Rookie Plan

A new type of logistics service provider in China

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Abstract

With the development of logistics market, the third party logistics can no longer solve all the problems in supply chain management, the appearance of fourth party logistics is a breakthrough solution to modern supply chain challenge. Since China has become the manufacturing center of the world, it attracts more attentions to its own logistics market. But at the same time, there are few studies on Chinese fourth party logistics.

This purpose of the study is to research a fourth party logistics service provider in China, including the barriers and the recommendations to promote its development. The fourth party logistics assembles the resources, capabilities, and technologies of its own company and other companies to design, build and run comprehensive supply chain solutions (Foster 1999). The research objectives of the study are 1. Identify what is the smart logistics and the factors comprised smart logistics network in general. 2. Describe the Rookie plan and analysis its property and prospect. And 3. Classify the impact of smart logistics on customer satisfaction or requests, and formulate recommendations on how to improve the performance of Rookie plan.

Due to such aims, this research pursues a hybrid method which consists both of survey and case study about the ‘Rookie Plan’. Hereby, not only the secondary data for theoretical framework establishment and information gathering of the case project is engaged, but also the primary data through questionnaire to the sellers on the ecommerce platform named ‘Taobao’. For enhancing the reliability and validity of the survey, the overall process is conducted base on a four step guideline, as well as four-phase data analysis method for analyzing the information. What is more, the overall analysis part is led by PEST model. The integration of all methods above confirm the reliability and validity of the research process.

The results of survey show that there is a necessary to bring smart logistics into e-commerce, and there is a huge potential for the development of fourth party logistics. This study has demonstrated that Rookie Plan, the new type of logistics service provider in China has obtained a significant achievement and bring the customers huge benefits, but it also faced some risks including it cannot guarantee all aspects of this plan can have well function, and the underdevelopment logistics infrastructure also hinder its development. As the reason of achieving a better development of Rookie plan and shining a light for other 4PL companies in China, the recommendations for Rookie Plan are strengthen the planning and construction of logistics infrastructure, promote the development of third party logistics service provider, and accelerate the integration of e-commerce and modern logistics industry.
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1. Introduction

1.1 Background

Uckelmann (2008) claimed that the requirement for logistics and transportation is that having right product at the right time at the right place and in the right condition. But with the rapid development of logistics, it is hard to say what the right place and right condition are. The third party logistics has been obtained the academic interests for a long time, the drawbacks have also been founded. At the same time, the fourth party logistics has been put forward. According to Gattorna (1998), the fourth-party logistics is differing from traditional third-party logistics in four main respects: the 4PL organization is often a separate entity established, the 4PL organization is act the role of single interface, 4PL organization manages all aspects of the client’s supply chain, and a major 3PL provider can form a 4PL organization within its existing structure.

Generally speaking, the third party logistics can take care of most logistics needs, owns and manages warehousing, trucks, sorting, invoicing, customers and so on (Gattorna 1998). Whereas, the fourth party logistics is defined as ‘the ideal solution that allows companies around the globe and from a diverse range of industries to have a single point of accountability across both supply and demand chains.’ (Win, 2008) Compare to 3PL companies, the 4PL companies provide their customers both of information technologies and supply chain integration capabilities (Cheng et al. 2008). van Hoek and Chong (2001) claimed that the 4PL provider is rather join the coordination of supply chain than operational service.

The Rookie Plan is defined as a fourth-party logistics program that initiated by Alibaba Group. The aims of program consists of growing into a fourth-party logistics provider in China through putting effort on establishing a set of nationwide logistics infrastructures which able to open to the overall logistics industry. In addition to establish a smart logistic network not only nationally, but also links to global market, so China logistics service scale, as well as the value creation ability of the specific industry could be enhanced. (Cheng, 2013) Bhattasali (2004) has claimed that most 3PL companies in China offered a low standard of service and efficiency. Thus, to create a large-scale and nationwide modern logistics system relying on the huge space for the development of e-commerce has been imperative for Alibaba.
1.2 Research Focus

There is a confusion how can Alibaba built such a large-scale and nationwide modern logistics system and what is the role of China Smart Logistic Network (CSN) played in this Rookie Plan. In May 2013, Alibaba has announced that they have worked with most of the key logistics companies in China with the same aim of building the Rookie Network Technology Company, while the program of China Smart Logistic Network (CSN) has been proposed as well. This Smart Logistics Network not only used to delivery packages from E-commerce, it also develop solutions that are tailored for product categories. When the Rookie network announced its formation they did not claimed explicitly they are fourth party logistics company. But, according to Cheng et al. (2008), the 4PL companies provides the customers both information technologies and supply chain integration capabilities, it will not only bring different values to different nodes in the supply chain, but also elevates the supply chain management’s effect. Through this explanation, it can be inferred that Rookie Network Technology Company is a fourth party logistics enterprise, its operation business is in line with the characteristics of the fourth party logistics.

