



Third Party Logistics in E-Commerce Environment in China

Yaping Feng
Bachelor's Thesis

Field of Study Social Sciences, Business and Administration	
Degree Programme Degree Programme in International Business	
Author(s) Yaping Feng	
Title of Thesis Third Party Logistics in E-commerce environment	
	Pages/Appendices 60/1
Supervisor(s) Petteri Muuruvirta; Pentti Mäkelä	
Client Organisation/Partners	
<p>With the rapid development of IT technology, e-commerce plays an increasingly important role nowadays. Since the logistics is vital for e-commerce, it becomes the key factor for any corporate in order to survive in the fierce competition. However, logistics industry is not considered as important as other industries in China and few attempts have been made in this field.</p> <p>The purpose of this paper was to present the current situation of third party logistics under e-commerce and their close relationship. Another goal was to arouse more attention to third party logistics. The objective was to analyze the existing problems in the logistics process and put forward solutions accordingly.</p> <p>This thesis is made up of two parts, the theoretical part and the empirical part. The first part gives an overview of e-commerce and third party logistics. In the second part, Xunjie company was selected as a case company to make theory serve reality. The theory which is discussed in the first part is applied to solve the issues in Xunjie company. The research of the thesis is based on a qualitative interview with a manager of Xunjie.</p> <p>Based on the interview and the analysis of the current situation of 3PL, the development of 3PL shows a positive growing trend although there are some issues and challenges that cannot be ignored. This paper provides readers with an overview of third party logistics, which deserves more attention.</p>	
Keywords E-commerce, third party logistics, development, China	

CONTENTS

1	INTRODUCTION.....	6
2	THIRD-PARTY LOGISTIC UNDER E-COMMERCE.....	7
2.1	The overview of E-commerce.....	7
2.1.1	The concept and types of e-commerce.....	8
2.1.2	Internet penetration in China.....	11
2.1.3	Benefits of e-commerce to customers.....	12
2.1.4	The current status of e-commerce in China.....	13
2.2	An overview of Third-party logistic (3PL).....	14
2.2.1	The definition of supply chain.....	14
2.2.2	Supply chain challenges.....	16
2.2.3	The key factor influence the efficiency of supply chain.....	18
2.2.4	The concept of Third-party logistic.....	20
2.2.5	The current status of 3PL in China.....	21
2.3	The relationship between E-commerce and 3PL.....	23
3.	ADVANTAGES AND DISADVANTAGES OF 3PL.....	24
3.1	The superiority of the 3PL.....	24
3.1.1	Focus on main business.....	24
3.1.2	Cost saving.....	25
3.1.3	High distribution efficiency.....	25
3.1.4	Reduce the inventory & risk.....	26
3.2.	Issues and challenges of the 3PL.....	27
3.2.1	Limitation of market demand.....	27
3.2.2	Small-scale enterprises.....	27
3.2.3	Shortage of talent.....	28
3.2.4	Low degree of informatization.....	28
3.3	Solutions.....	29
3.3.1	Change the mind of logistic.....	29
3.3.2	Strengthen added-value service.....	30
3.3.3	Cultivating high-level professional logistics talents.....	30
3.3.4	Application of network technology.....	31
4	CASE STUDY-XUNJIE CORPORATE.....	32
4.1	Introduction of company.....	32
4.2	Warehouse Management.....	33

4.2.1 Functions and principles.....	34
4.2.2 ABC management	35
4.2.3 Logistic Information system	37
5. THE PROBLEMS IN WAREHOUSE MANAGEMENT OF XUNJIE	39
5.1 Unreasonable Utilization of reservoir space.....	39
5.2 Inadequate statistical capacity	40
5.3 Low quality of staff	40
5.4 Customers relationship management	41
6. SOLUTIONS AND METHODS	42
6.1 Rational distribution of warehouse space	42
6.2 Establish and improve the logistic information system	44
6.3 Improve the quality of staff.....	46
6.4 Customers relationship management	47
7. THE TREND OF THIRD-PARTY LOGISTIC.....	49
8. CONCLUSION.....	51
RESOURCES	53

APPENDICES

Appendix 1 Interview form

List of figure and tables

1. **Figure1.** In 2013, China online transaction value reached 1850 billion Yuan with a gradually stable growth (China Internet Watch 2014)
2. **Figure2.** China Internet Users (Internet live stats 2016)
3. **Figure3.** Chinese online-shopping market transaction scale (iResearch 2015)
4. **Figure4.** Stages of a Detergent Supply Chain (Narula 2009)
5. **Figure5.** A process view of the supply chain (Fowler 2016)
6. **Figure6.** New challenge lies ahead. (McKinsey & Company 2010)
7. **Figure7.** Shifting priorities. (McKinsey&Company 2010)
8. **Figure8.** Transaction volume of 3PL market in China, 2005-2013 (ResearchInChina 2011)
9. **Figure9.** Total social logistics and growth changes since 2013 (Chinawuliu 2014)
10. **Figure 10.** Reasons for outsourcing (Serava Solutions 2015.)
11. **Figure11.** Algorithm flowchart for activity classification using instrumented shoe signals (Achkar, Lenoble-Hoskovec, Paraschiv-Ionescu, Major, Bula & Aminian 2015)
12. **Figure12.** Location Schemes (Andalas Technology. 2016)

1 INTRODUCTION

As the rapid development of internet, e-commerce has become the most eye-catching outcome of information era. In recent years, China experienced continuous economic growth and Chinese government has showed strong interest in e-commerce by enacting some related documents. With the arrival of ever-accelerate e-commerce, the requirements ask for logistics have been significant increasing.

One of the reason that Third-part logistic was appear since the development of traditional logistic can't keep pace with the e-commerce and it helps company to maximize profitability through combined knowledge and resources efficiently. In China, however, the role of 3PL has not been taken seriously by most companies as other fields. Meanwhile, due to the complexity situation in China, all new "things" which want to be successful in Chinese market are predicted to encounter many obstacles on the road to development. To some extent, this paper will provide readers with some ideas about the currently 3PL and how to get rid of the concrete obstacles on the development road of 3PL in China.

In order to achieve the objectives of this thesis, the paper was being divided into the theoretical part and empirical part. In theoretical part, the focus was on basic concept of e-commerce as well as Third party logistic and close relationship between them. After readers have a basic knowledge of these concepts, the advantages and disadvantages of 3PL under e-commerce will be discussed following. All theoretical analysis is expected to ultimately solve practical problems, thence, Xunjie is selected as a case company to applied the theory into practical. There are several reasons that I choose Xunjie as a target company and the most important one is that Xunjie is located in my hometown where I am famliar with its both cultural and ecomomy. In addition, it is more likely for me to interview a person from a small company when we come from the same place. As to empirical part, one part of the useful information will be collected from the qualitative interview with the manager of Xunjie corporate. All issues of Xunjie offered in thesis are derived from evaluating this interview while the other resources such as related reports and online information also provide a lot of supports and the solutions be put forward respectively as well. As a case company, the purpose of analysis Xunjie is to give a concrete example so that the readers can deeply understand the real situation of third-part logistic under e-commerce in China. Moreover, through the solutions are put forward respectively based on the problems exist in Xunjie, it is possible for us to reach to the final conclusion that there is a huge potential market of Third-part logistic with the rapid development of e-commerce even the substantial challenges still need to be faced in the near future.

2 THIRD-PARTY LOGISTIC UNDER E-COMMERCE

The data from a recently report by Forrester showed that online sales in China will arrive at one trillion dollars by 2019. The efforts have been made in supply chain area will contribute huge to this forecast. So far, China became the largest online retail market all around the world in 2013 while the amount of sales reached \$307 billion. (Shu 2015) As e-commerce continues to alter customer behavior, retailers have to explore more efficiently way to deliver. Namely, the rapid development of e-commerce is a sign of the times as retailers confront a new form. In turn, the logistic is making efforts on keeping pace with high-level expectations for delivery. (O'Reilly 2015)

E-commerce provides an additional platform and new opportunities for development of logistics. Before the emergence of e-commerce the most of goods are purchasing face to face which simply result in no need on logistics part. After, however, we need the logistic company to deliver goods to customer's door directly when we shopping online otherwise online transaction can't achieve. Under the e-commerce environment, the fierce market gives rise to some enterprises to outsource their logistic business to third-party firm. Obviously, the market demand of 3PL will continue to grow since the rapid development of e-commerce. On the other hand, the third-party logistics enterprises will gain much more advantages compared to develop itself logistics system. The terms of e-commerce trade greatly shorten the time of commodity circulation thus require the time of logistics to cut down accordingly. Finally, the higher requirements- more fast, accurate, timely and cost-flow are expected to put forward on circulation of commodities in large scope.

2.1 The overview of E-commerce

Electronic commerce has already existed for over 30 years and the most widely used sector is retails. The continued rapid development of e-commerce is benefitting from the prodigious improvement of Internet. (Timmers 2000) In addition, the developments of internet also shorten time and simplify the process through building a bridge between upper stream and end customers. Namely, the vertical e-commerce platform is being widely used via abandon the middleman; the online shops which are selling foods could be a good example.

It is more easily and conveniently for people to start a business online since the popularization of payment platforms. Obviously, there are lots of reasons behind this phenomenon and the more information will be given below. The overview of e-commerce focuses on definition and types of electronic commerce, internet penetration in China and the reasons why e-commerce is proliferation everywhere nowadays.

2.1.1 The concept and types of e-commerce

The definition of Electronic commerce has been heated discussed since the first time it was introduced in 1960s via electronic data interchange. There are lots of explanations for this term, according to Arline (2015); e-commerce could be simply defined as the purchase and sale of goods or services via electronic channels such as the Internet. Chaffey (2011, 10-12) referred the definition of e-commerce in his book- e-business & e-commerce management "Electronic commerce is often thought simply to refer to buying and selling using the Internet; people immediately think of consumer retail purchases from companies such as Amazon. But e-commerce involves much more than electronically mediated financial transactions between organizations and customers. E-commerce should be considered as all electronically mediated transactions between an organization and any third party it deals with. "

For example, Amazon began to operate its first business- book-shipping in Jeff Bezos' garage in 1995. (Arline 2015) With the continuous development of e-commerce, at present, it covers a range of different types of business and thus types of e-commerce will be introduced as follows.

Business to Business (B2B)

It refers to transactions between two companies rather than the relationship between the company and customers. Manufacturers selling to distributors and wholesalers selling to retailers could be good examples for B2B.

Business to Consumer (B2C)

This consists of transactions selling products directly to the final customers by internet, which means customers can use the mouse to click the products he or she wants to purchase on online shop and then these products will be delivery to door directly within several days. Meanwhile, it is the first type appear in people's mind when refers to

ecommerce. Literally, almost everyone in China knows and uses Taobao ever; it is a representative to reveal that online shopping has experienced a shark increase over the past ten years.

Consumer to Consumer (C2C)

In C2C e-commerce, the activities involved is usually requires one party conduct as middleman. Ebay is a good case of C2C as well as Amazon. In this business era, third-party site links the two companies and the seller will responsible for delivering after the consumer purchase the product.

Consumer to Business (C2B)

Transaction occurs when a company starts a project with a nest of budget online and bid on this project at the same time. Then, the consumers review the bid and select the company based on related information. (Arline 2015)

2010-2017 China Online Shopping Transaction Values

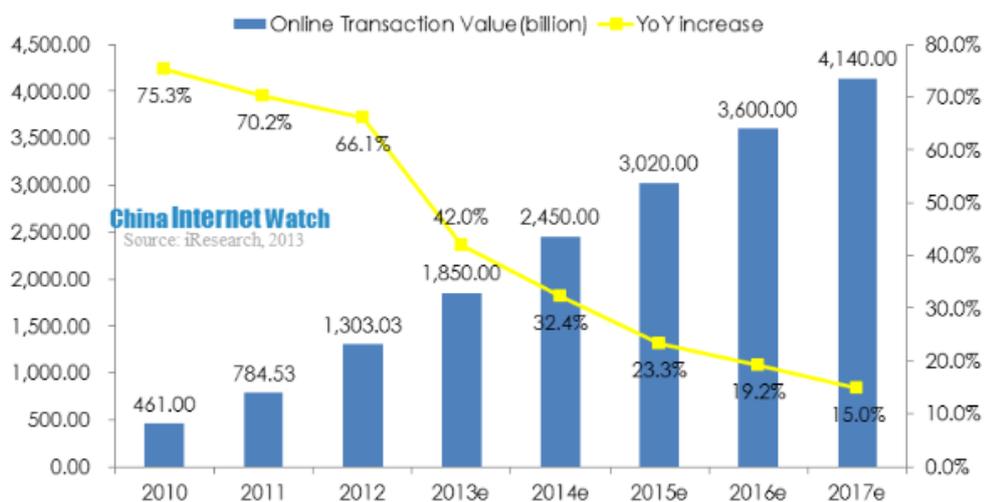


Figure1. In 2013, China online transaction value reached 1850 billion Yuan with a gradually stable growth (China Internet Watch 2014)

From figure1 we see that the transaction value reached 1,303.03 billion Yuan with a 66.1% percentage increase. Although the rate of increasing is slow year by year since 2010, the online transaction value is show an upward trend as a whole.

