60% of GDP, and 80% of total employment. Therefore, in 2011, the Ministry of Industry announced a new segmentation standard of SMBs in China. It identifies that the government of China will be focused on the development of SMBs in future. Therefore, this research focuses on the SMB group of enterprises. National Development and Reform Commission (2011) concluded four features of SMBs in China.

National Development and Reform Commission (2011) concluded the four features of SMBs in China. Firstly, the enterprise size is small but reacts faster to changes. Comparing with large businesses, the most important characteristic of SMBs is that decision-making power of small-scale enterprises is highly concentrated and almost all SMBs are autonomous. The capital profit is fully reflected in the power by the enthusiasm of the operators. When reacting to changes of the market, the implementation of the right to govern the ownership and management helps to save the cost of supervision of the owner, and it also helps businesses make decisions quickly. In addition, SMBs have fewer employees, hence the organisational structure is simple, so the contribution of individuals in the enterprise can be identified easily.

Secondly, small size businesses are more focused on specific details. Due to SMBs' small scale, human, financial, and material resources being relatively limited, they are unable to operate a variety of products and spread risk. Comparing to large companies, they cannot win the competition against mass production. Hence, SMBs often invest their limited human, financial and material resources into small markets which are ignored by large companies. SMBs usually focus on improving their product

efficiency and quality continually, in order to gain a firm foothold in the market competition.

Thirdly, small size enterprises make low-volume production but are diversified. Facing to the current era of growing consumer demand for outstanding personality, consumer goods production is changing from high-volume to small-volume and diverse. Although SMBs have shortcoming of operating a single species and low productivity, they also have advantages of being located close to the market, and customers, flexible mechanism and quick response.

Finally, small size businesses have the growing power of innovation in science and technology. Nowadays, modern technology, industrial equipment technology and product development direction has two aspects: one is towards large and centralised, on the other hand towards small and decentralised. Small and decentralised production provides favourable condition for SMBs. Therefore, since the 1970s new technology-oriented SMBs have sprung up. They obtained significant success in the areas of miniature computers, information systems, semiconductor components, electronic print and new materials. There are many SMBs that rapidly grew into large companies in a few years, some examples being HP, Microsoft, Yahoo, Sony, and Xerox.

Table 2.2 shows that there are two main aspects to assess a companies' size is the number of employees, and the annual turnover of the company. Currently, in China, different industries have different standards for segmentation of company size. From the general view of Table 2.2, if number of staff is smaller than 1000 and annual turnover lower than RMB300 million (approximate US \$ 47 million), the company is in the group of SMBs. There are only few industries that have higher annual turnover and more employees, such as information technology, building, and real-estate industries.

| Industry | Number of employee | Annual turnover (¥ Millions) |
|--|--------------------|------------------------------|
| Agriculture | n/a | 200 |
| Manufacturing | 1000 | 400 |
| Building | n/a | 800 |
| Wholesaling | 200 | 400 |
| Retail | 300 | 200 |
| Transportation | 1000 | 300 |
| Warehousing | 200 | 300 |
| Postal | 1000 | 300 |
| Accommodation | 300 | 100 |
| Catering | 300 | 100 |
| Information technology | 2000 | 1000 |
| Software and information technology services | 300 | 100 |
| Real-Estate developing | n/a | 2000 |
| Property management | 1000 | 50 |
| Rental and business services | 300 | 1200 |
| Others | 300 | n/a |

Table 2.2 Standard number of employees and annual turnover of different SMBs in China (Source: Ministry of Industry China, 2011)

2.3.4 3PL industry development in China

The last decade has witnessed dynamic changes in business logistics requirement. However, firms, or logistics users, often lack the competence to operate logistics activities internally while facing increased global competition and higher customer expectations. Thus, an increasing number of companies are outsourcing their logistics activities to 3PL firms so that they can concentrate on their core competencies (Sanders et al. 2007; Vaidyanathan 2005) and achieve competitive advantages by providing customers with superior services (Arroyo et al., 2006). National Bureau of Statistics (2007) stated that as the largest emerging economy in the world (Zhao et al., 2006), China has become a global manufacturing centre with its rapid economic boost of nearly 10% annual GDP growth in the last decade.

Therefore, the logistics industry in mainland China is an emerging industry and 3PL

provider in mainland of China are for the most part new entrants with concerns about low profit margin, lack of qualified logistics personnel, and intense competition from the local market. Thus, they emphasise providing good services in terms of design and performance. In addition, 3PL providers in mainland China put more emphasis on training workers (Wang et al., 2008).

China entering into the World Trade Organisation (WTO) was a critical factor. This committed the country to greater liberalisation in domestic 3PL industry which allows foreign companies to operate wholly owned logistics units (Huang & Kadar, 2009).

- Future opportunities of 3PL industry

As the largest emerging economy in the world, China has become a global manufacturing centre with its rapid economic boost of the nearly 10% annual GDP growth in the last decade creating many potential opportunities.

Frost & Sullivan (2005) indicated that in the move to encourage further investments, the Chinese Government has begun to change regulations and simplify the operational processes. In addition, China's entry into the World Trade Organisation (WTO) has created the liberalisation in the domestic logistics sector, allowing foreign companies to operate wholly owned logistics units since December 2004.

Frost & Sullivan (2005) stated that the 2008 Beijing Olympic Games and the 2010 Shanghai Exposition required huge amount of materials and cargo to be prepared and moved locally as well as internationally. As a result, the demand for logistics was expected to rise sharply.

Frost & Sullivan (2005) indicated that the Chinese logistics industry is willing to open up to global competition and has the potential for growth despite significant challenges. While globalisation is expected to regulate this market in the following years, merger and acquisition activities are likely to provide the next step to the integration of capital, material, network, services and other resources (Frost & Sullivan, 2005). In such a

scenario, foreign logistics providers are expected to have more opportunities to develop their own strategies to obtain leadership positions in the Chinese logistics market, thus making it a highly competitive but profitable arena.

Lai & Fang (2007) showed that there is a rapid progress in Chinese economy and rapid development in the Chinese manufacturing industry. Chinese logistics infrastructure is not perfect yet and the 3PL service quality is low. If the 3PL industry improves efficiency, the manufacturing industry can achieve faster growth. With the market competition of the industry under tremendous pressure, manufacturers can no longer endure the high costs and low standard of service. Manufacturing enterprises are actively seeking for lower costs in logistics, more transparent logistics information, more reliable services and faster transport speeds. China needs expertises to meet these demands in the development of 3PL market.

- Threats of 3PL in Chinese market

Chinese 3PL market has several problems like low market concentration; 3PL companies provide single and low standard services; withdrawal from institutional barriers are large, the cost of the merger and reorganisation is high; technological innovation and technological progress of the 3PL firms are too slow; and 3PL market mechanism is quite inadequate due to asymmetric information and logistics costs (Lai & Fang, 2007).

In China, 3PL also faces some external environmental problems due to inconsistent level of control in different areas. In some areas, logistics and industrial infrastructure are uncoordinated within overall economic development and the distribution of productive forces. Also logistics infrastructure is affected by the system, for example, a lack of unified planning convergence node design is not well development and a poor universal usage of the infrastructure.

Another threat to 3PL in China is that logistics in China is lagging behind not because

of the equipment standard but due to lack of integrated logistics and coordination, such as lack of national logistics planning; difficulty in management segmentation for coordination; and the low level of professionalism in logistics community, resulting in inefficient logistics and making idle resources more serious. The logistics management cost accounted for 14% of total costs of logistics in China while that of the United States is only 3.8%. The gap in the logistics management costs reveals that there's a big difference in the logistics organisation management level between China and the United States. China pays more than most of the other western countries, because logistics is a young industry in China. This reflects that the professional standard, logistics organising ability, and logistics management standards are low in China.

2.4 Economic status in Tianjin

Tianjin is an important heavy industrial city on the Chinese coast. It is the largest industrial city in North China and also an important commercial centre and the largest port in northern China. Machine and electronic industry are the two biggest industrial departments in Tianjin, and also has textile, chemistry, metallurgical industry and petroleum industry. Tianjin has been the production and researching base of micro and mini computers. The textile products have entered the international market. Tianjin is the also the source of raw materials used in inorganic chemistry. Therefore, this study focuses on Tianjin to investigate the current status of 3PL implementation and relationship risk management in 3PL in SMBs.

2.4.1 Macroeconomic background and development planning

Hong Kong Trade Development Council (HKTDC) revealed that Tianjin is one of the four municipalities in China. Together with a number of cities including Beijing, Shenyang and Dalian, it forms the Bohai Rim Economic Circle and drives the development of its neighboring regions. The city also serves as the largest shipping hub in northern China, handling the exports of many inland cities. Figure 2.2

showed that its GDP in 2008 was RMB635.4 billion (US\$ 97.8 billion) -- a year-on-year growth of 16.5% while its per capita GDP was RMB 55,473 (US\$ 8,534).

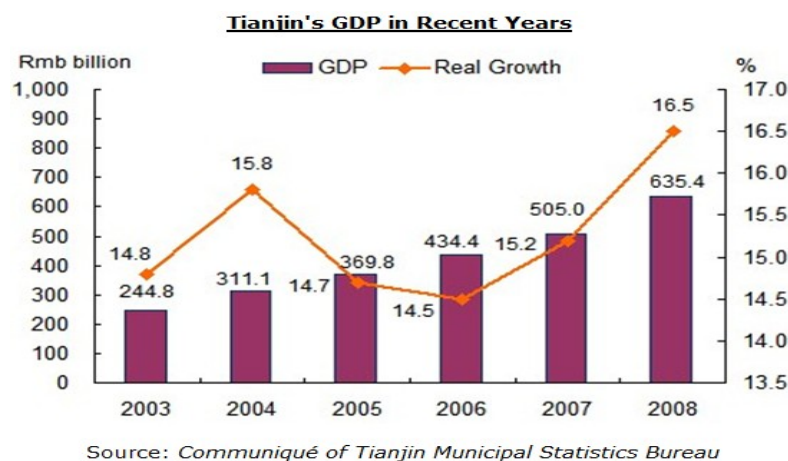


Figure 2.2 Tianjin's GDP (Source: Communiqué of Tianjin Municipal Statistics Bureau, 2009).

The Chinese government is striving for further development of the Tianjin Binhai New Area by promoting domestic and foreign investment in finance, modern manufacturing, services and information technology sectors. The aim is to develop the area into an internationalised commercial district just like Pudong New Area in Shanghai. The Binhai New Area is made up of the three administrative districts of Tanggu, Hangu and Dagang in Tianjin, as well as Tianjin Economic-Technological Development Area (TEDA), Tianjin Port Free Trade Zone, Tianjin Port and part of Dongli District and Jinnan District. With 108 key projects under six main categories planned in 2008, an investment of RMB12.1 billion (US\$1.9 billion) is earmarked for improving, in three years, the city's capabilities in water environment management, atmospheric environment management, solid waste treatment and disposal, ecological management and rural environmental protection and management. The plan is to develop Tanggu, Hangu and Dagang into ecological zones in Tianjin.

Seven leading industries have also taken shape in Tianjin Binhai New Area, namely, electronic information, car and equipment manufacturing, petroleum and marine

chemicals, modern metallurgy, food processing, bio-pharmaceuticals manufacturing, and new materials and new energy. Since 2008, a sum of RMB200 million (US\$ 31 million) is earmarked annually for rewarding and supporting the development of a green energy industry and, so far, there is a higher concentration of new energy industries in Binhai New Area than in the rest of the country. Binhai also houses over 100 domestic R&D institutions and 40 foreign-invested R&D centres. The industrial output value of high-tech products from Binhai accounts for almost 45% of the city's total.

At the end of 2008, Tianjin unveiled a set of 15 opinions on expanding domestic demand and boosting consumption, among which were opinions on market expansion, on relaxing capital requirements and procedures for enterprise registration and set up and on protecting consumer interest.

To sum up, the 15 opinions on expanding domestic demand were:

- carrying out related policy and continuously expanding the market capacity and the total number of enterprises;
- establishment emerging industries by lowering initial capital injection requirements;
- relaxing restrictions on the scope of applicants, business and investment of operator;
- relaxing restrictions on the administration of enterprise business scope registration;
- unified and centralised handling of registration for group enterprise;
- cooperating with different government departments and social organisations;
- relegating the authority of trade fairs held in the Binhai New Area;

- sales promotion activities carried out by state and private enterprise;
- protecting consumer rights and providing services;
- after-sale services under the “home appliances to the countryside” campaign;
- measures on food safety;
- raising the speed and standard of product quality inspections; and
- protecting intellectual property rights.

In early 2009, six service teams were set up by Tianjin Commission of Commerce for further advancing measures in order to stimulate the consumption and development of overseas markets. These include, for instance, the renovation and upgrading of 16 specialty commercial streets and the construction of 15 large-size commercial facilities.

2.4.2 3PL industry development in Tianjin

Because of the important location in China and the wide range of transportation in Tianjin, such as railway, road transport, port of Tianjin, and Tianjin international airport, businesses significantly emphasis 3PL activities. Therefore, this research focuses on the 3PL industry for SMBs in Tianjin. However, there are few previous studies focused on 3PL in Tianjin, so the following information shows general logistics industry in Tianjin.

China Investment Advisor associations’ report (2008) stated that 3PL industry in Tianjin obtains a huge support from the local government. The speed of building international logistics centre is more and faster in northern China. The added value of Tianjin Logistic industry grew from RMB 24.038 billion (US \$3.8 billion) in 2003 to RMB 425 billion (US \$66.5 billion) by 2007. This shows a rate of increase of 12.07%. In 2007, in Tianjin, there was 8.5% of GDP (RMB 5,018 million, approximately US

\$785 million) from logistic industry, 20.24% of the add-value (RMB 2,100 million, approximately US \$329 million) services industry. The capital cost of logistic which was 18.6% of Tianjin GDP in 2002 dropped down to 18.3% in 2007. The contribution of modern logistics industry pushes the Tianjin economy to grow constantly.

The port of Tianjin is continuously introduced to bulk cargo logistics centre, container logistics centre, bonded logistics park, international airport logistics zone, logistics centre and postal logistics centre and so on. In 2007, the Port Free Trade Zone in Tianjin reached goods turnover to 7.0172 million tons. This was an increase of 58.8% from the values of 2006. Consequently, 3PL in SMBs in Tianjin is worthy of study. In the following chapter, the study will find many previous studies and relative concepts to discuss the 3PL implementation and relationship risk management perspectives in China's 3PL market.

Chapter 3 - LITERATURE REVIEW

3.1 Introduction

This chapter provides a theoretical and empirical framework for third party logistics and relationship risk management. It begins with an examination of the general concepts of supply chain management, logistics, third party logistics, Guanxi and relationship risk management. These concepts lay the foundation for the scope of this research and also establish a vision of how 3PL services are viewed in relation to other operations of a company. Third party logistics and relationship risk management has been focused in this literature review. The literature review shows the current development situations of 3PL in Tianjin. It helps to understand the importance of 3PL industry for Tianjin's economic improvement. Moreover, from the literature review, current practices and the experience of implementation of 3PL and insight as to what the future plans are likely to be in China and Tianjin are given. This chapter states the theories and previous researches related to the formulated questions.

3.2 Overview of logistics and supply chain

A brief discussion about basic knowledge used in this study is presented below in order to understand the study topic. There are several appropriate definitions of concepts that are used in this research.

Accompanying the growth of global economy, supply chain and logistics industry obviously stands at a significant status. The 3PL is the main part of supply chain and logistics management. This study focuses on 3PL implementation in SMBs in Tianjin, but overall review of basic concepts of supply chain and logistics management is an initiate point.

3.2.1 Supply chain management (SCM)

- Definition of supply chain

A supply chain is a system of organisations, people, technology, activities, information and resources involved in moving a product or service from supplier to customer. Supply chain activities transform natural resources, raw materials and components into a finished product that is delivered to the end customers (Harland, 1996).



Figure 3.1 Supply Chain Management Network (Source: IBM research, 2006)

Figure 3.1 indicates that supply chain management (SCM) is the management of a network of interconnected businesses involved in the ultimate provision of product and service packages required by end customers (Harland, 1996). Supply chain management spans all movement and storage of raw materials, work-in-process inventory, and finished goods from point of origin to point of consumption (supply chain). Supply chain management is an important subject for global businesses and small businesses. It is vital for companies to achieve benefits. Supply chain management has different models. Different models use different functions and the following indicates the concept of supply chain management model.

- Model of supply chain management

It is important to recognise that supply chain management involves a chain of

interrelated process management. Mentzer, et. Al., (2001) showed that supply chain management is a cross-function approach including managing the movement of raw materials into an organisation, certain aspects of the internal processing of materials into finished goods, and the movement of finished goods out of the organisation and toward the end-consumer. As organisations strive to focus on core competencies and become more flexible, they reduce their ownership of raw materials sources and distribution channels, these functions are increasingly being outsourced to other entities that can perform the activities better or more cost effectively. The effect is to increase the number of organisations involved in satisfying customer demand, while reducing management control of daily logistics operations. Less control and more supply chain partners leads to the creation of supply chain management concepts. The purpose of supply chain management is to improve trust and collaboration among supply chain partners, thus improving inventory visibility and the velocity of inventory movement (Mentzer, 2001).

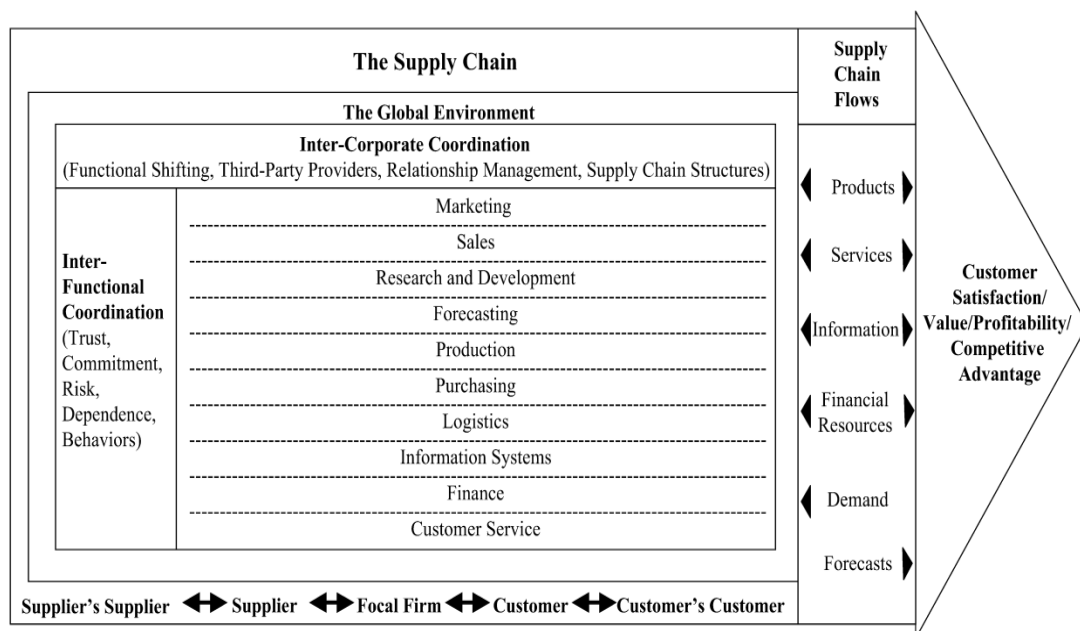


Figure 3.2 A Model of Supply Chain Management (Source: Mentzer, et. al., 2001)

Figure 3.2 indicates that a supply chain can be pictured as a pipeline and the view of the pipeline from the side shows the directional supply chain flows. The traditional business functions of marketing, sales, research and development, forecasting,

production, procurement, logistics, information technology, finance, and customer service manage and accomplish these flows from suppliers through the customers to ultimately provide value and customer satisfaction. The critical role of customer value and satisfaction in achieving competitive advantage and profitability for the individual companies in the supply chain, and the supply chain as a whole is also shown in Figure 3.2.

- Importance of supply chain management

Organisations increasingly find that they must rely on effective supply chain, or networks, to compete in the global market and networked economy. Drucker's (1998) said that new management paradigms, this concept of business relationships extends beyond traditional enterprise boundaries and seeks to organise entire business process throughout a value chain of multiple companies.

In 2008, Razamith revealed that today's business climate has rapidly changed and has become more competitive as ever in nature. Businesses now not only need to operate at a lower cost to compete, it must also develop its own core competencies to distinguish itself from competitors and stand out in the market. In creating the competitive edge, companies need to divert its resources to focus on what they do best and outsource the process and task that is not important to the overall objective of the company. SCM has allowed companies to rethink their entire operation and restructure it so that they can focus on its core competencies and outsource processes that are not within the core competencies of the company.

Nowadays, Supply Chain Management has not only allowed business to have productivity advantage but also a value advantage. Christopher (2003) expressed strategies such as reducing cost, improving service states and, productivity advantage gives a lower cost profile and also the value advantage gives the product or offering a differential plus over competitive offerings. Through maximizing added value and also reducing the cost at the same time, more innovation can be added to the product

and process. Mass manufacturing offers productivity advantage but through effective supply chain management, mass customization can be achieved. With mass customization, customers are given the value advantage through flexible manufacturing and customized adaptation. Product life cycles also can be improved through effective use of SCM. Value advantage also changes the norm of traditional offerings that is 'one-size-fits-all.' Through SCM, more accepted offerings by the industry to the consumers would be a variety of products catered to different market segments and customers preferences.

In the 21st century, changes in the business environment have contributed to the development of supply chain networks. First, as an outcome of globalisation and the proliferation of multinational companies, joint ventures, strategic alliances and business partnerships have been identified as significant success factors. These factors complement the earlier "Just-In-Time", "Lean Manufacturing" and "Agile Manufacturing" practices. Second, technological changes, particularly the dramatic fall in information communication costs, which are the significant component of transaction costs, have led to changes in coordination among the members of the supply chain network (Coase, 1998). In general, such a structure can be defined as "a group of semi-independent organisations, each with their capabilities, which collaborate in ever-changing constellations to serve one or more markets in order to achieve some business goals which are specific to that collaboration" (Akkermans, 2001).

3.2.2 Logistics

- Definitions of logistics

Mentzer (2004) stated that logistics is part of the supply chain. It is the management of the flow of goods, information and other resources between the point of origin and the point of consumption in order to meet the requirements of consumers (frequently and originally, military organizations). Logistics involves the integration of information, transportation, inventory, warehousing, material handling, and packaging, and

occasionally security. Logistics is a channel of the supply chain which adds the value of time and place utility. A third-party logistics provider is a firm that provides a one stop shop service to its customers of outsourced logistics services for part, or all of their supply chain management function. Standard 3PL provider would perform activities such as pick and pack, warehousing, and distribution, which are the most basic functions of logistics.

Jean-Paul & Markus (2001) stated that the growing flows of freight have been a fundamental component of contemporary changes in economic systems at the global, regional and local scales. These changes are not merely quantitative, but structural and operational. Structural changes mainly involve manufacturing systems with their geography of production, while operational changes mainly concern freight transportation with its geography of distribution. New modes of production are concomitant with new modes of distribution, which brings forward the realm of logistics and the science of physical distribution. Logistics involves a wide set of activities dedicated to transformation and distribution of goods, from raw material sourcing to final market distribution as well as the related information flows. The application of logistics enables greater efficiency of movements with an appropriate choice of modes, terminals, routes and scheduling.

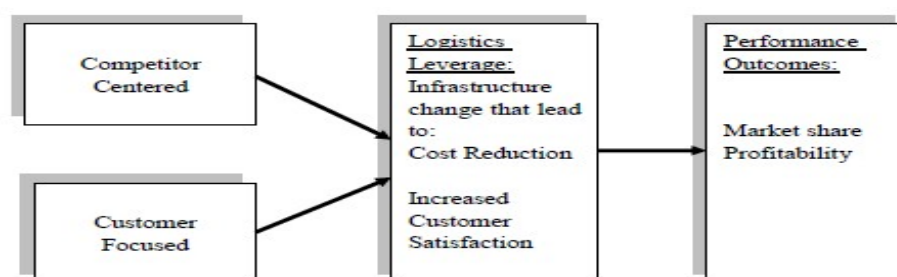


Figure 3.3 Role of logistics leverage (Source: Mentzer & Williams, 2001)

Figure 3.3 shows how the managerial focus of competitor-centred and/or customer-focused leads to logistics leverage, which in turn leads to performance outcomes. An important point to note is that following either of the strategies can achieve competitive advantage in the marketplace through logistics leverage because

logistics emphasises on both cost reduction and customer satisfaction. In fact, logistics competency as the relative assessment of a firm's capability provides competitively superior customer service at the lowest possible total cost (Mentzer & Williams, 2001).

- Importance of logistics in market

Logistics have become increasingly important over the last two decades. Over that period the conditions for doing businesses have changed significantly. Globalisation, new technologies and consumer demands have driven companies to an extremely competitive and demanding market (Rushton & Walker, 2007). The following discussion justifies that logistics bring benefits into different business.

The main objective of production logistics is to ensure that each machine at the production station is fed with correct product, in correct quantities, which are in correct quality, and at correct point of time. Logistics is not only about transporting, but it also involves simplifying the processes, adding value in the processes and getting rid of non-value ones. When it comes to business logistics, logisticians are supposed to manage either the inbound logistics or outbound logistics. A skilled logistician is known to manage various inventory administration processes, transportation, purchasing, warehousing, etc. Coordination of resources is easily taken care of in the organisation. Simply said, logistics management is an essential part of the supply chain and exclusively looks into strategising the work flow. Execution of supplies and services from the point of source to the point of destination is an attempt to meet client requirements. In fast changing times, the arrival of logistics management software helps automating the work flow and administration of the whole network becomes much easier.

In business field, the importance of logistics systems lies in the fact that it leads to ultimate consummation of the sales contract. Better and/or timely delivery helps in getting repeat orders through creation of goodwill for the supplier. Thus, as effective

logistics system contributes immensely to the achievements of the business and marketing objectives of a firm. It creates time and place utilities of the products and thereby helps in maximising the value satisfaction to consumers. By ensuring quick deliveries in minimum time and cost, it relieves the customers of holding excess inventories. It also brings down the cost of carrying inventory, material handling, transportation and other related activities of distribution. In a nutshell, an efficient system of physical distribution/logistics has a great potential for improving customer service and reducing costs (MBA Knowledge base, 2006).

Supply chain and logistics cannot be separated in business life. Outsourcing and 3PL happens every day, because most companies do not have enough energy to handle all things and nowadays all companies are involved in supply chain and logistics process.

3.2.3 Third party logistics (3PL)

- Outsourcing and 3PL

Most businesses in the world have cooperation involved in the supply chain management. Outsourcing can be focused by businesses more and more significantly. Outsourcing is the act of one company contracting with another company to provide services that might otherwise be performed by in-house employees. There is no standard definition for outsourcing and 3PL from previous study materials. However, there are still some description of outsourcing and 3PL by academic materials. For example, the Council of Supply Chain Management Professionals' glossary, reads as follows: "A firm provides multiple logistics services for use by customers. Preferably, these services are integrated, or "bundled" together, by the provider. Among the services of 3PL providers are transportation, warehousing, cross-docking, inventory management, packaging, and freight forwarding." Third-party logistics is simply the use of an outside company to perform all or part of the firm's materials management and product distribution functions. 3PL relationships are typically more complex than traditional logistics supplier relationships (David et.al. 2003). A third-party logistics

provider is a firm that provides a one stop shop service to its customers of outsourced (or “third party”) logistics services for part, or all of their supply chain management functions. The 3PL industry is a big supportive member of SCM and logistics management.

- Reasons for outsourcing to 3PL

There are many reasons that companies outsource various jobs to the third party, but the most prominent advantage seems to be the fact that it saves money. Many of the companies that provide outsourcing services are able to do the work for considerably less money, as they do not have to provide benefits to their workers and have fewer overhead expenses to worry about.

The following are some of reasons for outsourcing to 3PL (Parry & Robert, 2004):

- Globalisation: outsourcing increases globalisation and opens trade, which is beneficial to all parties by reducing costs and increasing productivity.
- Secondly, Economic Growth: outsourcing causes economies to grow due to increased productivity and globalisation. New jobs are created to fit the growing economy.
- Thirdly, Employment: many worry that pro-outsourcing policies reduce the number of jobs available to domestic workers. But, a job gained overseas does not always mean a job lost at home. The growing domestic economy will demand for more workers.

Additionally, the major pro-outsourcing countries (U.S. and Britain) already have large job turn-over rates and are near full employment. Jobs lost due to outsourcing are fairly negligible since they are reallocated in the economy.

- Anti-outsourcing consideration

Globalisation has negatively impacted the world and workers in smaller countries have been exploited by the growth of outsourcing in the global economy. Outsourcing has created concerns regarding social justice and the fair treatment of workers.

Outsourcing of jobs has destroyed local economies. The low wage workers attract jobs away from prominent local industries and workers within these industries are therefore permanently crippled as their economy is stifled.