As Uckelmann (2008) said, the highly dynamic logistics markets and the advancing complexity of logistics networks need new methods, products and services. In China, which has underdeveloped logistics infrastructure is requiring for new way to develop its logistics. The smart logistics contains the application of ubiquitous technologies for efficiency improvement in transport, warehousing and storage process (Resch and Blecker 2012), the program of China Smart Logistic Network (CSN) can no doubt improve the performance of Chinese logistics. The platform of CSN can connect the sellers, buyers with real-time information, and save time and cost for customers.

The major focus of this study will concentrate on the property and prospect of Rookie plan relate to the fourth party logistics, this including what are the smart logistics, and what comprised smart logistics in general. What is the difference between third party logistics with fourth party logistics? What are the barriers to fourth party logistics in China? What measures can take to help the development of China Smart Logistic Network? In this study, the review of related literatures and empirical data collection will be tackled in order to obtain a deeper understanding about the issues mentioned above.

1.3 Research aim and research objectives

This study is aimed at research the property and prospect of a new type of logistics service provider in China, through the case of Rookie Plan. In order to achieve this
target, it is felt necessary to gain the knowledge about the fourth party logistics. There are few academic studies about fourth party logistics in China, most literatures are about the third party logistics. In this study, literatures about fourth party logistics will be combined with empirical data on the Rookie Plan collected from Rookie Network Technology Company. To our knowledge, there is no successful example of fourth party logistics company in China. This study is trying to analyze the property and prospect of Rookie Plan through related literatures and the development environment of China. In-depth view of related literatures and analysis of empirical data will be taken to facilitate this study.

The research objectives of this study are to:

1) Identify what is the smart logistics and the factors comprised smart logistics network in general.

2) Describe the Rookie plan and analysis its property and prospect.

3) Classify the impact of smart logistics on customer satisfaction or requests, and formulate recommendations on how to improve the performance of Rookie plan.

This study is focused on researching the new type of logistics service provider in China, the fourth party logistics. It will combine the existing theories about fourth party logistics with the fact of China’s logistics. At the end of this study, the recommendations will be proposed on how to improve the performance of Rookie Plan as well as some other fourth party logistics service providers in China. Therefore, it is important to identify the smart logistics which proposed by Rookie Network Technology Company, and the factors comprised smart logistics network in general. To analyze the property and prospect of Rookie Plan is the main mission of this research. The barriers to fourth party logistics and the unique development environment in China should be taken into account. After that, this study will try to find solutions to improve the performance of Rookie plan. Since there has no successful example of fourth party logistics in China, the successful implementation of China Smart Logistic Network (CSN) plan is great significant.

Objective 1 and 2 focus on smart logistics and the new type of logistics service provider can be seen as the main objectives of this thesis. The objective 3 can be identified as the supporting objectives that make contribution both to the reader and related companies. All of these objectives are interlinked, and all of them come from the overall aim of researching fourth party logistics in China.
1.4 Value of Research

The importance of research in the field of fourth party logistics in China is obviously, while more recent researches on 4PL fewer of them are focus on Chinese market. Since China has become the global manufacturing center with its high economic growth rate and huge market potential (Wang et al. 2006). There is a need for studying of this new type of logistic service provider, the fourth party logistics in China. As Jiang and Prater (2002) present, both foreign and domestic firms face the difficulties about distribution problems in China, which also requires to find a suitable way to solve these problems. The research of fourth party logistics in this study can no doubt bring them benefits in terms of distribution field.

This research will contribute to the development of fourth party logistics in China in the important ways as follow: the first outcome will clarify the advantages and disadvantages when implement the Rookie Plan; second, give clear proposals in how to improve the performance of 4PL organization; third, make a demonstration to other Chinese enterprises in choosing the logistic service providers; at last by clarify the applicability of current theory. Through the in-depth leaning about fourth party logistics in China, there can be a meaningful comparison between the practices with related theories.