Online and offline (O2O)

Nowadays, along with the continuous increasing requirements from customers and rapid development of e-commerce, besides the above types of e-commerce another new form is emerging which is called O2O (online and offline). It is to indicate on-line market or on-line purchase to drive off-line consumption. O2O via the means of discounting, providing information and service of preordering to propelling movement the information of offline store to internet users thereby to transfer this users to their offline customers. This form is suitable for the goods or services which are need to go to physical stores, such as repast, body-building, see a film, cosmetology and so on.

The features of O2O

To consumers:

- To obtain more ample and more all-sided information of Trade Company and also the services they offered.
- More convenient to consultant online and booking.
- More cheap price when compared it to offline

To trade company:

- To gain more chances to display and public so that it is possible to attract more new customers to consume.
- It is possible to follow the each transaction.
- Grasp the data of users thus can enhance the effects on maintain old customers
- Reasonable arrange the business and cost saving by means of booking ahead online.
- Pulling the consumption of the new products.
- Help the company to decrease the cost of tenement. (MBAlib 2016)

2.1.2 Internet penetration in China

According to Mckirdy (2015), China is the country which has the most populous in the world also has the largest online population. The data show that the number of online users in China is over 649 million which is approximately double population of the U.S. Based on the information released by official recently, the China Internet Network Information Centre's (CNNIC) 35th "China Internet Development Statistics Report" documents online usage in the country for 2014, and revealed the prodigious growth rate of mobile internet users, especially the smartphones users. On the other hand, however, the growth rate is still show an upward trend whereas it is gradually slowing down. According to report, new users increased by 31 million in 2014 while 54 million added in 2013.

During the period between 1990s and 2000s, the information industry in China shows a prodigious growth rate and at the end of 2000 the global rank is up to 4 when the user growth is 152% with amount of 22,739,300 internet users. Along with the continuous and fast development of internet, by the year of 2008, there were already more than 303,457,569 internet users in China and also the global rank is located in first place this year. So far, the global rank of internet users is constant keep in the first place for several years and it is predicate that almost impossible to be challenged by any other countries in the near future. With the expansion of the internet, China's informatization is speeding up that it means the huge potential market of all industries related to internet in China. (Internet live stats 2016)

Year	Internet users	User Growth	Global rank
2000	22,739,300	152 %	4
2001	33,995,803	50 %	3
2002	59,329,170	75 %	2
2003	80,774,236	36 %	2
2004	95,660,250	18 %	2
2005	112,351,599	17 %	2
2006	139,552,413	24 %	2
2007	213,494,961	53 %	2
2008	303,457,569	42 %	1
2009	390,510,543	29 %	1
2010	466,418,762	19 %	1
2011	524,112,635	12 %	1
2012	564,000,000	8 %	1
2013	617,580,000	10 %	1
2014	641,601,070	4 %	1

Figure2. China Internet Users (Internet live stats 2016)

2.1.3 Benefits of e-commerce to customers

Along with the explosive penetration of internet, e-commerce which can simply defined as the transaction online becomes very popular everywhere. Besides the supportive from the rapid development of internet technology, there are lots of benefits bring to customers through e-commerce when compared to traditional method and in turn, this advantages also greatly promote the development of e-commerce. (Charlesworth 2007, 61)

1. Wider range of Choices

The consumers have more choices since the e-commerce environment offers a platform for kinds of sellers. According to Dunn (2008) argued that “use Internet sites as shop fronts so that the consumers can browse and buy from many different sellers, making it easier to find exactly what they are looking for”.

2. Can purchase the products without the areas limitation

“E-commerce gives the remote consumer an option to shop somewhere else therefore driving prices down and quality of goods up in the local region “(Dunn 2008) In the past time, the people who live in the remote place such as countryside where the business is not very developed cannot buy anything they want conveniently. As the e-commerce becomes the new way to buy products, at present, the consumers are possible to break up the limitation of areas and to purchase any products they want online.

3. Price comparisons

As mentioned above, consumers have more choices under the e-commerce and these variety choices include not only products itself but also price so that consumers are possible to make more appropriate purchasing decision.

“E-commerce makes information on products and the market as a whole readily available and accessible and increases price transparency, which enable customers to make more appropriate purchasing decisions.” (Andam 2003)

4. Save time

Under e-commerce environment, consumers can save time since they purchase goods online that means they saving the time to hang out and on the road. Vyavhare (2007) point out "*Transactions can be handled over the internet instantaneously without high response times, most of the times much faster than offline system.*"

5. Convenience

As the consumers can purchase variety products and compare the price online without going to physical stores. According to Zaveri (2008) "*People can buy goods with a click of mouse button without moving out of their house or office.*"

2.1.4 The current status of e-commerce in China

In spite of stagnant economy, e-commerce in China has experienced a rapid growth in 2014 mainly thanks to the proliferation of cellphone as well as improved internet infrastructure. Data collected from the National Bureau of Statistics (NBS) show that transaction volume of Chinese online shop amounted to 16.39 trillion yuan (US\$2.68 trillion) last year, up 59.4% year-on-year. (Indo-Asia News Service 2015) So far, it is estimated that around 193 million online shoppers in Chinese market which is more than any other country. Meanwhile, the trend of continues growth in internet users will give rise to the significantly transaction volume increasing. A number of factors are driving the growth. One of them is the middle class in China which is predicating to proliferate from 200 million to 800 million people over the next 20 years, according to Acquit Group. Another is the supportive from Chinese government; it is a key factor for any business to survive in fierce competitive market of China. The development of supply chain also makes huge contributes to this growth since it brings lots of convenience for customers. Still, e-commerce is an emerging industry in China. Nevertheless more people are shopping online in China as the U.S, penetration is much lower when refers to population; the data investigate only 14% of China's 1.3 billion customers purchase online compared to approximately 54% in the U.S. On the other hand, it also tells us that China is a huge potential market which is full filled with various opportunities and challenges. (Indvik 2012)

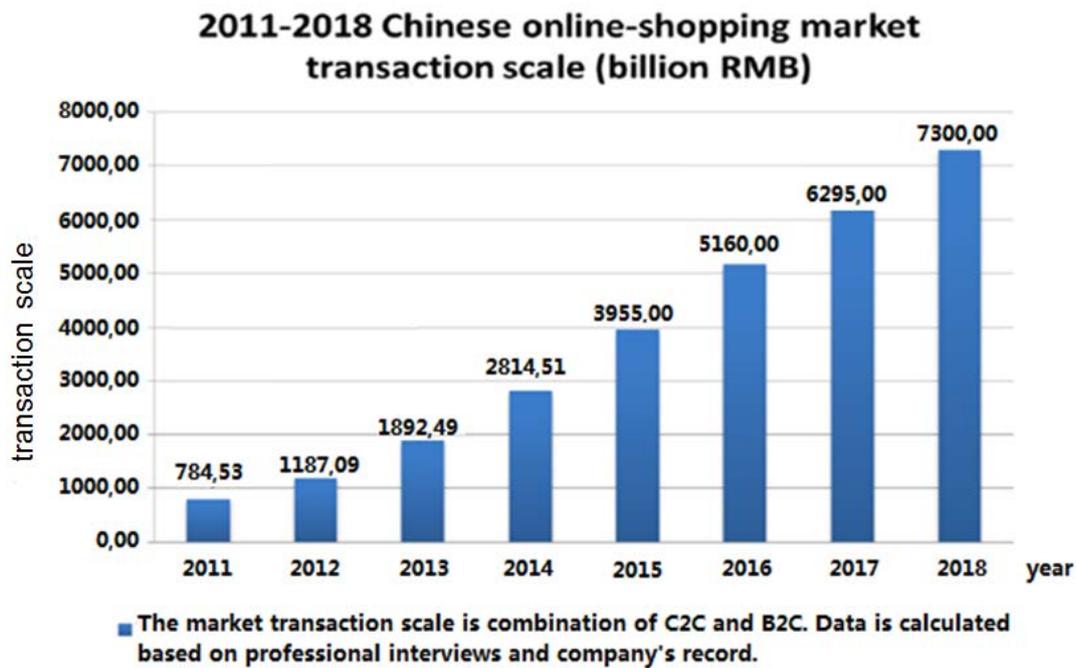


Figure3. Chinese online-shopping market transaction scale (iResearch 2015)

The positively trend of e-commerce in China reveals a huge potential purchase power of Chinese customers, which means there is still enough space for the growth of Chinese market in terms of e-commerce. In turn, the market for supply chain is expected to increase accordingly since the close relationship between e-commerce and logistic. With the increasingly high demand from customers, the more efforts are expected to make in supply chain era.

2.2 An overview of Third-party logistic (3PL)

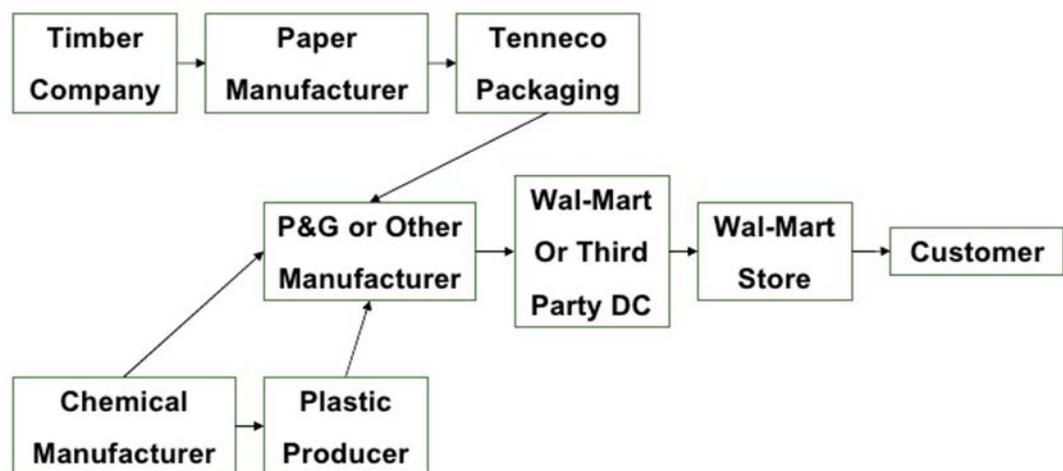
This part will give definition of supply chain and the challenges this industry is facing nowadays firstly and introduce what is the Third-party logistics next. The current status of 3PL in China was discussed following while the relationship between e-commerce and 3PL has been analysis finally in order to establish the close link between them.

2.2.1 The definition of supply chain

There are different definitions of supply chain since the first time it has appeared and it is always change along with its constantly development. According to Chopra (2004), a professor from Stanford University, the supply chain can be defined as:

“A supply chain consists of all parties involved, directly or indirectly, in fulfilling a customer request. The supply chain not only includes the manufacturer and suppliers, but also transporters, warehouses, retailers, and customers themselves. Within each organization, such as manufacturer, the supply chain includes all functions involved in receiving and filling a customer request. These functions include, but are not limited to, new product development, marketing, operations, distribution, finance, and customer service.”