Unemployment within outsourced sectors becomes rampant. This provides a negative effect on local workers who rely upon these industries for employment. Jobs may be reallocated but not immediately. As jobs are lost new jobs are not made immediately accessible (Parry & Robert, 2004).

- Outsource to 3PL in China

In recent years, in China, outsourcing market has been developing rapidly from no outsourcing services to broadened scope of business, such as the electronic information industry, producer services, cultural and creative industries. The target markets involved are Japan, Korea, Europe, America and India. Beijing, Shanghai and other cities have a number of international outsourcing services industry park clusters which provide significant economic benefits. Local outsourcing companies grow rapidly and gradually change the original foreign-based pattern. In China, Information Technology Outsourcing (ITO) industry is the most significant industry in this market. Therefore, ITO industry can represent Chinese 3PL market. ITO is one of the main outsourcing industries of China's software and information services, with outsourcing accounting for about 58.6%. In addition, Business Process Outsourcing (BPO) are growing rapidly at 41.4%.

Figure3.4 shows that China's ITO business types are: IT consulting, IT training, software development, software testing, application implementation, software

integration, application management and hosting facilities, software support, and hardware support. The largest proportion is the software development services. IT consulting and training has a relatively smaller share.

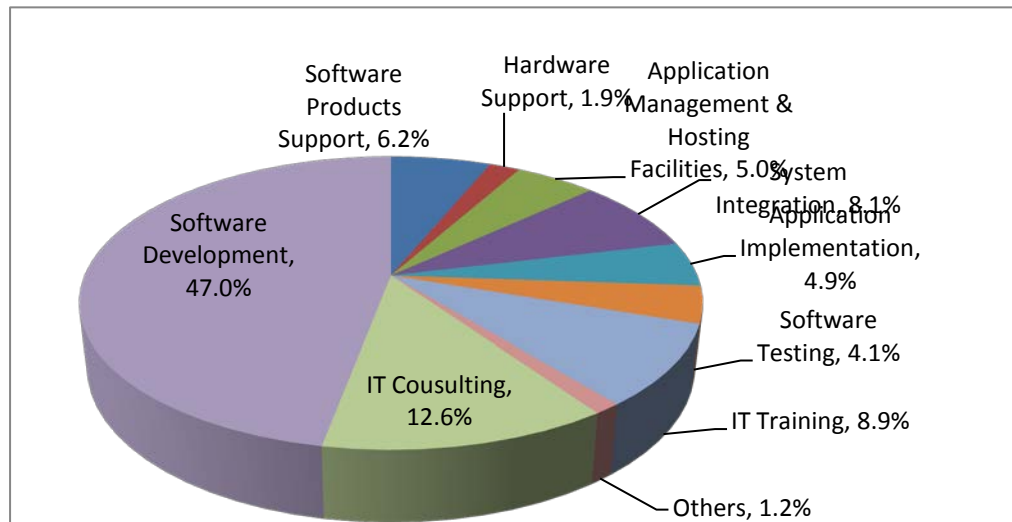


Figure 3.4 China Informational Technology Outsourcing (ITO) (Source: CSIP, 2008).

Figure 3.5 reveals that in the segment of BPO enterprises, call centre operates the highest share as 21% in 2008, followed by Research and Development business with 16.5%, marketing and sales accounting for 11.5%. Other main business segments include financial management, client relationship management, human resource management and procurement, and so on. Call centre services industry in China's BPO segment is the most mature among the various outsourcing services. Following the rapid growth of industry scale, in call centre field, the actual operating capacity and process management capabilities have to be improved. This is from another side to reflect China's overall software and information service outsourcing enterprises in the BPO field development status (China Outsourcing Magazine, 2008).

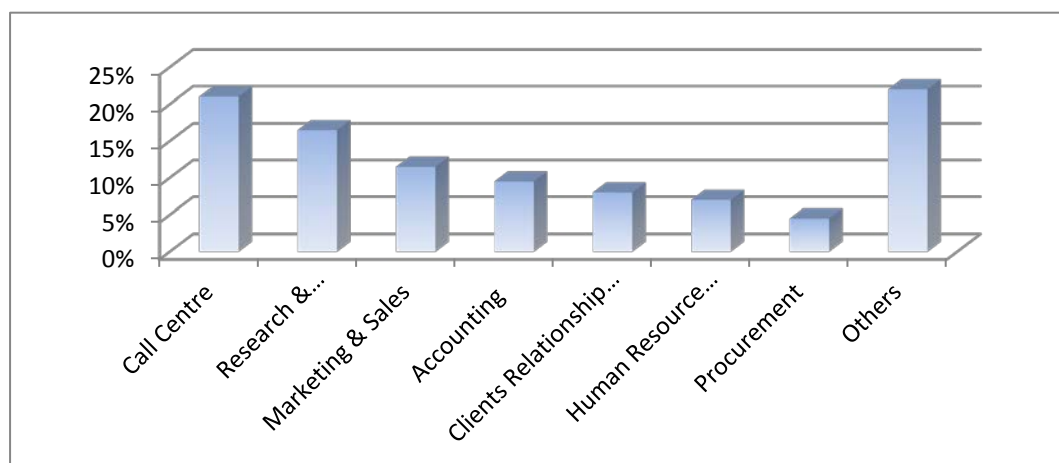


Figure 3.5 China Business Process Outsourcing (BPO) (Source: CSIP, 2008)

● Outsourcing in Tianjin

In the Development of National Economy and Society in the People's Republic of China, which was approved in 2006, it is pointed out that the development and opening of Tianjin Binhai New Area is part of the overall national development strategy of China. This important decision will surely provide great momentum and favorable conditions to boost the development of Tianjin.

During the period of the "11th Five-Year Plan", Tianjin was given priority for the development of service outsourcing and to concentrate on the establishment of a service outsourcing convergence zone with industrial groups with distinctive features. It also introduced a series of large-size outsourcing enterprises in and out of China to nurture a group of local key outsourcing enterprises which have proprietary intellectual property rights and brands.

As an authorized service outsourcing base, Tianjin formulated a series of preferential policies in land use, taxation, and talents introduction. In March 2007, Tianjin promulgated the following policies: Opinions on Tianjin Promoting Service Outsourcing Development, Provisional Regulations on Promoting the Development of Service Outsourcing in Tianjin Economic Development Zone, Methods on Awarding Investment in Huayuan Industrial Park (outside the ring) by Tianjin Hi-tech Industry

Park, Preferential Taxation Policies for the Development of Software Industry and Integrated Circuit Industry, Notice by the Tianjin Government on Accelerating the Development of Software Industry, and Guideline for the Development of Service Outsourcing Industry in the Free Trade Zone.

In 2008, Tianjin formulated more policies such as Implementation Methods on Promoting the Development of Service Outsourcing in Tianjin, Incentives for Accelerating the Development of Software and Service Outsourcing Industries in Tianjin Hi-tech Industry Park, Regulations on Promoting the Development of Service Outsourcing in Tianjin Economic Development Zone so as to provide support for sourcing companies in taxation, finance, training, labor and innovation

3.3 Reasons For Using 3PL

Companies can either keep logistics functions in house or outsource them. A number of articles explore several reasons for using 3PL in businesses. Most of the general advantages produced are as follows (David et.al, 2003):

Firstly, a company focuses on core strengths. The most frequently cited benefit of using 3PL providers is that it allows a company to focus on its core competencies. With corporate resources becoming increasingly limited, it is often difficult to be an expert in every facet of the business. Logistics outsourcers provide a company with the opportunity to focus on that company's particular area of expertise, leaving the logistics expertise to the logistics companies.

Secondly, using 3PL provides technological flexibility. The ever-increasing need for technological flexibility is another important advantage of the use of 3PL providers. As requirements change and technology advances, the better 3PL providers constantly update their information technology and equipment. Often individual companies do not have the time, resources, or expertise to constantly update their technology. Different retailers may have different, and changing, delivery and information

technology requirements, and meeting these requirements may be essential to a company's survival. 3PL providers can often meet these requirements in a quicker, more cost-effective way. Also, 3PL providers might have the capability to meet the needs of a firm's potential customers, allowing the firm access to certain retailers that might not otherwise be possible or cost-effective.

Thirdly, using 3PL provides other flexibilities one of the examples is flexibility in geographic locations. Increasingly, suppliers are requiring rapid replenishment, which in turn may require regional warehousing. By utilising third-party logistics providers for the warehousing, the company can meet customer requirements without committing capital and limiting flexibility by constructing a new facility or committing to a long-term lease. Also, flexibility in service offerings may be achieved through the use of third parties, which may be equipped to offer retail customers a much larger variety of services than the hiring firm. In some case, the volume of customers demanding these services may be low to the firm, but higher to the 3PL provider, who may be working for several different firms across different industries. In addition, flexibility in resource and workforce size can be achieved through outsourcing.

Blanchard (2008) also formulated some strategic reasons for using a 3PL:

- One is improving global capabilities. The 3PLs have an on-ground knowledge of local markets, regulations and government agencies, and understanding of capacity constraints.
- The second strategic reason for using 3PL is reduce costs. The 3PL providers can help reduce excess carrying costs, return goods cost and lost sales. They can also help manufacturers move more material with fewer assets while still meeting customer requirements. In some cases, manufacturers can realise savings when consolidating warehouses and/or using shared facilities operated by 3PLs.

- Third is achieving environmental objectives. Some 3PLs have expertise to optimise distribution networks and consolidate routes, train drivers to incorporate fuel-efficient behaviours, specify equipment to reduce emissions, and leverage technology to streamline inventory and enhance vehicle performance.
- Fourth is the enhancement of security. The 3PL providers have the expertise to help navigate manufacturers through new security regulations and can provide counsel on best practices to improve security policy and procedures. In many cases, 3PLs can manage the implementation of a supply chain security program, from facility and asset security, to security monitoring services and training.
- Improving quality is the fifth reason to use third party logistics. Working with a 3PL provider, manufacturers can expect to improve performance in areas such as reduction in inventory levels, greater product availability rates, fewer customer complaints and improved order accuracy. Manufacturers also will be able to assess the performance of supply chain partners better when they have good data.
- Sixth is a speedy process change which can sometimes be easier to be made with an outside provider, since you can tap into someone else's existing infrastructure, technology and people. This is critical for manufacturers who need to grow at an accelerated pace.
- Seventh is eliminating hand-offs. Oftentimes, the lines can be blurred between what 3PLs do versus their customers. Manufacturers can benefit from synergies by engaging 3PLs in adjacent processes that take place "before" or "after" what is considered a traditional supply chain activity. When the hand-offs are eliminated, costs are reduced and the supply speed to markets is increased.

3.4 Reasons For Not Using 3PL

Toshinori and Koichiro (2001) believed that although there are several advantages of using 3PL, some disadvantages also exist. It is not easy to establish a reliable and cost-effective partnership between the firm and the 3PL provider. In order to establish reliable partnership, efforts should be made in two stages: 3PL provider selection and contract signing.

Firstly, in the stage of selecting a new 3PL partner, it is important to select the 3PL provider which has the ability to provide better services. If the firms cannot select reliable 3PL providers, they may suffer economic losses. It is not easy for firms to judge the ability of the 3PL provider during the selection stage owing to the issue of information asymmetry between the firm (principal) and the 3PL provider (agent). To solve this problem, complex selection procedures are necessary to identify their ability.

Secondly, it is important to establish a system to maintain their reliable partnership once the 3PL partner is selected. Information sharing and apparent risk sharing between the parties is always required. Concerning information sharing, it is needless to say that smoother information exchange will result in a more efficient logistics activity. However, related costs may increase if some information essential to the firm was to leak. Therefore, the commitment of each party is required, and a scheme to ensure these commitments has to be prepared. However, this would also involve additional transaction costs.

Constructing a risk sharing scheme between the firm and the 3PL provider is critical in establishing reliable partnerships. Some of the risks involved in using 3PL are demand risk, inventory risk, and financial risk, among others. The question is who will take these risks, and how to compensate the risk holders. “Gain sharing” is a popular example of a rewarding scheme in which the 3PL provider holds part of the risks, and then is given incentives based on the increase of the firm’s profit. This risk-sharing method is apparently some sort of a division of work between the firm and the 3PL

provider. Establishing good risk sharing also involves transaction costs, although the associated costs can be reduced through cumulative experience and IT development.

The most obvious disadvantage of the use of 3PLs is the loss of control of the outsourced function. This is especially true for outbound logistics where 3PL company employees themselves might interact with a firm's customers. Many 3PL firms work very hard to address these concerns. Also, if logistics is one of the core competencies of a firm, it makes no sense to outsource these activities to a supplier who may not be as capable as the firm's in-house expertise. In particular, if certain logistics activities are within the core competencies of the firm and others are not, it might be wise to employ 3PLs for only those areas that fall short of expected standards when done in house (David & Philip, 2002).

3.5 Implementation of 3PL

In business environment, everyone knows the importance of 3PL. However, every coin has two sides, if business chooses an inefficient 3PL provider it would bring negative impact to a company. How to implement an efficient activity with 3PL supplier is another objective of this research

3.5.1 Selecting a 3PL provider

Among companies, some logistics functions are more commonly outsourced than others. These include warehouse operations, transportation, management of logistics systems, and carrier selection, etc.

Operational managers should consider several key points before the selection and integration of the 3PL provider. It is only after companies conduct a thorough self-examination that they can precede with the identification and selection processes for a 3PL provider. The various considerations involved in the identification and selection, integration and management of 3PL relationships. The selection process is

outlined below (David & Philip, 2002):

- Know where you want to go: experts recommend that companies should define their most aggressive logistics management goals and then attempt to visualise what the firm will look like after achieving those goals. Some companies employ external help to help define these goals and determine if there is a need for a 3PL alliance.
- Clarify your needs and objectives: when companies decide that a 3PL alliance will be the best way to go, a lot of homework must be done in gathering clear data about its operations and realistic objectives. Expectations of a 3PL alliance will enable a company to establish its selection criteria and evaluate which 3PLs will provide the best “fit”.

The best fit is selected based on the most important criteria for the company. Some of the criteria considered by companies include the 3PL's capacity and willingness for continuous performance improvement, price, IT capability, alliance partners, cultural fit, and customer service. The importance of certain criteria over others is subjective to each company.

3.5.2 Implementation and market analysis

Different companies apply 3PL using different methods. Analysing current market of 3PL in the world can give a better understanding of the current 3PL users' activities. The following discussion divides analysis into worldwide, China, and Tianjin. Tianjin is the target location for this study. However, there is very few previous studies and academic material of this location.

- **Worldwide market analysis**

In recent years, there has been a surge of academic interest and publications in the area of 3PL. This can be partly explained by the growing trend of outsourcing logistics

activities in a wide variety of industrial sector (Transport Intelligence, 2004). The continuing wave of consolidation within the 3PL industry has also resulted in the emergence of large companies that have the capabilities to offer sophisticated logistics solutions on a continental or even global scale. Such logistics services providers strive to assume a more strategic role within the supply chain of clients, expanding their scale and scope of operations (Konstantinos & Martin, 2007). In addition, IT systems are increasingly being used to offer real-time information to clients and enhance visibility for supply network members. Concepts such as 4PL and lead logistics provider have also been introduced with the aim of covering reported demands for trans-national logistics solutions and integrated management of supply chains (Konstantinos & Martin, 2007).



Figure 3.6 U.S 3PL Market 1996-2010E (US\$ Billions) (Source: Armstrong & Associated, Inc-U.S and Global Third-Party Logistics Market Analysis, 2008).

Armstrong & Associates, Inc is a supply chain market research and consulting firm specialising in 3PL market research. Their report indicated that 2008 could be remembered as “lacklustre” or “it could have been worse.” Figure 3.6 shows that gross revenues for 3PL in the USA grew by 6.7% in 2008. Net revenues grew by 4.7% compared to 7.2% in 2007 as the logistics part of the economy continued to slow before

it dove in December. Net income increased by only 1.5% and was 5.3% of net revenue. They estimated that 2009 will be the first recorded negative year in 3PL gross revenue growth (Konstantinos & Martin, 2007).

Furthermore, in 2006, EU road freight transport showed the fastest growth in performance. It increased by 25% compared to the growth in 2000 on the basis of continuous annual increase over the period of 2000-2006. Freight transport by inland modes in the EU totalled 2,595 billion tonne-kms in 2006. Road freight transport represented about 73% of the inland freight transport market. Rail had a share of 17% with inland waterways and oil pipelines accounting for 5% each. International road freight transport accounted for about one third of total road freight transport in the EU in the year 2006 (European Commission, 2007).

In 2006, bilateral international transport accounted for 82% of total international transport in the EU, leaving 15% for cross-trade, the second largest activity, and less than 3% for cabotage. The cabotage represented 3% of total international road transport and it accounted for only about 1% of the domestic haulage market in 2006. The EU international road transport market was dominated by five flags (German, Polish, Spanish, Dutch and Italian) in the year 2006. Hauliers registered in these five countries accounted for over 50% of the total international road freight market within the EU. Poland was the largest contributor to cross-trade in 2006 with a share of 19% of EU totals. As far as cabotage services are concerned, Germany was the number one caboteur with 15% of the total EU cabotage performance (European Commission, 2007).

Road freight is the most important 3PL service in current 3PL market of the world. The following chart shows the development of road freight transport since 1995. Road freight transport has been growing steadily in the EU, with a faster growth in transport performance (Figure 3.7).

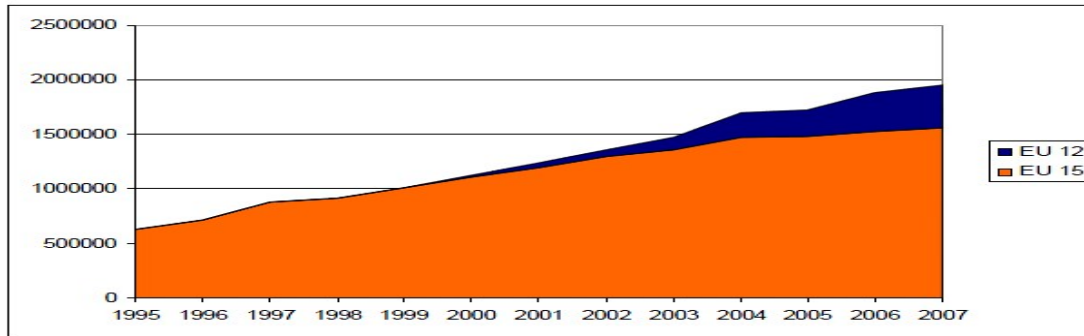


Figure 3.7 Road Freight Transport Growth (tonne-kms) 1995-2007 (Source: Road Freight Transport Vademecum, 2009)

- 3PL in China's market

Recently, there has been a rapid transition in the logistics industry of China, with an industry dominated by a few big state-owned enterprises as recently as a decade ago, to the emergence of domestic and foreign 3PL services providers, as well as lots of small-scale local service providers which sometimes consist of two people with one truck. Dai, et, al., (2002) stated that the word “logistics” now pops up everywhere on billboards and in daily newspapers, and is one of the hottest words in China. The infrastructure in China has improved dramatically with – new modern facilities such as airports, ports, highways, logistics parks and warehouses are being built at a record setting pace. Companies have invested extensively in information technology and software.

Dai, et, al (2002), also indicated that both domestic and foreign joint ventures regard China as a market with huge growth potential. Most of the companies have already built extensive domestic networks and all of them have plans for future expansion. Road transportation is the preferred mode in China, but surprisingly and contrary to the established notion, most companies do employ inter-modal transportation. Warehousing is still at an early stage of development, with rudimentary facilities and limited use of modern information technology. The electronic products and household appliances sectors have accounted for the highest portion of revenues by logistics

companies. The electronic products market is also regarded as having the highest potential growth. Domestic companies are most concerned with the limited resources available for future expansion, while foreign companies list policy restrictions and regulations as their biggest challenges.

Based on Dai's survey, providers are well aware of the reasons why shippers choose to outsource. For example, reduces costs, enables more focused attention on the core business, improves service levels, and simplifies complex operations. However, interestingly, providers do not appear to have a good insight as to why shippers choose not to outsource (Figure 3.8).

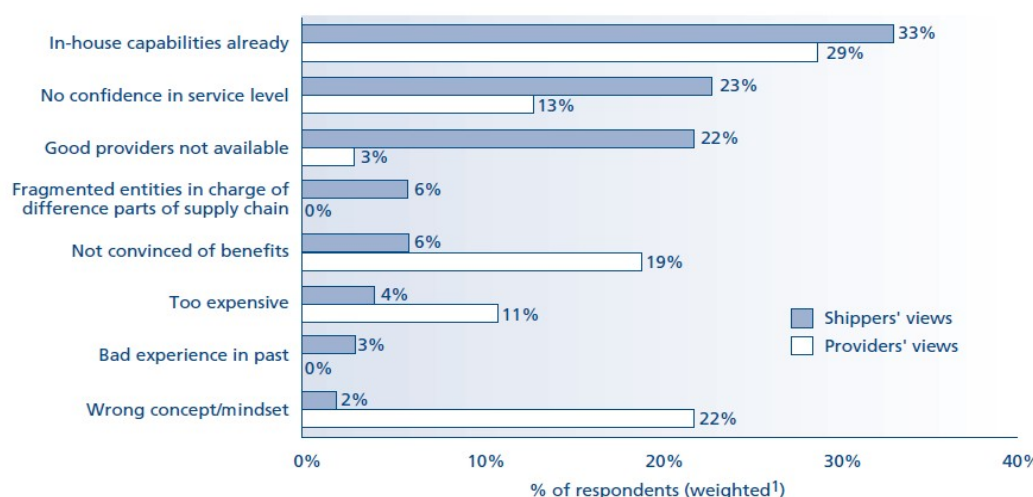


Figure 3.8 Reasons for not using 3PL providers in China: Two perspectives (Source: Mercer Analysis, 2007).

Figure 3.9 showed that it is possible that the logistics outsourcing market in China is moving towards severe bifurcation, based on the differing views that shippers have of foreign versus Chinese 3PL providers. Shippers tend to see foreign 3PL providers as strong in IT systems, industry/operational expertise, standardised operating processes, and international networks. Chinese 3PL providers are considered to offer lower prices and to have strong local knowledge, domestic network coverage, and good central/regional government relationships. Chinese firms prefer foreign 3PL providers and the preferences were almost exactly reversed for Chinese 3PL companies.

Foreign 3PL providers receive nearly all of their revenues from multinationals, primarily because their role has been limited mostly in serving the import/export – related logistics needs of their global clients (Huang & Kadar, 2007).

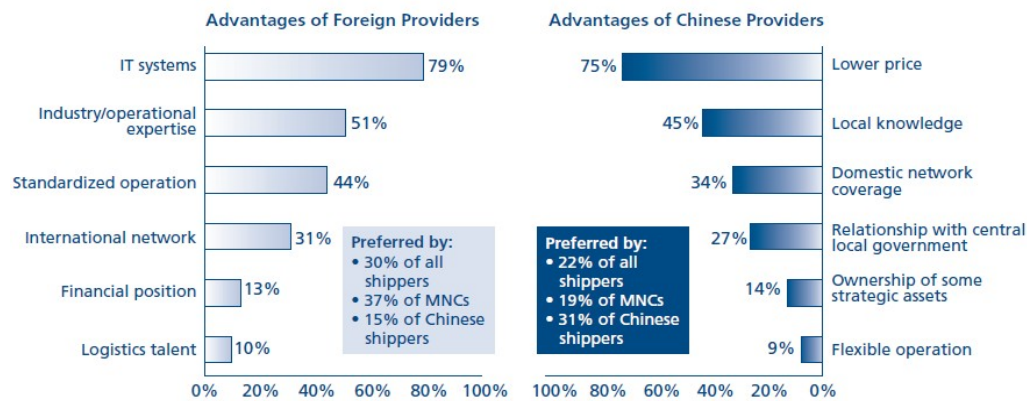


Figure 3.9 Shippers' View of Foreign and Chinese 3PL Providers (Source: Mercer Analysis, 2007).

● 3PL Situation in Tianjin

In Tianjin, logistics industry is growing rapidly. Local government provides significant support to logistics industry. However, there are still several problems that involve in the 3PL industry in Tianjin: 1) lack of expert knowledge of logistics; 2) tax and other cost are relatively high causing lower net profit; 3) lack of logistic demands; 4) lack of coordination between different industries and; 5) lack of funds in the management department of logistics.

In the future of the 3PL in Tianjin, the local government will constantly provide supports. Moreover, the local government announced a chain of plans to improve powers of 3PL in Tianjin. One is to provide efficient leading and to investigate logistics strategies; two is to enhance ability of policy leading and create a positive environment; three is to develop the environment of Port of Tianjin; four is to increase improvement of logistics park; five is to build local logistics brand for leading logistics development tend to standard; six is to increase the influence of 3PL in Tianjin to other city; seven is to enhance communication ability and establishing a system of

statistic of 3PL; last is to provide training to improve labours' ability.

3.6 Implementation of Relationship Risk Management (RRM)

There are countless relationships between business and 3PL provider. A company may have more than one 3PL providers. Relationship is a double-edged sword. Good relationship brings benefits to company, on the other hand, bad relationship or broken relationship may bring fatal blow to a business. The following discussions explore RRM in 3PL industry.

3.6.1 Characteristics of RRM

- Types of supply chain risks

The aim of RRM is to solve all risks of SCM. Kiser & Cantrell (2006) defined risks outside and inside the supply chain. External risk can be driven by events either upstream or downstream in the supply chain. This includes demand risks related to unpredictable or misunderstood customer or end-customer demand; supply risks related to any disturbances to the flow of product within the supply chain; environment risks that originate from shocks outside the supply chain; and business risks related to factors such as supplier's physical facilities.

Internal risks are driven by events within company control that involves manufacturing risks caused by disruptions of internal operations or processes; business risks caused by changes in key personnel, management, reporting structures, or business processes; planning and control risks caused by inadequate assessment and planning, and ineffective management; and mitigation and contingency risks caused by not putting in place contingencies.

Wang (2010) stated that relationship risks as the third category that arise from interactions between organisations within the supply chain. This risk can only be managed by the cooperation of the partners. This kind of risk can be accepted,

mitigated, eliminated by one or more partners, but cannot be transferred to other partners in the supply chain (SC), especially in the long term.

- Characteristics of RRM in SMBs

Wang (2010) explained the main characteristics of RRM in SC in SMBs. Firstly, RRM is often easily ignored by SMBs for a long time. Increasingly SMBs are aware of both internal risks in the enterprise and external risks, but very few appear concerned with the relationship risks. Some relationship risks are treated as external risks which cannot be forecasted or controlled just like geopolitical events or natural hazards. In fact, relationship risks can be mitigated or eliminated by efficient and effective communication build on the trust between partners in the supply chain.

Secondly, RRM is a complex system. It involves different nodes of the supply chain like supplier in different tiers, carriers, forwarders, customers in different tiers. Each has its own corporate culture, organisational structure, business, scale, management style. If benefits trigger the cooperation between the partners, risks bring in conflict and disruption of the partners.

Thirdly, RRM is vulnerable. Consisting of selective successful partners different industries, the whole supply chain looks very strong and powerful. Even a single point of failure in the series however, will make all the partners face increased risk.

Fourthly, RRM involves strategic issues. Once the supply chain is set up, usually the chain will run for a long term because the relevant cost of replacing partners will be very expensive. It is important to recognise that RRM can never be simplified at an operational level.

It is hard to manage relationship risks. As relationship risks do not occur internally, a SMB cannot use its structural advantages to manage the risks. As the linkages, among the partners are contracts or agreements, the accepted way is to communicate, coordinate, and seek cooperation.

3.6.2 How to manage relationship risk

- Six steps for supply chain risk management

Supply chain management is not just about acquiring goods and services at the best possible price, but it is about identifying possible disruptions to supply chain and taking steps to mitigate them. So, James Kiser and George Cantrell (2006) discussed six steps that a company can take to build a plan for dealing with potential supply disruptions.

Step one is supplier base. This is an important task, particularly in identifying what is essential for the company to be in control of, what does not matter so much identify each raw material and identify strategic materials and also understand the strategic supplier's organisation. Step two is vulnerability. For each of the risk listed, the company must identify in what scenarios those are likely to happen, why it can happen, and how will the company be able to cope with it. Step three is implications. This is one of the sections of mentioning substantially useful promoting. Step four is mitigation and this is where the company needs to set goals and targets and also understand how to achieve them. This is in fact very similar to business continuity planning and evaluating how soon the company can get back to 'business as usual'. Step five is about costs and benefits. Any cost in mitigation actions and measures brings with it the benefits of risk reductions and possible cost savings in case of a disruption. The final step is measures and actions. The most important part of implementing supply chain risk management is the clarification of roles and responsibilities which includes involving or partnering with the suppliers in securing the supply chain (Kiser & Cantrell, 2006).

- How to manage the relationship risks in SMBs

There are five steps to manage the relationship risks in SMBs (Wang, 2010). First is to establish a RRM culture throughout the whole supply chain. In a certain supply chain,

SMBs may be a leader or core player, or a subordinate player because of its dependency, power, and obligation in the chain. Despite its role, SMBs need to not only internally establish a culture concerning relationship risks, but also collaborate with its partners in the chain to establish a relationship risk conscious culture throughout the whole chain.