1.5 Outline Structure

Chapter 1: Introduction

This chapter provides the background information about the new type of logistic service provider, the fourth party logistics and the current logistics industry situation in China. Including the differences between third party logistics with the fourth party logistics, and the smart logistics in the development of fourth party logistics. The Rookie Plan with China Smart Logistic Network (CSN) has also been introduced in this chapter. The focus and individual research objectives are discussed and justified, the value of this research is also been stated.

Chapter 2: Literature Review

This chapter review the related literatures and theories about fourth party logistics, smart logistics and e-commerce, discussed the drivers and barriers to fourth party logistics, and the benefits to related stakeholders. Literatures about how to design and realization of fourth party logistics are also explored in order to meet the requirement
of research objectives. Some insight about the future on the fourth party logistics are explained at the end of this chapter.

Chapter 3: Methodology

This chapter discussed the research strategy, data collection and data analysis method which will used in this thesis. The case study mix with survey based research has been chosen as the research strategy, while the data collection method is mainly focused on the questionnaire. The framework for data analysis will be provided. Finally, the limitations, validity and reliability for the chosen methods are discussed.

Chapter 4: Results

This chapter first introduced the background information about Rookie Plan from its website, then reports on the findings from the case company. The results of the questionnaire will be presented, including the barriers to fourth party logistics in China, the advantages and disadvantages of Rookie Plan.

Chapter 5: Analysis and Discussion

This chapter analysis, discuss, and synthesizes the findings of case company from literatures and theories mentioned in chapter 2. This chapter will give a clear insight about the property and prospect of the case company, as well as the barriers for its development. The key observations are addressed to meet the research objectives of the research.

Chapter 6: Conclusion

The aim and objectives of this research are all revisits in this chapter, the final observations are concluded, and the key points are revealed. According to these conclusions, the recommendations are proposed in order to achieve improvement. The self-contribution and limitations are provided at the end of this chapter to the readers with future suggestion.

Chapter 7: References

All references used in this study are listed in this chapter.

Chapter 8: Appendix

All questions and summary of answers from respondents of the questionnaire.
2. Literature Review

2.1 Introduction

The literature review in this section will examine the main issues discussed in this thesis, and focus on objective 1 of this study, identify the smart logistics and the factors comprised smart logistics network in general; and the objective 2 to describe the Rookie Plan and analysis its property and prospect through the analysis of fourth party logistics. Before met objective 2 in data collection and analysis part, there is a requirement for examining the issues about fourth party logistics.

In this section, it is hoped that the readers can obtain a critical understanding of the key issues about smart logistics and fourth party logistics. Including how the smart logistics and fourth party logistics working, the advantages and disadvantages that case company faced during and after the implementation.

2.2 Introduction of Smart Logistics

The smart logistics was first founded as a project in German Federal Ministry of Economics and Technology (Schuh et al. 2008). Resch and Blecker (2012) describe the smart logistics as the application of ubiquitous technologies in the processes of logistics. It embraces smart services and smart products within logistics, can frees human from activities that can be delegated to smart services and smart products (Weiser, 1996). The smart logistics is the product of information technology and internet of things in the application of traditional logistics industry. Gershenfeld (1999) have claimed that things have the right to have an identity, access objects, and detect the nature of its environment. According to Resch and Blecker (2012), the smart logistics cannot only help to save the time and cost, but also have the potential to reduce the CO₂ emissions. The information technology and integrated logistics management, process monitor of smart logistics not only improve the logistics efficiency and control logistics cost for enterprises, but also improve the level of information in related areas for the company as a whole, so as to achieve the purpose to bring the development the whole industry. According to Schuh et al. (2008), through the smart logistics which using the innovative information and communication technology, the flexible material supply chain has been developed. As Resch and Blecker (2012) said, the customer enterprises have the expectation for their logistics service provider to use the logistics technology into the activities of transport, transshipment and inventory. The smart logistics can maximize profits to logistics
service provider, as well as providing the best services to customer companies, while saving cost for natural and social resources.