Stages of a Detergent Supply Chain



4

Figure4. Stages of a Detergent Supply Chain (Narula 2009)

The figure above is showing the stage of detergent supply chain of Wal-mart. This example illustrate that the customer is a key part of the supply chain and main objective of supply chain is to satisfy the customer as well as generate profits through the process. The whole process begins with an order from customer and end with the payment of customer. There may exist some differences between supply chains in different situation, however, all in all, a typical supply chain may involve the following stages:

- Customer
- Retailers
- Wholesalers/Distributors
- Manufacturers
- Component/Raw materials suppliers

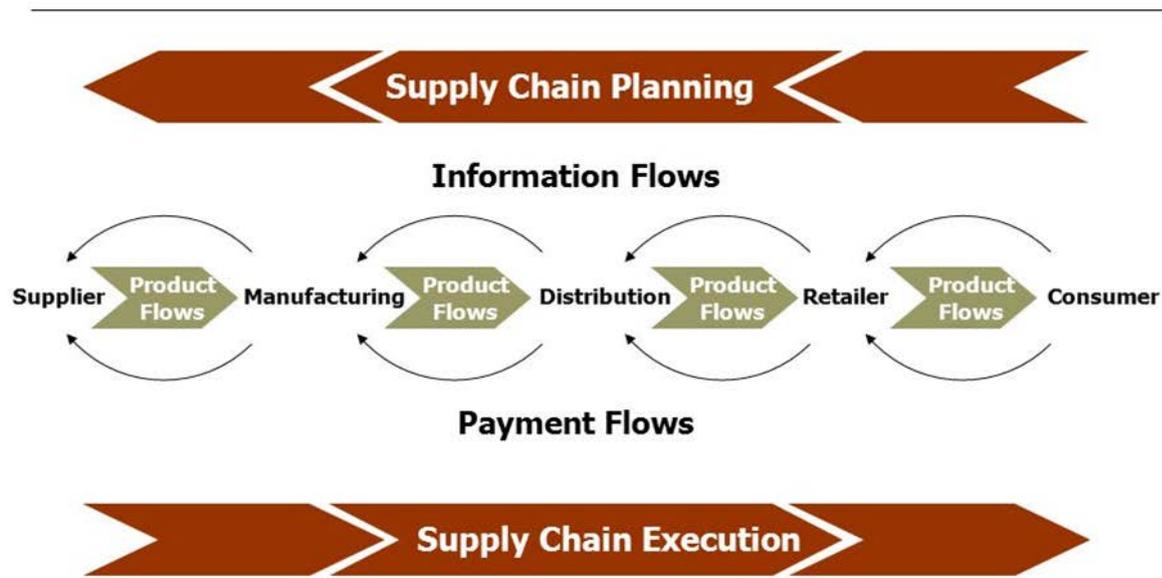


Figure5. A process view of the supply chain (Fowler 2016)

As the figure5 show that one company's supply chain includes the different conditions of goods such as the raw materials, intermediate products and finished goods. Then come to the process of transformed, stored and sold and all processes are connected by transportation, along which materials and product flow (Kalakota & Robinson 2001, 274-275).

2.2.2 Supply chain challenges

1. Increasing volatility:

No matter what kind of business that they have shown more global trend owing to the continuous development of supply chain in the past ten years. Accordingly, the supply chain has become more professional and vulnerable nowadays when compared it to the past decade. One of the most demonstrable challenges that supply chain facing today is the increasing volatility of customer demand (Figure 6).

In addition, paying attention on other challenges over the next five years, however, the more pressures is coming from global competition with regard to customer’s perspective. Other issues such as currency fluctuations and increasing global markets for labor and talent arouse a lot of attention from customers as well.

% of respondents,¹ n = 639



¹ Respondents who answered "other" or "don't know" are not shown.

Figure6. New challenge lies ahead. (McKinsey & Company, 2010)

2. Economic instability leads to a volatile environment- both internally and externally.

As a result, there is no doubt that business will encounter the challenge of fluctuations and containing costs. Still, in order to gain competitiveness in the market, reducing operating costs continues to be a top issue for any corporate in the future. (Dun & Bradstreet, Inc)

% of respondents,¹ n = 639

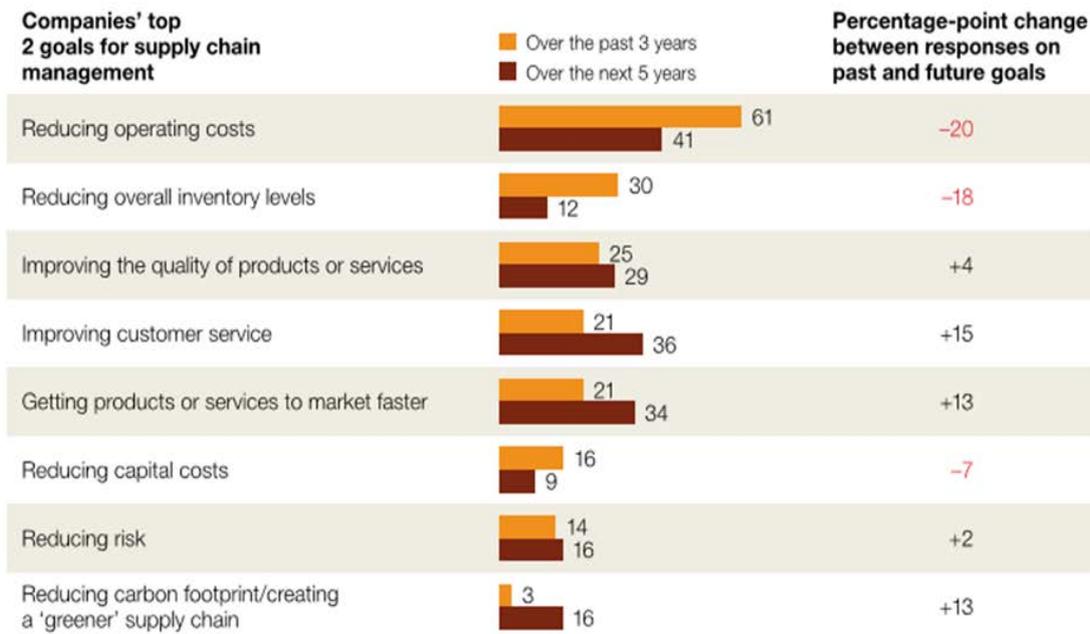


Figure 7. Shifting priorities. (McKinsey & Company, 2010)

According to Hau (2011, 63-64) mentioned in Harvard Business review, it is necessary for companies to retain the option to alter supply chain in order to control the cost as well as the flow of supply chain. With regard to product design teams, it is necessary to ensure that they are aware of the supply chain implications of their designs. What's more, designers are expecting to be familiar with the three design-for-supply principles: commonality which ensures that products share components; postponement which put off the step when the products become different; and standardization which guarantee the consistency of component and process for different products. The principles mentioned above make the firm adapt supply chain flexibly according to the changes of engineering.

2.2.3 The key factor influence the efficiency of supply chain

Standards simplify data handling dramatically. In the past time, the process of synchronizing data within business partners is usually manual, costly and tends to mistaken. Therefore it is can't keep pace with the rapid development of logistic industries and global data synchronization emerge because of this demand. Both manufactures and retailers can benefit. In terms of manufactures, under the system of standards simplify data handling, each manufacture might have to follow the requirements established by multiple retailers. When refers to retailers, they are

possible to make investments in information technology like bar code scanning system and more benefits as following:

“-Reduction in out-of-stock-studies have shown that supply chain delays due to data integrity issues result in approximately 5% of out-of-stocks.

-Shorter time to shelf for new items-time to shelf for new items often is a matter of several weeks, and synchronization can reduce this substantially.

-Reduced checkout errors-maintaining correct links between checkout systems and inventory reduces items not being on file errors and mispricing.”

(Hanson 2007, 529)

2.2.4 The concept of Third-party logistic

Along with the popularity and multifunctional development of smart phone currently, online purchase becomes all-pervading especially with the high development of the mode of payment. Since the e-commerce are developing at an alarming rate which result in higher demand on supply chain, more and more companies choose to outsource their logistics business to third party enterprises not only to offer a professional logistics services to customers but also to focus on main business in company. Though a lot of factors contribute to the emergence of 3PL, e-commerce is the most important one of them.

Still, Third-party logistic is under the developing road; hence, there is no uniform standard definition for it. Generally, it can describe a kind of company that provides various logistics-related services which consist of public warehousing, transportation management, distribution management, and freight consolidation. Thus, Third-party logistic is a "bridge" between the supply-side and demand-side. (Robinson 2013)

Third-party logistics can be divided into different types of logistics services and the two main types are introduced as following:

Transportation Based Service

- An overall logistics services are provided instead of only offering transportation service
- Examples: Ryder, FedEx Logistics, UPS Logistics

Warehouse Based Services

- A lot of companies have rich warehouse experience previously
- Examples: DSC Logistics, USCO

(Adam 2014)

2.2.5 The current status of 3PL in China

As an enterprise operation management, the integration of logistic services and contract man of logistic outsourcing, third-party logistic gradually become the mainstream modern logistic service mode. Under the main trend of rapid national economic development, the effort made on 3PL is not only an important channel to promote the quality of China's economy, but also our traditional transport and logistics business transformation imperative. Since the mid-1990s, the first time the concept of third-party logistics has been appeared in China, the 3PL has been made tremendous advance and show positively trend as well. The requirements on logistic are getting higher and higher under the condition of high-speed development of e-commerce. In order to keep pace with the step of e-commerce development, the first thing is to analyze the features of 3PL nowadays in China. (Wang 2015)

First, two main features show as: small scale as a whole, great potential for development. Overall, the third-party logistic development in China is still at the initial stage, enterprise logistic is the main form of social logistic, it is hard to make a progress when facing the inefficiency demand of real third-party logistic in the short-term. Simultaneously, thanks to the huge potential development space, China is becoming one of the fastest-growing 3PL under the influence of global economic integration.

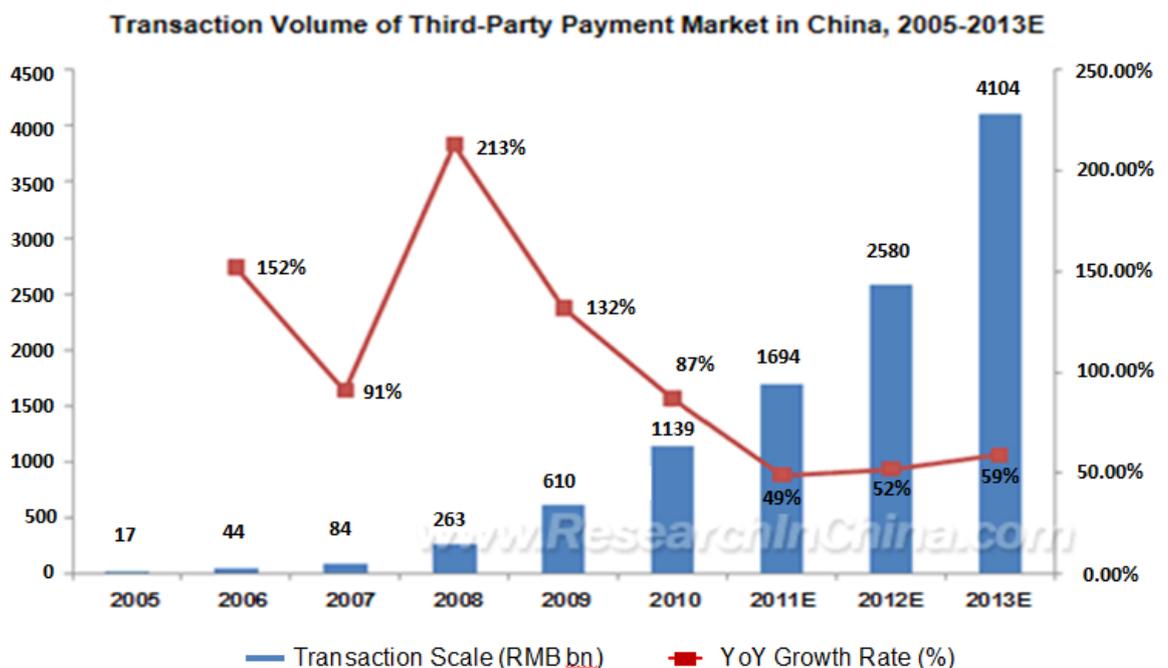


Figure8. Transaction volume of 3PL market in China, 2005-2013 (ResearchInChina, 2011)

The figure indicates that although the rate of growth show a trend of fluctuations, the transaction volume of third-party payment is constant growing since 2005 to 2013 and also be predicted to continue this trend in next several years.

Second, the profession concentration degree in this era is low. Based on the analysis of the consultancy, 3PL market in China in 2006 are more than 18,000 services and terminal, the top ten service providers accounted for only approximately 13% of the total market, no any logistic company’s market share is over 2%. The result indicates that the integration of logistic industry in China has not yet been implemented fully. (Statista 2016)

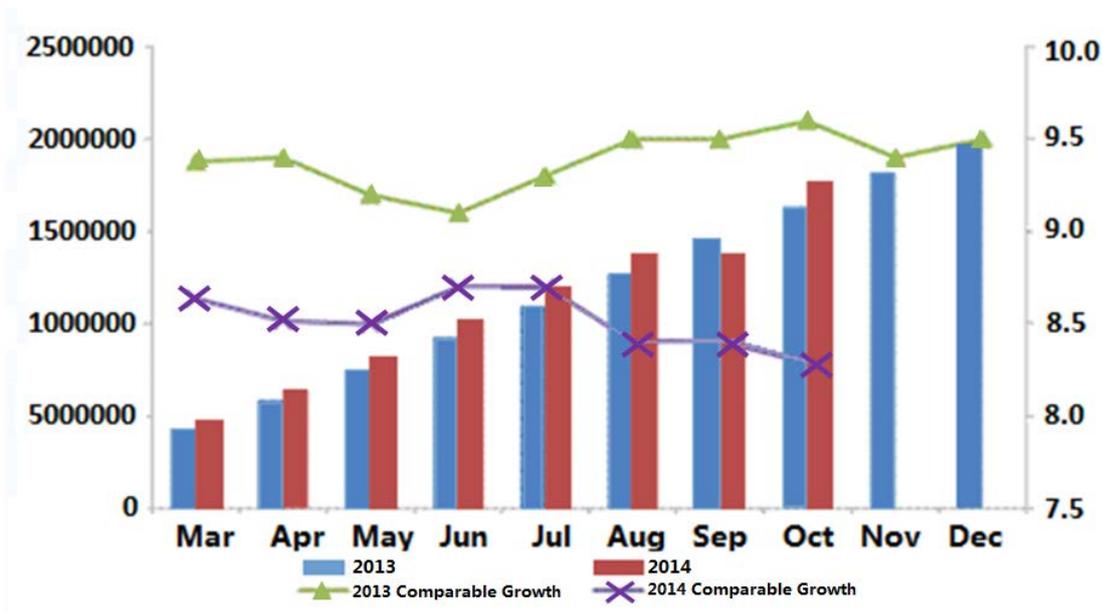


Figure9. Total social logistics and growth changes since 2013 (Chinawuliu.cn 2014)

Seeing the figure 9 above, it is obviously that the whole logistic industry has witnessed continuous and stable development over the several years while the third-party logistics encounter many challenges.