Second is to build up RRM organisational mechanism. A positive RRM culture provides a background where SMBs can build up RRM organisational mechanism. A cross-functional team is most suited to communicate with partners to learn accurate information, then to seek the backup of the project. Furthermore, training should include RRM process, production, and technology. Training will develop the reliability-based trust and character-based trust.

Third is to develop necessary interactive information sharing systems. Trust cannot last without information sharing. One key requirement for building trust is full and frank sharing of all information necessary for the effective functioning of the RRM. However, most SMBs emphasise security of data and information in a traditional style because of concerns about information leaking to competitors, frequently creating lack of information sharing among partners. Information systems among the supply chain partners should be set to be compatible to deliver an efficient and effective interface, data exchange and communication. At least the information systems should allow the necessary level of information to be shared among critical staff of different partners within a SC.

Forth is to strengthen efficient and effective communication/explanation style. Communication and information sharing have been stressed as the foundation for effective collaboration. When a risk is detected, communication and explanation can be the immediate step to inform relative partners about the risk information, and then the partners can react and take measures accordingly in time. To implement the communication and explanation, partners should maintain a risk communication channel.

Fifth is to evaluate and modify the RRM to adapt to the changing situation. RRM should not cope with specific risk cases only, on the contrary, successful RRM should manage all the relationship risks and develop the trust among partners for the long term. Trust should come from justice and fair play in risk management. As a consequence, it is necessary to periodically evaluate and modify the RRM position of organisations within a SC. RRM teams from different partners should communicate and start the evaluation work by firstly checking if the relationship risk has been distributed fairly among channel members each time after pulling through a disruption.

3.6.3 Relationship in China – Guanxi

- Special business cultures

The following table contrasts some of the key differences between traditional Chinese business practices and those of Western companies

Table 3.1 stated that the traditional aspects of the Chinese business family are observed today, as markets become more global the traditional model is changing. Business families are beginning to adopt business practices that are more consistent with other companies around the world. For example, in addition to personal character, managers are being valued on other attributes such as industry knowledge. Traditionally, passing a business to the next generation was means of maintaining family heritage. Now it is beginning to be seen as an opportunity for reorganization. Many new-generation family members receive western education and are beginning to break away from the family network and conservatism (Chen, 2009).

| <i>Business Practice</i> | <i>How It Is Done</i> | |
|------------------------------|--|--|
| | Western | Chinese |
| Main Company Purpose | Maximize shareholder value | Serve family interests |
| Financial Openness | Public financial reports | Financial information is kept secret |
| Financing Sources | Public sale of securities | Family and friends of family |
| Transfer of Ownership | Mergers & unfriendly acquisitions | Companies are not sold due to family obligations |
| Advertising | Brand is promoted by advertising | Without advertising, sales are made via the family network |
| Management | Professional management, recruited on qualifications | Senior managers are recruited from within the family |
| Time Horizon | Short-term emphasis on bottom-line profits and shareholder value | Long-term family prestige is emphasized |

Table 3.1 Western vs. Traditional Chinese Business Practices (Source: Ming-Jer Chen, 2009).

In China, Guanxi is a system of interpersonal relationships that has long historical and cultural roots. Guanxi is understood and utilised by virtually every Chinese person alive today in greater or lesser measure. The basic underpinnings of the Guanxi system are the twin understandings that all things are relative and that people are the deciders of all things. Guanxi is used to accomplish the specific ends or objectives of the people involved.

The Chinese culture is distinguished from the Western culture in many ways, including the way the business is conducted. For example, the Chinese prefer to deal with people they know and trust. On the surface, this does not seem to be much different from doing business in the Western world. But in reality, the heavy reliance on relationship means that western companies have to make themselves known to the Chinese before any business can take place. Furthermore, this relationship is not simply between companies but also between individuals at a personal level. The relationship is not just before sales take place but it is an ongoing process. The company has to maintain the relationship if it wants to do more business with the Chinese.

- Advantages and disadvantages of Guanxi in RRM

Guanxi can aid a distinctive strategic positioning in China's competitive environment, and thus it can become an important ingredient in business strategy. However, it requires a careful strategy and implementation plan of its own that needs to be aligned with the firm's business strategy; like any asset, it must be managed to make sure it does not become a liability. A good understanding of Guanxi is thus crucial for Western firms intending to succeed in business in China (U.S. China Business Council, 2004).

Governmental procedures for foreign investors in establishing investments in China is extremely complicated, thus if one is unfamiliar of the procedures, it will delay his/her business opportunities. Therefore, it is important for one to be familiar with investment procedures before carrying out the investment in China.

Seeking a suitable local cooperative partner can be a shortcut one undertakes when developing the Chinese market. Lee (2008) indicated that many investors who had made investments in China for many years proposed to small and medium-sized enterprises to take one step at a time when making investments. They should not be too ambitious initially. It will be best if they establish cooperation with local partners so as to reduce their investment risk. Moreover, China's labour market very much appeals to many foreign investors. This is because on one hand, labour cost is low, and on the other hand, China's workforce has become matured and their skills have been constantly upgraded. Therefore, many successful foreign investors never forget to maintain a good Guanxi with local labor.

In contrast, Chen et, al., (2009) expressed that Guanxi practices are visible to all employees in a work group and thus establish what is perceived to be legitimate within a work group. If work units have high levels of grouping, Guanxi will come to be accepted and made normal.

Guanxi practices may amplify or dampen the effects predicted by the self-interest model of justice through social comparisons. Employees' perceived relative value from personal Guanxi with a manager that has become more salient when they work in a work unit with high levels (Chen, et, al., 2009).

- How to build and maintain Guanxi

First of all, strategic design indicates building Guanxi networks requires strategic thinking. A company must have a business strategy. This strategy will pinpoint short-and long-term Guanxi targets and needs. Moreover, companies need to think about how they will cope with the indebtedness created by Guanxi. Coping strategies can involve deniability, neutralisation, complementarities, and face (U.S. China Business Council, 2004).

Secondly, building a Guanxi network; according to a U.S. China Business Council study, consists of four steps: targeting, scouting, signalling, and packaging.

Targeting refers to identifying the key person with whom you want to build a relationship, the person who will depend on your instrumental objective. Hence, you must first define your objective to maintain a strategic view and not identify targets on a case-by-case or as-needed basis.

Scouting involves identifying a common basis for a relationship and figuring out if intermediaries will be necessary to have that basis with the target. Guanxi typically develop among individuals who have some element of their pasts in common.

Signalling is best done in the context of a broader social event so that the target is not singled out. Perhaps the target can be invited along with a delegation visiting the company. The key to selecting the appropriate signal is subtlety.

Once the signal has registered and a link has been established, then the packaging begins. You must carefully package the instrumental objective, so as not to raise

suspicion in the mind of the target that you seek a purely instrumental relationship.

Thirdly, maintaining Guanxi involves the maintenance of Guanxi relationships which revolves around expectations and continuity. The target of Guanxi will expect business to possess moral integrity, not expose the target and create any vulnerability, not abuse the target or the target's network, and watch out for the target. The target will also presume that the relationship will be further maintained. Many foreign managers in China believe that it is enough to establish a relationship and then they can call on the target as needed. Nothing could be further from the truth. Guanxi is not an emergency brake. If enterprise calls on the target and activates the relationship only when there is trouble, business deprives the target of opportunities to orchestrate support or build roadblocks to prevent trouble. Once there is trouble, it is often too late to remedy the situation and your contacts cannot and will not act on your behalf (U.S. China Business Council, 2004).

Fourthly, managing Guanxi is one crucial aspect of RRM. It makes sure that business separate the instrumental objective, once achieved, from the relationship to disassociate the benefit gotten from the target. If the target is a senior political figure, the benefit gained could become a liability if and when that figure's political star fades. In China's constantly shifting political landscape, this is a significant risk. However, one must exercise extreme care so that the relationship is not damaged in the process of disassociation (U.S. China Business Council, 2004).

Fifthly, selecting a Guanxi is another important aspect of a successful relationship management. The first thing to remember is that it is a difficult system to use for foreigner. Therefore, the best and first practice is to not use it, or at least keep it small and simple and innocuous. The second thing to remember is that business associates and staff all know how to use it - so the first thing required is for them to deal with the issue. At least they should be able to figure out what the reasonable range of root causes are and the corresponding range of solutions might be. The third thing, if the problem really has no other recourse, it is advisable to exercise serious caution in

engaging a Guanxi Merchant.

3.6.4 The future plan of the Guanxi

As China develops a better legal framework and infrastructure and as some of the structural conditions for a relation-based society disappear, Guanxi could become less important, but the cultural heritage will remain. As mainland Chinese society tries to gain a new moral foothold in an increasingly modern and open environment, it is likely to see more emphasis on material values with more demanding and assertive Guanxi partners. The concept of Guanxi is also likely to mature, become less visible and more sophisticated, with more emphasis on business outcomes than on political ones. However, one thing is sure that Guanxi relationships, with their unique code of ethics, will always be an ingredient of doing business in China (U.S. China Business Council, 2004).

3.7 Trust management

3.7.1 Importance of trust

In the world of business today, trust is more important than ever, especially when it comes to business relationships with their clients, customers, employees, and all stakeholders in the business. Trust as the assured reliance on the character, ability, strength, or truth of someone or something. Trust is right at the foundation of the survival and success of any business. Without trust there can be no sustainable business (Ebersole, 2007).

Trust is a strategically critical issue in any type of relationship because a relationship without trust is not really a relationship at all. Over the long-term, business success is dependent upon a network of positive relationships. Trust is invariably the critical component in enhancing business relationships (Ebersole, 2007). Trust-based working relationships are an important source of business sustainable competitive

advantage because trust is valuable, rare, imperfectly imitable, and often non-substitutable.

Williams (2003) offered an insider's view or a prescription for understanding trust in buyer/supplier relationships. These summary statements or suggestions embody the tone and tenor of operationalising the construction of trust in supply chain management networks.

Firstly, trust exists only when both sides feel that it does and when both sides bring to the table their traditional baggage, perceptions, mindsets, and expectations. When the parties to the exchange process have a 'meeting of the minds,' trust is more likely to ensue. As expected, suppliers and purchasers see the same phenomena from totally different perspectives

Secondly, treating partners like they are really important and they really do matter. Partners should be treated like 'extensions' of the buying/supplying organization. Partners should behave in a manner that underscores their mutual interdependency. This perspective is typified in the following scenario: "We've looked at what you do for us and what you charge us. We value what you do for us and think that you need to charge us more. You need to raise your rates because we want you to be successful over the long haul." This action is truly rare. It is not often that a purchaser will request an increase in rates just to ensure the long-term welfare of the supplier.

Thirdly, sharing information openly is by putting all of the cards on the table. Strategic alliances usually require organizations to invest in each other's capabilities and to go the extra mile to help each other achieve higher levels of success, indicating that – mutual trust is essential. Information sharing is a highly valued bridge to supply chain success. Trust is established on the foundation of aligned goals and compatible competencies and is supported by open, frequent, and honest communication.

Fourthly, doing what you say you are going to do every time. Keeping promises is the

sine qua non of trust. A consistent pattern of keeping promises on both sides is absolutely essential to the initiation and preservation of genuine trust.

3.7.2 Types of trust

The level of trust in business relationships whether external (e.g. in sales or advisory roles) or internal (e.g. in a services function) is a greater determinant of success than anything else, including content excellence (Charles, 2007).

Kumar (1999) cleared that trust has more than one dimension. While several typologies of trust exist, the most meaningful way to understand trust in supply chain collaboration is to distinguish between reliability-based trust and character-based trust.

Reliability-based trust is grounded in an organisation's perception of potential partner's actual behaviour and operation performance. Essentially, it involves a perception that the partner is willing to perform and is capable of performing as promised. If supply chain participants cannot rely on partner performance as promised, all efforts to develop collaborative relationship fail. Simply put, a firm that is perceived as being unreliable and therefore unworthy of trust in a relationship.

Character-based trust is an organisation's culture and philosophy. Essentially, it stems from perceptions that supply chain partners are interested in each other's welfare and will not act without considering the action's impact on the other. When this aspect of trust is developed, participants do not feel vulnerable to the action of one another. Trusting partners believe that each will protect the other's interest.

It is clear that reliability-based trust is necessary to the information of collaborative relationships in supply chains, but it is not a sufficient condition. Trust develops over time and repeated interactions among organisations. In particular, character-based trust evolves when partners perceive that each acts fairly and equitably with the others (Kumar, 1999).

Wang (2010) explained that perception of justice is of significance because it will affect the trust maintenance and in turn affect the RRM in the long run. Justice has two components of interest: distributive justice and procedural justice. Distributive justice has to do with how equitably chain members perceive they compensate or reward for their sharing relationship risks. Procedural justice is related to the manner in which problems and disputes of risk/benefit sharing among participants are solved.

When issues are openly discussed and mechanism exists for consideration of all parties' point of view, firms can trust their interests will be considered.

3.7.3 Building trust in relationship

Kumar (1999) explored that to build trust, the firm needs to demonstrate reliability in its operations, consistency in performance as promised and meeting the expectations. The second key requirement for building trust is full and frank sharing of all information necessary for the effective functioning of the relationship. In fact, information sharing and communication have been stressed throughout the text as the foundation for effective collaboration. Trust typically gets created at the individual level, between people, and usually in conversations. Figure 3.10 shows the five step model of trust creation process (Green, 2007).

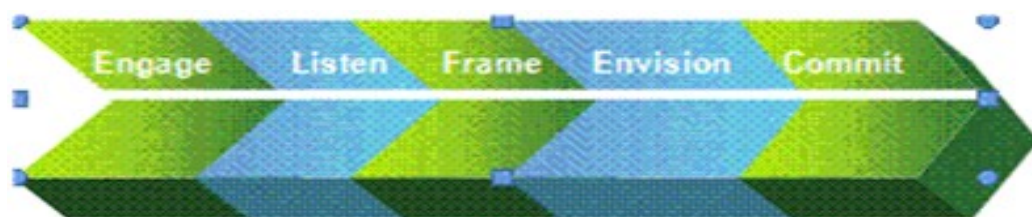


Figure 3.10 Trust Creation Process (Source: Green, 2007).

The step in trust creation process is engaging the clients in an open discussion about issue, as it is an essential thing for clients.

Secondly, listening to what is important and real to the client and thereby earn the right to offer solutions.

Thirdly, frame the true root issue, without any language barriers, via caveats, problem statements and hypotheses and take the personal risk to explore sensitive issues. Then articulate the point of view and create by giving away for the issue.

Fourthly, envision an alternate reality, including win-win specific descriptions of outcomes and results, including emotional and political states. Clarify the benefits—to make it clear as to what is at stake and also be tangible about future states.

Finally, commit to actionable next steps that imply significant commitment and movement on the part of each party.

|

Chapter 4 – METHODOLOGY

4.1 Introduction

This chapter explains the quantitative methods that have been used for conducting the research and for the analysis of the data used in this study. It describes the study sites and participants, the operational procedures used for this study, the instruments for data collection, the selection of data for analysis, and the methods of questionnaire analysis for this study.

4.2 Research objectives

Objective 1: To reveal characteristics of current 3PL implementation and the reasons of using 3PL in SMBs in Tianjin.

Objective 2: To study the significance of relationship risks management (Guanxi) and the status of trust management applied in 3PL relationship management in SMBs in Tianjin.

Objective 3: To evaluate the satisfaction level of 3PL implementation and future plan of using 3PL and relationship risk management in SMBs in Tianjin.

4.3 Basic research designs – qualitative versus quantitative approaches

Sanchez (2006) stated that over the years there has been a large amount of complex discussion and argument surrounding the topic of research methodology and the theory of how inquiry should proceed. Much of this debate has centred on the issue of qualitative verses quantitative inquiry – which might be the best and which is more ‘scientific’. Different methodologies become popular at different social, political, historical and cultural times in our development.

| Qualitative Methods | Quantitative Methods |
|---|---|
| Methods include focus groups, in-depth interviews, and reviews of documents for types of themes | Surveys, structured interviews & observations, and reviews of records or documents for numeric information |
| Primarily inductive process used to formulate theory or hypotheses | Primarily deductive process used to test prespecified concepts, constructs and hypotheses that make up a theory |
| More Subjective: describes a problem or condition from the point of view of those experiencing it | More objective: provides observed effects (interpreted by researchers) of a program on a problem or condition |
| Text-based | Number-based |
| More in-depth information on a few cases | Less in-depth but more breadth of information across a large number of cases |
| Unstructured or semi-structured response options | Fixed response options |
| No statistical tests | Statistical tests are used for analysis |
| Can be valid and reliable: largely depends on skill and rigor of the researcher | Can be valid and reliable: largely depends on the measurement device or instrument used |
| Time expenditure lighter on the planning end and heavier during the analysis phase | Time expenditure heavier on the planning phase and lighter on the analysis phase |
| Less generalisable | More generalisable |

Table 4.1 Difference between qualitative and quantitative research methods (Source: OAK Ridge Institute for Science and Education, 2000)

Veal (2005) said that most business researches involve the collection, analysis and presentation of statistical information. Table 4.1 indicates that qualitative and quantitative researches are the two main schools of research, and although they are often used in tandem, the benefits and disadvantages of each are debated. The quantitative approach to research involves the gathering and analysis of numerical data. It relies on numerical evidence to draw conclusions or to test hypotheses. To be sure of the reliability of the results it is often necessary to study relatively large numbers of people or organisations-subjects. Thus resulting in the use of computers to analyse the data. The qualitative approach to research is not concerned with this sort of statistical analysis. It involves gathering a great deal of information about a relatively small number of subjects rather than a limited amount of information about a large number of subjects. The information collected is generally not presentable in numerical form and conclusions are not based on statistical analysis. The methods used to gather

qualitative information include observation, informal, unstructured and in-depth interviewing, and participant observation. For quantitative research approaches to involve the gathering of relatively small amounts of data from large numbers of subjects, it should be emphasised that this is only a tendency (Veal, 2005).

Henninger (2009) showed that quantitative analysis allows researchers to test specific hypotheses. Depending on research findings, hypotheses are either supported or not supported. Qualitative analysis is usually for more exploratory purposes. Researchers are typically open in allowing the data to take them in different directions. Because qualitative research is more open to different interpretations, qualitative researchers may be more prone to accusations of bias and personal subjectivity.

There are a number of advantages of quantitative research methods compared to qualitative approaches (Shuttleworth, 2008).

Quantitative research design is an excellent way for finalising results and proving or disproving a hypothesis. The structure has not changed for centuries, so it is standard across many scientific fields and disciplines.

After statistical analysis of the results, a comprehensive answer is reached, and the results can be legitimately discussed and published. Quantitative experiments also filter out external factors, if properly designed, and so the results gained can be seen as real and unbiased.

Quantitative experiments are useful for testing the results gained by a series of qualitative experiments, leading to a final answer, and a narrowing down of possible directions for follow up research to take.

The aim of this research is to have an exploratory study about general understanding of 3PL freight forwarding and maritime in China. Therefore, a quantitative method would be more appropriate concerning this topic.

4.4 Data collection methods

Data collection and analysis is another important aspect of this research. Data collection includes selecting samples and designing questionnaire.

4.4.1 Sampling

Sampling methods are classified as either probability or non-probability. In probability samples, each member of the population has a known non-zero probability of being selected which includes: simple random sampling, systematic sampling, stratified sampling, probability proportional to size sampling, and cluster or multistage sampling. These various ways of probability sampling have two things in common: 1. Every element has known a non-zero probability of being sampled and; 2. Involves random selection at some points (Chambers & Skinner, 2003).

Non-probability sampling is sampling method where some elements of the population have no chance of selection, or where the probability of selection can't be accurately determined. It involves the selection of elements based on assumptions regarding the population of interest, which forms the criteria for selection. Hence, because the selection of elements is non-random, non-probability sampling does not allow the estimation of sampling errors. These include convenience sampling, judgment sampling, quota sampling, and snowball sampling (Chambers & Skinner, 2003).

Convenience sampling is the main type of non-probability sampling which involves the sample being drawn from that part of the population which is close to hand. That is a sample population selected because it is readily available and convenient. The researcher using such a sample cannot scientifically make generalisations about the total population from this sample because it would not be representative enough. This study chose convenience sampling mainly due to lack of fund and time. Convenience sampling can be particularly useful in exploratory studies when a researcher has limited time or money to compile a random sample (Wrench, 2008).

The target sample size of this research was 300 different types of companies within China. The sampling frame for the selection of businesses is copied from the Chinawuliu.net. The target respondents typically hold the positions as Manager, Directors, or Account managers of Logistics / Supply China management in a number of key industries including retail, manufacturing, automotive, healthcare, high technology, electronic, fashion, food and beverage, and industrial etc. In contrast, insurance, real estate, financial, and consulting industries were not chosen for this sample group as they were considered to have less significant logistic needs. For this study, 200 senior companies' name and addresses were derived from the Chinabusiness.net, and the other 100 companies were selected from the Chinese telephone book and name and address of these companies were obtained from the company's websites.

4.4.2 Questionnaires

There are certain situations where the postal method is the only practical survey technique to be used. The most common example is where members or customers of some national organisation are to be surveyed. The e-survey and mail survey are selected for use in this research for collecting data. E-survey is the priority survey method for this study, because it provides the fastest speed at a low cost. Therefore, this study sent 300 e-surveys. However, there were 80 businesses that did not have email addresses, so mail questionnaires were sent to them. Six companies accepted phone interview invitation to discuss questions.

Table 4.2 shows that a large sample can be surveyed at low cost, indicating the advantage of mail survey (Veal, 2005). The respondents can see the question and read it at their own pace as the survey could contain long and complicated questions. Furthermore, mail survey also allows a picture to be shown as part of a question, or a tape to be included, if desired. In contrast, the most notorious problem of postal surveys is low response rates and typically, only 25 or 30 per cent of people who are sent a questionnaire bother to reply (Veal, 2005). Additionally, postal survey does not

provide the option of someone to explain questions if needed, and do not provide a chance for follow up or probing for responses. Also, the sample is more self-selected, with a lower and less random level of response.

As Table 4.2 compared to mail survey, e-survey is one in which a computer plays a major role in both the delivery of a survey to potential respondents and the collection of survey data from actual respondents. One can categorise the collection of survey data via computers into three main categories based upon the type of technology relied upon to distribute the survey and collect the data: (1) point of contact; (2) e-mail-based; and (3) Web-based (Karen, et al.). Some strengths of the e-survey are follows:

- less expensive to send questionnaires online than to pay for postage or for interviewers;
- easier to make changes to questionnaire, and to copy and sort data;
- can be delivered to recipients in seconds, rather than in days as with traditional mail;
- may send invitations and receive responses in a very short time and thus receive participation level estimates;
- the response rates on private networks are higher with e-survey than with paper surveys or interviews;
- respondents may answer more honestly with e-survey than with paper surveys or interviews;
- due to the speed of online networks, participants can answer in minutes or hours, and coverage can be global.

On the contrary, there are some weaknesses of e-survey:

- population and sample limited to those with access to computer and online network;
- due to the open nature of most online networks, it is difficult to guarantee anonymity and confidentiality;
- constructing the format of a computer questionnaire can be more difficult the first few times, due to research's lack of experience;
- more instruction and orientation to the computer online systems may be necessary for respondents to complete the questionnaire;
- computers have a much greater likelihood of “glitches” than oral or written forms of communication;
- response rates are higher only during the first few days, thereafter, the rates are not significantly high (Colorado State University, 1996).

| Type of questionnaire survey | Respondent or interviewer completion | Cost | Possible length of questionnaire | Nature of sample | Response rate |
|------------------------------|--------------------------------------|---------------------|----------------------------------|------------------|---------------|
| Household | either | expensive | long | community | high |
| Street | interviewer | medium | short | community | medium |
| Telephone | interviewer | medium | short | subscribers | high |
| Mail | respondent | cheap | varies | specialist | low |
| E-survey | respondent | cheap | varies | specialist | low-medium |
| Customer/visitor | either | medium | medium | customer/visitor | high |
| Captive | respondent | cheap | medium | specialist | high |
| Organisation | either | comparatively cheap | varies | specialist | high |

Table 4.2 Types of Questionnaire Surveys and its Characteristics (Source: Business Research Methods: A Managerial Approach, 1996)

4.4.3 Questionnaire development

The overall research issue of the development of 3PL in China consists of several small sets of specific research issues. The general specific issues are as the following:

1. definition of 3PL organisations current development and perspectives which includes 3PL industry development and current characteristic analysis.
2. implementation of 3PL models that involves frequency of using 3PL, aspects of 3PL usage, and the satisfaction level of using 3PL.
3. to analyse 3PL market in Tianjin, such as most popular 3PL service etc.
4. implementation of RRM of using 3PL that includes Guanxi between partners (internal and external), how to establish Guanxi, and how to manage risk when Guanxi is broken.
5. implementation of trust in relationship risk management, such as importance of trust in RRM, and how to build trust.

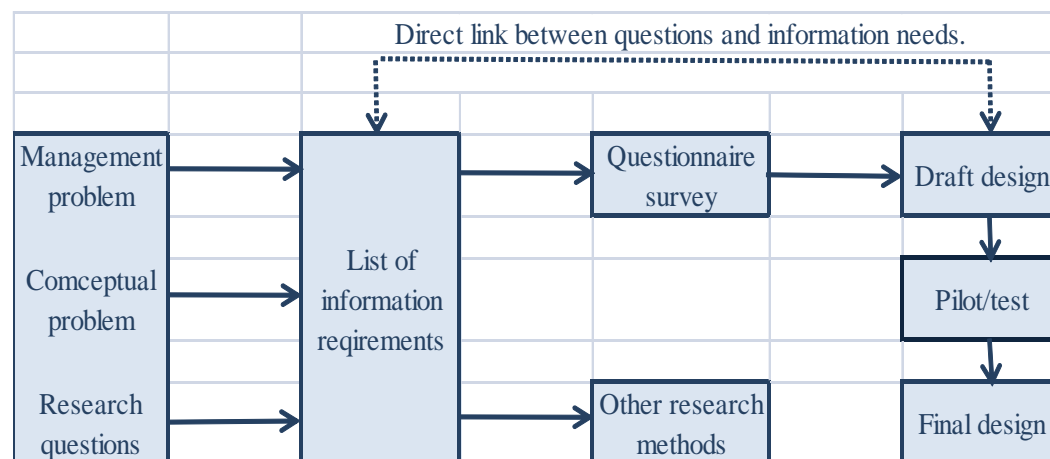


Table 4.3 Questionnaire Design Process (Source: Business Research Methods-A Managerial Approach, 1996)

According to t table 4.3, the first three questions of the survey are concerned about the

companies' profiles of the respondents which include number of employees, type of business, and annual turnover. It implicates whether different size of companies and different type of businesses utilise the 3PL services differently.

For the mail survey, this study used yellow envelopes and a brief cover letter to post the survey, because the attractive envelopes with well-written cover letter and reasonable length questionnaires can obtain significant better response rate. The questionnaire of this research has 30 questions. Almost all questions have been designed using simple multiple choice questions. Only few used open end question. Open-end questions have two disadvantages; one is classification of verbatim answers for computer analysis is laborious and may result in a final set of categories which is of no more valuable than a well-constructed priori list. The other is that the response rates can be very low-people are often too lazy or too busy to write out full-length answers (Veal, 2005). Consequently, the survey was designed to be simple, worded, and short to avoid complexity, misunderstanding and ambiguity by respondents. The questionnaire of 9, 13, 14, 17, and 24 by this research used 5-point scales to ask respondents to indicate their agreement or disagreement of their companies' performance. Finally, there are some questions in this questionnaire that combined two questions into one, in order to brief the question and minimize the questionnaire length, such as question 9 which ask current situation and to indicate the main factor.

This questionnaire also accompanied an information sheet to introduce the aims of this survey. Also, it provided free post-back envelopes to encourage respondents to complete the survey. Furthermore, in envelopes of questionnaire, there was thank you cards for every potential respondent for obtaining higher response rate.

4.5 Data collection and problems

New information collected as part of a research project is referred to as primary data (Veal, 2005). Primary data collection is necessary when a researcher cannot find the data needed in secondary sources. Primary data collection methods include

observation, focus group, personal interviews (one-on-one), telephone interview/survey, or self-administered (mail or internet) surveys (Yann Duval, 2005). For this 3PL research, there were 300 questionnaires that have been posted out. Response rate in survey research refers to the ratio of number of people who answered the survey divided by the number of people in the sample. It is usually expressed in the form of a percentage. For this 3PL study, 98 usable questionnaires were returned on time. It was equivalent to a 32.7% response rate, and also a further 12 (4%) were returned by the post office, because those businesses were no longer operational or the contact person was no longer working there. Therefore, the respond rate was 34% if taking into consideration the questionnaires returned back by post office. Based on the confidentiality and objectivity, companies were not required to provide specific information about their 3PL providers. Previous researches by Visser, Krosnick, Marquette and Curtin (1996) showed surveys with lower response rates close to 20%. In another study, Keeter et al. (2006) achieved a higher response rate of 50%. Overall, comparing the response rates, in this research, 34% is an acceptable value.