Smart logistics are connected and interact with its environment, it is integrate existing logistics technologies such as material handling system and state-of-the-art billing (Uckelmann 2008). While Resch and Blecker (2012) pointed that the ubiquitous technologies for smart logistics including Radio Frequency Identification (RFID), sensor networks, embedded systems, wearable computing, service-oriented architecture, and web service. The highly dynamic logistics markets and the advancing complexity of logistics networks needs new methods, products and services, Uckelmann (2008) also example smart products and smart services, such as control services, leasing services, risk services, information services, and complex services. The key technologies used in smart logistics currently are including the technology of supply chain management, Radio Frequency Identification (RFID), and the internet of things. The advantages of RFID have been pointed based on Uckelmann (2008), including bulk reading, large memory, re-writable or changeable data storage, ease to customer use, speed of enter to data, and cheaper than other solutions to smart logistics. The role of other technologies for the implementation of smart logistics are as follow.

<table>
<thead>
<tr>
<th>Technology</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>RFID</td>
<td>Enable contactless, automatic and clear identification and localization</td>
</tr>
<tr>
<td>Sensor networks</td>
<td>Provide context awareness and the capacity to locally process data</td>
</tr>
<tr>
<td>Embedded system</td>
<td>Consist of robust hardware/ embedded computers</td>
</tr>
<tr>
<td>Wearable computing</td>
<td>Describe computers that assist in real life</td>
</tr>
<tr>
<td>Service oriented architecture</td>
<td>Dissects complex information system in single components/ services</td>
</tr>
<tr>
<td>Web services</td>
<td>Make application to application communication available as programmatic interfaces in WWW</td>
</tr>
</tbody>
</table>

Table 1 Ubiquitous technologies for implementation of smart logistics (Source: Resch and Blecker, 2012)

2.3 E-commerce

The growth of fourth party logistics is accompanies with the explosion of e-commerce. (Pankaj, 2005) The adoption of smart logistics has promote the development of electronic commerce, while currently, there has no widely accepted definition of e-commerce. Daniel et al. (2002) summarized the definition of e-commerce through
Kalakota and Whinston (1997) as the buying and selling of information, products and services through computer network, the other definition also pointed that beside buying and selling through network, it also use the Internet technologies. According to Coppel (2000), the e-commerce means doing business over the Internet, selling goods and services that delivered offline, the products such as software are delivered online. Thus, the e-commerce refers to the use the Internet as a tool to enable buyers and sellers are not met to carry out a variety of business and trade activities. The e-commerce use computer technology, network technology and telecommunications technology to achieve the electronic, digital and networking of the entire business process.

### 2.4 Third Party Logistics & Fourth Party Logistics

#### 2.4.1 Third Party Logistics

In order to achieve a deeper insight about fourth party logistics, it is necessary to learn the third party logistics firstly. For the question about what is third party logistics, different authors have giving different answers. Lieb et al. (1993) defines the third party logistics as involves the use of external companies to perform logistics functions that have traditionally been performed within an organization. While the definition of third party logistics according to Bagchi and Virum (1996) is a logistics alliance indicates a close and long-term relationship between consumers and the provider encompassing the delivery of a wide array of logistics needs. In the book of Christopher, M. (2011), the third party logistics is taking care of most logistics needs, owns and manages warehousing, trucks, sorting, invoicing, customers and so on. As a whole, the third party logistics refers to the purchasing behavior of multiple logistics activities, is the procurement for various or integrated services which related to plan, control and implementation of the procurement process, and usually involving a long-term business relationship. Gattorna (1998) has claimed the drivers for third party logistics including strategic factors, financial factors and operational factors.

<table>
<thead>
<tr>
<th>Drivers of third party logistics</th>
<th>Financial factors</th>
<th>Operational factors</th>
</tr>
</thead>
<tbody>
<tr>
<td>● Allows senior management to focus on core competencies</td>
<td>● Reduces capital requirements</td>
<td>● Simplifies the industrial relations environment.</td>
</tr>
<tr>
<td>● Improve customer service</td>
<td>● Reduces supply chain costs</td>
<td></td>
</tr>
</tbody>
</table>

Table 2 Drivers for third party logistics (Source: Gattorna, 1998)

Despite the attractiveness of third party logistics, the client organization have a higher risk for cannot control the logistics activities directly, and may have the contradiction...
with the logistics services provider. Thus, the fourth party logistics is emerging as a breakthrough solution to modern supply chain challenge (Gattorna, 1998).