Third, the characteristics of majority of enterprises are: the large quantity of enterprises, small in scale and not strong professional. The requirements on third-party logistic increased significantly with the explosive growth of e-commerce. A large number of small logistics enterprises exist without a strong competitive edge since the lack of capital, technology, personnel and other aspects. The courier blasting warehouse phenomenon appeared during electricity shopping festival such as double-eleven or double-twelve would be a good example to reveals the lack of professional in 3PL industry era which is restricting the development of e-commerce.

2.3 The relationship between E-commerce and 3PL

Along with the emergence of advanced technologies and the high-speed development of e-commerce, the consumers' expectations from all kinds of goods no matter it is tangible goods like different products or intangible ones such as services are higher and higher. In terms of companies, they must make efforts to satisfy this expectation if they want to survive from this fierce competition market. Over the past ten years, companies have been forced to make changes to adopt this new trend and the most apparently example is the rapid development of 3PL. A study conducted by Acquit group found that 85% of buyers would switch suppliers for a lower cost option. No matter e-commerce or 3PL both can help realize the purpose of cost saving thereby the positively development trend of them is showing in today's market. (Hothem 2014)

The emergence of e-commerce has greatly promoted the development of third-party logistics. E-commerce achieves a worldwide service via break up the restriction of time as well as space. The characteristics of cross-regional, cross-temporal in e-commerce require logistics activities also have the same features. For majority corporates, the resources are limited thus make themselves impossible to complete the whole logistic activities. Then, third-party logistic companies can provide door to door service with professional resources as well as experience in relevant fields and lower cost. Thus, third-party logistics is vigorously developed under the rapid development of e-commerce. (Chen. Zhang. Goh. & Gan. 2011) In addition, the third-party logistic gains substantial supportive of new technology thanks to the development of the electronic information technology.

The activities of 3PL include several steps as following: inventory management, warehousing, staffing, order fulfillment as well as kinds of shipping methods. Obviously, it is not a small business for any company to handle. On the other hand, this is where 3PL find its niche. From e-commerce perspective, through outsource logistics, not only the company can receive the professional service and satisfy the customer's high requirement to logistic but also they can focus on other aspect of the business such as marketing or operation department. In essence, hiring a 3PL is equal to hire an experienced operations management firm without a series of complex work. (Combs 2012)

3. ADVANTAGES AND DISADVANTAGES OF 3PL

Everything has two sides and it has both advantages and disadvantages. As an industry which is still in the early stage of development, third party logistics brings a lot of benefits to us while many challenges are inevitable.

3.1 The superiority of the 3PL

Developed from traditional supply chain to third party logistics, the reason behind is mainly from the superiority of 3PL. The four main advantages of third party logistics are given as following.

3.1.1 Focus on main business

It is common that many entrepreneurs not have a certain direction when they start their business online since it is difficult to focus on one direction at the beginning; take e-commerce for instance. As a result, lacking focus brings a lot of troubles to “new business” and one obvious of them is unfavorable to establish a positive and professional image in consumer’s mind while this disadvantage is really fatal in determining the successful of any business. Thus we can easily attain to the conclusion that focus on business is the one of the key factor for business to survive from fierce competition. (Richard 2015)

Manufactures can achieve optimal allocation of resources via third-party logistics while concentrate its limited human and financial resources to develop basic technologies and enhance the core competitiveness of enterprises. Namely, it is easier for firms to focus on their core business when they outsource all works related to logistics. Take hospital for example, usually, the hospital hold supply chain by themselves instead of outsourcing which means hospital need to deal with a set of functions like transcription, medical billing and claims processing and this kind of work always take a lot of time and resources. Now, however, the hospital is capable of focusing on their primary business by outsourcing to third-party logistic. (Serava solutions 2015)

3.1.2 Cost saving

The level of distribution cost determines the business performs and development prospects. 3PL can achieve maximum optimization of logistics path, minimize logistic cost and maximize the use efficiency of logistic tools via large-scale business which not only reduce their logistic costs but also reduce the cost of the logistic needs. Professional third-party logistics providers use advantage of scale production both in professional and in cost, bringing benefits to enterprises through improving the utilization rate of each part therefore to achieve cost savings. With the continuous expansion of the enterprises scale, deeply involved in marketing service will arouse the great increase in the cost while the third-party logistic can help to reduce additional loss. According to university of Tennessee, the corporate from United Kingdom and United States consulting firm EMST & YOUNG co-organized a survey: Large number of shippers which are use third-party logistics to make their logistics costs dropped by an average of 1.18%, cargo turnover on average from 7.1 days to 3.9 days, inventory reduced 8.2%. (Wenku1 2016)

Furthermore, the cost saving also reflected in lower infrastructure investment. Once the enterprises choose outsource that there is no need to build infrastructure which usually cost huge since outsource means the third-party logistic will take charge of all works related to the whole supply chain. Thus, by outsourcing the supply chain to third-party logistics firms, enterprises can achieve cost saving. (Wenku1 2016)

3.1.3 High distribution efficiency

The distribution efficiency not only reveals how professional your business is but also exerts a far-reaching influence on consumer's behavior. Namely that you can acquire the customers trust if you are able to improve your distribution efficiency and offer a professional service to customers.

In the time of fierce market competition, the efficiency of logistics determines firm's profits, brand, reputation and other aspects. With its specialized logistic channels, professional logistic teams and specialized logistic transport, saving the time and distance during the process of items transportation, and thus has a very high efficiency. (Wenku1 2016)

3.1.4 Reduce the inventory & risk

Third-party logistic can minimize inventory armed with well-planned logistics and timely delivery to improve the cash flow of firms in order to realized cost advantages. Meanwhile, the enterprises have to face the risk of investment and inventory if they undertake the logistics by themselves. Outsourcing the logistics business to third-party logistics enterprises means transfer the risk of investment to 3PL firms as well. On the other hand, in order to respond timely with the purchase order from customers, to prevent out of stock and fast delivery, enterprises have to increase and ensure the inventory. Inventory not only occupy lots of capital but also take the risk of devalues. The professional service of distribution offered by 3PL enterprises accelerates the flow rate of inventory, reduce the volume of firms therefore reduce the inventory risk.

The benefits showed above is only part of merits that a professional third-party logistics firms can offered to enterprises. Besides, it is the key to identify the trend in near future where technology is boosting the business. By outsourcing the logistics to professional third-party enterprises, it is not only helping your business a lot but also is a trend in near future which nobody can escaped. (McDnugh & Anderson 2016)

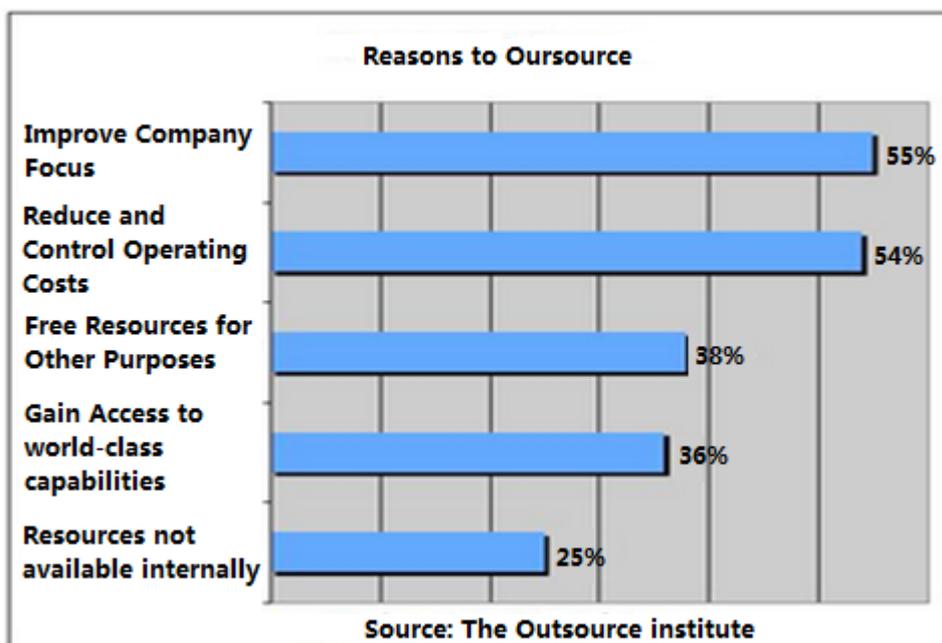


Figure10. Reasons for outsourcing (Serava Solutions 2015.)

3.2. Issues and challenges of the 3PL

Different corporates or situation will face different challenges, generally for most of third party logistics enterprises there are some commons between each other. The following issues and challenges are suitable for majority of enterprises nowadays in China.

3.2.1 Limitation of market demand

As we mentioned before, China is a huge potential market for Third Party Logistics industry. Therefore it seems contradictory when the limitation of market demand has been referred under the topic of issues and challenges of 3PL. However, this challenges do exist mainly comes from the people's limited cognition on Third Party logistics. In other word, the majority of people haven't realized that what benefits 3PL will bring to us so far, in turn, resulting in lacking enough attention to Third Party Logistics industry. Another main reason behind this situation is that the company is fear to lose control of the procurement as well as some additional profits.

At present, the real demand for the third-party logistics mainly comes from some foreign-funded enterprises and electronic commercial enterprises. Majority of firms are used to establish self-built logistics system which requires a lot of labor, material and financial that, in turn, resulting in lacking attention to cultivate core competitiveness of the firms. Though a large number of corporates outsource forwarding business to transportation enterprises or outsource warehouse business to warehouse firms, still, it is the simple and unstable relationship between enterprises instead of the deeply cooperation in terms of supply chain management.

3.2.2 Small-scale enterprises

Third Party Logistics is still a burgeoning industry in China nowadays thus a few enterprises developed into a maturity stage or in the form of large-scale. Namely, most of them are in small-scale. It is not a big problem when enterprises in some industries such as retails, however, in terms of 3PL industry it could be a big challenge since this field requires a lot of investment in labor, materials and financial.

Due to the small scale of third-party logistics enterprises, the majority of them lack of synergies and the advantage in intensive management is not obvious which give rise to economies of scale is difficult to achieve. The main function of logistic is focus on store, transportation and city delivery while no enough added value such as packaging,

process and allocate cargo are offered thus cannot form a complete logistic supply chain.

3.2.3 Shortage of talent

To some extent, the competition between enterprises namely is the competition of talents. Though the development of Third Party Logistics is not in mature period in China, it develops well in some west countries such as German, UAS and France. The main reason behind this successful is that they have a professional logistics team thanks to the mature and developed education system in this countries.

At present, lack of professional logistic personnel, poor infrastructure and low level of management are three important issues which are always ignored by most people in China. China's logistic industry is still in the early stage of development when compared to other developed countries. The level of related education has not yet catch up the rate of logistic development which results in talents' shortage. Moreover, lack of talent not only exerts negative influence on recruitment employees but also result in low level of management.

3.2.4 Low degree of informatization

Under the process of enterprises transfer from traditional logistics to modern logistics, as a symbol of modern logistics, third party logistics is not only deliver goods but also synthesize a series activities of information, transportation, warehouse, inventory, handling and packaging to form a new integrated management. The most difference between traditional logistic and modern logistic is: the modern one can operate business more efficiently via delivering information by IT. Apparently, informatization has become the inevitable trend of logistics enterprises development. (Wang 2016)

Nowadays some logistic enterprises have introduced high-tech into some parts of the work process; however, more firms still remain in the traditional manual operation stage. One of the reasons is the huge investment in new technology which hinders the pace of new technology. The current system of logistic information technology application can be roughly divided into four levels: single-point application, process optimization level, comprehensive management level and public platform level. At present, only minority of big-scale enterprises reached the second level of informatization while the percentage of reaching third level is less. To sum up, the low level of various logistic

infrastructures and the not high level of the application of information greatly restricted the development of third-party logistics enterprise. (Lunwenstudy 2015)

3.3 Solutions

According to each issue and together with currently problems which are not referred above but seriously hindered the development of third party logistics, the solutions have been put forward respectively as following.