Overall, there is a low risk of non-response bias. After review of responses, I found that a number of respondents did not answer the open-end options, such as question 10. In addition for question 10, it asked for current situation and main service, few respondents missed to tick the boxes for current main service, because boxes were printed at the front of the beginning of the line. Due to the limited time, there is no chance to recollect data for amending the above problems.

4.6 Data analysis methods

SPSS (Statistical Package for the Social Sciences) is a computer program used for statistical analysis. SPSS is one of the oldest and most widely-used statistical software packages, and is among the better ones available (Indiana University, 2007). SPSS was used as the main method for analysis of data in this research. SPSS 18.0 provides richness of statistics techniques. In this study, there were several statistic techniques

which were used, such as ANOVA, t-test and Chi-square. Descriptive statistics includes cross tabulation, frequencies, descriptive, explore, descriptive, ratio statistics to explain the overview and background of 3PL industry in China and relative activities related to the research questions. To compare means for the number of 3PL services that companies use, ANOVA and t-test are the suitable technique. To find the relationship between the size of company and usage of 3PL services, Chi-square can be used.

4.7 Research process

The process of this research was performed as follows:

First the 3PL industry in China was reviewed and relevant literature was collected. Using secondary research to find out as much as possible through previous studies in 3PL industry in China via internet and academic materials; thus getting a strong knowledge base of China's 3PL development and future plans.

Secondly the research questions were identified. After huge reading of previous literature and theoretical studies of 3PL in China, the basis of research questions was created.

Third was the development of the questionnaire for this study. The first draft of the questionnaire was issued to the proof reader (Jing Zhang) who is the operation manager of the port of Tianjin in China. The revision to this questionnaire was carried out which included question wording, and length of the questionnaire.

After the final version of the questionnaires was completed, questionnaires were sent to 300 companies under the list via email and mail post. All the companies were requested to return the completed questionnaire before the 15th of April, 2010.

The data was collected and analysed using statistical software. Once the analysis was completed conclusions of the research were made. The research findings were

summarised recommendations for further research was suggested and the limitations of this research were explored.

Chapter 5 – RESULTS AND DISCUSSION

5.1 Introduction

This chapter presents the questionnaire results. A respondent profiles were analysed first, followed by descriptive results that summarised the respondent's answers to the questions used in the analysis. Details of some current situations of 3PL services, such as the reasons of using 3PL services, the advantage and disadvantage of 3PL development in Tianjin, the status of Tianjin 3PL in the world, and the potential of 3PL industry in the future in SMBs in Tianjin were provided. The chapter discusses the relationship management from the supply chain perspectives and future development in SMBs in Tianjin. Guanxi being an important aspect has been analysed in this chapter. A number of statistical results from independent-test, Chi-square and ANOVA are presented to provide in-depth investigation of the relationships between different variables. This chapter also demonstrates the empirical findings received from the conducted survey.

5.2 Respondent profile

This research received 98 replies out of which 92 companies were using 3PL services. This survey was anonymous, so there was no specific information about which companies responded the questionnaire and which companies did not. However, we were able to collect some general information about the industry and size of respondents from the completed questionnaires. Collection of basic company background information can help in the analysis of objectives of the topic better.

5.2.1 Company employee numbers

The first question of this questionnaire shows the number of employees in each company. This question is used to measure respondents' company size. Although this research focuses on SMBs in Tianjin, according to the current standard of company

size in China, different types of business have different standards. Table 5.1 shows three aspects of respondents' background information with regards to the number and percentage of 3PL users and non-3PL users.

| Categories | No. | Percentage | Using 3PL | | No using 3PL | |
|--|-----|------------|-----------|------------|--------------|------------|
| | | | No. | Percentage | No. | Percentage |
| Number of Employees | | | | | | |
| Under 500 | 18 | 18.4% | 18 | 19.6% | 0 | 0% |
| 501-1000 | 41 | 41.8% | 40 | 43.5% | 1 | 16.7% |
| 1001-1500 | 29 | 29.6% | 28 | 30.4% | 1 | 16.7% |
| Over 1500 | 10 | 10.2% | 6 | 6.5% | 4 | 66.6% |
| Annual Turnover (¥millions) | | | | | | |
| Under 10 | 5 | 5.1% | 4 | 4.3% | 1 | 16.7% |
| 10-50 | 18 | 18.4% | 18 | 19.6% | 0 | 0% |
| 50-100 | 38 | 38.8% | 38 | 41.3% | 0 | 0% |
| 100-300 | 32 | 32.6% | 30 | 32.6% | 2 | 33.3% |
| Over300 | 5 | 5.1% | 2 | 2.2% | 3 | 50% |
| Business Industry | | | | | | |
| Retail | 11 | 11.2% | 11 | 12.1% | 0 | 0% |
| Automotive | 5 | 5.1% | 5 | 5.5% | 0 | 0% |
| Real-Estate | 3 | 3.1% | 3 | 3.4% | 0 | 0% |
| Manufactory | 21 | 21.4% | 19 | 20.7% | 2 | 33.2% |
| Healthcare | 5 | 5.1% | 5 | 5.4% | 0 | 0% |
| Food | 12 | 12.2% | 12 | 13.0% | 0 | 0% |
| Cloth/fashion products | 9 | 9.2% | 9 | 9.8% | 0 | 0% |
| Hi-tech/IT | 11 | 11.2% | 10 | 10.2% | 1 | 16.7% |
| EMCG | 4 | 4.1% | 3 | 3.4% | 1 | 16.7% |
| Wholesale | 8 | 8.2% | 7 | 7.6% | 1 | 16.7% |
| Services | 5 | 5.1% | 5 | 5.5% | 0 | 0% |
| Others | 4 | 4.1% | 3 | 3.4% | 1 | 16.7% |
| Notes: 92 respondents use 3PL(s) within total 98 respondents | | | | | | |

Table 5.1 Company General Information (number & percentage)

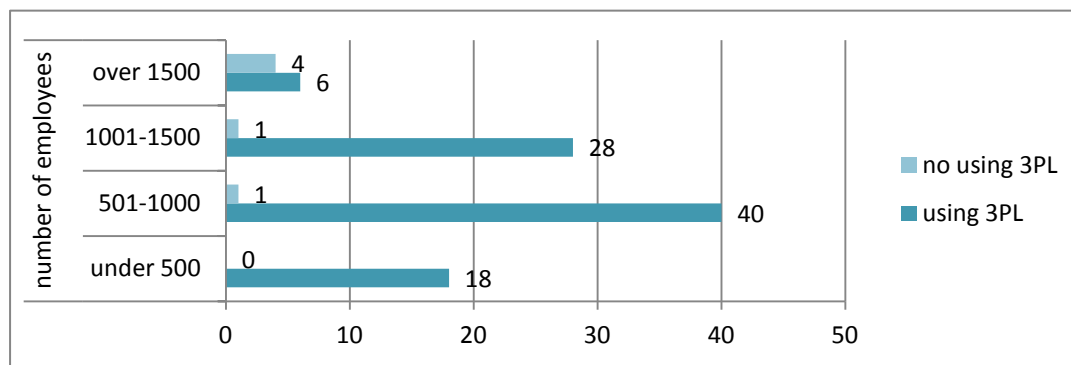


Figure 5.1 Company employees (using 3PL vs. not using 3PL) (Notes: 92 respondents use 3PL(s) within total 98 respondents)

From Table 5.1 and Figure 5.1, 39.8% of 98 responding companies have more than 1000 employees and 36.7% of 92 responding companies who are 3PL user have more than 1000 employees currently in Tianjin. There are only 5 out of 92 using 3PL companies have more than 1500 employees which is the smallest group of 3PL user. According to the newest segmentation of company size in China in 2011, generally small and medium size companies have less than 2000 employees in company.

5.2.2 Company Annual Turnover in 2010

The second aspect of the surveyed companies' general background information is about company's annual turnover. This will enable the reader to assess/evaluate the responding companies' size from financial point of view. According to the current standards of company size in China, the SMBs, mostly in the industrial sector have an annual turnover less than ¥300 million (approximated US\$47 million).

The bar chart (Figure 5.2) indicates the answers from 3PL users and non-3PL users annual turnover from under RMB10 million (approximate US\$2 million) to over 300 million (approximate US\$47 million) in 2010. Among the 3PL users, the density was maximum corresponding to an annual turnover between RMB50 million (approximate \$8 million) and RMB100 million (approximate US\$16 million) which accounted for 38 companies. The next big group of annual turnover is between RMB100 million (approximate US\$16 million) and RMB300 million (approximated US\$47 million)

which accounted for 30 companies. The group of annual turnover over RMB300 million (approximated US\$47 million) is the smallest one in 3PL users. Although there are only 6 companies that are non-3PL users, this accounted for 50% of non-3PL users whose annual turnover is over RMB300 million (approximated US\$47 million).

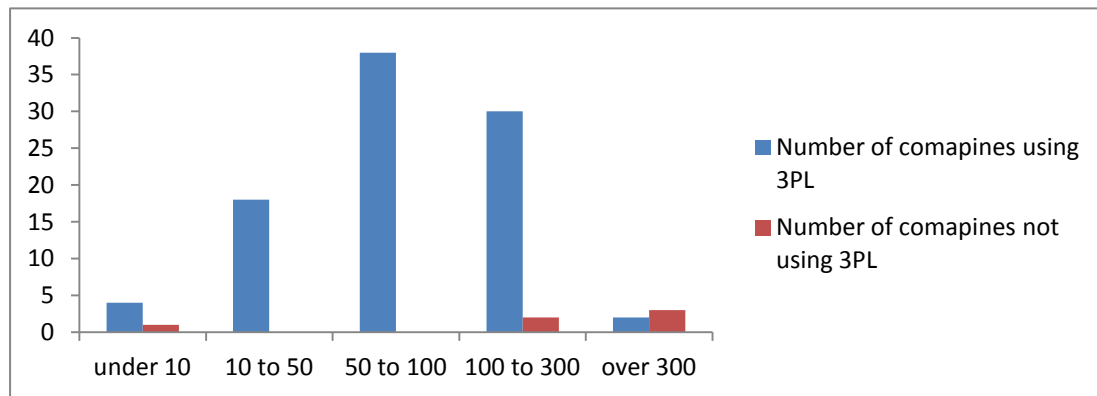


Figure 5.2 Company annual turnover (using 3PL vs. not using 3PL) (Notes: 92 respondents use 3PL(s) within total 98 respondents)

5.2.3 Company industry

This research selected a wide broad industry. The industrial background of the responding companies gives a better understanding on the current 3PL situation in Tianjin. There are more than 12 different types of businesses that responded to the questionnaire. There are four responding companies in other industries, such as telecommunication technology, and education group.

Figure 5.3 illustrates that 21.4% of 98 responding companies are in the manufacturing industry. This is the largest group of industry in this research followed by the food industry (11 companies). The smallest group of the responding companies (3) belong to the real estate industry. Industry of manufacture, Hi-tech/IT, EMCG, wholesale, and others are non-3PL users.

Within 92 3PL users, there are 20.7% 3PL users in manufacture industry which is the biggest group in 3PL users. The next two big groups are the food industry and the

retail industry with 13% and 12.1% respectively. The smallest group of responding industry within 3PL users is the Real-estate industry and others with just 3.4%. On the other hand, there are 33.2% of non-3PL users in industry of manufacture. It is a relative high percentage in non-3PL users. Other specific details of number and percentage of businesses are shown in Table 5.1 and Figure 5.3.

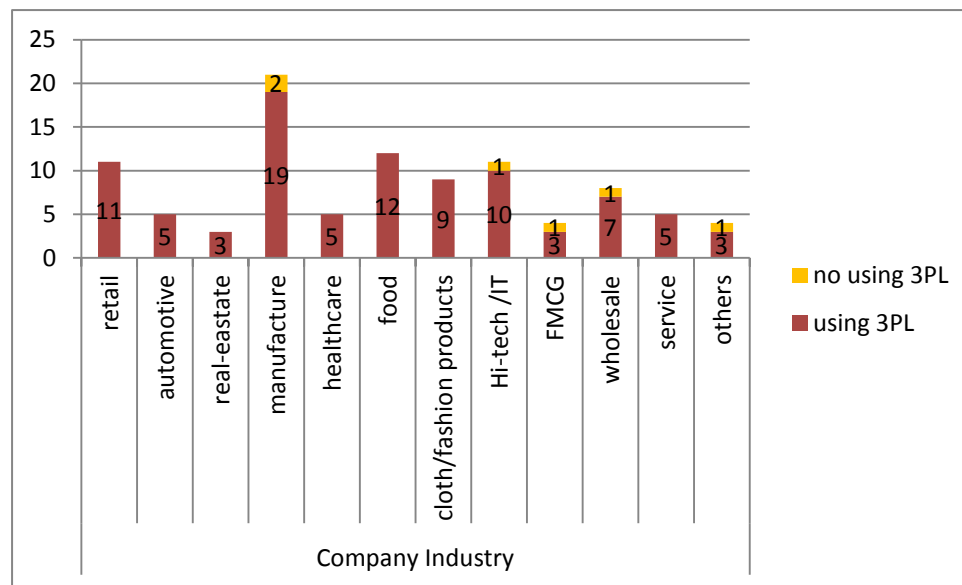


Figure 5.3 Company Industry (using 3PL vs. not using 3PL) (Notes: N=98)

In addition, the last information about respondents' background information is the nature of company. Tianjin is a cross-cultural city, so more and more foreign investors choose to open a company in Tianjin, because of its significant location.

Figure 5.4 shows that pure local companies are the biggest group of entire respondents. There are 39 responding companies which are local companies. It also indicates that the next big group is the joint venture businesses with 30 respondents. There are only 7 state-owned enterprises that returned questionnaires which is the smallest group. Comparing 3PL and non-3PL users, local companies and the joint ventures show a significant partiality towards 3PL. In contrast, state-owned enterprises show that there is no big difference between 3PL user and non-3PL users. And it also shows that all foreign investors use 3PL. The following discussion reorganises the nature of company information into local company (include local company and state-owned

company) and foreign company (include foreign investors and joint venture).

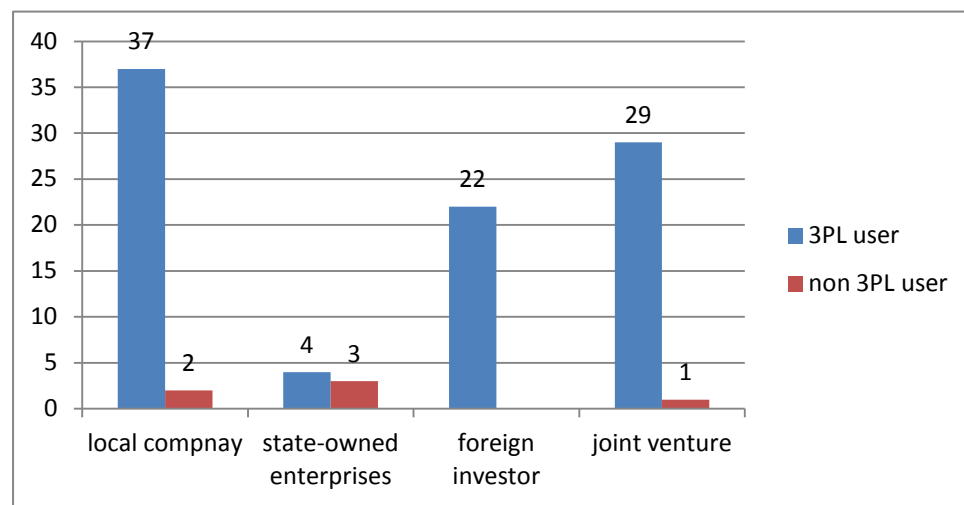


Figure 5.4 The Nature of SMBs in Tianjin (Notes: N=98)

5.3 Reasons for using 3PL

The research questionnaire, following the company background information asks 26 questions to discuss the research topic which can be divided into two areas, one is about 3PL implementation situation in SMBs in Tianjin, another one is about significance of Guanxi in today's 3PL in SMBs in Tianjin. The following information reveals all results from the responding companies.

5.3.1 Reasons for using 3PL

All respondents were asked to indicate the reasons they use 3PL services, in order to explore why companies employ 3PL freight forwarding services. This survey listed 11 reasons and 1 open-end option if they have any other reason. All following listed reasons were created from studying the benefits and advantages of 3PL freight forwarding. Within the 92 respondents using 3PL services, 68% of the respondents employ 3PL freight forwarding because of the increase in net value and reduction in costs. And then 52% of respondents reasoned on the reduction in financial risks; 50% of them wanted to save their capital investments, so they use 3PL services; 44% of respondents hope they can increase inventory turnover through using 3PL service,

while 32% of respondents hope to reduce demurrage and penalty rates by using 3PL service. There are relatively lower percent of respondents who indicated that they consider the rest of reasons of using 3PL services. Additionally, there are eight respondents (13%) who had other reasons, such as their customers requested they use 3PL.

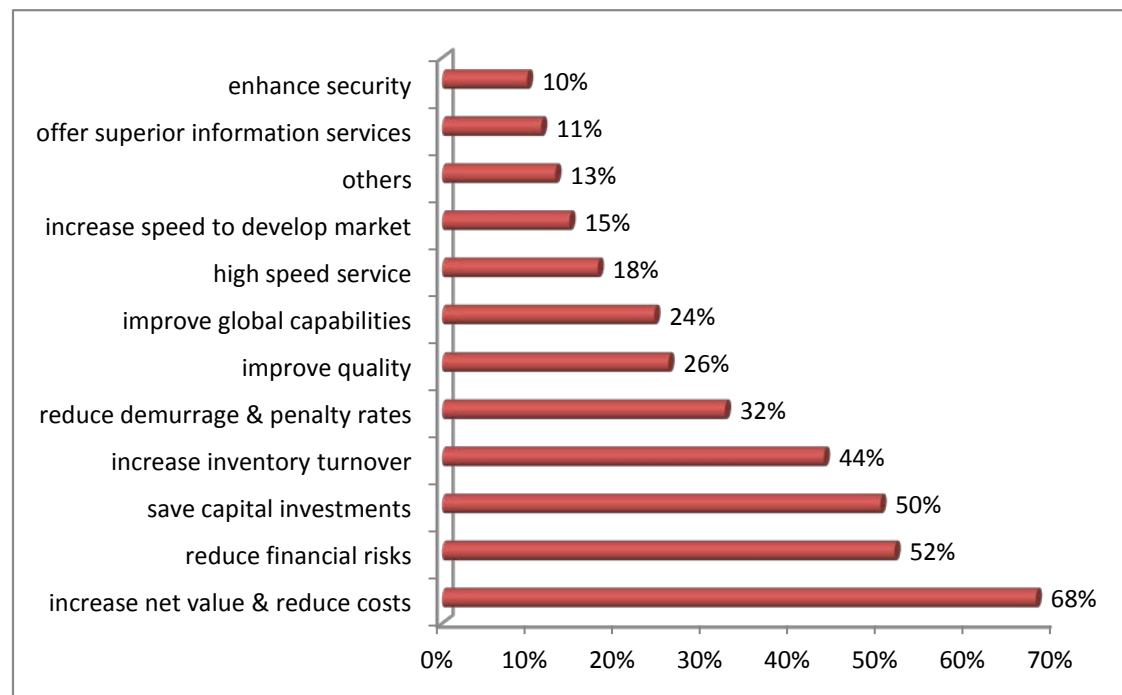


Figure 5.5 Reasons for using 3PL services (percentage of respondents) (Notes: N=92)

| Reasons | Nature of company in Tianjin | | No | Pearson Chi-square | |
|-------------------------------------|---------------------------------|---------|---------|-----------------------|---------|
| | Yes | No | | value (df) | p-value |
| Increase net value & reduce costs | Local company | 23(55%) | 9(45%) | 2.409 | .17 |
| | Foreign company | 19(45%) | 11(55%) | (1) | |
| Save capital investments | Local company | 20(65%) | 12(39%) | 4.133 | .03 |
| | Foreign company | 11(35%) | 19(61%) | (1) | |
| Reduce financial risks | Local company | 19(59%) | 13(43%) | 1.615 | .09 |
| | Foreign company | 13(41%) | 17(57%) | (1) | |
| High speed service | Local company | 8(73%) | 24(47%) | 2.341 | .08* |
| | Foreign company | 3(27%) | 27(53%) | (1) | |
| Reduce demurrage & penalty rates | Local company | 12(60%) | 20(48%) | .854 | .01 |
| | Foreign company | 8(40%) | 22(52%) | (1) | |
| Increase speed to develop market | Local company | 6(67%) | 26(49%) | 1.02 | .18* |
| | Foreign company | 3(33%) | 27(51%) | (1) | |
| Offer superior information services | Local company | 5(71%) | 27(48%) | 1.263 | .18* |
| | Foreign company | 2(29%) | 28(52%) | (1) | |
| Improve global capabilities | Local company | 11(73%) | 21(45%) | 3.834 | .04* |
| | Foreign company | 4(27%) | 26(55%) | (1) | |
| Enhance security | Local company | 4(67%) | 28(50%) | .598 | .25* |
| | Foreign company | 2(33%) | 28(50%) | (1) | |
| Increase inventory turnover | Local company | 5(19%) | 27(77%) | 20.809 | .00 |
| | Foreign company | 22(81%) | 8(23%) | (1) | |
| Improve quality | Local company | 6(38%) | 26(57%) | 1.784 | .10 |
| | Foreign company | 10(62%) | 20(43%) | (1) | |
| others | Local company | 5(63%) | 27(50%) | .466 | .24* |
| | Foreign company | 3(37%) | 27(50%) | (1) | |

Notes: *represents cells expected count less than 5

Table 5.2 Reasons for Using 3PL (local company vs. foreign company)

Table 5.2 is a cross tabulation to compare if local companies and foreign companies have different reasons. This cross tabulation can help this research to find out the relationship between local companies and foreign companies for their reasons of employing 3PL services.

Five percent is used in the ensuing discussions. Therefore, any value of Chi-square above 5 percent point is considered unlikely and inconsistent with the null hypothesis. Thus, if the value of Chi-square is above the 5 percent point, then the probability is in the 0-4.99 percent range, which can reject the null hypothesis and if it is below the 5 percent point, then the probability is in the 5-100 range, we accept the null hypothesis (Veal, 2005). The null hypothesis of this question is that there is no relationship between the two sets of values (nature of company).

In Table 5.2, the SPSS output indicates where the particular value of Chi-square lies in terms of probability. There are four reasons that showed that the Asymp. Sig.(2-sided) gave value < 0.05 , such as save capital investments (Pearson value = 4.133, $df=1$, P two-tailed = 0.03); reduce demurrage and penalty rates (Pearson value = 0.854, $df=1$, P two-tailed = 0.01); improve global capabilities (Pearson value = 3.834, $df=1$, P two-tailed = 0.04); and increase inventory turnover (Pearson value = 20.809, $df=1$, P two-tailed = 0.00). The values of Chi-square are therefore an unlikely one, so they reject the null hypothesis and conclude that there is a relationship between local companies and foreign companies.

For increase in net value and reducing costs, it was observed that local companies and foreign companies had 55% and 45% respectively. The P two-tailed value was 0.17. Also, reason of reduced financial risks in local companies and foreign companies were 59% and 41% respectively. The P two-tailed value is 0.09. These results indicate that there is no relationship between local companies and foreign companies for these reasons. In other words, these reasons are considered by both local companies and foreign companies for their decision.

For the reasons of high speed services, offering superior information services and increased speed to develop markets, higher percentage (double the percentage of companies) of local companies used 3PL services. In contrast, higher percentage of foreign companies (compared to local companies) used 3PL in order to improve quality and increase inventory turnover.

5.3.2 Reasons of not using 3PL services

Within entire 98 respondents, there were only six replies that showed they do not use 3PL services recently. Therefore, this question aims to find out reasons for not using 3PL. Figure 5.6 shows that 83% of the companies had their own logistics team and hence did not use 3PL. While 67% of companies indicated that they did not have enough knowledge about 3PL services as the main reason for not using 3PL. There were 50% out of 6 non-users of 3PL who reasoned lack of the support from internal departments. Only one respondent (17%) indicated other reason (do not want to change) for not using 3PL services.

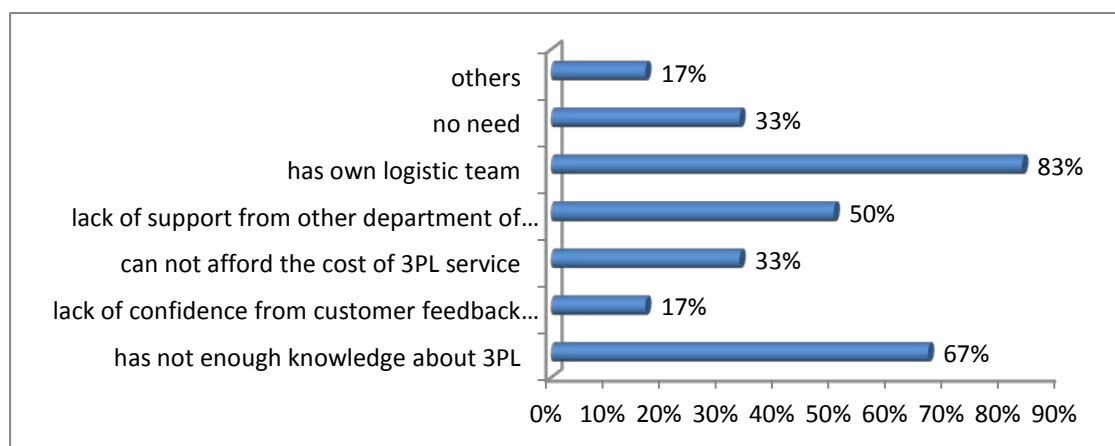


Figure 5.6 Reasons for not using 3PL services (Notes: N=6 for each reason)

There was a small amount of responding companies who did not use 3PL services. Therefore, it was not possible to make clear comparison between local company and foreign company.

5.4 Characteristics of 3PL implementation in SMBs in Tianjin

5.4.1 Usage Situation of 3PL Services in SMBs in Tianjin

In Tianjin, the current usage of 3PL imply to different fields, such as usage of different types of 3PL services, the satisfaction of each 3PL service, difference between local

company and foreign company, and so on.

Most responding companies use wide range of 3PL services rather than just one. Typically, they also buy multiple services from several providers. The questionnaire asked the respondents to choose 3PL services they use currently. All respondents were also requested to indicate the main service of 3PL that they used recently. Figure 5.7 showed that there are multiple 3PL services that they use currently. The questionnaire provides twenty different types of 3PL services and one open-end option. In Tianjin, within 92 responding companies of 3PL user, the highest usage of 3PL service is in road transport. There were 71 companies that used road transport currently. This research also did phone interviews with six companies' general manager. Most of them are in retail and manufacturing industry. Four of them choose road transport as their main 3PL model, because Taobao (it is the biggest online shopping website in China) impact their marketing team more and more seriously. They have to delivery their products to the whole of China by road transport, because this model provides fast speed at relatively lower cost.

The next frequently used model of 3PL service is international airfreight which is currently used by 60 respondents (65%). The following models in order are management of information system (49 respondents, 53%), inventory management (46 respondents, 50%), and customer services (44 respondents, 48%). The least frequently used model was the carrier selection model with only three respondents currently using it. Another model of 3PL used rarely was the cross docking with seven responding companies currently using it. Two respondents selected other reasons, such as the use of relevant consultant services.