<table>
<thead>
<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>• Much senior management time is needed to manage the third party logistics service provider</td>
<td>• Loss the control of logistics function</td>
<td>• Lack the optimal integration capability for technology, warehouse capability and transportation service</td>
<td></td>
</tr>
<tr>
<td>• Between the third party logistics service provider and the customer company there is a lack of shared goal</td>
<td>• Impact on in-house workforce</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Loss the control of logistics function</td>
<td>• More distance from client-loss of personal touch</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Impact on in-house workforce</td>
<td>• Discontinuity of service, and different opinion of the service level</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• More distance from client-loss of personal touch</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Discontinuity of service, and different opinion of the service level</td>
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</table>

Table 3 Drawbacks of third party logistics (Source: Gattorna, 1998, Green et al. 2011, Foster, 1999)

### 2.4.2 Fourth Party Logistics

The concept of fourth party logistics was first pointed by Accenture’s report in 1998, which has been defined as an integrator that assembles the resources, capabilities, and technology of its own company and other companies to design, build and run comprehensive supply chain solutions (Foster, 1999). The fourth party logistics is a rather advanced new concept in the supply chain management. The emerging of fourth party logistics is because third party logistics exist some drawbacks, and it take the third party logistics as the basic to combine the development of global economic and the improvement of information technology. The fourth party logistics is neutral and will manage the logistics process, regardless of what carries, forwarders or warehouses are used (Mukhopandhyay and Setaputra, 2006). Another definition for fourth party logistics is that a supply chain service provider that rather join the coordination of supply chain than operational service, and it is highly rely on information and co-ordinates multiple asset-based players on behalf of its customer (van Hoek and Chong, 2001). Because the third party logistics provider is lack of strategic expertise to carry out the operation of the entire supply chain and related technology to integrating the supply chain process, making the fourth party logistics can achieve the sustained cost reduction and real value-added which different from traditional outsourcing. Hamilton and Selen (2003) said, the creation of fourth party logistics is aimed at moving the customer to a more competitive position through analyzing relevant business risk, monitoring relevant key performance indicators (KPI), and applying these within the fourth party logistics services provider’s efficient alliance network.
As a fourth party logistics service provider, it should be provide the supply chain solution, adding values for the client, and integrate the supply chain. The character of fourth party logistics including delivers a comprehensive supply chain solution, and the merit of fourth party logistics is enhanced by the influence it imposed on the supply chain (Li et al. 2003). As the solution provider, the operation of 4PL in relies on the excellent 3PL, technology providers, management consultants, and other value-added service providers, to provide the client organization unique and comprehensive solution. In order to increasing the merit of 4PL, it should lower the management cost in the process of supply chain management and coordinate between the parties. Gattorna (1998) argued that the benefit of fourth party logistics including savings from improved rates for goods and services, improved efficiencies brought by greater integration of operations across the supply chain. Kutlu, S. (2007) have conclude the drivers for utilizing fourth party logistics which showed in the follow.

<table>
<thead>
<tr>
<th>Drivers for utilizing fourth party logistics</th>
</tr>
</thead>
<tbody>
<tr>
<td>● Cost reduction</td>
</tr>
<tr>
<td>● Adding value</td>
</tr>
<tr>
<td>● Removal of the key problem of third party logistics</td>
</tr>
<tr>
<td>● Efficient information flow</td>
</tr>
<tr>
<td>● Change management and collaboration</td>
</tr>
<tr>
<td>● Leanness and agility</td>
</tr>
</tbody>
</table>

Table 4 Drivers for utilizing fourth party logistics (Source: Kutlu, S. 2007)

2.4.3 Differences between 3PL and 4PL

According to Gattorna (1998), the fourth-party logistics is differing from traditional third-party logistics in four main respects: first, the 4PL organization is often a separate entity established as a joint venture or long-term contract between a primary customer and one or more partners; Second, the 4PL organization is act the role of single interface; third, 4PL organization managed all aspects of the client’s supply chain; Fourth, a major 3PL provider can form a 4PL organization within its existing structure. As a joint venture or long-term contract between a primary customers and one or more partners, the fourth party logistics service different purpose with the third party logistics, it is aimed at lower operation cost for the whole supply chain and improve logistics service capability, while the third party logistics is aimed at the external logistics operation cost for the single organization. The third party logistics and fourth party logistics also provide different services. Among the services the 3PL provide including transportation, warehousing, cross-docking, inventory management, packaging and freight forwarding, while the 4PL is neutral and manage the logistics process (Mukhopandhyay and Setaputra, 2006). The 3PL provide the whole or part logistics service for the single organization’s purchasing logistics or sales logistics, the 4PL is to enhance the logistics planning based on supply chain, and is responsible for the implementation and monitoring.
Vivaldini et al. (2013) have summarized the consideration of Hoek (2006), and comparing the third party logistics and fourth party logistics as follow.