3.3.1 Change the mind of logistic

Lack modern logistics concept is the main problem within the process of logistics development. Majority of enterprises are not take modern logistics as important part in enhancing the level of transportation industry, promoting economic development and increasing economic efficiency. The backward logistics concept give rise to both national economic and enterprises management take no count of logistics, lack of planning, seriously deficient in investment while regard logistics as a simple transportation work, or consider e-commerce as simple flow movement of transaction. Moreover, consider the implementation of e-commerce is only conducted computer network construction and order or shopping on the internet instead of realize the true realization of e-commerce is a complex systems engineering.

Under the e-commerce, logistic is not only limited to refer to traditional warehouse and distribution while it still consists of market forecast, inventory management , making plan for production and sales and so on. With the continuous development, the concept and function of logistics got the expansion and extension. The customers' requirements of logistics valued-added services are higher and higher which require the logistic enterprises transform the mind of traditional logistic, establish the awareness of providing service actively and all-sided. For instance, make market research with customers and bring up suggestions to manufactures through making market forecast actively. Furthermore, provide customers with more personalized services and establish one to one communication platform that to collect the information from customers timely and accurately and provide different services according to different customers. (Bowersox Closs & Stank 1999, 23-25)

3.3.2 Strengthen added-value service

Third Party Logistics industry always suffers a lot of pressures from both external and internal environment such as the competition within this field while others like rising fuel price. Hence, it is even more important than other industries to keep a good relationship with customers and one of the good ways is to provide customers with added-value service. (Derek 2012)

According to the development trend of logistics nowadays, only the mixed type enterprises which have enough logistic facilities and sound network as well as a strong logistics design capability have the largest space for development. Since they are capable of combining the information technology and capability of implementation, provide the customer with holistic solutions for logistic industry. Hence, logistic enterprises in China need continuous segment market, expand the scope of business, develop value-added logistics services, and offer processing, distribution, freight forwarding and other services. Satisfy the customer via professional services, improve the quality of services and focus on developing strategic partnership with VIP customers

3.3.3 Cultivating high-level professional logistics talents

The gap between China and other countries which are developed in logistics not only just related to equipment, technology and founding, but more importantly is the gap between the ideas and knowledge. Strengthen the professional logistics knowledge training on staff and improve the level of logistics management are vital work for the development of China's modern logistics. Firstly, one of the good ways to improve the quality of personnel engaged in logistics is to strengthen the corporation between logistic enterprises and scientific research institution in order to combine theoretical research and practical application. Meanwhile, accelerate the cultivation of logistics professionals and management personnel are the key factor in the process of logistics improvement.

The inter-disciplinary talent is needed by logistics industry under the environment of e-commerce which means this kind of personnel is professional both in the era of logistic management and e-commerce, meanwhile; at least have basic knowledge with marketing, computer and other fields. Currently in China, however, it is unable to cultivate enough inter-disciplinary talent to adapt the logistics industry development under the domestic education system. Therefore, aim at the requirements from developing industry and the education system in China is expected to make some

changes in order to support national development through cultivating enough related talents.

For any kind of enterprise, the manager within the organization is one of the key factors to be successful. Pointers for supply chain managers in the future are showing as following:

- Never totally rely on technology as a “be all and end all”. Since the technology is only one factor to face the challenges from the third-party logistic industry while it involve people- and change-related issues.
- The managers in the future are expected to be more effective at interfacing with customers. This requirement is from the past experience as they used to be almost completely internally and operationally focused.
- They need to have strong interpersonal skills. The logistic managers used to pay more attention on technical instead of relationship between customers or partnerships.
- Both general management and strategic management capability are required in logistic industry as the rapid development of it.

(Harrison & van Hoek 2008, 107-108)

3.3.4 Application of network technology

Fully application of network technology and form strategic alliance is the key part to make contributes to the development of logistics in China. Information management of logistics enterprise is the insurance of the smooth flow of information outside the enterprise, can realize information sharing among internal employees, greatly enhance the quality of service, reduce logistics costs, optimize inventory configuration and improve the level of customer service. Efficiently use network technology to form the strategic alliance with other enterprises, on the one hand, it is not only can reduce the cost of e-commerce but also can accelerate the development of logistic firm while the logistic enterprise build up alliance with e-commerce enterprise. On the other hand, third-party logistic enterprises can ally with each other in order to share the resources together thus to lower the logistic cost.

4 CASE STUDY-XUNJIE CORPORATE

The readers get an general idea of the current situation of 3PL under e-commerce in China nowadays through learning theoretical part of the third party logisitcs from different aspects. In order to go deeply in this field, as an warehouse-based third party logistics enterprises, Xunjie is selected as a case company to further study in this area. On the other hand, it is not easy to gather enough information to analysis since Xunjie is still a small-scale company. Thence, in terms of empirical part the information has been collected via interview with manager of Xunjie while online resources also provide a lot of supports. At the end of this part, solutions have been proposed based on the evaluation of answers from the interview with the help of a lot of others resources.

4.1 Introduction of company

Xunjie is a warehouse-based company which was founded in 2000 years, provide the customers with services of warehouse, distribution, return of goods and so on. The company continually develop since the first time it was established and currently has a large standardized warehouse and around 15 numbers warehouses of distribution which are totally near 70,000 square meters, a special railway lines, an international container transit point for a large goods and 2 general cargo fleet 2. In addition, after more than five years' successful operation, Xunjie has formed the largest and most professional motorcycle wholesale motorcycle accessories in Anhui province era. As a professional third-party logistics enterprises, Xunjie currently major focus their business both on domestic and international which include warehouse, transport, distribution, handling, information processing, general cargo transport, container rail transport, container storage, a customer declaration and inspection, domestic and international freight forwarding.

Warehouse-based company is one of the types with regard to the third-party logistic enterprises. As the continuous increasing amount of 3PL companies appear but no matter what kind of type it belongs to and this phenomenon reveals the growing trend to outsource logistics. With more deep it developed more additional requirements should impose in this filed. At the same time, more issues are coming as well. (Zhou 2011) To further help with the investigation of issues exist in 3PL industries, Xunjie is selected as a case company to achieve this goal.

4.2 Warehouse Management

At the beginning, warehouse management system refers to control movement and storage of materials within a warehouse whereas this concept is extended to consist manufacturing, order management, transportation management and complete accounting system nowadays. As the automated data collection during the process of warehouse management system (WMS) it is highly possible to expect increasing accuracy and reduction in labour costs. Apparently, the efficiency of labour is only one of the factors in WMS, especially along with the rapid development of supply chain that WMS tend to be expected to offer added-value when compared the function of WMS before such as first-in-first-out, cross-docking, automated pick replenishment, wave picking, lot tracking, yard management, automated data collection, automated material handling equipment etc. Though the concept of WMS is always changing along with the development of it, the main functions have not really changed. Therefore, the primary objective of warehouse management system is still control the movement and storage of materials within an operation and processes the associated transactions. (Piasecki 2012)

The process of traditional warehouse management consists: get in, grounding, replenishment, dieking, packaging, consignment. Under the fierce competition environment nowadays, enterprises have to constantly improve in order to adapt to the increasing requirement from competition in supply chain. Modern warehouse management already transferred into new stage: besides the functions of traditional warehouse management, as well as merge-in transit, added-valued services (assemble/ put together; packaging/label; marketing), returned purchase, quality assurance and dynamic customer service. WMS optimize the space usage of warehouse and all the business within warehouse according to priority principle. Through the electronic media such as electronic data interchange (EDI) to network with main frame of computer and then main frame transmit the origin data of order. On the other hand, WMS connect with staff in warehouse by means of wireless and bar code system. (Mulcahy & Sydow 2008, 78-79)

There is no deny that any warehouse are possible to gain benefit from WMS, however, the thing is WMS is not a simple concept or easy to achieve but it is a complex process which need huge investment and a lot of other resources to run. Thence, choosing WMS or not should be based on different conditions in each corporation.

4.2.1 Functions and principles

The purpose of warehousing is to satisfy the requirements from up and down of supply chain. The activities of warehousing or the basic function of it includes outgoing property, inventory, package, distribution and other information processing. Among various functions of warehousing activities, outgoing property and storage management are the basic one. Sorting and packing of the goods combine the basic functions mentioned above constitute the basic functions of modern warehouse.

First-in-First out (FIFO)

FIFO namely preferred keeping goods shipment firstly and this principle generally suitable for short life cycle products.

In the face of the channel

This principle refers to put the mark and the name of the goods in the face of channel thus brings convenience for staff to recognize goods easily. Moreover, it also makes the work more efficiency through easily take goods from warehouse. Namely it is the key factor to keep the smooth flow of goods within the whole storage.

Significant Characteristics

It means put the goods in different high level on the shelf according to different weight of them. Generally, the heavy goods should be stored in the shelves of the lower position while the light one stored in the higher position. If the manufacture is not the main way to move the goods, this principle contributes lots to protect the workforce and keep them in safe condition.

Shape character

It is important to store the cargo depends on the shape, for instance, standard commodities should be put on pallets or shelves. In terms of some special cargo such as perishable products or someone which is easy to broken, they need more attention and should follow the principle of first-in-first out in order to accelerate turnaround.

4.2.2 ABC management

Activity Based Classification (ABC), according to Rouse (2011) is “ABC classification is closely associated with the 80/20 rule, a business metric that proposes 80% of the outcomes are determined by 20% of the inputs. “ The purpose of ABC classification is to create a way for a business to identify that 20% so that the efficient solutions can high possibly be put forward. ABC classification is widely used in controlling inventory as well as to ranks things- what kind of customers are most important; where the most financial risk is coming from; what kind of employees we are needed or where the bottleneck will appear during the process.

One of the main benefits of ABC classification is helpful for people to find out the primary and secondary contradictions and put forward suitable solutions accordingly based on the collected information. The concrete steps as following: data collection, processing data, make ABC analytical statement, draw analysis graphics, case study. The first thing need to be down is to category the storage if you want to achieve efficiency management and control on inventory. It is the first and most important step for better inventory management and control. Hence, by classifying goods and management can be effective use the space and position of warehouse. In another word, to find out the primary and secondary information via the analysis of cargo so that to put various cargo in order. (Lin 2015) Combining the theory and practice to make our theory knowledge about storage more adapt to the actual operation since only perfect combination of them can make all the works here more smooth and efficiency.

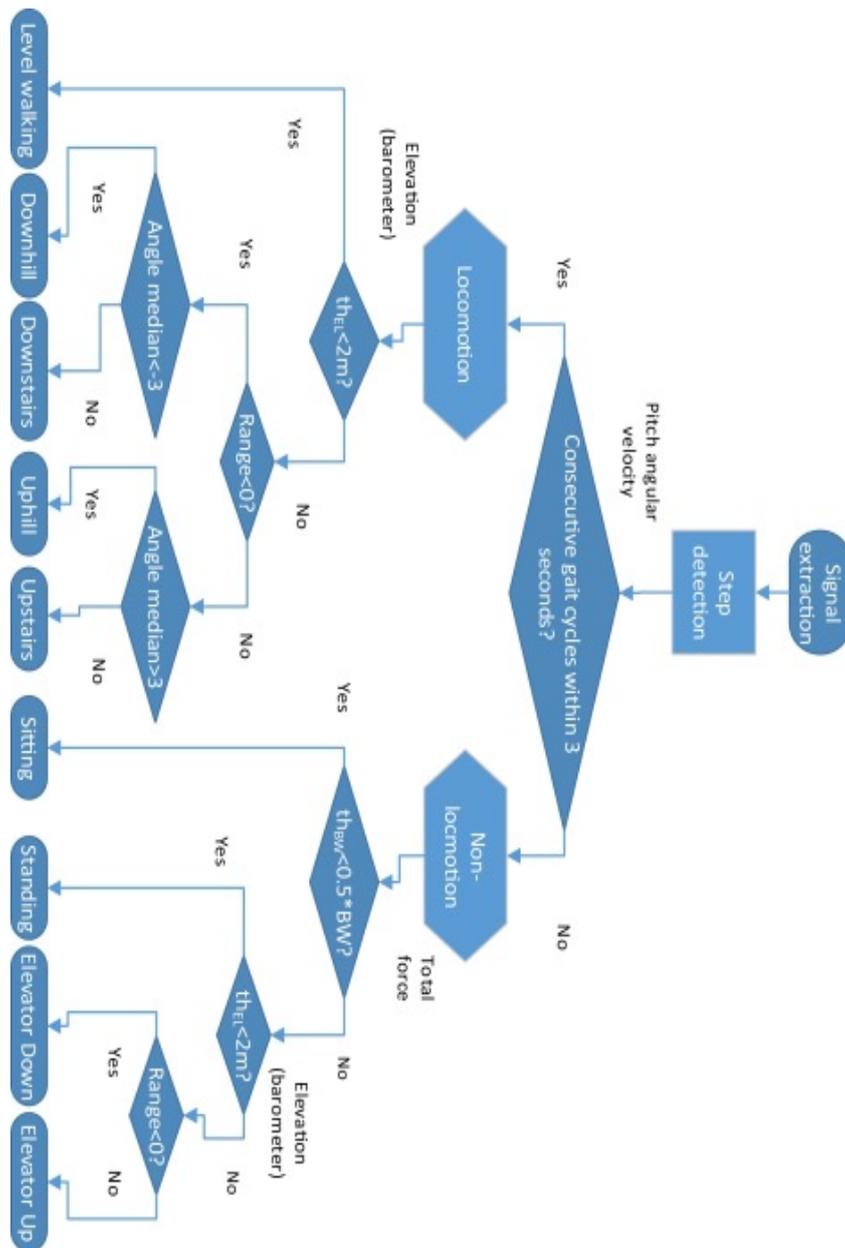


Figure11. Algorithm flowchart for activity classification using instrumented shoe signals (Achkar, Lenoble-Hoskovec, Paraschiv-Ionescu, Major, Bula & Aminian 2015.)