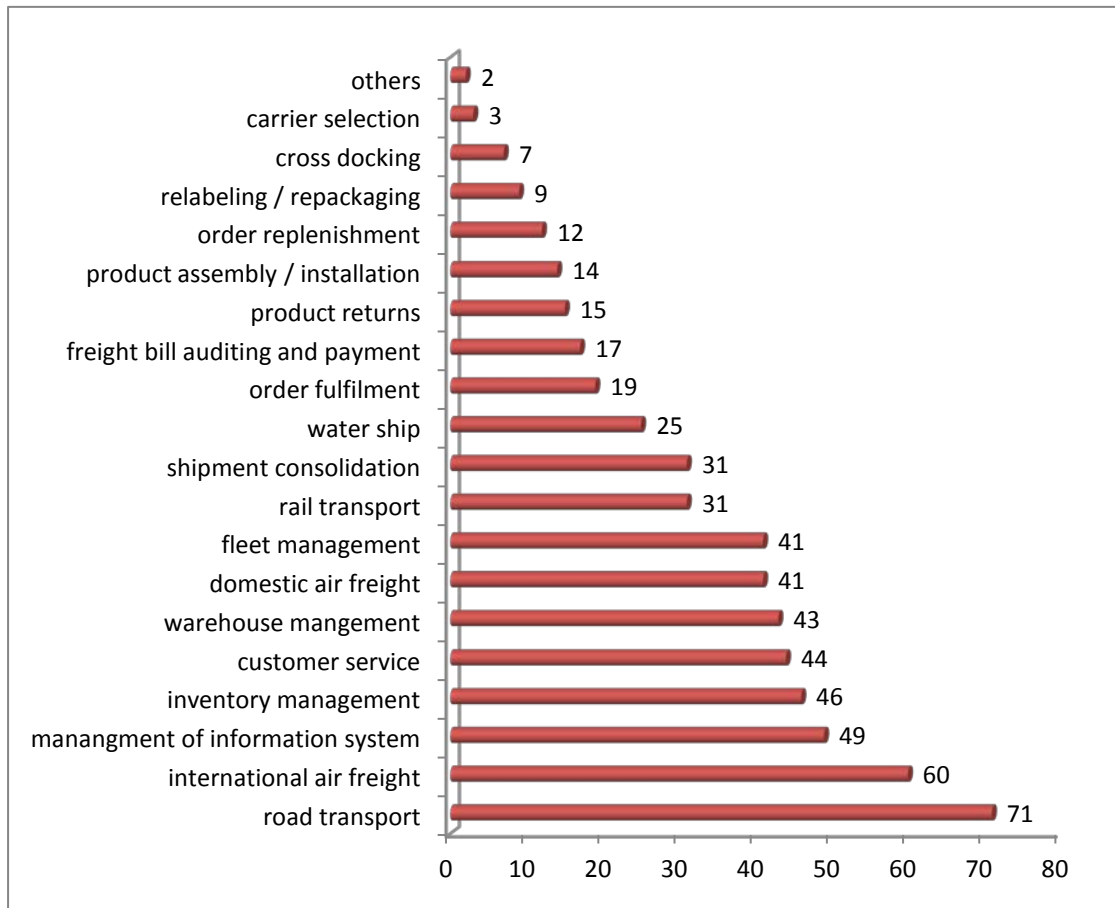


Figure 5.7 Usage of 3PL services (number of respondents) (Notes: N= 92 for each 3PL service)

Figure 5.8 explored that the main 3PL services used by the 92 3PL users in Tianjin. There is missing data (4) as the respondents may have forgotten to tick the main one at the front of each option. Within the rest 88 answers, there are 29 responding companies (33%) that use road transport as their main 3PL service recently. There are 21 3PL users (24%) that use international airfreight as their main 3PL service. The third biggest group of main 3PL models is management of information system as 11 respondents (13%) are using it. Figure 5.7 shows that 3PL model of water shipment is being currently used by SMBs in Tianjin, and Figure 5.8 shows that there is relative higher percentage of water shipment (9%). Finally, no company selected shipment consolidation, freight bill auditing and payment, product returns, order replenishment, relabeling/repackaging, cross docking, carrier selection, and customer services as their main 3PL model.

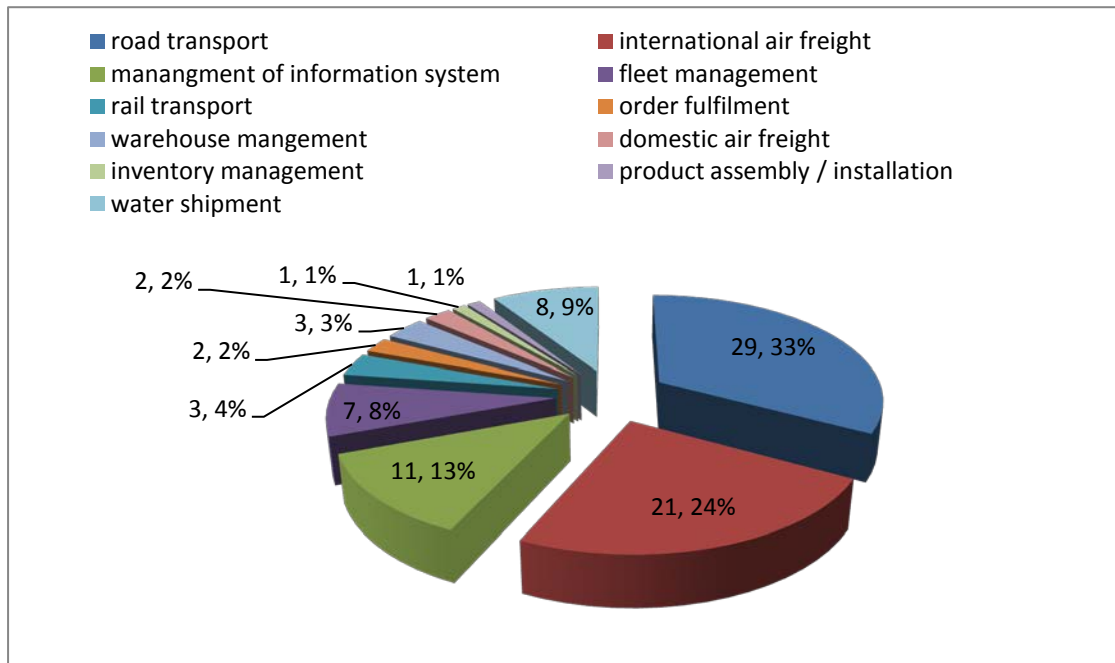


Figure 5.8 Most frequently used 3PL services in SMBs in Tianjin (percentage of respondents) (Notes: N=92)

5.4.2 The Number of 3PL Services Used

The number of 3PL services used in general business is another side in understanding the current usage of 3PL services. It also can help us to provide an explanation as to how heavily the 3PL services are being used for general business purpose. Table 5.3 shows the t-test results, which aims to find out if there is any relationship between the nature of the company and the number of 3PL services used. Pure local company and China state-owned enterprises are considered as local companies. Foreign companies include pure foreign investors and joint ventures.

In this study, more than 90% respondents use more than one 3PL service. This was similar to most of the countries mentioned in literature such as USA (Lieb & Bentz, 2005), Australia (Sohal, et al, 2002) and Singapore (Sohail et al, 2006).

| Levene's Test for Equality of Variances | | | | | | | | |
|---|----------------------|----|------|-------------------|-------|------|-----------------|---|
| | Nature of company | N | Mean | Std. Deviation | F | Sig. | t-value (df) | Independent samples p-value (2-tailed) |
| Mean of the number of 3PL Services used | Local company | 41 | 3.8 | 2.071 | 3.326 | .397 | -1.722 | .094 |
| | Foreign company | 51 | 6.0 | 2.988 | | | | |

Table 5.3 T-test Results

The T-test was conducted in order to compare the difference in the number of local and foreign companies using 3PL and also to understand the different 3PL activities between local and foreign company. The null hypothesis in this study is that there is no significant relationship between local and foreign company. Table 5.3 illustrated that Levene's Test for equality of variances is not significant, because p value >0.05 . In another aspect, this research noticed that p value at 0.1 as the criteria for significance, because of the small sample size in this study. With equal variances on each group, the two tailed T-test results was significant, due to the t value being = -1.722 and P 2-tailed value = 0.094 which is <0.1 . This result indicates that within the subgroup study, there was a significant relationship between the nature of company and the number of 3PL services used in Tianjin.

5.4.3 Satisfaction Level of Each 3PL Service

Satisfaction level of each 3PL service is another important measurement of current 3PL implementation in SMBs in Tianjin. The questionnaire designed 5 point scale question to measure satisfaction level of each 3PL service in SMBs in Tianjin. The levels of satisfaction were rated as follows: 1=very dissatisfied, 2=dissatisfied, 3=neither, 4=satisfied, 5=very satisfied. Figure 5.9 shows percentage of satisfaction level for each 3PL service. Most respondents rank satisfaction level around 3 and 4 which is neither and satisfied. There were only 5 models which were considered very

dissatisfactory by the respondents, one of which were the fleet management (3 respondents as 7%) and only one company (3%) ranked very dissatisfied for the warehouse management, inventory management (3%), and management of information system. Half of the 3PL services listed on the questionnaire have been ranked as very satisfactory, such as international airfreight (33%, 16 respondents), domestic airfreight (6 respondent, 21%), management of information system (5 respondents, 15%), and inventory management (4 respondents, 13%), etc.

Figure 5.9 showed that most models have been ranked dissatisfactory around 6% to 23% which is relatively lower than neither and satisfied. Every 3PL service listed on the questionnaire has relatively higher percentage of neither and satisfied. Most models have been ranked neither (around 35% to 60%), and satisfied (around 30% to 50%).

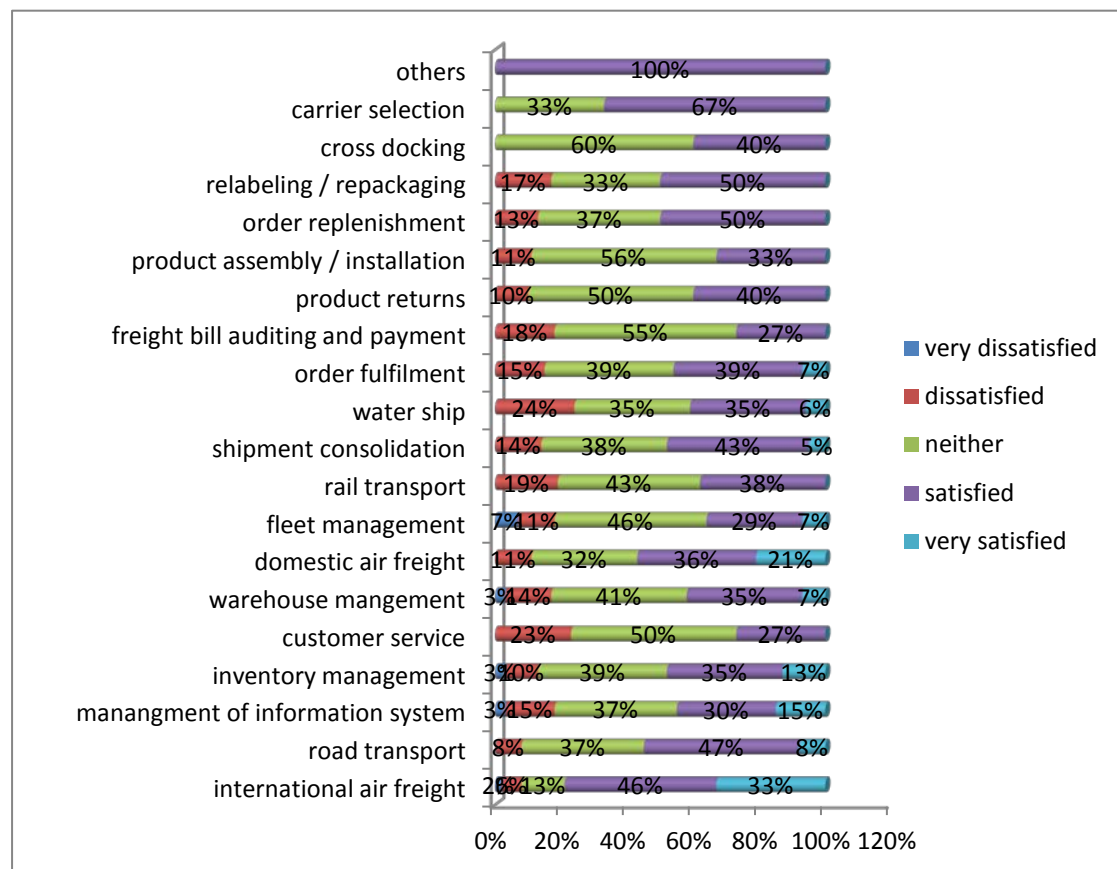


Figure 5.9 Satisfaction level of each 3PL service (Notes: N=92 for each 3PL service)

Table 5.4 gave some additional information about satisfaction level of all the 3PL

services. Table 5.4 shows that all results are relatively uniform and the average rate of satisfaction level is 3.4 with minimum of 3.03 and maximum of 4.02. Currently, according to figures of Table 5.4, respondents are satisfied with their 3PL freight forwarding services in Tianjin. The highest satisfied service is international airfreight that scored 4.02 with relatively middle standard deviation 0.95. The service of customer service had the lowest satisfaction level of 3.03 and with a standard deviation of 0.71.

| Types of 3PL | Number | Mean | Std. Deviation |
|-----------------------------------|--------|------|----------------|
| Road transport | 71 | 3.55 | 0.74 |
| Rail transport | 31 | 3.19 | 0.73 |
| Water ship | 25 | 3.24 | 0.88 |
| Domestic air freight | 41 | 3.68 | 0.93 |
| International air freight | 60 | 4.02 | 0.95 |
| Warehouse management | 43 | 3.28 | 0.91 |
| Inventory management | 46 | 3.45 | 0.94 |
| Carrier selection | 3 | 3.5 | 0.25 |
| Cross docking | 7 | 3.4 | 0.48 |
| Shipment consolidation | 31 | 3.38 | 0.79 |
| Product returns | 15 | 3.3 | 0.64 |
| Fleet management | 41 | 3.18 | 0.97 |
| Order fulfilment | 19 | 3.38 | 0.84 |
| Management of information system | 49 | 3.39 | 1.01 |
| Order replenishment | 12 | 3.38 | 0.7 |
| Relabeling / Repackaging | 9 | 3.33 | 0.75 |
| Product assembly / Installation | 14 | 3.2 | 0.63 |
| Freight bill auditing and payment | 17 | 3.09 | 0.67 |
| Customer service | 44 | 3.03 | 0.71 |
| Others | 2 | 4 | N/A |

Table 5.4 Satisfaction level of each 3PL service (Notes: There are 20 types of 3PL services based on a 5 point scale. 1=very dissatisfied, 2= dissatisfied, 3=neither, 4=satisfied, 5= very satisfied.)

Additionally, to compare other relative popular freight forwarding services, road transport showed satisfaction level of 3.55 with standard deviation of 0.74 while

satisfaction level for management of information system was 3.39 with standard deviation of 1.01. The satisfaction level for inventory management was 3.45 and standard deviation was 0.94. These three relatively popular services had a slightly higher satisfaction level than others.

5.4.4 Perspectives of current 3PL implementation in SMBs in Tianjin

Nowadays, it is very important to understand the usage of 3PL in Tianjin and in the whole China. The current levels of 3PL services usage were justified by length of using 3PL services, frequency of using 3PL services, etc. The following part shows many comparisons between local companies and foreign companies. The following cross tabulations can clearly to show the difference and analysis of current 3PL implementation situation in SMBs in Tianjin.

- Length of using 3PL

Table 5.5 showed an important relationship between nature of company in Tianjin and length of using 3PL services. Table 4.4 investigated if the nature of company affects the length of using 3PL. All responding companies were asked to mention the nature of their company in the first part of questionnaire. Considering the result of Pearson Chi-square test, Table 5.4 divided nature of the company into two main groups, local company and foreign company.

The results in Table 5.5 indicated that there was significantly high percentage of 41.3% using 3PL between 1 and 5 years in SMBs in Tianjin. Among the 92 respondents, 41.3% of the companies showed that they used 3PL services for 1- 5 years in Tianjin. A similar observation was made in a study conducted in Australia with 66% of the 3PL users outsourced logistics for more than 3 years (Sohal, et al, 2002). In both USA and Singapore 84% of the companies were using 3PL services for more than 3 years (Lieb & Bentz, 2005; Sohail, et al, 2006). About 42 respondents use 3PL for more than 6 years and local companies used 3PL services more (23 respondents, 55%) than foreign

companies (19 respondents, 45%).

In addition, Table5.5 assesses relationship between the nature of company and length of using 3PL in Tianjin by Chi-square test. Data groups re-organised into local company and foreign company, using 3PL longer than 5 years and less than 5 years. The null hypothesis is that there is no relationship between nature of company and length of using 3PL in Tianjin. Table5.4 explored that Chi-square value = 3.25, df=1, and p-value = 0.09 (>0.05). Therefore, the results reveal that there is no significant relationship between nature of company and length of using 3PL in Tianjin.

| Length of using 3PL | Nature of company in Tianjin | | | | |
|---------------------|---------------------------------|-------------------------------|------------------------|---------------|-----------|
| | Pure local companies in Tianjin | China state-owned enterprises | Pure foreign investors | Joint venture | Total |
| <1 year | 2(5.5%) | 0(0%) | 6(27.3%) | 4(13.9%) | 12(13.0%) |
| 1-5 years | 15(40.5%) | 1(25%) | 9(40.9%) | 13(44.8%) | 38(41.3%) |
| 6-10 years | 15(40.5%) | 2(50%) | 5(22.7%) | 11(37.9%) | 33(35.9%) |
| >10 years | 5(13.5%) | 1(25%) | 2(9.1%) | 1(3.4%) | 9(9.8%) |
| Total | 37(100%) | 4(100%) | 22(100%) | 29(100%) | 92 (100%) |

Table 5.5 Nature of Company and the Length of Using 3PL Service (Notes: Re-organise the above figure into chi-square test, the nature of company into group foreign companies and local enterprises, length of using 3PL into group <5 years, and >5 years. **df=1, chi-square value= 3.25, p-value=0.09 (>0.05)**)

Analysis of variance (ANOVA) is another important test for investigating the differences between two categories. In this study, an ANOVA test was conducted to find whether different annual turnover nature of company would be impacted the length of using 3PL services. There are four groups of length of using 3PL services by respondents, <1year, 1-5 years, 6-10 years, and >10 years.

| | Sum of Squares | df | Mean Square | F | Sig. |
|----------------|----------------|----|-------------|-------|------|
| Between Groups | 29.83 | 2 | 12.285 | 2.960 | .107 |
| Within Groups | 831.69 | 89 | 9.943 | | |

Notes: Levene's test: for Homogeneity of variance results' p-value is .593.

Table 5.6 ANOVA results

Table 5.6 shows the ANOVA results. Combining the test of Homogeneity of variance, the results show the p value (0.539) greater than 0.05. From Table 5.6, the F value = 2.960 and Sig. P value = 0.107 (>0.1) and this result indicates that there is no significant relationship between the length of using 3PL services and annual turnover of company by respondents.

- Frequency of using 3PL

The following table revealed if the nature of the responding company would affect the frequency of using 3PL in Tianjin. This is another significant aspect in the analysis of current implementation of 3PL in SMBs in Tianjin. In China, logistics is a relatively new industry, but it is growing rapidly. It also gets significant focus from a wide range of businesses. The questionnaire designs five levels of frequency of using 3PL services: everyday, very often, average, sometime, and few time. Table 5.7 re-organised data into two main groups, one is local company and foreign company, another one is high frequency (equal and more than average) and low frequency (less than average).

| Frequency of using 3PL | Nature of company in Tianjin | | | | |
|------------------------|---------------------------------|-------------------------------|------------------------|---------------|-----------|
| | Pure local companies in Tianjin | China state-owned enterprises | Pure foreign investors | Joint venture | Total |
| Everyday | 12(32.4%) | 0(0%) | 10(45.5%) | 9(31.0%) | 31(33.7%) |
| Very often | 15(40.5%) | 1(25%) | 11(50%) | 16(55.2%) | 43(46.7%) |
| Average | 3(8.1%) | 2(50%) | 0(0%) | 2(6.9%) | 7(7.6%) |
| Sometime | 6(16.3%) | 0(0%) | 1(4.5%) | 2(6.9%) | 9(9.8%) |
| Few time | 1(2.7%) | 1(25%) | 0(0%) | 0(0%) | 2(2.2%) |
| Total | 37(100%) | 4(100%) | 22(100%) | 29(100%) | 92(100%) |

Table 5.7 Nature of Company and the Frequency of Using 3PL Services (Notes: Re-organise the above figure into chi-square test, the nature of company into groups foreign companies and local companies, frequency of using 3PL into groups more than average and less than average. **df=1, chi-square value=2.82, p-value=0.108 (>0.05).**)

Overview of table5.7 indicates that there is a bigger portion of the responding companies that use 3PL services very frequently. 88% of 92 3PL (81 respondents) users use 3PL services equal or higher than average level of frequency. Foreign companies and most joint ventures use 3PL services very often (16 respondents). There are 15 respondents out of pure local companies that use 3PL services very often but not every day. One respondent of China state-owned enterprises and pure local company uses 3PL services at the lowest level of frequency.

Table 5.7 also used Chi-square value to identify if a relationship between the nature of company in Tianjin and frequency of using 3PL services exist. The null hypothesis is there is no relationship between the nature of company and frequency of using 3PL services in Tianjin. As similar as above cross tabulation, results were re-divided into two main groups, one is local company and foreign company, another one is high frequency of using 3PL and low frequency of using 3PL. The Chi-square results of Table4.6 show that Pearson Chi-square value=2.82, df=1, and the P two-tailed value=0.108 (>0.05). Therefore, there is no significant relationship between the nature of company and frequency of using 3PL in Tianjin.

- Contract duration with 3PL providers

The study of duration of contract between 3PL users and 3PL services providers can explores the formal level of using 3PL services today. This study also provides an idea of how respondents plan to use 3PL services in short-term and long-term.

Figure 5.10 shows that 100% of the respondents (92 3PL users) had signed the contracts with their 3PL providers in Tianjin. Figure 5.10 explored that the long-term contracts between respondents and 3PL services providers are slightly more than short-term relationships between them. Figure 5.10 exemplifies that there were 39% of the respondents that had contracts with their 3PL services provider for 4-6 years making it the biggest group. Another 14% of respondents had long-term contracts with their 3PL services providers for more than 6 years. On the other hand, there were 25% of respondents who signed a contract with their 3PL services provider for 1-3 years, and 22% of them signed contracts that are less than 1 year. These results are slightly different from other western countries, such as USA, Australia, Western Europe, and New Zealand, as they have shorter relationship with their providers averaging 1-3 years. However, some Asian countries have similar situations with China, such as Malaysia and Singapore tend to have 5 years contracts (Sohail, et al., 2006).

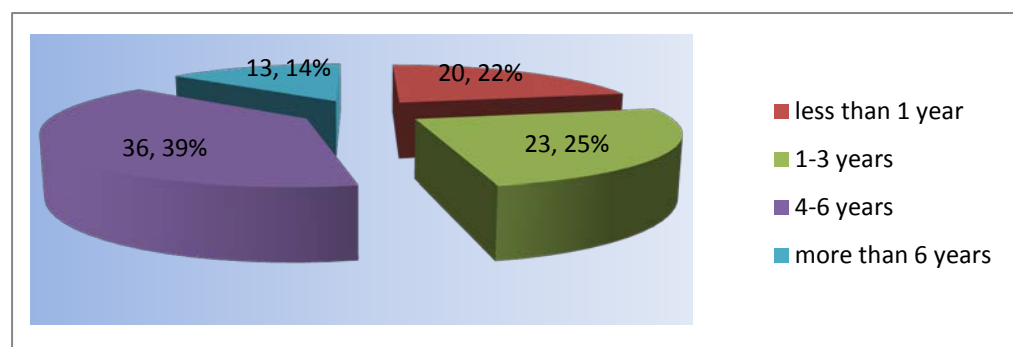


Figure 5.10 Duration of Contract (Notes: N=92)

Tianjin is a significantly a cross-cultural city and business activities are very dynamic. The difference of contract duration with 3PL provider between local and foreign companies was studied in order to analyse of respondents' 3PL activities better. Cross

tabulation (Table 5.8) showed that there was the biggest amount (15 respondents, 51.7% of joint venture) of 4-6 years contract with 3PL providers in the group of joint ventures. Within completely long-term contact users as over 6 years contract with 3PL providers, Joint venture is another obviously big amount in this group. On the other hand, 75% of China's state-owned enterprises signed contracts with 3PL providers which are longer than 4 years.

| Contact duration with 3PL suppliers | Nature of company in Tianjin | | | | |
|-------------------------------------|---------------------------------|-------------------------------|------------------------|---------------|-----------|
| | Pure local companies in Tianjin | China state-owned enterprises | Pure foreign investors | Joint venture | Total |
| None | 0(0%) | 0(0%) | 0(0%) | 0(0%) | 0(0%) |
| < 1 year | 15(40.5%) | 1(25%) | 1(4.5%) | 3(10.3%) | 20(21.7%) |
| 1-3 years | 9(24.3%) | 0(0%) | 10(45.5%) | 4(13.9%) | 23(25%) |
| 4-6 years | 11(29.7%) | 2(50%) | 8(36.4%) | 15(51.7%) | 36(39.1%) |
| >6 years | 2(5.5%) | 1(25%) | 3(13.6%) | 7(24.1%) | 13(14.1%) |
| Total | 37(100%) | 4(100%) | 22(100%) | 29(100%) | 92(100%) |

Table 5.8 Nature of Company and Contract Duration with 3PL Providers (Notes: Re-organise the above figure into chi-square test, the nature of company into groups foreign companies and local companies, contract duration into groups long term (longer than 4 years) and short term (less than 4 years). **df=1, chi-square value=6.02, p-value=0.049 (<0.05)**)

In addition, Chi-square value and p-value shows if there is a relationship between the nature of company and duration of contact with 3PL providers. The null hypothesis is there is no relationship between the nature of company and duration of contract with 3PL services providers in Tianjin. Cross tabulation re-divides data into two main groups, one is local company and foreign company, another one is long-term contract and short-term contract. The Chi-square results (Table 5.8) show that Pearson Chi-square value=6.02, df=1, and the P two-tailed value=0.049 (<0.05). Therefore, the value rejects the null hypothesis. It means that there is a significant relationship between nature of company and duration of contract with 3PL services providers.

5.5 Analysing significance of Guanxi in relationship management in 3PL in SMBs in Tianjin

Guanxi has existed in China for a very long time. This special social activity applies in wide range of fields, such as meeting friends, getting new opportunities, etc. For instance, when the research was conducted, it was very hard to get response from the target companies. However, six companies accepted the phone interview invitation. Western countries have a different cultural background, but many previous studies indicated that more and more western countries are taking Guanxi seriously, especially when they want to entre China's markets (Wilfried R, Vanhonacker, 2004).

It is hard to find out articles of Guanxi in 3PL in Tianjin from previous study. Therefore, the following discussions analyse the significance of Guanxi in 3PL relationship management in Tianjin that include analysing current Guanxi network situation, exploring benefits of Guanxi, how to build Guanxi, etc.

5.5.1 Perspectives of current Guanxi network in SMBs in Tianjin

Current situation analyse of Guanxi in 3PL in Tianjin is basic information of Guanxi study. It gives some ideas of businesses using Guanxi. The following compare the difference between local company and foreign company, because they have significantly different cultures. They may have different attitude to Guanxi in their business environment.

Table 5.9 showed that all of 92 responding companies are applying Guanxi in their normal business 3PL relationship management activities. This 100% situation obviously indicates that Guanxi is very important for doing business in China today.

| Using Guanxi | Nature of company | No. | Percentage (%) |
|--------------|-------------------|-----|----------------|
| Yes | Local company | 41 | 100% |
| | Foreign company | 51 | 100% |
| No | Local company | 0 | 0% |
| | Foreign company | 0 | 0% |
| Total | | 92 | 100% |

Table 5.9 Usage of Guanxi in 3PL in SMBs in Tianjin (Notes: N=92)

● Current issues involved in 3PL

Recently, there are many risks in business activities in Tianjin. Guanxi is a special activity to coordinate relationship between companies. Figure 5.11 gives information of the current risks that exists in 3PL relationship management in Tianjin. Due to the fact that companies normally face more than one risk, the questionnaire was designed as a multiple choice and open-end questionnaire in order to understand their situation.