### Comparing between 3PL and 4PL

<table>
<thead>
<tr>
<th>Factors</th>
<th>3PL</th>
<th>4PL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Involvement in services provided in the supply chain</td>
<td>Physical movement and execution</td>
<td>Operation coordination and administration</td>
</tr>
<tr>
<td>Intensity of assets to provider service</td>
<td>High-vehicles, storage equipment</td>
<td>Low-information and communications system</td>
</tr>
<tr>
<td>Intensity of knowledge</td>
<td>Low-standards task</td>
<td>High-organization of product flow</td>
</tr>
<tr>
<td>Dependence on the manufacturer to supply the demand</td>
<td>Medium-low cost change and several providers</td>
<td>High-the manufacturer has orders to fill and depends on its suppliers</td>
</tr>
<tr>
<td>Contact point at the manufacturer’s performance</td>
<td>Negotiated contract</td>
<td>Dedicated contract and strategic coordination of the supply chain</td>
</tr>
<tr>
<td>Shared information</td>
<td>Limited because it impacts only the execution</td>
<td>More wide-ranging, including clients and suppliers, polices and priorities</td>
</tr>
</tbody>
</table>

Table 5 Comparing between 3PL and 4PL (Source: Vivaldini et al. 2013)

According to Vivaldini et al. (2013), the traditional 3PL only provide the simple operational services, while the 4PL take part in the coordination of the supply chain. Thus, the logistics operation skill of 3PL are transportation, warehousing, distribution, processing, transmission of information and so on, the 4PL is design to involving management consulting capabilities, building capabilities of enterprise information system, operation capabilities of the logistics business, and the capabilities to manage organizational change.

### 2.5 Pros & Cons of Fourth Party Logistics

As Li et al. (2003) argues, the main function or fourth party logistics is supervising the supply chain to be an aggregate of inside or outside resource, share the logistic information and resources. Since the appearance of fourth party logistics owns to the highly development of third party logistics and the advanced of Internet and IT. Hamilton and Selen (2003) have summarized the advantages of fourth party logistics,
at first, the 4PL has added incentive to develop new cost reduction through leveraging integrated networks; secondly, the 4PL has find out new way to improve supply chain performance; nevertheless, the 4PL has aligning sourcing to strategic business unite requirement; the fourth is to lead centrally but with local implementation; and the last one is that the 4PL provide all its customers with excellent services. Since the 4PL is highly rely on the 3PL and other service providers, it has a lower cost and transaction cost, and can bring a win-win situation for all the parties in the supply chain. Vivaldini et al. (2013) have summarized the consideration of Hoek (2006) of the advantages for the 4PL, including migration to added value service, and getting away from low profitable jobs; expansions of relationship with the client, increased revenue and direct action in the customer’s supply chain; keeping the customer through high dependence on the information system and low reliance on own assets. The character of 4PL is provide an integrated supply chain solution, gathering all resources to solve client’s problems. It relies on the information technology, auto technology, and smart technology, all of them can enhance the efficient of the supply chain, and lower the cost.

The fourth party logistics relays on the excellent 3PL, technique provider, management consultants and other value-added services provider to provide extensive and unique supply chain solutions to its clients. However, it is very difficult to let the customer recognition of their abilities if the fourth party logistics service provider does not own the fixed assets. It is hard for customers to give control over its supply chain logistics to the fourth party logistics service providers. According to Hoek’s (2006) consideration, Vivaldini et al. (2013) have conclude the risks and disadvantages of fourth party logistics: failure to serve the customer by concentrate on strategies that concern the logistics service provider, which are not necessary in line with the customer’s requirements; corroding and compromising the relationship while implementing the competences; few barriers to enter the market, with the possibility of saturating the market and transforming its service into commodities; mixing different market and business model in a single organization. The development of fourth party logistics should consider about the third party logistics, their collaboration relationship is easy transform from the trust into compete.
## 2.6 Barriers to the Development of Fourth Part Logistics

Even though some factors are driving the development of fourth party logistics, the reality is that there are still many difficulties in the development of fourth party logistics. However, the research on the effects of the barriers to the development of fourth party logistics is still lacking. Thus, it is worthwhile to explore the barriers to the development of fourth party logistics.