The above figure is an analogy of ABC management which is taken human as an example to convey the work principles behind the ABC classification. The object of the flowchart is to offer a method for recording daily activity with the regard of vertical component of the ground reaction force.

4.2.3 Logistic Information system

Logistics information system is made up of personnel, computer hardware, software, network communication equipment and other office equipment. The main function is collect information from logistics information system and storage, transport, processing, maintain as well as output, offer the support of strategic and operation to the manager of logistic and also managers from other departments so that can improve the efficiency of logistics operation and benefits. Logistics management information system currently transfer the way from the whole process of the logistics decision, business process and customer service information to via scientific management method to manage logistic. Logistic system cover transport system, storing and keeping, transportation and handling, distribution processing system and so on. Moreover, the logistics system is the highest level of the activities and one of the most important aspect of the whole logistic system when it involved operating, standardizing, electronic, automation and other aspects. Due to the extensive application of modern computer and computer network, the development of logistic has a solid foundation. The application of computer technology, network technology and related relational databases, bar code technology, EDI technology enables logistics activities of labour, duplication of effort and reduce the incidence of errors while increase efficiency, accelerate information flow so that the logistics management changed dramatically.

Pay attention to the interaction between logistics system and logistics management, not only choose the suitable logistic information system based on the features of different flow of logistics management but also restructure or optimize it through logistic information. The benefits of choosing the right logistic management system are showing as following:

- 1) Improve the comprehensive competitiveness of enterprises logistic.
- 2) The increasing efficiency of internal operation and can deal with all kinds of complicated logistics business calmly.
- 3) Improve the quality of customer service via share information with customers timely.
- 4) Make it possible to provide customer with added-value service through the data analysis of a large number of business, as well as to deepen the huge market potential.

- 5) Strengthen headquarters manage branch offices as well as with shareholders, partners and support communication of information resources, business cooperation, providing real-time statistical analysis of data to management, decision-making, improve the rate of market reflection and also the efficiency of decision making.

5. THE PROBLEMS IN WAREHOUSE MANAGEMENT OF XUNJIE

As Xunjie is still a small company so that it is difficult to find enough information about the real situation within the company now. Therefore, the problems which are put forward below are based on an interview with one of the manager of Xunjie due the lacks in research which caused by the small scale of company. What's more, the solutions are put forward accordingly as well.

5.1 Unreasonable Utilization of reservoir space

One question has been asked in the interview is " what is the biggest challenge the company currently facing?" The reason behind this question is put forward is that almost all corporates facing kinds of challenges especially when they are in the early stage of development. Through the answers from the interview we know that the biggest challenge of Xunjie is the use of warehouse is unreasonable which result in a lot of extra expense and unnecessary waste. Together with more information from other means, the question should be asked more deeply that why the use of warehouse is unreasonable in Xunjie – unreasonable utilization of reservoir space is the main reason.

As the high frequency of out-put and in-input of warehouse in Xunjie, the flow of cargo is large as well. The layout of warehouse space is storing the goods on the shelf; 3-dimensional space utilization rate is not high. Furthermore, the warehouse only have forklift which includes manual forklift and automatic forklift. Generally, it is used to storage the goods on the location of the operating space when there is not enough storage space. Especially when the product sales season is coming, it is so crowded in warehouse. Even the staff who work there feel depress due to this crowded atmosphere. The unreasonable utilization of reservoir space mainly performance in: office occupies large area; goods of demolition waste garbage processing is not timely; many substandard goods and sales return; too long time of substandard in warehouse; processing efficiency is low; the placement of tools not unified result in irregular place takes up a lot of useful space. Consequently, there is no place to put the ready goods which bring some troubles to inspection and delivery. On the side, area in the last shelf is almost idle while it only put a small amount of simples and wasted a lot of space.

5.2 Inadequate statistical capacity

In fact, "Inadequate statistical capacity" was not mentioned by manager of Xunjie in the interview, however, this problem do exist in all third-party logistic industry. Thus it is necessary to emphasize especially with the explosive development of Information Technology era.

Since the low utilization rate of computer, the reaction of data information is not very sensitive. There is almost without any information processing software besides the manual record of excels form that leads to low statistical capacity and inefficiency in the work. It is a really big deal without the support from unified database when there are nearly one thousand different kinds of goods in warehouse. Take stock checks as an example, once any personnel make mistakes, the only way for other staff to inquire is use excel form. Since this excel form is complete by manual and it cannot be guaranteed that there is no mistakes. For this reason, it is hard to give an accurately data if the error appears during the former stage of inputting data. Every time for warehouse check, not only the efficiency of manual is low but also the error rate is high, and it takes a week of time throughout the counting process from disk to secondary drive to check data. If the number is huge when receipt goods and there is no support from integrated database system instead of only count out and classified based on manual; to consume tremendous labour power and physical resources.

5.3 Low quality of staff

Last summer holiday, as an operation intern in Bacardi I am not only gained some professional skills but also several phenomenon arouse my interest. One of them is that I realized even the big company sometimes take no account of human resources while it was really important. In Bacardi Asia Pacific, the office in Shanghai even doesn't have a dependent human resources department. The works which originally belong to human resources department, in turns, in the charge of operation department in Bacardi. As an intern in operation department in Bacardi, sometimes I was expected to assistant my manager to control the process of recruit. All in all, Bacardi in Shanghai not pay a lot of attentions on Human resources which really surprise me a lot. Make little or no account of human resources not only recruited unqualified staff but also some unnecessary waste are generate which conclude both money and time. Therefore, the question which is " How do you think the human resource department within the company?" has been asked in the interview. As expected, through the answer we know that Human resource department is always ignored by a lot of

enterprises and Xunjie is no exception. The manager mentioned in the interview that they not considered human resource department as important as other departments in the company. Fortunately, they begin to realize the importance of the level of staff gradually.

There is no high threshold for employees to take job application in Xunjie which give rise to the irregularity quality of staff. Some of them are lack of responsibility and have low job enthusiasm. There is no deny that the importance of cooperation within any organization. For example, however, if the workers of discharging are not carefully putting the goods in the right places and then it will make a big trouble to staff who responsible for picking up goods from warehouse. Therefore, regularly lead to the deletion of goods without any reasons and the phenomenon such as take the wrong goods and put them in the wrong place which results in the movement of goods without cause. However, the most importantly problem in Xunjie as well as most Third-party logistics enterprises nowadays in China is lack of professional employees who are armed with related knowledges both in logistics and in e-commerce.

5.4 Customers relationship management

When we transfer our focus from internal to external and then we know that not only internal relationship is important but also external relationship plays a significant role in the development of one company. It is regret that I ignore this point when I deign the question for interview with manager of Xunjie thus no first-hand information to support this high possible potential problems in Xunjie. However, it can be conclude with the help of other resources that the customer's relationship management is not extensively and efficiently applied in small and medium company.

As the development of economy, customers gradually become one of the most important resources of the enterprises so that the quick response on the change of market is required from the company. Nevertheless, the change of market due to the change of customer behaviour, as a result, enterprises have to concentrate on customers and segment the customers based on the analysis customer's value and then maximum meet the needs of different customers.

6. SOLUTIONS AND METHODS

All the theoretical works are expect to solve the practical issues in the end. Due to the limitation on information collection, no research has been done in terms of case study in this thesis. Besides an interview with the manager of Xunjie, still, substantial resources from both online and books in the library have been used to put forward solutions and methods respectively. Namely, the solutions have been proposed below partly derives from the answers which have been collected from the interview and partly comes from the kinds of resources. Therefore, some solutions have been proposed in this thesis only suitable for Xunjie while some of them are widely applicable to the whole Third party logistics industry.

6.1 Rational distribution of warehouse space

Aimed at the problem which is the unreasonable Utilization of reservoir space in Xunjie, several solutions could be put forward as following:

(1) Standardized the whole layout of warehouse

There are some specific areas such as stock area, office district and shipping and receiving region within the warehouse. Though, since no reorganize for long time thus the warehouse looks so mess. The functions of many districts are mixed up so that the ambiguous region to bring about the unreasonable utilization of space. For that reason, it is necessary to make out the space of warehouse reasonable and to differentiate clearly on stock area, office district and shipping and receiving region. For the purpose of making the layout of whole management of warehouse looks more reasonable and order. To prevent the management within the warehouse become disorderly and unsystematic thereby each area can exert responsibility respectively. (Fang 2015)

(2) To sort the goods by ABC

One of the most solution which is needed to be focus on since it was mentioned in the interview that ABC method is probably to be applied in Xunjie in the near future.

The concrete position of goods needs to base on principle of allocation about related stacking bay. The warehousing method in Xunjie is principle of store position. The definition of store position can be simply described as: each good has a settled location and also this location can't replace by any other goods. Hereby, the volume of each good cannot less than it possible maximum volume during the process of

program the goods allocation. To sort the goods according to the different features of them, for some goods which are important, small in quantity and wide in variety, follow the method of store position.

Take Mentholatum cosmetics as example, all kinds of cosmetics are categorized in accordance with demand of them. A type goods are shower bath and shampoo which occupied 45%; B type goods are face cleaning cream, lipstick which together account for 25%; C type goods are sun-proof that occupied 20% while D type is the cream account for 10%. After category through ABC management mean, each goods can continue be divided into different series and then each series continue to be grouped into next stage in reference to different weight or volume. (Rouse 2011) Obviously, based on above classification all kinds of goods are clearly placed on each position respectively. As a result of large demand on various goods, B type is least while C is following so that A type of goods need to be put on forefront of shelf , by parity of reasoning.

After using ABC method to classify the goods then next link is to re-grounding stock. Owing to the biggest proportion of A type goods as well as the large amount of entering warehousing and there is no chemical reaction appears within together goods so that no character change will be caused. Therefore, it is possible to put A type-shower bath and shampoo together, divided into right and left sides and four floors up and down. In a similar way, the second row also separate into left and right sides and four floors up and down will be put on B type goods. By that analogy, C type and D type goods should be put on back row.

(3) To set up a special administrative for return of goods

According to company rules, no matter the goods inside is in good condition or not, all of them be considered as damaged goods once the external box of cargo to appear severe contamination or be out of shape. In other words, so long as the shipping package of goods appear uncorrectable kink, pollution and divulge all view as damage goods. All above goods which are complying with a standard need to be handling concentrated. Moreover, return of goods and defective production which are indirectly delivery of cargo from storage to require setting up independence store area in order to place centrally. In addition, assign professional to responsible for managing return of goods and damaged cargo so that clearly responsibility on each person can avoid confusion caused from various goods. Simultaneously, to speed up the rate of dealing with damaged goods. Furthermore, always to deal with the damaged goods and return of goods according to the volume rather than the time for the purpose of guarantee the enough space to storage the cargo.

6.2 Establish and improve the logistic information system

As we referred before, the idea of establishing logistic information system is derives from the common phenomenon in third-part logistic industry rather than answered by the manager of Xunjie in the interview. No any enterprise can ignore it since the trend of economic development in the future cannot live without information system.

Self-contained logistic information system is absolutely necessary office equipment for modern logistics enterprises nowadays. Thereby, it is important to establish a self-contained logistic information system with the result that makes each department cooperate more smoothly. Currently, the five warehouses of Xunjie service for different customers and the connection between each department is not strong. Hence, it is urgent to strengthen the internal connection within the enterprise and enhance the efficiency of work. The introduction of WMS system can make huge contributions to strengthen the connection between each department within enterprise. Warehouse management system is the concrete form of information-based of warehouse management whiles it still in the early stage of the development in China.