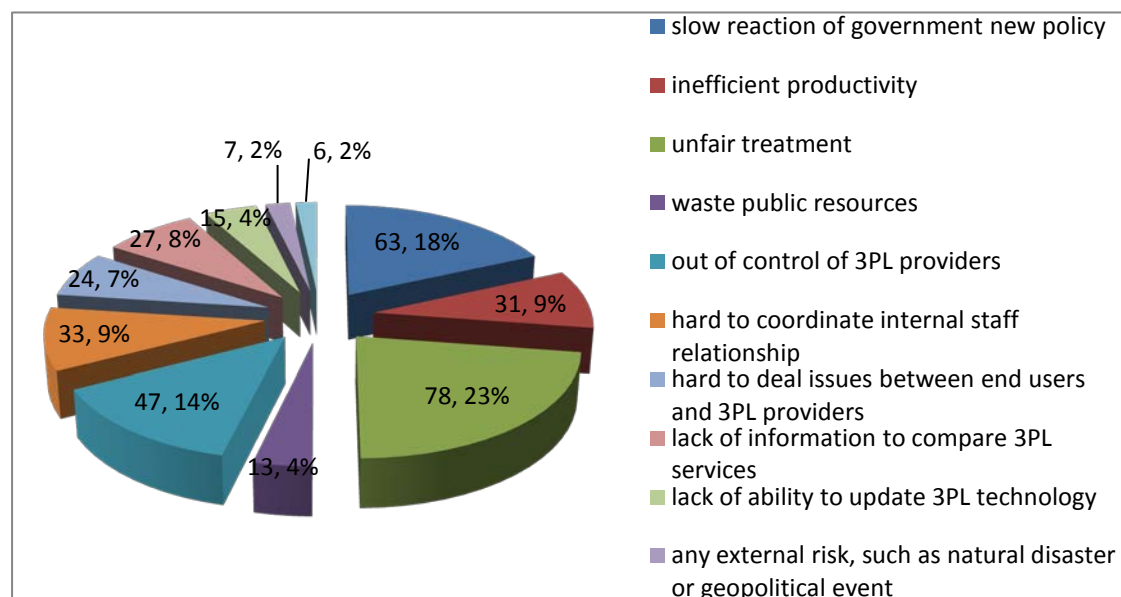


Figure 5.11 Current issues in 3PL (Notes: N=92 for each risk)

Figure 5.11 revealed that 85% of responding companies face the risk of unfair treatment in their 3PL relationship management which is the highest. The next big risk is slow reaction of government new policy (69% of 92 3PL users). Then, out of control of 3PL

providers is (51%) another relatively big risk to SMBs in Tianjin. This trend is similar with previous studies. Yao (2008) indicated that the 3PL is only 10% in whole supply chain industry in China and it is new and dispersed. Therefore it is relatively hard for the 3PL users to control is. Less than 50% of the respondents indicated risks such as waste public resource, hard to coordinate internal staff relationship, hard to deal issues between end users and 3PL providers, lack of information to compare 3PL services, lack of ability to update 3PL technology, and other external risk as their 3PL relationship management risks. Six respondents mentioned other risks with in their 3PL relationship management, such as current 3PL services provider closing down, and competitor has same network with their 3PL provider etc.

| Reasons | Nature of company in Tianjin | | No | Pearson Chi-square value (df) | p-value |
|---|------------------------------|---------|---------|-------------------------------|---------|
| | Yes | No | | | |
| Slow reaction of government new policy | Local company | 23(56%) | 18(44%) | 5.25 (1) | 0.473 |
| | Foreign company | 40(78%) | 11(22%) | | |
| Inefficient production | Local company | 21(51%) | 20(49%) | 10.17 (1) | 0.008 |
| | Foreign company | 10(20%) | 41(80%) | | |
| Unfair treatment | Local company | 33(80%) | 8(20%) | 1.06 (1) | 0.241 |
| | Foreign company | 45(88%) | 6(12%) | | |
| Waste public resources | Local company | 6(15%) | 35(85%) | 0.02 (1) | 0.494 |
| | Foreign company | 7(14%) | 44(86%) | | |
| Out of control of 3PL provider | Local company | 20(49%) | 21(51%) | 0.16 (1) | 0.449 |
| | Foreign company | 27(53%) | 24(47%) | | |
| Hard to coordinate internal staff relationship | Local company | 13(32%) | 28(68%) | 0.56 (1) | 0.338 |
| | Foreign company | 20(39%) | 31(61%) | | |
| Hard to deal issues between end users and 3PL suppliers | Local company | 9(22%) | 32(78%) | 0.66 (1) | 0.314 |
| | Foreign company | 15(29%) | 36(71%) | | |
| Lack of information to compare 3PL services | Local company | 8(20%) | 33(80%) | 3.45 (1) | 0.089 |
| | Foreign company | 19(37%) | 32(63%) | | |
| Lack of ability to update 3PL technology | Local company | 9(22%) | 32(78%) | 1.73 (1) | 0.167 |
| | Foreign company | 6(12%) | 45(88%) | | |
| Any external risk, such as natural disaster or geopolitical event | Local company | 3(7%) | 38(93%) | 0.09 (1) | 0.471 |
| | Foreign company | 4(8%) | 47(92%) | | |
| others | Local company | 2(5%) | 39(95%) | 0.02 (1) | 0.494 |
| | Foreign company | 4(8%) | 47(92%) | | |

Notes: *represents cells expected count less than 5

Table 5.10 Current risks in 3PL (local company vs. foreign company) (Notes: N=92)

Cross tabulation (Table 5.10) indicated the differences between local and foreign

companies. Forty five foreign companies felt they receive unfair treatment from their 3PL relationship. Forty foreign companies have risk of slow reaction of local government policy. However, there was no significant difference between local and foreign companies. A similar observation was made in previous researches of Guanxi in China business environment. Vincent Lo (2004) stated that western companies doing business in China need to establish a good relationship with government. Inefficient production was one of the risks that local companies (21 respondents) face more compared to the foreign companies (10 respondents).

Furthermore, Table 5.10 also indicates the Chi-square value and p-value which was used to find out relationship between nature of company and risk of relationship management in 3PL industry in Tianjin. The null hypothesis is that there is no relationship between nature of company and risk of relationship management in 3PL in Tianjin. Most p-values of Table 5.10 were greater than 0.05. But the p-value (0.008) for the risk of inefficient production was less than 0.05. Therefore, the value rejects the null hypothesis which means that there is a significant relationship between nature of company and risk of relationship management in 3PL industry in Tianjin.

- The tightness level of Guanxi network

According to above data and previous studies, more and more companies are focusing on applying successful Guanxi in their businesses in China. The following figures assess the tightness levels of responding companies with their 3PL partners in Tianjin.

The questionnaire provides eight possible relationships between 3PL users and their partners that include one open-end option to get more information. Figure 5.12 showed that there was a very dynamic business environment in Tianjin and most of the respondents had more than one Guanxi with their partners. For instance, 90.2% of 92 responding companies of 3PL users had Guanxi with their shipping companies. The next popular Guanxi in 3PL in Tianjin was the local government (88%). The results were similar to the results obtained from phone interviews. A phone interview with

LIYU Property Ltd was conducted and Mr Qiulin Li, (the director of the company) indicated Guanxi with the local government was essential within the real-estate and property development industry. Guanxi with local government would avoid negative impact efficiently as the government's policy influence their profits directly. Three respondents also had Guanxi with other partners, such as end user.

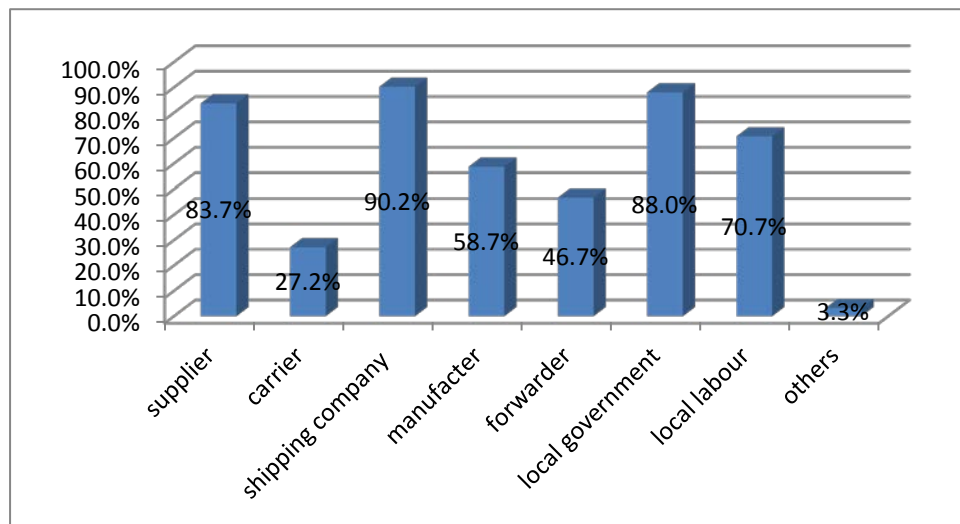


Figure 5.12 Usage of Guanxi with 3PL partners (Notes: N=92)

Most companies out of the 92 3PL users had close relationship with their partners (Figure 5.13). The questionnaire created a 5 points scale question to evaluate the tightness level between responding companies and their partners in 3PL activities (1=very close, 2=close, 3=average, 4=estranged, 5=very estranged). No respondents chose “very estranged” to describe their Guanxi with current partners. Guanxi with shipping companies had the highest percentage (52%) of very close level. The next high percentage of very close Guanxi was with the supplier. A phone interview was conducted with Mrs Shaoping Liu, the General Manager of YUFU Industrial Ltd. The company produces and sells wood floor within China and also exports and they import raw materials from East and South Asia, Canada, and Australia. The manager indicated that the shipping company is very important for them, because choosing a right shipping company can significantly reduce their cost and increase efficiency. Suppliers are also important for the company, as the price and source of raw materials

provider affect their products price and quality directly.

On the other hand, Guanxi with local government has very high percentage of usage, but the tightness is not so prominent. Mr Qiulin Li indicated that most businesses try to establish a very close Guanxi with local government, but government offices prefer to keep a little distance with them.

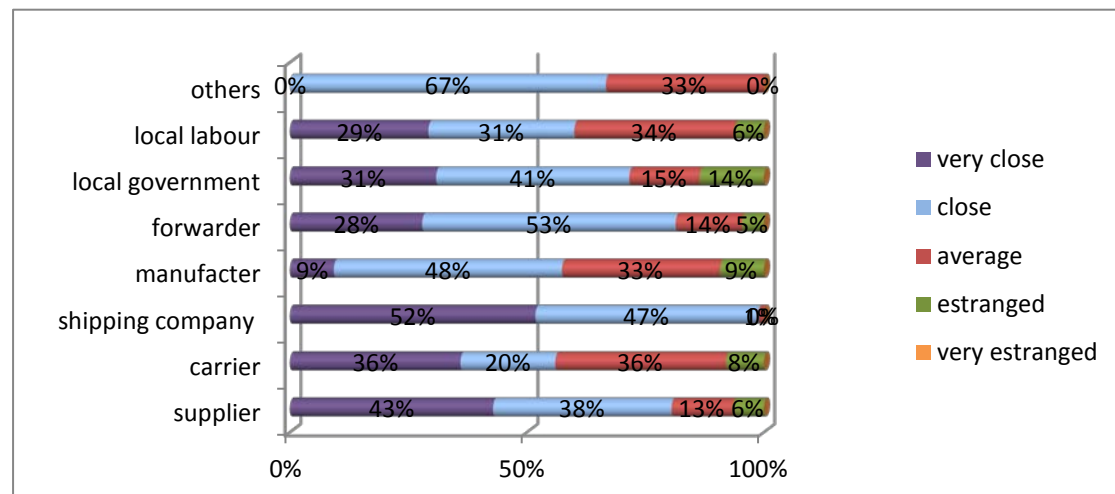


Figure 5.13 Tightness level of current Guanxi network (Notes: N=92 for each network)

5.5.2 To analysis the current Guanxi application in 3PL in SMBs in Tianjin

According to following analyses of elements influencing Guanxi, benefits of successful Guanxi and how to use Guanxi in different situations, etc provide deep explanation of the significance of Guanxi in 3PL in Tianjin. No study has been conducted to explore this field hence this research tries to compare the differences between local and foreign companies.

● Current situation of Guanxi in SMBs in Tianjin

The questionnaire of this research provides seven possible elements that may affect the current Guanxi and includes one open-end option for better understanding of the current situation. In this aspect, government policy still plays a significant role in influencing the companies' Guanxi with their current partners. Figure 5.14 indicated

that 88% of 92 3PL users feel that government policy obviously affect their current Guanxi. All phone interviewees explained that they could not control government policy, so they only can follow the policy. Interestingly, individual person's activity has relatively high percentage of 86%. Although Guanxi is between businesses and businesses in this study, personal activities still make changes. Mr. James Doherty (Production manager of YUDA Industrial Ltd) said that although Guanxi is between companies, most Guanxi is established by an individual. For instance, one of their staff had a family member working for potential raw materials supplier, and this Guanxi would be very easy to build. Otherwise, it may take a long time and cost more money.

In contrast, the lowest percentage (13%) influencing Guanxi element is the natural environment. Market need and internal labour coordination has similar percentage of elements affecting current Guanxi. Four respondents indicated that other ideas which were not listed, such as changes of strategies from competitors.

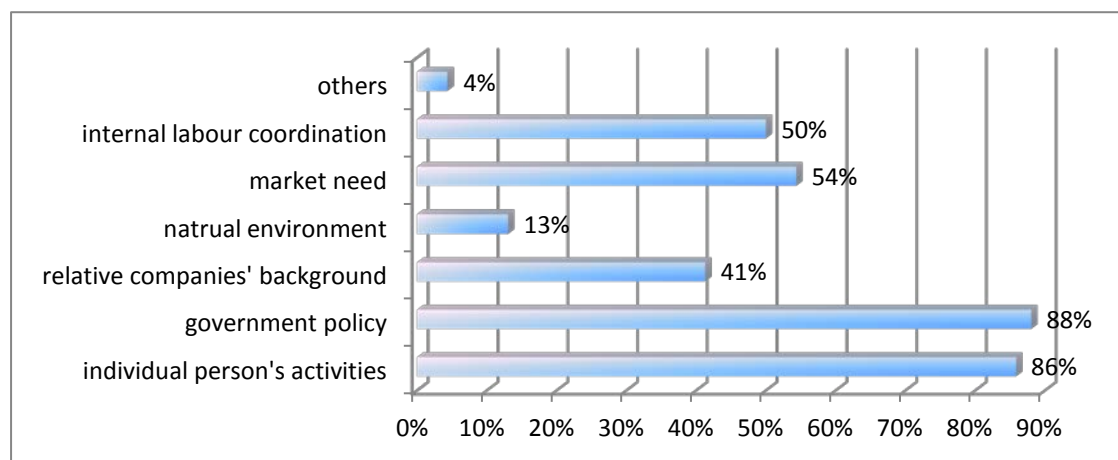


Figure 5.14 Elements influencing Guanxi (Notes: N=92 for each element)

Benefits of using Guanxi can give ideas of significance of Guanxi in relationship management in 3PL in Tianjin from another point of view. The questionnaire designs an open-end question that provides seven options and one open-end option. Considering business may obtain more than one benefit from successful Guanxi in their relationship management, the questionnaire creates a multiple choice to respondents. Figure 5.15 revealed that there was a big amount of responding companies developing

their market share (70 respondents, 76%) significantly by using Guanxi in relationship management in Tianjin. There were 67 respondents (73%) who selected benefit of winning competition that is another big group of benefit of using Guanxi. Fifty nine respondents (59%) selected saving time as the benefit, fifty eight (58%) selected a benefit of extending wide range of relationship network. While forty nine percent (45) of the respondents selected the benefit of earning more money as benefit of using Guanxi. Four respondents indicated other benefits of using Guanxi, such as meeting new friends and learning new skills. Figure 5.15 showed a big amount of every benefit that means Guanxi is very important for business relationship management in Tianjin.

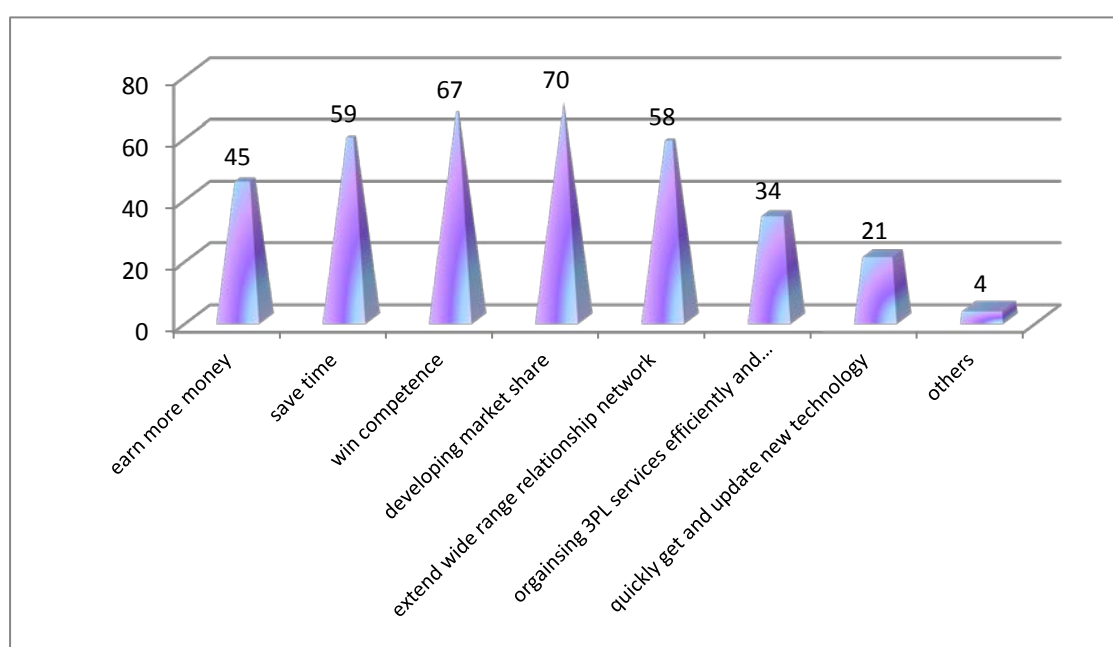


Figure 5.15 Benefits of using successful Guanxi (Notes: N=92)

● Usage of Guanxi in different situation

There is a wide range of use of Guanxi in everyday life. In different situation, Guanxi applies different role and brings different benefits. Therefore, following discussions looks into different situations and see the different treatments of Guanxi.

Table 5.11 indicates the difference between local companies and foreign companies using Guanxi in different situations. The relationship between nature of company and

situation of using Guanxi was analysed by the Pearson Chi-square test and significance test (T-test). The null hypothesis is that there is no significant relationship between using Guanxi in different situation and nature of the company in Tianjin. There was no significant relationship between nature of company and situation of using Guanxi in Tianjin, as all p-value were >0.05 . However, 33 respondents (36%) used Guanxi during emergency situation and 28 respondents (30%) indicated the use of Guanxi during competition.

Within the group of 51 foreign companies in Tianjin, 30% of responding companies use Guanxi in competition situation. Mr. James Doherty said that in Tianjin there is market competition in everyday and his company being pure foreign investor experiences less competition compared to local companies. If his company hopes to win a competition, he normally tries to use existing Guanxi to get information of competitors as much as possible. In contrast, 44% of 41 local companies use Guanxi when involved in an urgent situation. For example, Mrs Shaoping Liu explained a situation when her company had to exchange incorrect wooden floor for their big client in Guangzhou (south China) within 3 days. Normally shipping companies have to arrange to pick up orders within one week depending on the market season. When the company was in such an emergency situation the manager called her friend who was a team leader of the transport team in the shipping company. The friend of her helped the company solve this problem. This example indicates that Guanxi was used during emergency situation. There were 2 foreign companies that used Guanxi in other situations, such as when trying to learn local culture.

| Different situation | Nature of company | | | Pearson Chi-square value (df) | p-value |
|---------------------------|-------------------|-----|------|-------------------------------|---------|
| | | Yes | No | | |
| Normal business situation | Local company | 7 | 34 | 1.07 | 0.239 |
| | Foreign company | 4 | 47 | (1) | |
| Competition | Local company | 11 | 30 | 0.45 | 0.365 |
| | Foreign company | 17 | 34 | (1) | |
| Entre a new market | Local company | 5 | 36 | 2.55 | 0.119 |
| | Foreign company | 13 | 38 | (1) | |
| Emerge situation | Local company | 18 | 23 | 2.07 | 0.143 |
| | Foreign company | 15 | 36 | (1) | |
| Others | Local company | 0 | 41 | 0.32 | 0.401 |
| | Foreign company | 2 | 49 | (1) | |
| Total | | 92 | 100% | | |

Table 5.11 Usage of Guanxi in different situation (Notes: N=92 (local company=41,

foreign company = 51))

Urgent event significantly impacts companies' business activity. For example, in 2008, Sichuan had a massive earthquake that measured Magnitude . At that time, all businesses relative to Sichuan were forced to stop. Within a Guanxi network, a person resigned the job and brings all personal Guanxi to other company can be another urgent event. What action should be taken for turning tide? The questionnaire asks respondents to indicate the priority action. Figure 5.16 indicated usage of Guanxi implementation in urgent event by responding companies. Nearly half of the entire responding companies (46% of 92 3PL users) contacted the existing Guanxi when they were involved in an urgent situation, while 26% of the responding companies (24 respondents) preferred to call people when they were involved in a emergency situation. Calling people is a part of Guanxi in relationship management. These results are similar to the results in previous studies of Guanxi in Chinese Business. British Embassy in Beijing Report stated that the Chinese believe that prospective business partners should build a relationship and, if successful, commercial transactions will follow, especially in an urgent or special event.

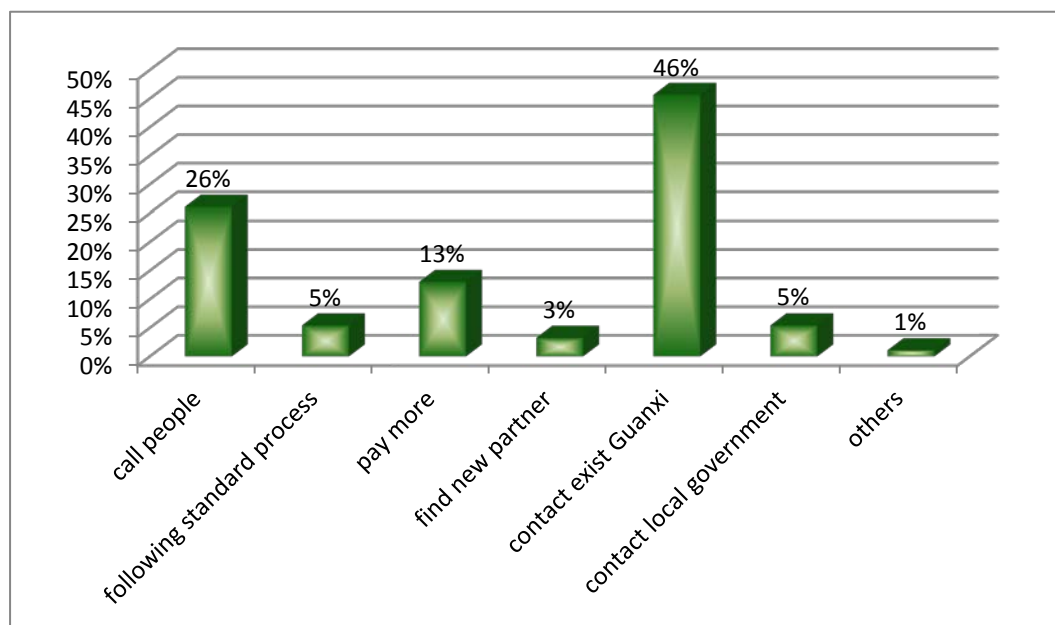


Figure 5.16 Implementation of using Guanxi in urgent event (Notes: N=92)

- Broken Guanxi in 3PL in SMBs in Tianjin

Broken Guanxi in relationship management is another important aspect that needs to be analysed. Many events may cause broken Guanxi. Broken Guanxi may result in several negative impacts to the companies. The following discussions investigate the causes of broken Guanxi, impacts of broken Guanxi in relationship management, and difference between local and foreign companies.

| Broken Guanxi in past 5 years | Nature of company | No. | Percentage (%) |
|-------------------------------|-------------------|-----|----------------|
| Yes | Local company | 33 | 36% |
| | Foreign company | 48 | 52% |
| No | Local company | 8 | 9% |
| | Foreign company | 3 | 3% |
| Total | | 92 | 100% |

Table 5.12 Broken Guanxi (local company vs. foreign company) (Notes: **Chi-square value=2.82, df=1, p-value=0.108 (>0.05)**)

The questionnaire asks all respondents to indicate if they have broken Guanxi in last five years. Table 5.12 showed that most of local companies and foreign companies have experienced broken Guanxi in the last five years. 52% of total responding companies are foreign companies and 36% of total responding companies are local companies. Both of them have experience of broken Guanxi in last five year which is a significantly larger percentage (12%) than of no broken Guanxi in last five years. In addition, Chi-square value and p-value were used to assess if there was any relationship between nature of the company and broken Guanxi experience. The null hypothesis is there is no significant relationship between nature of company and broken Guanxi in the past. P-value (0.108) being greater than 0.05 indicates that there is no significant relationship between nature of the company and broken Guanxi in the past in 3PL in Tianjin.

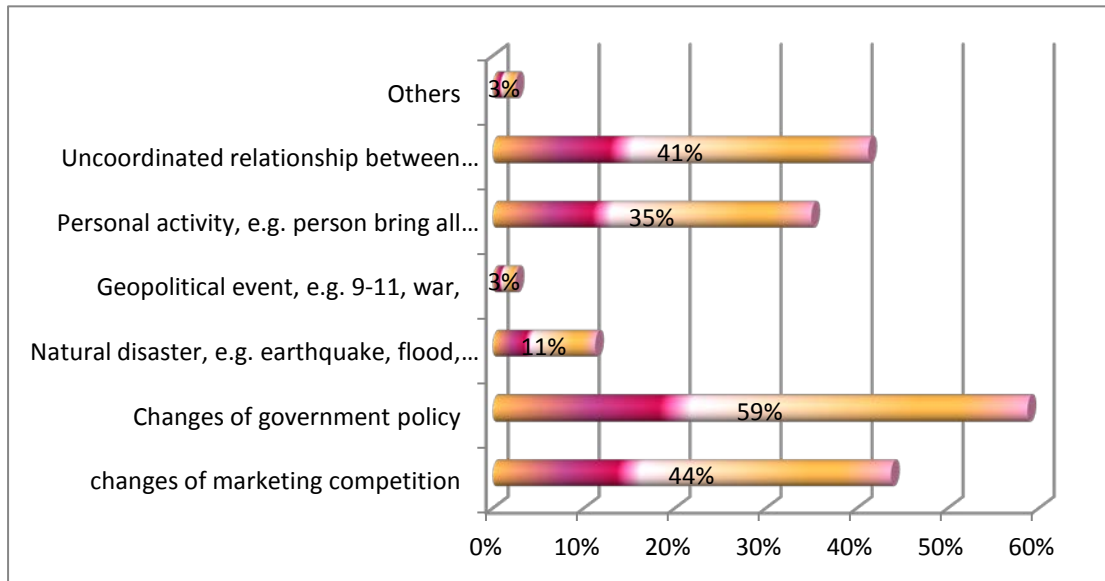


Figure 5.17 Reasons of Broken Guanxi (Notes: N=80)

There are many events that may cause broken Guanxi. Figure 5.17 shows that the most prominent cause of broken Guanxi is the changes of government policies as 59% of total respondents supported this. The next cause of broken Guanxi is changes in the market competition with 44%. Uncoordinated relationship between internal department and employees (41%) is another relatively frequent cause for broken Guanxi in relationship management in 3PL in Tianjin. Natural disaster and geopolitical event has the lowest percentage of responding companies, with 11% and 3% respectively. Three percent of the responding companies have described other causes, for example, company changes market strategy.

In today's business life, broken Guanxi happens regularly. It brings on a chain of negative impacts. The analysis of the impacts of broken Guanxi in relationship management in Tianjin can help us in further understanding the significance of Guanxi in SMBs in Tianjin. The questionnaire provides seven impacts and one open-end option.

Figure 5.18 explored that the percentages of negative impacts in SMBs in Tianjin are similar each other. There are obvious differences between each impact. Loss of

competition advantage is the biggest negative impact (61%, 49 respondents) in SMBs in Tianjin. Loss of skilled employees and costs more to build new Guanxi network has a 45% responding rate (53%, 49%). In contrast, there is only one company that indicated another impact of broken Guanxi in their relationship management in 3PL, such as loss of raw material suppliers.

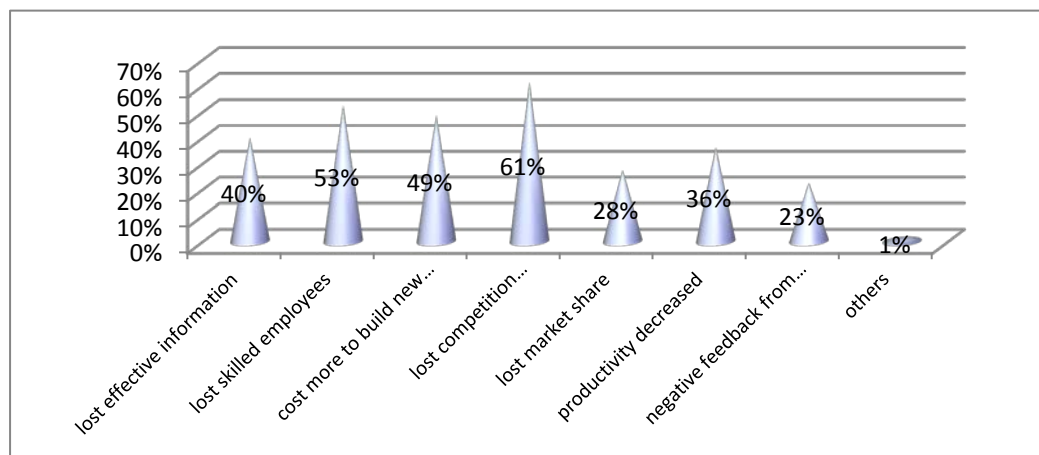


Figure 5.18 Impacts of broken Guanxi in business (Notes: N=80)

5.5.3 Exploring implementation of building Guanxi

According to above discussions, most companies in Tianjin use Guanxi network in their general businesses and they have positive and negative impacts from Guanxi in their relationship management. Establishing useful Guanxi in their relationship management is an important consideration for them. The following figures indicate how they establish Guanxi and what the aspects of concern are during the selection of partner before establishment of a Guanxi.