As Vivaldini et al. (2013) said, many companies are reluctant to outsource activities to the fourth party logistics service provider, because they believing they will lose control of the logistics service provider performance and jeopardize the service to the client. As above mentioned, it is very difficult to let the customer recognition of their abilities if the fourth party logistics service provider does not own the fixed assets. Since the 4PL rely on information technology, auto technology and smart technology, the technical and industrial infrastructure play the significant roles in the development of 4PL. Aljifri et al. (2003) believed that the technical and industrial infrastructure are the barriers affecting e-commerce. Thus, the immature of information technology and
high investment cost may be the biggest obstacle for development of the fourth party logistics. Vivaldini et al. (2013) pointed that the expectations for the logistics service provider including act in global market. Thus the service object of fourth party logistics is the transnational trade, the reality is in most developing country it is a rather low level of logistics market, and the logistics industry is not mature. In order to achieve success, the fourth party logistics should overcome the barriers including parochialism, interfirm conflicts and coordinating various competing interesting (Hingley et al. 2011). The fourth party logistics service provider has to overcome its internal barriers, so they could achieve the objectives to reduce cost and add the value for the customers.

2.7 Measures to Improve the Performance of 4PL

Compare to the third party logistics, the fourth party logistics is likely to achieve a greater level of success and acceptance (Gattorna 1998). With the barriers to the development of fourth party logistics are still exist, there is a requirement to improve the performance of fourth party logistics for achieving cost reduction and value added.

Hamilton and Selen (2003) pointed the factors that successful fourth party logistics service provider should meet, including excellence in client management in a manner of maximize the value; corporate agility that maximizes the effectiveness of management; strategic positioning that priorities and maximizes focus concerning relative market positioning. Vivaldini et al. (2013) has put forward measures to improve the services of fourth party logistics, agree on performance measures to evaluate operations, implement objectives based on the level of contracted services, and share profits according to pre-established objectives. To improve the level of information sharing in the supply chain, integrating the information technology, technique and resources can help to improve the performance of the fourth party logistics. The success of a fourth party logistics depends on the capability to define top third party logistics service provider, enable technology providers to form alliances, and be agile in all aspects in the operation(Hamilton and Selen, 2003).

2.8 Summary of Literature Review

As above mentioned, the rapid development of logistics market needs the fourth party logistics to meet the various requirements. The smart logistics are using ubiquitous technologies in the processes of logistics to enhance the performance of logistics providers. The benefits of smart logistics can be conclude as maximize profits for logistics service provider, as well as saving cost for natural resource and social resource.
Despite the advantages and attractiveness of the fourth party logistics, the truth is that there still exist barriers to the development of fourth party logistics. In order to achieve success and overcome the barriers, improve the services of fourth party logistics, agree on performance measures to evaluate operations and some other measures can be taken.

Figure 1 has showed the relationship among fourth party logistics, smart logistics and e-commerce. The fourth party logistics is highly rely on business process management, other third party logistics service providers and the IT service providers, and provide services to its clients. While the adoption of smart logistics can promote the development of 4PL for providing advancing technologies which 4PL needs. The smart logistics can also bring benefits to e-commerce for meeting the customers’ requests online. The rapid development of e-commerce is along with the development of 4PL, there are mutual benefits for those three terms. These relationships can help to analysis the factors that improving the development of the case company in the next section.
3. **Methodology**

3.1 **Introduction**

In the last section, the main issues about fourth party logistics and smart logistics have been discussed in a comprehensive way, which covers the definition of both fourth party logistics and smart logistics, with the technologies for gaining both of them. Such explanations could be seen as the answer of objective 1. Somehow, the question of how the mission of Rookie Plan can be achieved by the using of smart logistics which ought to be based on research has not described yet.

Compare to other countries in the world, there has no doubt various significant characteristics of Chinese market are exist and necessary to be considered during researching. Wherefore, for the purpose of describe and analyze the Rookie Plan, comparing previous theories with Chinese realistic situation while building connection between them could provide a more comprehensive understanding about the situation of Rookie Plan. The objective 3, as an elongation of previous objectives, is depends on the amount of acknowledge which gain from the study during researching, so that the suitable recommendations can be formulate.