At present, the market in China is demonstrate dualistic structure: represented by multinational company or a few advanced enterprise in the high-end market show the high utility ratio of WMS system whereas mid-market such as state-owned enterprise mainly to use the product derived from WMS. The manager can control the condition of inventory easily since the establishment of self-contained data system. As well as all the business of the inventory management which consist of stock removal, warehouse entry, flitting, stock count and so on. To find out the inventory data via detail account and also help the manager to know the details of inventory in different warehouse. The purpose is to find out the problem timely, avoid the overstock and response to market immediately. Besides, the self-contained logistic information system can make the data collection become more convenience as well as the storage and output. It is convenience to check inventory and follow the cargo by means of using bar codes technique. Furthermore, the bar codes technique can bring a lot of other benefits: the high efficiency of operating, the low rate of inventory and easy to make reasonable protection plan and the low cost. On the side, the increasing efficiency of reconciliation between warehouse and finance can avoid unnecessary waste so that the budget can be under the control. It also brings a lot of convenience to connection of warehouse management: no need for manual management instead system automatic generation of the inventory volume of each goods which make the way to inquiry become easy. Stock count management: the users can check inventory anytime and automatic generate data thereby make the whole check process not only quickly

but also accurately. The warning of inventory upper limit: the system will give an alarm when the volume of inventory is not reach to the lowest level. Through the bar code technology to enhance efficiency: set computer terminal in the reception office be used for inputting information and type out label or bar code to stick on the goods or pallet. The purpose is to identify and follow during the process of transport. The bar code technology can efficiently resolve the current situation such as the difficult in counting purchase of merchandise storage and the difficult in finding the missed goods.

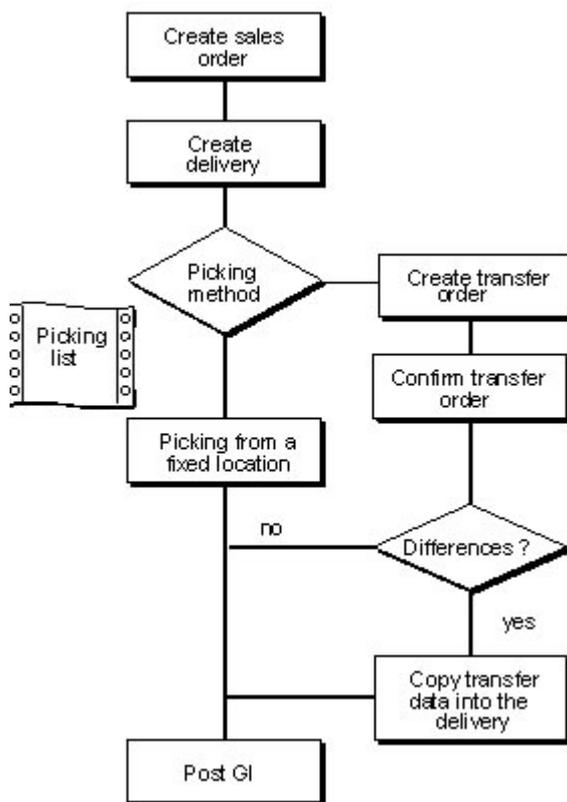


Figure12. Location Schemes (Andalas Technology. 2016)

The figure show above is describing the whole process of WMS system directly and clearly. Follow the customer order, purchase order and the comprehensive management of warehouse accurately and efficiently transfer from traditional “result-orientation” to “process-orientation”; from “data enter” to “data collection”. Control the inventory timely, keep and control the volume of goods in the warehouse; location management, all-around supervisory control and fully use the limited space of warehouse; grounding and undercarriage, full intelligence allocate the goods automatically to avoid the mistakes.

6.3 Improve the quality of staff

It is very important to improve the quality of employees since it closely related to the development of enterprises in the future. Moreover, the manager of Xunjie mentioned to pay more attention on human resource department as well thus in order to achieve this goal then we must live up to the points as following:

- (1) Improve the recruitment starting point and enhance the level of employees. Recruitment the employees who are armed with related majors as well as have certain work experience.
- (2) Providing the new employees with the basic business knowledge training thereby make them adopt the process of all kinds of business within the company quickly. Besides, offer more training regularly and set up publicity column to spread related professional knowledge. On the other hand, manage the team performance and based on the result of performance to give the rewards and punishment accordingly.
- (3) Encourage communication not only among employers but also among upper level. It is important for staff to feel that they are part of the organization and the works what they do are able to help them to gain self-confidence and self-worth. In addition, when effective communication among all staffs within the organization can help the manager to timely discover and solve problems, at the same time, it also helps the staffs to establish a sense of ownership of the company which in turn in favour of the substantial development of the company as well.
- (4) Try to create relax and positive work environment for staffs. Under the positive office atmosphere, the efficiency of work is expected to increase and the employers feel worthwhile to stay and work in the company. (Jason 2013)
- (5) As a manager, you should make sure that every employee's skills and personality are consistent with the responsibility they are responsible for respectively. Namely that if one position needs a kind of person who shows great talent in management or another position requires someone who can follow the rules strictly, then you arrange them in the suitable place to play different roles in company. (Leen 2015)
- (6) In addition, all the tips above are based on a professional manager team in the company. Managers play a significant role in any organization since they manage and control the whole process within the company. Managers are responsible for setting objectives and making decisions for the company and then need to monitor

the employees to complete the works efficiently as well. Therefore, the employees are towards the right direction for completing their works and for attaining goals. Another important responsibility requires from managers is to allocate the resources within the company efficiently such as allocation of labour, financial resources and material resources.

6.4 Customers relationship management

Customer Relationship Management is a good way to keep the close relationship between the company and customers. At present, it is common to use CRM in big company while it also works for small and medium company. Through monitoring the interactions between the company and customers by using CRM system, the entrepreneur can receive complaints from customers clearly and timely thus to know why they are not perform well. According to the feedback above, the company can easily identify the actual needs of customers and improve the quality of services on the basis of these needs and preference of customers.

All in all, CRM provides a solid and historical data related to customer's experience which helps to provide customers with more satisfaction services. In addition, CRM system is not only good at maintaining the existing customers but also as an effective tool to dig new customers. For that reason, Xunjie could take account of applying CRM system within the company in order to win more profitability and achieve sustainable development in the future. (Katherina 2015)

6.5 Government support

From the major terms, one more point which is the support from the government cannot be ignored when any industries or businesses want to develop well in China. At the beginning of this thesis, we referred that China experienced continuous economic growth and Chinese government has showed strong interest in e-commerce by enacting some related documents. Similarly, we can predict that the Third Party Logistics industry will move a big step under the development way if it gains the support from the government. This special suggestion is just coming from the Chinese unique cultural background.

As Xunjie is located in Anhui province, no matter the related policy from state government or local government will exert the far-reaching influence on the development of company. Generally, this effort almost cannot made by companies,

however, it still important for them to realize that make effort to keep good relationship with government will let the road of developing more smoothly.

7. THE TREND OF THIRD-PARTY LOGISTIC

Xunjie is a miniature of Third-party logistics and we gain a general understanding of the other third-party logistic enterprises in China through learning the development of Xunjie. The third-party logistics industry face lots of challenges whereas a lot of data revealed that there is a huge potential market of third-party logistics under e-commerce in China. On the one hand, as the continuous rapid growth in e-commerce which is ask higher requirement on supply chain. On the other hand, the tremendous advance of related technology makes much contribution to the development. In order to achieve a better development in this field, however, the more attention we should focus on is to grasp the trend of the third-party logistics firmly.

The two main trends of 3PL are reducing the cost of logistics and implementing the pattern of supply chain integration management.

- (1) Currently, the logistic enterprises in China mainly focus on serving customers with one or two links in whole process of supply chain. As company seeks maximum profits via dealing more and more goods without considering the actual needs of customers, leading to each links within logistics lack of synergies; as a result, bring the high cost to logistic industries. Thereby, using effective way to reduce the cost of logistics is a main trend in the near future.
- (2) The pattern of supply chain integration management can also be called "Direct Mode Operation" which can build the bridge between the needs of customers and product manufacture. Deliver the goods based on the distribution system by making a complete one-time production plan, consequently, reduce the inventory and increase the efficiency of transportation. At the same time, company can achieve a timely response on customer's demand by information sharing with suppliers.

The competition of logistic system is not only between enterprises but more than competition between supply chains. There are consist suppliers, manufactures, distributes, retailers and customers within the whole supply chain. Every link is cooperating with each other in addition to consumers. The usage of information technology can help achieve the information sharing between the upward and downward so that shorten the response time and change the manufacture plan anytime you need or adjust the inventory for the purpose of optimizing supply chain which can strengthen the corporate competition. At the same time, the optimization of supply chain management has some problems and difficulties.

First, the majority of third-party Logistics Company is in small-scale and it is impossible for them to provide multiple functions. Second, it is difficult for collaboration enterprises to completely trust each other in the supply chain. The main reason is worry about divulge trade secret. In the face of these problems, due to the special situation and cultural in China, the government should take this responsibility initiatively via establishing information sharing platform. (China commodity net 2009)

In big city of China, the development of Logistics is almost saturated while in second-tier city is still a great potential. Along with the development of e-commerce, online shopping is expanded into these small cities which means logistics are expect provide supports to potential consumption ability in small cities. Due to the high cost of self-built logistics, the Third Party Logistics is inevitable becomes the mainstream in the future and the scope of development will be extend to small cities as well. (Cet 2016)

Encouraging the big enterprises which are build supply chain by themselves to share the logistic resources with others thereby reduce the cost of whole logistic industry. It is helpful in improving the integration of resources and making full use of the resources of small and medium-sized enterprises.

8. CONCLUSION

For the past few years, the traditional enterprises promptly enter the market of e-commerce along with its rapid development in China. All kinds of services related to e-commerce emerge because of continues increasing demand of outsourcing. As a provider for serving e-commerce industry, third-party logistic enterprise is responsible for all business with regard to supply chain and it is the main force within the each link of e-commerce. In terms of B2C and C2C, excellent performance on logistics together with a mature logistics distribution system can greatly promote the development of e-commerce enterprises. The explosive development of electronic commerce put forward higher requirement on logistics; the center of distribution need to deliver goods to every location within supply region and the big challenge is the uncertainty of quantity, frequency and orientation. Currently, the level of logistics development in domestic cannot keep pace with the development of e-commerce thus it becomes the restriction factors on the road of e-commerce development instead of promoting it.

At present, the development of logistic industry is not only lying on the market economy's maturation, but also rest with the innovation of the service conception of logistic. More importantly, this trend makes more and more enterprises gradually realize that the far-reaching significance of logistics for the development of the company. Outsourcing logistics is one of the most important symbols in the development of logistics industry. Therefore, the third-party logistic is emerging in order to keep pace with the development of e-commerce. At the beginning, this paper introduced the concept and the current status of e-commerce which is the main factor to drive the development of third-party logistic in China. Through the analysis of data which are collected from variety of resources that we reach to a conclusion- there is a huge potential market of logistic industry in China thanks to the tremendous prospects of e-commerce. Then, the paper was focus on the advantages and disadvantages as well as the challenges of third-party logistic under the e-commerce. In reference to the introduction of theoretical part relate to e-commerce and third-party logistics, Xunjie is selected as a case company to help readers to deeply understand the real issues exist within the third-party logistics industry and how can apply the theoretical into practical so that put forward efficiently solutions according to each problem. As a small warehouse-based company, though, Xunjie is only a miniature of many other third-party logistic enterprises in China whereas it reflects some common issues in this field. Finally, based on all above analysis, the trend development of third-party logistic in China over the next several years has been given.

All in all, through the process of learning logistic industry we can easily conclude that it has a huge development space and market capacity, thus face development opportunity and challenge. On the one hand, with regard to some businesses which have very close relationship with logistics should realize the importance of supply chain within the company and good at using it to help enterprise to create interests. On the other hand, in terms of logistic enterprise they are expect to constantly improve the management and technical system in order to capture the good chance to grow up to be a success and influential company in society.

RESOURCES

Literary resources

Bowersox, J. Closs, J. & Stank, T. 1999. *21st century logistic: making supply chain integration a reality*. Oak Brook, IL: Council of Logistics Management.

Chaffey, D. 2011. *E-business & e-commerce management: strategy, implementation and practice*. 5th ed. Harlow, England: Financial Times/Prentice Hall.

Charlesworth, A. 2007. *Key concepts in e-commerce*. New York. Palgrave.

Chopra, S. 2004. *Supply chain management: strategy, planning, and operation*. 2th ed. Upper Saddle River: Pearson Education, cop.

Hau L. 2011. *Harvard business review on managing supply chains*. Harvard Business Review Press, cop.