● Establishing Guanxi

The questionnaire uses 5 points scale to collect data of consideration for selecting potential Guanxi partner (1=very strongly consider, 2=strongly consider, 3= average, 4= occasionally consider, 5=never consider). Considerations include people known before, reputation, trust, company history, individual person's qualification and

open-end option for others. Figure 5.19 shows the emphasis level of each consideration. Other consideration has 96% responding rate at a level of never consider, because there are only 4 respondents who have other considerations. For example, before selecting a potential Guanxi network, strong government relationship background could be significant consideration for them.

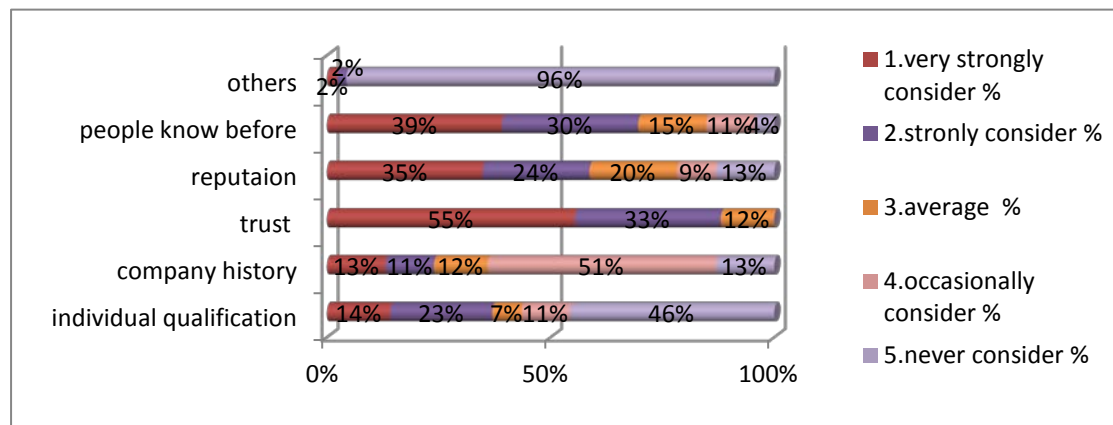


Figure 5.19 Emphasis level of consideration of selecting Guanxi partner (Notes: N=92 for each consideration)

The 5 considerations of selecting Guanxi network namely trust, product reputation, and people known before have more than half responding rate with an average higher than strongly considered. Trust has the highest percentage of emphasis level of very strongly considered (55%). Consideration of people known before has the second highest percentage of very strongly considered (39%). Every consideration has similar responding percentage at level of strongly considered that lie between 11% and 33%. On the other side, individual qualification and company history have relatively high percentage at the level of occasionally considered and never considered. Company history has the highest percentage at level of occasionally considered (51%). Individual qualification has relatively high percentage at a level of never considered (46%).

The difference between local company and foreign company on emphasis level is to analyse the significance of Guanxi in relationship management in Tianjin from another

point of view. Table 5.13 shows differences of the main considerations for selecting a potential Guanxi between local company and foreign company. Trust still is the biggest group of main consideration for selecting potential Guanxi partner. There were 35 respondents (38%) who selected trust as their main consideration. The amount of foreign companies (24 respondents) is double the amount of local companies (11 respondents). In another case, there are only 12 respondents (13%) that selected company history as their main consideration of selecting a Guanxi, but there is a big difference between local company and foreign company. The number of foreign companies (10 respondents) is five times the amount of local companies (2 respondents). In the interview, Mr James Doherty said that the relative company's history is very important for them, because his company is a foreign investor, hence setback by the lack of information of local culture, economy, government policy, etc. Therefore, before establishing a Guanxi, company's history would be considered essential. The consideration of people known before was the next main consideration. Twenty respondents (22% of entire responding companies) selected this as one of their main considerations. Interestingly, local companies (16 respondents) had four times higher consideration compared to than foreign companies (4 respondents). This result was similar to the results of than previous study of Guanxi in Chain. Ming-Jer Chen (2001) "when meeting people, Westerners tend to ask someone about their profession. The Chinese tend to ask where you are from and then may ask if you know somebody that they may know there."

| Main consideration of select a partner | Nature of company | Yes | No | Pearson Chi-square value (df) | p-value |
|--|-------------------|-----|----|-------------------------------|---------|
| Individual qualification | Local company | 6 | 35 | 3.55 | *0.087 |
| | Foreign company | 1 | 50 | (1) | |
| Company history | Local company | 2 | 39 | 4.35 | *0.039 |
| | Foreign company | 10 | 41 | (1) | |
| Trust | Local company | 11 | 30 | 3.95 | 0.047 |
| | Foreign company | 24 | 27 | (1) | |
| Reputation | Local company | 5 | 36 | 1.39 | 0.198 |
| | Foreign company | 11 | 40 | (1) | |
| People know before | Local company | 16 | 25 | 12.99 | *0.008 |
| | Foreign company | 4 | 47 | (1) | |
| Others | Local company | 1 | 40 | 0.32 | *0.401 |
| | Foreign company | 1 | 50 | (1) | |

Notes: *represents cells have expected count less than 5

Table 5.13 Main considerations before selecting the 3PL partner in SMBs in Tianjin
(Notes: N=92)

A cross tabulation was produced between local company and foreign company, and the main considerations for selecting a Guanxi. This was to determine whether the nature of company had effects on whether they choose a particular main consideration of selecting a Guanxi. Table 5.13 shows the results of Pearson Chi-square value and p-value. The null hypothesis is that there is no significant relationship between the nature of the company and main considerations for selecting a Guanxi. Significant Pearson Chi-square results were obtained for main considerations including company history (chi-square value=4.35, p-value=0.039, p-value<0.05), trust (chi-square value=3.95, p-value=0.047, p-value<0.05), and people known before (chi-square value=12.99, p-value=0.008, p-value<0.05). These results indicate that there was a significant association between the nature of company and consideration of selecting a Guanxi.

How to build a Guanxi is a significant topic in today's relationship management. Xingyun Duan (2008) stated that in Tianjin, a large percentage of businesses are SMBs

(99.18%). From the above discussion, Guanxi plays a significant role in winning competitions in the market. The following discussion tends to explore important elements in building a Guanxi.

The questionnaire created a multiple-choice question to collect data on how companies build Guanxi in 3PL in Tianjin. Figure 5.20 showed that building trust with the potential partner is the main method for building a Guanxi as 72% of entire responding companies apply this. Finding the person who knows the person your company wants to meet is the next major method accounting for 47% of the companies. During the phone interview, Qiulin Li said that, in property and real-estate industry, before you get a project, most time you have to meet people who are involved in the project, such as banker, government officers, builders, suppliers, etc. If anyone already has a relationship with them, it is very easy to build a Guanxi. After establishing a Guanxi, extending it is relatively easier.

The rest of the Guanxi building methods had similar responding rates on accurate company's need and wants before establishing a Guanxi (32%), following self-similarity principle (29%), and buying gift (25%). Chen (2001), indicated that "for the Chinese, the giving of symbolic gifts can help in strengthening the relationship." However, Figure 5.20 shows that there is a relatively low rate of giving gifts in building a Guanxi. Finally, there were 2 companies that gave other methods to build Guanxi that is "Saving Mianzi strategy". Mianzi is another special word in China which is accumulated by means of personal effort or clever manoeuvring. Mianzi is a kind of recognition ego dependent on the external environment (Hu, 1994). It has delicate relationship with Guanxi. This result was similar to many previous studies. For example, Joseph Lee stated that Chinese emphasise highly on courtesy and face-saving. This has to do with China's traditional culture, and courtesy can be seen in every aspect in the business world. A recent study conducted by the China Youth Daily found that over 93 percent of the 1,150 respondents surveyed admitted that face-saving is very important to them, with 75 percent acknowledging that making a mistake in public was,

by far, the most humiliating experience they could ever have (Shan, 2005).

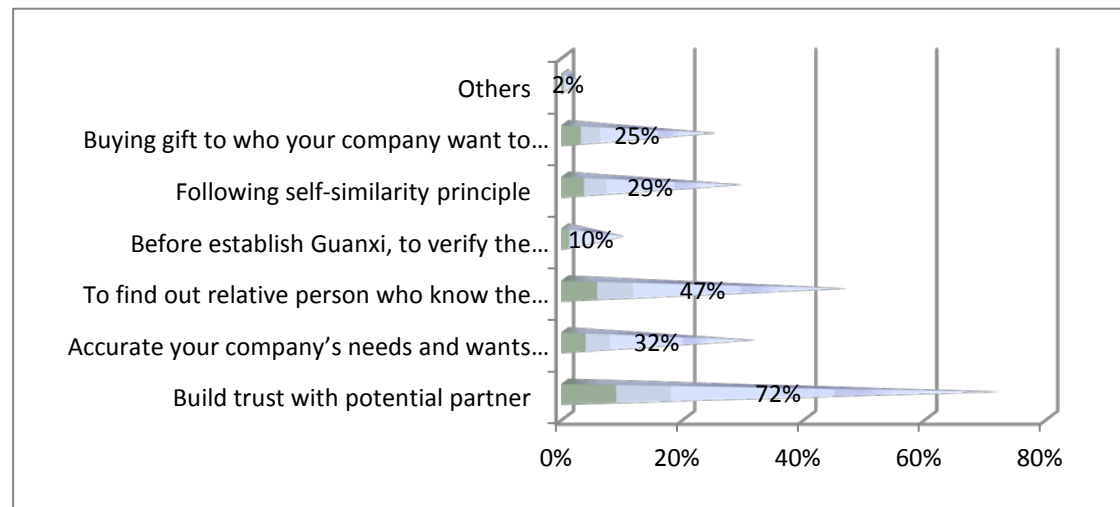


Figure 5.20 How to build a Guanxi (Notes: N=92 for each option)

● Building Trust

Glenn Ebersole (2007), indicated that “in the world of business today, trust is more important than ever, especially when it comes to your relationships with your clients, customers, employees, and all stakeholders in your business”. The results of Figure 5.20 and Figure 5.21 proved that trust plays a significant role of building a Guanxi in Tianjin. In the following paragraphs we discuss the importance of level of trust in Guanxi.

Forty two percent of foreign companies and 22% local companies expressed that trust in their current and future Guanxi networks was very important. Only one foreign company that feels the importance level of trust in the Guanxi network is average. In the phone interview, all respondents indicated trust was very important for them. Figure 5.21 indicated that at the very important level, foreign company shows absolutely higher percentage than local company.

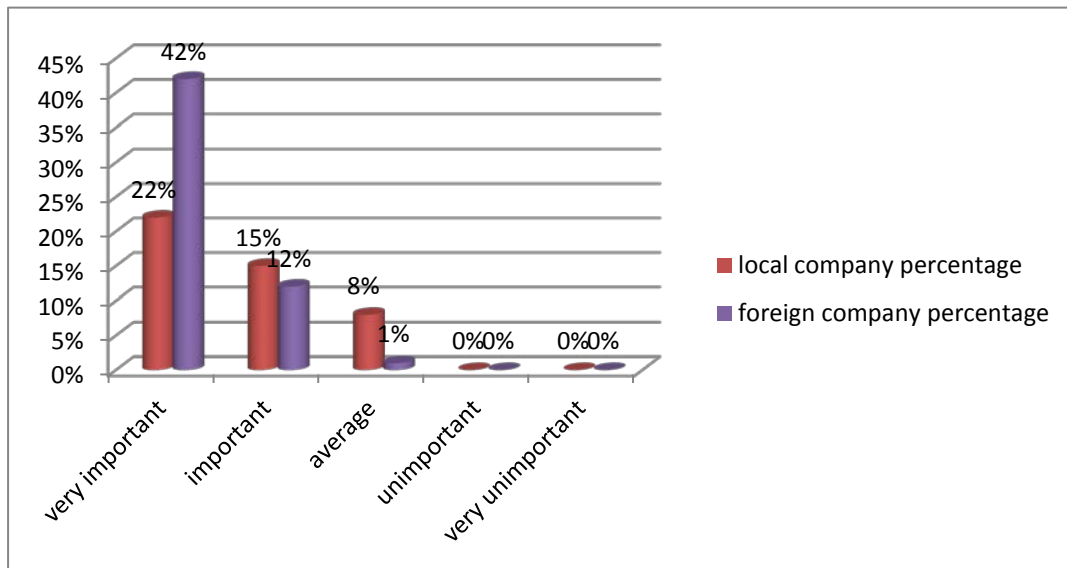


Figure 5.21 Importance level of trust in Guanxi network (Notes: N=92)

Cross tabulation helps detecting whether the nature of the company in Tianjin has effects on consideration of building trust in their Guanxi network. There were eight considerations for building trust in the questionnaire. All respondents had to indicate which one they most considered. Table 5.14 showed the results of the cross tabulation and Chi-square test.

Table 5.14 revealed that 32 respondents (35%) really regard relative Guanxi network for building trust. There is obviously a difference in the number of companies regarding relative Guanxi for building trust between foreign (22 respondents) and local (10 respondents). Background of relationship with local government is another main consideration before building trust with 27% (25 respondents). Companies have other consideration before building trust, such as internal working relationship. Similarly, Ebersole (2007) stated that a major challenge and problem business are facing today is the building the trust internally among the employees, management and ownership to create healthy and productive work environment. Internal relationship trust is the basic level.

| | Nature of company | Yes | No | Pearson Chi-square value (df) | p-value |
|--|-------------------|-----|----|-------------------------------|---------|
| Consideration of build trust | | | | | |
| Individual qualification | Local company | 2 | 39 | 0.04 | *0.478 |
| | Foreign company | 1 | 50 | (1) | |
| Product/service reputation | Local company | 4 | 37 | 0.12 | *0.462 |
| | Foreign company | 5 | 46 | (1) | |
| Company relevant experience | Local company | 5 | 36 | 0.12 | *0.462 |
| | Foreign company | 4 | 47 | (1) | |
| Relative Guanxi network | Local company | 10 | 31 | 3.52 | 0.088 |
| | Foreign company | 22 | 29 | (1) | |
| Background of relationship with local government | Local company | 15 | 26 | 3.31 | 0.093 |
| | Foreign company | 10 | 41 | (1) | |
| Employee's skills | Local company | 1 | 40 | 0.08 | *0.475 |
| | Foreign company | 3 | 48 | (1) | |
| Working together | Local company | 1 | 40 | 0.32 | *0.401 |
| | Foreign company | 1 | 50 | (1) | |
| Uniform goal | Local company | 2 | 39 | 0.06 | *0.481 |
| | Foreign company | 3 | 48 | (1) | |
| Others | Local company | 1 | 40 | 0.32 | *0.401 |
| | Foreign company | 1 | 50 | (1) | |

Notes: *represents cells have expected count less than 5

Table 5.14 Main aspect of building trust in Guanxi network

The null hypothesis is that there is no significant relationship between the nature of company and consideration of building a Guanxi network. Table 5.14 indicated that the biggest Chi-square value is 3.52 of relative Guanxi network with p-value of 0.088. Background of relationship with local government had the second greatest Chi-square value of 3.31 with p-value of 0.093. In contrast, the lowest Chi-square value was 0.04 of individual qualification with p-value of 0.478. All p-values of Table 5.14 were greater than 0.05. Therefore, there is no significant relationship between nature of company and considerations of building a Guanxi.

5.6 The overall satisfaction level

To sum up, the overall information provided in this study can help the 3PL industry to develop potential markets in Tianjin.

5.6.1 Overall satisfaction level of current 3PL implementation

All respondents of 3PL users were requested to rank the overall satisfied level of their current 3PL services. There were 5 levels of overall satisfaction was provided to them, very satisfied, satisfied, neither, dissatisfied, and very dissatisfied. Figure 5.22 revealed that there is no company ranked their current 3PL services at very dissatisfied level, but there was a small percent (10%) of respondents who were very satisfied with their current 3PL services. Forty five percent of respondents gave their current 3PL services at a satisfied level. The rest, 24% of them ranked their current 3PL service is neither and 21% of them ranked their current 3PL services at dissatisfied level. Overall, in Tianjin, the satisfaction level of 3PL services providers tends to satisfied, and relatively fewer companies are dissatisfied by their current 3PL providers.

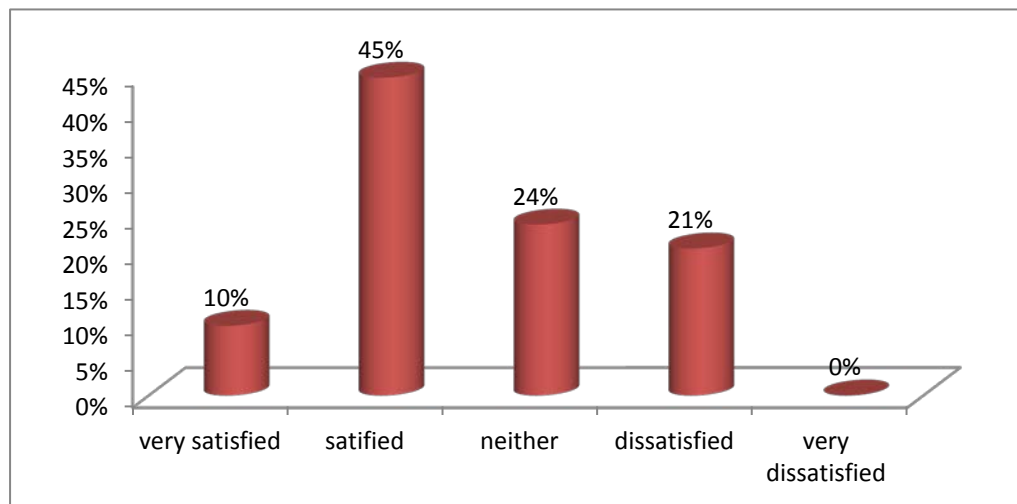


Figure 5.22 Overall satisfaction of current 3PL implementation (Notes: N=92)

5.6.2 Future plan of 3PL usage in SMBs in Tianjin

Tianjin is a big potential market in the world. More and more countries are focusing

on developing their market in Tianjin, especially in the fields of import, export, logistics etc. Therefore, good understanding of logistics markets in Tianjin and its potential markets are very import for markets development purpose

Figure5.23 shows how respondents plan their logistic activities in the future. First question is to indicate 3PL service(s) they may use in the future, another is to indicate the main 3PL service they plan to use in the future. Road transport (32 respondents) and international air freight (29 respondents) are two most popular 3PL services that will be used by respondents in the future. Then, fleet management, product returns, warehouse management, and relabeling/repackaging also have more than 20 respondents that plan to use them in the future. Third party logistics services of inventory management, product assembly/installation, management of information system, order fulfilment, order replenishment, and shipment consolidation will be used by about 13-19 respondents. There were less than 10 respondents who plan to use the rest of 3PL freight forwarding services in the future. Only one company plans to add information system of 4PL services in the future as.

Road transport (29%) and international airfreight (20%) are also considered as the top two important main services by respondents. No one choose customer services, water ship, cross docking, rail transport, freight bill auditing and payment, carrier selection, and other service as their main 3PL services in the future. For specific figures please refer to Figure 5.23.

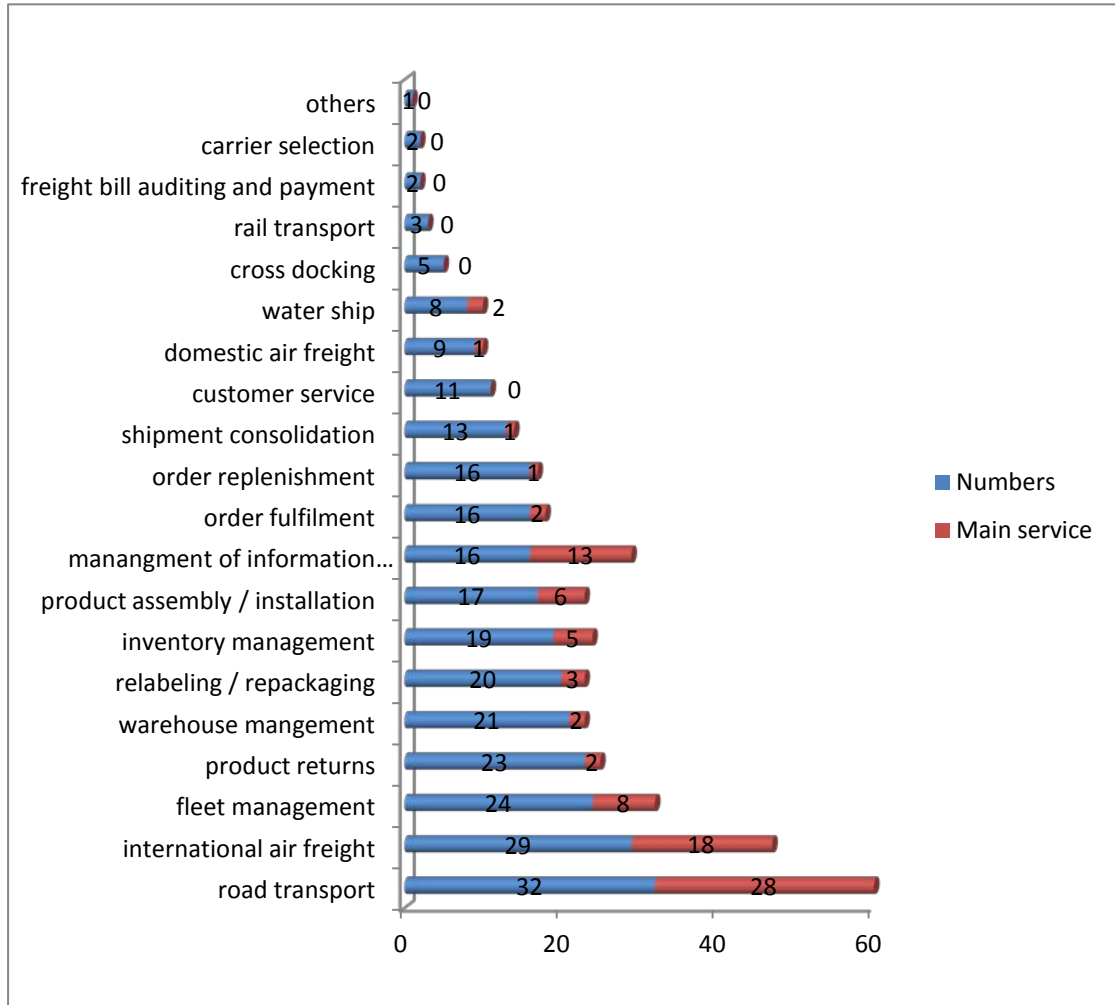


Figure 5.23 Future plan of using main 3PL service (Notes: N=92)

All respondents of 3PL services users were requested to indicate the changes of their future plan for using the current 3PL services and other models of 3PL services. Figure 5.24 indicates that 36% of the respondents would slightly increase their use of 3PL services in the future. Also 29% of the respondents would strongly increase their usage of 3PL services in the future. While 21% of respondents did not want to change current usage situation of 3PL services in the future. As indicated in the bar chart (Figure 5.24), 11% of respondents would slightly reduce the use of 3PL services in the future and only 3% of them suggested that they would strongly decrease their use of 3PL services. From this chart, it is clear that in future the trends of using 3PL services will increase in Tianjin. These results are similar to that observed in previous studies that indicate the usage of 3PL services in Tianjin between 2011 and 2015. The

forecasting expresses that logistics industry has become one of top ten industries in China. An increase of usage in 3PL will attract more foreign competitors to enter this market.

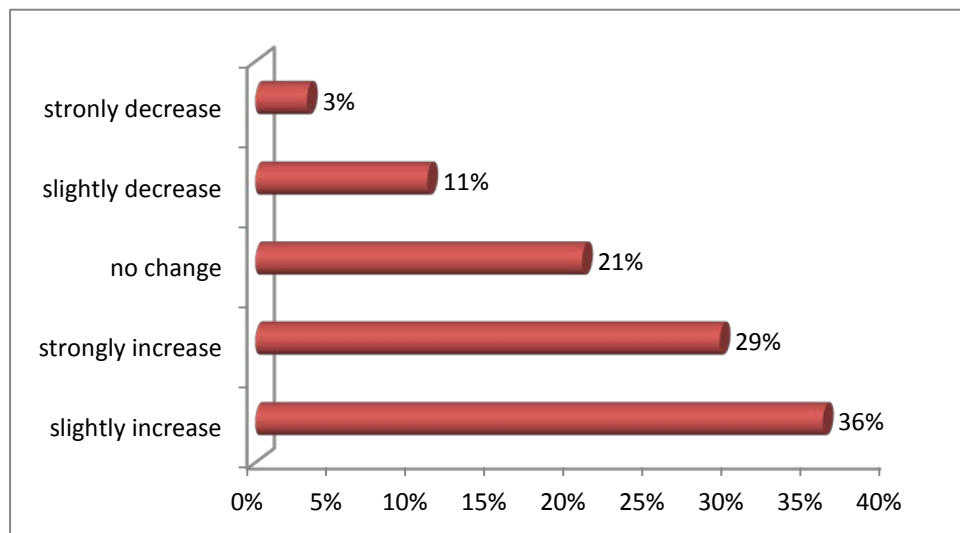


Figure 5.24 Changes of using 3PL in future (Notes: N=92)

5.6.3 Overall plan of using Guanxi in future

This is the final part of research questionnaire. This part analyses the future plan of using Guanxi in relationship risk management which includes target Guanxi, usage level of Guanxi in future, and difference of using Guanxi between local company and foreign company.

Figure 5.25 indicates that local government is the most significant target Guanxi network that respondents really want to build in the future (32%). By phone interview, Mr Qiulin Li indicated that government office might change every several years. But the existing Guanxi needs to be maintained continuously and the new Guanxi needs to be extended with new officer. Twenty percent of respondents hope to build a Guanxi with a new supplier. Suppliers include raw materials supplier, services suppliers, technology suppliers, and so on. Mrs Shaoping Liu said company has to improve competition advantage constantly, finding cheaper raw materials and better technology as essential consideration for her company. A similar percentage of respondents

selected new suppliers in the local logistics company (18%). It is another significant target Guanxi that respondents want to establish in the future in Tianjin. Only one foreign company indicated that they hope to establish a complete Guanxi network internal of all departments in next 5 years.

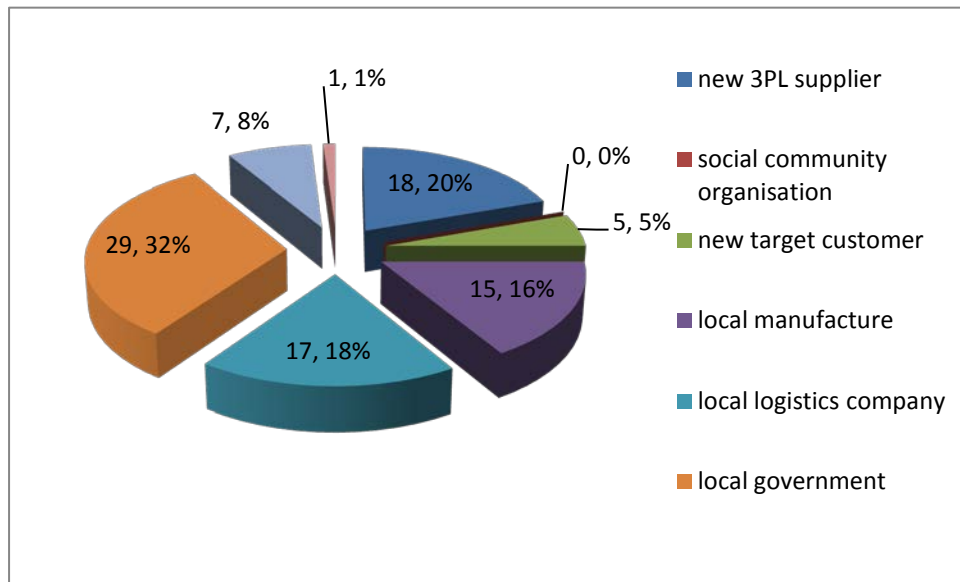


Figure 5.25 Target Guanxi in future (Notes: N=92)

Figure 5.26 and Table 5.14 gives a general idea of the difference of using Guanxi in future between local company and foreign company. Fifty one (55%) foreign companies plan to slightly increase the use of Guanxi in the future. In contrast, 54% of 41 local companies may use Guanxi slightly less in future. For example, Mr James Doherty said, in Tianjin and even in China, if a business has no Guanxi with others, the business cannot be in the market. His company gets many benefits from successful Guanxi. Therefore, his company will increase the use of Guanxi in the future. However, interviewee Mr Dan Meng (production manager of Zhongjing Food Ltd) indicated that his company may use Guanxi slightly less. Due to the high cost associated with Guanxi while meeting new people, and buying gifts etc. He is a Chinese but he studied in Canada for 8 years. He expressed that his company has to combine Western and Chinese traditional Guanxi together, one to improve their marketing strategies, and on the other side to maintain the existing Guanxi.