Harrison, A. & van Hoek, R. 2008. *Logistic Management and strategy*. 3th. Harlow: Prentice Hall Financial Times; New York.

Hanson, Ward A. 2007. *Internet marketing & E-commerce*. Mason: Thomson South-Western.

Kalakota, R. & Robinson, M. 2000. *E-Business 2.0: roadmap for success / Ravi Kalakota and Marcia Robinson*. Boston: Addison-Wesley.

Mulcahy, D. & Sydow, J. 2008. *A supply chain logistics program for warehouse management*. Boca Raton: CRC Press, cop.

Timmers, P. 2000. *Electronic commerce: strategies and models for business-to-business trading*. Chichester : John Wiley & Sons.

Online resources

Achkar, C., Lenoble-Hoskovec, C., Paraschiv-Ionescu, A., Major, K., Büla, C., & Aminian, K. 2015. *Instrumented shoes for activity classification in the elderly*. [Webpage]. Gait posture. [Accessed on 3.2.2016]. Available from: [http://www.gaitposture.com/article/S0966-6362\(15\)00924-8/fulltext](http://www.gaitposture.com/article/S0966-6362(15)00924-8/fulltext)

Arline, K. 2015. *What is e-commerce?* [Webpage]. Business News Daily. [Accessed on 16.1.2016]. Available from: <http://www.businessnewsdaily.com/4872-what-is-e-commerce.html>

Adam, R. 2014. Third Party Logistics Services Explained, The Different Types of 3PLs, and The Various Levels of Outsourcing. [Webpage].cerasis.com. [Accessed on 13.4.2016]. Available from: <http://cerasis.com/2014/02/07/third-party-logistics-services/>

Andalas Technology. 2016. *Code, scan and save*. [Webpage]. Blogger. [Accessed on 29.3.2016]. Available from: <http://andalastechnology.blogspot.fi/2010/12/pertimbangan-memakai-wms.html>

Andam. Z. 2003, Dunn. R. 2008, Vyavhare. A. 2007 & Zaveri. B. 2008 *The Advantages of E-commerce for Consumers*. [Webpage]. *Knowing-itech blog*. [Accessed on 8.2.2016]. Available from: <http://knowingitech.blogspot.fi/2011/07/advantages-of-e-commerce-for-consumers.html>

Cet.com. 2016. The third party logistics in China. . [Webpage].Cet.com. [Accessed on 14.4.2016]. Available from: <http://www.cet.com.cn/xwpd/shxw/1720928.shtml>

Chen, K. Zhang, A. Goh, M. Gan C. 2011. *China's E-commerce Market: The Logistics Challenges*. [Webpage]. A.T.Kearney Available from: http://www.atkearney.cn/paper/-/asset_publisher/dVxv4Hz2h8bS/content/chinas-e-commerce-market-the-logistics-challenges/10192

China Internet Watch 2014. *China Online Shopping Transaction Overview*. [Webpage]. China Internet Watch. [Accessed on 1.2.2016] Available from: <http://www.chinainternetwatch.com/5977/china-online-shopping-transaction-situation/>

China commodity net 2009. *The current development and trend analysis of third party logistics in China*. [Webpage]. CNN. Mofcom.gov. [Accessed on 19.1.2016]. Available from: <http://ccn.mofcom.gov.cn/spbg/show.php?id=9087> (in Chinese)

Chinawuliu.cn 2014. *The research on Third party logistics based on the development of e-commerce*. [Webpage]. Chinawuliu. [Accessed on 25.1.2016]. Available from: <http://www.chinawuliu.com.cn/xsyj/201411/17/143549.shtml> (in Chinese)

Combs, W. 2012. *What is the relationship between e-business and logistics industry?* [Webpage]. Quora. [Accessed on 20.1.2016]. Available from: <https://www.quora.com/What-is-the-relationship-between-e-business-and-logistics-industry>

Dun & Bradstreet, Inc. 2000-2016. *Top 5 Supply Chain Challenges*. [Webpage]. Dnd. [Accessed on 19.2.2016]. Available from: <http://www.dnb.com/lc/supply-management-education/top-5-supply-chain-challenges.html>

Derek, S. 2012. *Value-Added Distribution Services That Strengthen Customer Relations*. [Webpage]. Globallogisticsmedia. [Accessed on 13.4.2016]. Available from: <http://www.globallogisticsmedia.com/articles/view/value-added-distribution-services-that-strengthen-customer-relations>

Fang, M. 2015. *The layout of warehouse*. [Webpage]. 360doc. [Accessed on 27.1.2016]. Available from: http://www.360doc.com/content/15/1117/15/19476362_513837380.shtml

Fowler, J. 2016 SlidePlayer. *Supply chain management*. [Webpage]. Slide player. [Accessed on 19.2.2016]. Available from: <http://slideplayer.com/slide/5682427/>

Hothem, S. 2014. *B2B E-Commerce: The 3PL Solution*. [Webpage]. Barrett distribution. [Accessed on 1.2.2016]. Available from: <http://www.barrettdistribution.com/blog/bid/373904/B2B-E-Commerce-The-3PL-Solution>

Internet live stats 2016. *China internet users*. [Webpage]. Internet live stats. [Accessed on 3.2.2016]. Available from: <http://www.internetlivestats.com/internet-users/china/>

IResearch News 2015. *China's E-commerce Bucked Slowdown to soar in 2014*. [Webpage]. Iresearch China [Accessed on 16.1.2016]. Available from:
<http://www.iresearchchina.com/news/6601.html>

Indo-Asian News Service 2015. *China's E-commerce Trade Surges in 2014*. [Webpage] Gadgets. [Accessed on 18.1.2016]. Available from:
<http://gadgets.ndtv.com/internet/news/chinas-e-commerce-trade-surges-in-2014-723566>

Indvik, L. 2012. *Ecommerce in China: How the World's Biggest Market Buys Online*. [Webpage]. Mashable. [Accessed on 18.1.2016]. Available from:
<http://mashable.com/2012/05/20/ecommerce-china/#hfvrdaFO5qG>

Jason, S. 2013. *How To Improve Employee Performance – Improving is Easy*. [Webpage]. Training Station. [Accessed on 14.4.2016]. Available from:
<http://trainingstation.walkme.com/6-tips-for-improving-employee-performance/>

Katherina, Y. 2015. *3 reasons why Customer Relationship Management (CRM) is important for small businesses*. [Webpage]. LinkedIn. [Accessed on 14.4.2016]. Available from: <https://www.linkedin.com/pulse/3-reasons-why-customer-relationship-management-crm-important-young>

Lunwenstudy 2015. *The problems and solutions of third party logistics distribution in China*. [Webpage]. Lunwentudy. [Accessed on 21.1.2016]. Available from:
<http://www.lunwenstudy.com/wuliugc/80356.html> (in Chinese)

Lin, M. 2015. *The ABC inventory management method*. [Webpage]. Wm23. [Accessed on 26.1.2016]. Available from: <http://www.wm23.com/wiki/132680.htm>

Leen, S. 2015. *How to Improve Employee Performance*. [Webpage]. Atmanco. [Accessed on 14.4.2016]. Available from: <https://atmanco.com/blog/hcm/how-to-improve-employee-performance/>

McKirdy, E. 2015. *China's online users' more than double entire U.S population*. [Webpage]. CNN edition. [Accessed on 3.2.2016]. Available from:
<http://edition.cnn.com/2015/02/03/world/china-internet-growth-2014/>

MBAlib 2016. *Online to Offline*. [Webpage]. Wiki mbalib. [Accessed on 1.2.2016]. Available from:
<http://wiki.mbalib.com/wiki/O2O%E8%90%A5%E9%94%80%E6%A8%A1%E5%BC%8>

McDonugh, GA & Anderson, IN 2016. *Derby Supply Chain Solutions. 5 Reasons to Use a 3PL Provider*. [Webpage]. Supply Chain Solutions. [Accessed on 13.1.2016]. Available from:
<http://www.derbyllc.com/2011/08/23/5-reasons-to-use-a-3pl-provider/#.VpaBT7Numd4>

McKinsey & Company 2010. *The challenges ahead for supply chains: McKinsey Global Survey results*. [Webpage]. Mckinsey. [Accessed on 19.2.2016]. Available from:
<http://www.mckinsey.com/business-functions/operations/our-insights/the-challenges-ahead-for-supply-chains-mckinsey-global-survey-results>

Narula, G. 2009. *Supply chain management*. [Webpage]. Slideshare net. [Accessed on 26.1.2016]. Available from: <http://www.slideshare.net/jaatboyslim/97-ch01>

O'Reilly, J. 2015. *Channelling the Brick and Click Dilemma*. [Webpage]. Inbound logistics. [Accessed on 15.1.2016] Available from:
<http://www.inboundlogistics.com/cms/article/channeling-the-brick-and-click-dilemma/>

Piasecki, D. 2012. *Warehouse Management Systems (WMS)*. [Webpage]. Inventory ops. [Accessed on 9.2.2016]. Available from:
http://www.inventoryops.com/warehouse_management_systems.htm

Richard, L. 2015. *The Importance of Focus for Your Ecommerce Business and How to Achieve It*. [Webpage]. Blog. [Accessed on 13.4.2016]. Available from:
<https://www.shopify.com/blog/17113712-the-importance-of-focus-for-your-ecommerce-business-and-how-to-achieve-it>

Robinson, A., 2013. *History, Origins, and Various Definitions of 3PL (Third Party Logistics)*. [Webpage]. Cerasis. [Accessed on 18.1.2016]. Available from:
<http://cerasis.com/2013/09/16/3pl/>

Rouse, M. 2011. *ABC classification*. [Webpage]. Search manufacturing gerp. [Accessed on 26.1.2016]. Available from:
<http://searchmanufacturingerp.techtarget.com/definition/ABC-classification>

Researchinchina. 2011. China Third-party Payment Industry Report. [Webpage]. Researchinchina.com. [Accessed on 29.3.2016]. Available from: <http://www.researchinchina.com/Htmls/Report/2011/6159.html>

Shu, C. 2015. *E-Commerce Sales in China Will Reach \$1 Trillion By 2019 Thanks To Mobile, Says Forrester*. [Webpage]. Techcrunch [Accessed on 16.1.2016]. Available from: <http://techcrunch.com/2015/02/04/china-1trillion-ecommerce/>

Statista 2016. *Annual growth in the number of retail point-of-sale (POS) devices in China from 2006 to 2014*. [Webpage]. Statista. [Accessed on 6.1.2016]. Available from: <http://www.statista.com/statistics/450088/annual-growth-of-pos-devices-in-china/>

Serava Solutions 2015. *Why outsource*. [Webpage]. Serava solutions. [Accessed on 1.2.2016]. Available from: <http://www.seravasolutions.com/why-outsource/>

Wang, M. 2015. *The current status of third party logistics under e-commerce*. [Webpage]. Lunwen. Mingmw. [Accessed on 21.1.2016]. Available from: <http://lunwen.mingmw.com/jingji/guomao/25105.html> (in Chinese)

Wang, Y. 2016. The current situation of logistics informatization in China? [Webpage]. Zhihu. [Accessed on 13.4.2016]. Available from: <https://www.zhihu.com/question/20716374>

Wenku1 2016. *Third party logistic and network*. [Webpage]. Wenku. [Accessed on 22.1.2016]. Available from: <http://www.wenku1.com/view/120F1592D96E534E.html> (in Chinese)

Wenku1 2016. *How the development of e-commerce will influence Third party logistics*. [Webpage]. Wenku. [Accessed on 25.1.2016]. Available from: <http://www.wenku1.com/view/3542CAF2066ADAA0.html> (in Chinese)

Wenku1 2016. *The Third party logistics*. [Webpage]. Wenku. [Accessed on 28.1.2016]. Available from: <http://www.wenku1.com/view/3C251FA5C77504AA.html> (in Chinese)

Zhou, B. 2011. *The program and design of distribution and warehouse*. [Webpage]. Free documents. [Accessed on 26.1.2016]. Available from: <http://www.freedocuments.info/1481393031/>

Appendices:

Interview with one manager of Xunjie.

1. When the Xunjie (Anhui) company was founded?
2. How long have you been working in Xunjie?
3. What is your company's target group customer or main business?
4. Take warehouse for example, what is the biggest challenge the company currently facing?
5. How was the business situation of Xunjie in recent years?
6. As modern 3PL is rapidly growing, what kind of new "technologies" will be applied to Xunjie in the near future?
7. How do you think the human resource department within the company?
8. To survive in the fierce competition in Chinese market, what efforts and improvements should be done with 3PL?

联系人:向勇 先生 (物流市场部 经理)

Contact person: Yong Xiang (Manager of logistic market)

电话 (Tel):0551-7118353

手机(Mobile) :13866788367

传真(Tax) :0551-7118353

地址 (Address): 安徽 合肥 安徽省合肥市铜陵北路与二环路交叉口