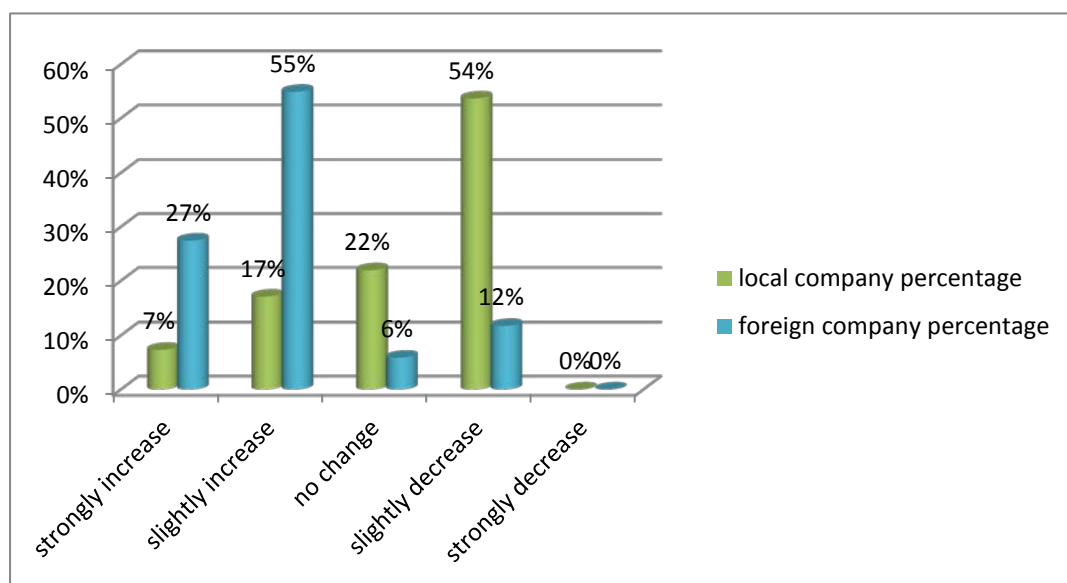


Figure 5.26 Future plan of using Guanxi in 3PL in Tianjin (Notes: N=92, local company=41, foreign company=51)

| Future plan of using Guanxi | Nature of company in Tianjin | | | | |
|-----------------------------|---------------------------------|-------------------------------|------------------------|---------------|-----------|
| | Pure local companies in Tianjin | China state-owned enterprises | Pure foreign investors | Joint venture | Total |
| Strongly increase | 3(8.1%) | 0(0%) | 9(41.0%) | 5(17.2%) | 17(18.5%) |
| Slightly increase | 6(16.2%) | 1(25%) | 11(50%) | 17(58.7%) | 35(38.0%) |
| No change | 8(21.6%) | 1(25%) | 1(4.5%) | 2(6.9%) | 12(13.0%) |
| Slightly decrease | 20(54.1%) | 2(50%) | 1(4.5%) | 5(17.2%) | 28(30.5%) |
| Strongly decrease | 0(0%) | 0(0%) | 0 | 0 | 0 |
| Total | 37(100%) | 4(100%) | 22(100%) | 29(100%) | 92(100%) |

Table 5.15 Using Guanxi in 3PL in future and nature of the company (Notes: Divided all figures into two groups which is more than average to use Guanxi in future and decrease using Guanxi, local company and foreign company. **df=1, chi-square value=18.84, p-value=0.007 (<0.05)**)

The null hypothesis is that there is no significant relationship between the nature of company and usage level of Guanxi in future. Chi-square value was 18.84 and p-value was 0.007 (<0.05) (Table 5.15). Therefore, results reject the null hypothesis. In other

words, there is a significant relationship between the nature of company and usage level of Guanxi in the future. This result is similar to that observed in previous studies. Lo (2004) suggested that in the long run of Chinese market, more and more Chinese will accept Western education and traditional Guanxi in China's business environment will atrophy.

Chapter 6 – CONCLUSION AND RECOMMENDATION

6.1 Introduction

The aim of this chapter is to discuss and summarise the research findings, and to create a proper conclusion based on research objectives. This chapter also indicates some recommendations for all respondents, and potential further research.

6.2 Conclusions

Nowadays, accompanying the opening and reforming of supply chain, the international logistic market has started developing rapidly. Third party logistics is an important organisation for foreign trade power and its status has been raised to the strategic level. The purpose of this research was to investigate the third party logistics development situations and to identify the significance of Guanxi in relationship management between 3PL's and SMBs in Tianjin, thus to analyse the improvement and problems of Guanxi in 3PL in Tianjin.

Ninety eight effective questionnaires were returned by respondents. Within these 98 respondents, 92 firms had experience with 3PL services. Therefore, most of the data analysed of the current 3PL development and relationship risk management in 3PL in Tianjin is in accordance with these 92 respondents. The number of full-time employees and annual turnover (¥millions) in 2010 of respondents can be used for assessing respondents' company size. This research focuses on SMBs; therefore almost all respondents are included in this group. This research also focuses on comparing the difference of 3PL implementation and Guanxi in 3PL between foreign and local companies. Additionally, there are more 3PL users than non 3PL users in all types of industry which were listed in the questionnaire.

The research looked to identify conclusions based on six specific research objectives:

6.2.1 To reveal characteristics of 3PL current implementation and problems in SMBs in Tianjin

In Tianjin, there are a large number of 3PL services in the market. Almost all respondents of 3PL users use more than one 3PL services in their company. Majority of the respondents used the following international freight forwarding models ranked from the most popular: road transport, international air freight, management of information system, inventory management, and customer services.

In contrast, there were less number of respondents who used carrier selection, cross docking, and other models. Every respondent company had priority for 3PL services no matter what model they used. Obviously, high usage rate models were ranked as: road transport, international airfreight, and management of information system. However, no company used shipment consolidation, freight bill auditing and payment, product returns, order replenishment, relabeling/repackaging, cross docking, and customer services as their main freight forwarding model.

The satisfaction level of each model is very important for assessing the implementation of international freight forwarding. All respondents of 3PL users were requested to rank the satisfaction level for all freight forwarding models that they use currently. All 3PL services were given a satisfaction level that was higher than the average. A large number of respondents stated that they were satisfied with their current 3PL service, and the model of road transport has the highest satisfaction level.

This research tries to find out several relationships between the nature of company and frequency of using 3PL, length of using 3PL, contract with 3PL providers and impacts of 3PL services in SMBs in Tianjin.

In Tianjin, 3PL industry still is an emerging industry, so it has a relatively short history. In this research, the majority of respondents have experience of using 3PL services only

for duration of less than 10 years. Local companies have more experience than foreign companies. Since logistics is a new and fast growth industry in Tianjin, foreign companies enter the Tianjin markets later than the markets of Beijing and Shanghai. Moreover, the frequency of using 3PL describes the importance of using 3PL services in business life. There was large numbers of respondent who used 3PL services very frequently. However, there was no significant difference between the local and foreign companies. All respondents had contract with 3PL providers, but foreign companies had relatively longer contract durations (more than 4 years). Chi-square test value results indicate that there was no significant difference in length of using 3PL and frequency of using 3PL between local and foreign companies. This means 3PL is very important to all the companies. Chi-square test also indicated there was a significant difference in the length of contract between local and foreign company. Foreign companies normally had longer contracts than local company, because they are new to Tianjin market and were trying to achieve a stable market share.

6.2.2 To investigate the reasons of using 3PL and reasons of not using 3PL in SMBs in Tianjin

Reasons why large numbers of respondents do international freight forwarding activities are as follows: increase net value & reduce costs, reduce financial risks, save capital investments, and increase inventory turnover. The main reason of increasing net value and reducing costs is as same as most of other countries in the world, namely USA, Australia, New Zealand, Singapore, Europe, and so on. There are a few who use 3PL to enhance the security and because of the superior information services. This is not similar to previous studies. This can be associated with the differences in the economic environment of different countries. Besides, local companies tend to significantly focus on saving capital investments, reducing demurrage and penalty rates, and improving global capabilities.

Majority of the respondents who did not use 3PL service activities had the following reasons: has not enough knowledge about 3PL international freight forwarding; lack of

confidence from customer feedback about 3PL services; and cannot afford the cost of 3PL services.

Among the local and foreign companies, survey respondents indicated that some companies had their own logistics team and did not have enough knowledge about the 3PL industry. In this study, there were only 6 respondents who did not use 3PL services, so no Chi-square test was conducted to identify the differences between local companies and foreign companies.

6.2.3 To analyse the status of relationship management in 3PL in SMBs in Tianjin

All respondents of this research used Guanxi in their relationship management in 3PL. The reason why Guanxi was widely in their businesses was because there were some risks when they used 3PL services. Good use of Guanxi helped them address risks efficiently. The biggest risk of most responding companies was that they face unfair treatment in the market. Companies having relevant Guanxi within the competition might be able to sustain the competition. Slow reaction of government policy was another big risk within their businesses. Therefore, they all used existing Guanxi to solve the issues. Additionally, Pearson Chi-square value indicated that there was a significant difference of inefficient production between local and foreign companies. More local companies faced this risk compared to foreign companies in Tianjin.

Moreover, almost all companies had more than one Guanxi, such as Guanxi with suppliers, government, manufacture, and so on. The tightness level of each Guanxi shows the importance of Guanxi in their business. There were obviously a large number of responding companies that had close and very close Guanxi with their partners indicating the high usage of Guanxi in today's businesses in Tianjin. There are a chain of elements that may affect Guanxi networks. Individual activity and government policy had very high influence on Guanxi network of the respondents. Their Guanxi could be established or broken by these two events. A successful

Guanxi would bring significant benefits to companies. This study shows that the biggest benefit of having a successful Guanxi is that it helps companies to develop their market share.

Furthermore, in different situations, local and foreign companies may take different actions. However, there was a significant high usage of Guanxi in urgent situation. When involved in an urgent event, nearly half of respondents selected to contact their current Guanxi. This phenomenon deeply identifies the importance of Guanxi. Guanxi also has negative impacts as everything has two sides. More than 85% of the responding companies expressed that they had experienced broken Guanxi in the last five years. The main cause of broken Guanxi was the change of government policies. As companies cannot forecast the change of government policy, they cannot change their decision. They lose competition advantages and skilled employees due to broken Guanxi.

Therefore, building and maintaining a Guanxi is very important for the companies and trust plays a very important role in establishing a Guanxi.

6.2.4 To study the significance of trust management apply in 3PL relationship management in SMBs in Tianjin

Today, trust is more important than ever, especially when it comes to maintaining relationships with the clients, customers, employees and all stakeholders in the business. In this research, most companies in Tianjin indicated that trust is very important for their business. It is a significantly a big part of establishing and maintaining Guanxi network. Pearson Chi-square test indicated that there was no significant difference between local and foreign companies on focusing trust as an important criterion for relationship management.

Relative Guanxi network and background of government relationship are highly considered by businesses. According to the study of Guanxi and trust, government

policy and individual activities appear significant in relationship management. Humans always change, so Guanxi changes as humans change. Thus making it very hard to follow and control.

6.2.5 To evaluate the satisfaction level of 3PL implementation and future plan of using 3PL in SMBs in Tianjin

By evaluating the satisfaction level of 3PL implementation we can help businesses to design their future for using 3PL. Third party logistics is very important in today's world and widely used of 3PL services would increase company's profits. In this study, most companies were satisfied with their current 3PL services and only a small number of responding companies were dissatisfied with their 3PL services. The results of this study also suggest that road transport and international airfreight can also be the main 3PL services for SMBs in Tianjin. In the past not many SMBs used sea freight, but this study indicated that more SMBs in Tianjin are considering using in the future, since port of Tianjin is the second big port in China. There are many advantages of using sea freight in Tianjin. In Tianjin, current SMBs plan to increase the usage of 3PL service in the future.

6.2.6 To explore the future plans of relationship management development in 3PL industry in SMBs in Tianjin

The satisfaction level of current Guanxi indicates how respondents might treat Guanxi in the future. Most companies hope to establish more new Guanxi in the future. Most respondents in this research wanted to build a Guanxi with the government. As government office may change every few years, building and maintaining Guanxi with the government can never stop. Meeting new 3PL suppliers was another Guanxi that relatively large numbers of respondents were interested. Third party logistics is a relatively new industry, where more and more businesses are entering into this industry, so there is greater selection opportunity in the market. SMBs have limited resources hence they compare the different 3PL providers and choose the most suitable one for

their company.

Interestingly, there was a big difference between local and foreign companies in using Guanxi in the future. Many foreign companies plan to slightly increase their use of Guanxi in the future. In contrast, many local companies plan to slightly decrease the use of Guanxi in future. Pearson Chi-square test results indicated that there was a significant difference between local and foreign companies. Some previous studies explored that more and more young Chinese are educated in Western countries and so they do business differently to the traditional method. Therefore, this suggests slightly decreased use of Guanxi in the future. However, foreign companies have short experience in China's market. The foreign companies get benefits from Guanxi network, and they believe that in China, Guanxi will stay in business environment for a long time. Therefore, they plan to use Guanxi in relationship management strongly.

6.3 Recommendations

6.3.1 Recommendations for using 3PL

- The 3PL providers need to reinforce and productise skill sets such as network optimisation and sustainability guidance, advertise these to shippers and reinforce their value by showcasing the results. The logistics industry needs to see examples of successful and progressive relationships.
- The 3PL providers need to consider providing different levels of service for matching the different demands by different size companies.
- Third party logistics providers also need to establish short term contract with their clients and provide high quality post-purchase services, such as providing training for new technology.
- Shippers need to be open in tapping 3PL provider's internal expertise and ask for the services they want, such as assistance with optimising the network. There is nothing to lose from asking, and potentially much to gain.
- Companies need to perform their own research on the 3PLs' capabilities and not rely on information obtained from the 3PL providers.
- Companies need to realise their core competencies and their weaknesses which can help them to choose the relevant logistic models more efficiently and also improves their benefits in the future.
- Currently many companies have shortage of 3PL skilled staff. Companies have to search for 3PL talent and trust their knowledge and ability. They would lead the company in to the international market.

6.3.2 Recommendation for using Guanxi in business

Companies have to verify person's reputation before establishing a Guanxi with them. Right person can help the company to extend current Guanxi network and increase company's competition advantages. Wrong person may cause a broken Guanxi or inefficient Guanxi in the relationship network.

Guanxi is an individual activity, so it is not stable. If the individual leaves the company, Guanxi may be broken or taken by another company. Companies need to try and keep the Guanxi through the company rather than through an individual.

More and more Chinese accept Western education, and the market is continuously changing as a result of globalisation. In the short-term, using Guanxi is still significant. However, in the long run, companies have to combine traditional Guanxi and Western relationship models to keep a fair competition.

Government policies affect the Guanxi, hence good Guanxi with government is very important. This does not mean bribing but it means fast reaction to the government policies and seizing the market quickly.

Companies should also establish a Guanxi with consulting organisations (e.g. forth party logistics), which might provide efficient information for the whole supply chain process.

6.4 Limitations

It is important to identify the limitations of this research and keep these limitations in mind with regard to the results in this thesis.

First, this research focuses only on the perspectives of third party logistics users. The study did not consider the perspective of 3PL providers'.

Second, this research only selected current 3PL service users to answer the questionnaire. However, it ignored the past 3PL service users who may have good experience in using 3PL services.

Third, this research selected convenience samples to answer the questionnaire. It cannot represent the whole population in Tianjin, due to the limitation in funds and timeframe.

6.5 Future research

There are a large number of previous researches on 3PL in China. However, there are a limited number of similar studies done previously on 3PL in SMBs in Tianjin. In order to understand of third party logistics services and Guanxi in third party logistics relationship management, there is a need for more research in Tianjin.

In the specified field, there is a need for more research to find out the relationship between the 3PL users and providers. Also there is a need for more research to find out the usage of third party logistics services in SMBs in Tianjin. Similarities and differences between foreign and local companies in using Guanxi in Tianjin can be investigated. Also the significance of Guanxi in other fields of supply chain can be identified rather than only focusing on the 3PL industry.

Future research could also select more samples to answer the questionnaire and use multiple methods to collect data, such as incorporating face to face interviews. Face to face and telephone interviews could get more specific information than questionnaires. As questionnaire options may limit respondents' thinking.

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APPENDICES

APPENDIX A: Cover Letter

Ying HAN

c/o Massey University, IFNHH / A. Win
Private Bag 102 904, North Shore City 0745
Auckland, New Zealand

15 March 2010

Dear Sir / Madam,

My name is Ying HAN. I am a student of Massey University completing a Masters degree majoring in Supply Chain Management / Logistics. This research project is part of my degree study. I am creating a survey to fulfil the purpose of investigating the development of 3PL – International freight and maritime transport in China.

Only a few minutes of your time is needed to answer this simple questionnaire and I would be grateful if you are able to do this. Also, this survey provides free envelopes for you to return the questionnaire to me. Your answers are very important to the success of my research project. This research uses an anonymous questionnaire. All findings will be used for this study only and all answers will be kept as confidential. If you wish to receive a copy of the result of this research, please write down your contact details at the end of the questionnaire. I will send it to you as soon as I can.

Thank you for your cooperation in supporting this research effort. It would be very appreciated that if you can response the questionnaire and return it before 14th March 2010,

Kings Regard,

Ying HAN

APPENDIX B: Questionnaire

3PL Perspectives and Guanxi in SC Relationship Risk Management

Section One: Background information

1. How many employees are working in your company?
☐ Under 500 ☐ 500-1000 ☐ 1000-1500 ☐ Over 1500
2. Please show 2010 annual turnover of your company (RMB millions)
☐ Under 10 ☐ 10-50 ☐ 50-100 ☐ 100-300 ☐ Over 300
3. What is the main nature of your company for using 3PL service?
☐ Local company ☐ State-owned enterprises in China
☐ Foreign investor ☐ Joint venture
4. What type of business do your company do? (This is a single choice question, please tick the main business of your company.)

| | |
|-----------------------------------|--|
| <input type="radio"/> Retail | <input type="radio"/> Cloth / Fashion Products |
| <input type="radio"/> Automotive | <input type="radio"/> Hi – tech / IT |
| <input type="radio"/> Real-Estate | <input type="radio"/> FMCG |
| <input type="radio"/> Manufacture | <input type="radio"/> Wholesale |
| <input type="radio"/> Healthcare | <input type="radio"/> Food |
| <input type="radio"/> Services | <input type="radio"/> Others_____ |

Section Two: Research questions

5. Do you use 3PL service?
☐ Yes (Go to Question7) ☐ No (Go to Question 6 only)
6. Why your company does not use 3PL international freight service? (This question is a multiple choice.)
☐ Cannot afford the cost of 3PL service
☐ Has not enough knowledge about 3PL
☐ Has own logistic team

- ☐ Lack of support from other department of organisation
- ☐ Lack of confidence from customer feedback about 3PL service
- ☐ No need
- ☐ Others_____

7. Why does your company use 3PL service? (This question is a multiple choice.)

- | | |
|---|--|
| <input type="radio"/> Increase net value & reduce costs | <input type="radio"/> High speed service |
| <input type="radio"/> Save capital investments | <input type="radio"/> Reduce demurrage & penalty rates |
| <input type="radio"/> Reduce financial risks | <input type="radio"/> Increase speed to develop market |
| <input type="radio"/> Offer superior information services | <input type="radio"/> Increase inventory turnover |
| <input type="radio"/> Improve global capabilities | <input type="radio"/> Improve quality |
| <input type="radio"/> Enhance security | <input type="radio"/> Others_____ |

8. How many years does your company use 3PL service?

- ☐ Less than 1 year ☐ 1-5 years ☐ 6-10 years ☐ More than 10 years

9. How often does your company use 3PL service?

- ☐ Everyday ☐ Very often ☐ Average ☐ Sometime ☐ Few time

10. What types of 3PL service does your company use **currently**? (This question is a multiple choice, but please indicate only one main service you use. 1: Very dissatisfied, 2: Dissatisfied, 3: Neither, 4: Satisfied, 5: Very satisfied)

| Main Service | Satisfaction: | 1 | 2 | 3 | 4 | 5 |
|--|-----------------------|----------|-----------------------|-----------------------|-----------------------|-----------------------|
| <input type="radio"/> 1. Road transport | <input type="radio"/> | | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| <input type="radio"/> 2. Rail transport | <input type="radio"/> | | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| <input type="radio"/> 3. Water ship | <input type="radio"/> | | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| <input type="radio"/> 4. Domestic air freight | <input type="radio"/> | | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| <input type="radio"/> 5. International air freight | <input type="radio"/> | | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| <input type="radio"/> 6. Warehouse management | <input type="radio"/> | | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| <input type="radio"/> 7. Inventory management | <input type="radio"/> | | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| <input type="radio"/> 8. Carrier selection | <input type="radio"/> | | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| <input type="radio"/> 9. Cross docking | <input type="radio"/> | | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| <input type="radio"/> 10. Shipment consolidation | <input type="radio"/> | | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| <input type="radio"/> 11. Product returns | <input type="radio"/> | | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| <input type="radio"/> 12. Fleet management | <input type="radio"/> | | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

- | | | | | | |
|---|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| <input type="radio"/> 13. Order fulfilment | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| <input type="radio"/> 14. Management of information system | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| <input type="radio"/> 15. Order replenishment | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| <input type="radio"/> 16. Relabeling / repackaging | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| <input type="radio"/> 17. Product assembly / installation | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| <input type="radio"/> 18. Customer services | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| <input type="radio"/> 19. Freight bill auditing and payment | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| <input type="radio"/> 20. Others_____ | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

11. What types of 3PL services will your company use in the future? (This question is a multiple choice, but please indicates the main one.)

| <u>Main Service (single choice)</u> | <u>3PL may use in the future (multiple-choice)</u> |
|---|--|
| <input type="radio"/> 1. Road transport | <input type="radio"/> |
| <input type="radio"/> 2. Rail transport | <input type="radio"/> |
| <input type="radio"/> 3. Water ship | <input type="radio"/> |
| <input type="radio"/> 4. Domestic air freight | <input type="radio"/> |
| <input type="radio"/> 5. International air freight | <input type="radio"/> |
| <input type="radio"/> 6. Warehouse management | <input type="radio"/> |
| <input type="radio"/> 7. Inventory management | <input type="radio"/> |
| <input type="radio"/> 8. Carrier selection | <input type="radio"/> |
| <input type="radio"/> 9. Cross docking | <input type="radio"/> |
| <input type="radio"/> 10. Shipment consolidation | <input type="radio"/> |
| <input type="radio"/> 11. Product returns | <input type="radio"/> |
| <input type="radio"/> 12. Fleet management | <input type="radio"/> |
| <input type="radio"/> 13. Order fulfilment | <input type="radio"/> |
| <input type="radio"/> 14. Management of information system | <input type="radio"/> |
| <input type="radio"/> 15. Order replenishment | <input type="radio"/> |
| <input type="radio"/> 16. Relabeling / repackaging | <input type="radio"/> |
| <input type="radio"/> 17. Product assembly / installation | <input type="radio"/> |
| <input type="radio"/> 18. Customer services | <input type="radio"/> |
| <input type="radio"/> 19. Freight bill auditing and payment | <input type="radio"/> |
| <input type="radio"/> 20. Others_____ | <input type="radio"/> |

12. Does your company have any contracts with the 3PL provider?

- ☐ None ☐ <1year ☐ 1-3years ☐ 4-6years ☐ >6years

13. Please rate the satisfaction level your company has for its 3PL services?
- ☐ Very satisfied ☐ Satisfied ☐ Neither ☐ Dissatisfied ☐ Very dissatisfied
14. According to your experience with 3PL, how would your company plan to use of 3PL activities in the future?
- ☐ Strongly increase ☐ Increase ☐ No change ☐ Decrease ☐ Strongly decrease
15. What risks exist in your company of using 3PL? (This is a multiple choice.)
- ☐ Slow reaction of government new policy
- ☐ Inefficiency productivity
- ☐ Unfair treatment
- ☐ Waste public resources
- ☐ Out of control of 3PL providers
- ☐ Hard to coordinate internal staff relationship
- ☐ Hard to deal issues between end users and 3PL providers
- ☐ Lack of information to compare 3PL
- ☐ Lack of ability to update 3PL technology
- ☐ Any external risk of, such as natural disaster or geopolitical event
- ☐ Others_____
16. Does your company use Guanxi to address relationship risks in 3PL activities?
- ☐ Yes (Please go to Question 17) ☐ No (Please finished the survey)
17. What Guanxi does your company have in 3PL, and please rate how close with them? (This question is a multiple choice, 1: very close, 2: close, 3: average, 4: estranged, 5: very estranged)

| Partners | 1 | 2 | 3 | 4 | 5 |
|---------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| 1. Suppliers | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 2. Carriers | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 3. Customers | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 4. Manufactures | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 5. Forwarders | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 6. Local government | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 7. Local labour | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 8. Others_____ | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

18. What elements may influence your company's extent of Guanxi? (this is a multiple choice question)

- ☐ Individual person's activities
- ☐ Government policy
- ☐ Relative companies' background
- ☐ Natural environment
- ☐ Market needs
- ☐ Internal labour coordination
- ☐ Others_____

19. What benefits does your company obtain from establishing and maintaining a good Guanxi with others relatives? (This is a multiple choice.)

- ☐ Earn more money
- ☐ Save time
- ☐ Win competence
- ☐ Developing market share
- ☐ Extend wide range relationship network
- ☐ Organising 3PL services efficiently and effectively
- ☐ Quickly get and update new technology
- ☐ Others_____

20. In 3PL field, what situation does your company will use existing Guanxi strongly?

- ☐ Normal business situation
- ☐ Competition
- ☐ Entre a new market
- ☐ Urgent situation
- ☐ Others _____

21. Involving an urgent event, how does your company solve it?

- ☐ Call people you know
- ☐ Following the standard process
- ☐ Pay more money
- ☐ Find new partner
- ☐ Contact exist Guanxi
- ☐ Contact local government
- ☐ Others_____

22. Before establishing a Guanxi, what is the most important consideration that your company considers when selecting a 3PL partner? (This question is a multiple choice, 1: very strongly consider, 2: strongly consider, 3: average, 4: occasionally consider, 5: never consider, please also tick the main consideration at the front of the option.)

| Main Consideration | 1 | 2 | 3 | 4 | 5 |
|--|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| <input type="radio"/> Individual qualification | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| <input type="radio"/> Company history | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| <input type="radio"/> Trust | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| <input type="radio"/> Reputation | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| <input type="radio"/> The people know before | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| <input type="radio"/> Others_____ | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

23. How does your company establish Guanxi? (This is a multiple choice.)

- ☐ Build trust with potential partner
- ☐ Accurate your company's needs and wants before establish Guanxi
- ☐ To find out relative person who know the person your company want to meet
- ☐ Before establish Guanxi, to verify the person's reputation
- ☐ Following self-similarity principle
- ☐ Buying gift to who your company want to meet
- ☐ Others_____

24. How does your company rate the importance of trust development in your company relationship risk management?

- ☐Very important ☐Important ☐Average ☐Unimportant ☐Very unimportant

25. What aspects your company will regard before building trust for your company relationship development? (Please indicate the most important one.)

- ☐ Individual qualification
- ☐ Product / service reputation
- ☐ Company relevant experience
- ☐ Relative Guanxi network
- ☐ Background of relationship with local government
- ☐ Employees' skills
- ☐ Working together
- ☐ Uniform goal
- ☐ Others_____

26. Does your company have any experience about broken Guanxi in past 5 years?
- ☐ Yes (go to Question 27) ☐ No (go to Question 29)
27. What situations make your company's existing Guanxi break? (This is a multiple choice question.)
- ☐ Changes of market competition
- ☐ Changes of local government policy
- ☐ Natural disaster, e.g. earthquake, flood, hurricane, tsunami, etc
- ☐ Geopolitical event, e.g. 9-11, war,
- ☐ Personal activity, e.g. person bring all network to a competitor
- ☐ Uncoordinated relationship between departments and employees
- ☐ Others_____
28. How does the broken Guanxi impact your business? (This is a multiple choice question).
- ☐ Lost effective information
- ☐ Lost skilled employees
- ☐ Cost more to build new Guanxi
- ☐ Lost competition advantages in market
- ☐ Lost market share
- ☐ Productivity decreased
- ☐ Negative feedback from customers
- ☐ Others_____
29. According to your experience with using Guanxi network, how would your company plan to develop Guanxi activities in the future
- ☐ Strongly increase ☐ Slightly increase ☐ No change ☐ Slightly decrease ☐ Strongly decrease
30. What is your company's target Guanxi which you want to build in the future? (please choose the priority one.)
- ☐ New 3PL supplier ☐ Local logistics company
- ☐ Social community organisation ☐ Local government
- ☐ New target customer ☐ Local skilled labour
- ☐ Local Manufacture ☐ Others_____

THANK YOU FOR YOUR TIME!

Please provide your contact detail, if you are interested in receiving a copy of the results of this survey.

Name: _____

Email: _____