3.2 **Research Strategy**

Choosing an appropriate research strategy for a study is one of the most important and basic question which need to be figured out at the beginning of research. Generally speaking, the choosing of research strategy not only need to consider the nature of research, but also the characteristics of each kind of research strategy. As previous explanation, objective 2 of this research is aim at getting to know the content, situation and future of Rookie Plan. Such mission means the requirements of set of empirical data collection and analysis for Rookie Plan. According to Biggam (2008), there are two kinds of researches which are quantitative and qualitative researches. Basically, the quantitative research is used to figure out how questions, while the qualitative research could answer why questions. Consider about situation of this research, to fulfill objective 2, both of how the plan works in reality and whether it could be developed in the future are require to ask. Therefore, the mix of qualitative and quantitative research will be used in this study. Afterwards, the mission of research is pursuing a suitable research strategy. For the purpose of it, the question of what research strategy should be pursue and why it is suitable are necessary to be discussed in the next phase.
3.2.1 Research Method

Biggam (2008) has mentioned various research strategies which can be chosen by the research. While a common strategy that pursued by many researchers in nowadays is case study, since it is a helpful strategy if researchers try to gain a deep understanding about the research object and requires large amount of information. Since the research only defines Rookie Plan as the single objects and also requires a deep understanding of it, case study could be identified as an appropriate research strategy. On the other hand, another popular research strategy, survey-based research also necessary for this research. During this research, some information which collected from others through survey are necessary for the research. Due to such reason, survey-based research also need to be pursue for the research.

Since the research strategy has been identified already, the next stage is trying to find the way to make sure the approach can be executed smoothly during research. In this research, there are three stages should be involved in the case study. Advanced preparation should be defined as the first stage of case study. In this stage, the basic knowledge and information about Rookie Plan is required to be collected so that confirming the centralization of thesis. The second stage of the research is aim at describing some details about the execution of Rookie Plan. The purpose of the third stage is gaining a deeper understanding of Rookie Plan. Hence, questionnaires, as a common method of survey, would be chose as a conduction for empirical data gathering.

The owners of online shops on Taobao website which is the subsidiary of Alibaba Company are identified as the main respondents of survey. There are 200 questionnaires will be sent to them. The survey will focus on describing their points of view to Rookie Plan and fourth party logistics. In addition, owners’ demands of logistics in reality also show as an important information for this research. In order to obtain enough qualified responses, every owner will be contacted by our group. Despite such resources may not provide big amount of data, the demands and expectations in reality be reflected in a direct way which could be seen as an extremely important information for this research. As the reason of guaranteeing the reliability and validity, it is necessary to highlight that such three stages above should be combined step by step. Otherwise, if any of them is absented, possibility rate of the unreliability or invalidity will be caused or increased.
3.2.2 Methodology of Literature Review

In literature review, there are many data gathering from previous studies, intense articles researches made by different authors such as Gattorna, Waters, Bhattasali, Uckelmann and others are used in order to carry on this research. The articles and books which used to analyze in this research are mostly relevant to the smart logistics and fourth party logistics. Scientific database of academic publications and journals and the Google science provide most databases for this thesis. The article of Resch and Blecker (2012) defined the smart logistics and explored the ubiquitous technology for smart logistics and the book of Gattorna, J. (1998) brought a thorough understanding of fourth party logistics, and claimed the differences between fourth party logistics and third party logistics. Those literatures used in section 2 are helping to identify different methods that could be used to explore the smart logistics and fourth party logistics, the differences between the fourth party logistics and the third party logistics, and the barriers to the development of fourth party logistics, and finally formulate recommendations to enhance the development of fourth party logistics.

3.3 Data collection

The research of Rookie Plan is based on theories of fourth party logistics and smart logistics with the point of views from reality, which could be seen as a new way for Chinese market to execute logistics activities in the future. Somehow, as the researchers, execute a case study on Rookie Plan which is focus on Chinese market has no doubt a hard work, as well as conduct any survey or interview face to face. Due to such situation, the researchers decided to execute a survey through questionnaires as the best solution. At meantime, different owners might have various point of views and expectations for logistics service which depend on the products differences. So in order to gain the whole picture, the survey will try to involve various product sellers as much as possible. During the survey, researchers will not only obtain the description about expectation of logistics support from online shop owners and the demands from end users directly, but also gathering their opinions for Rookie Plan. In that way, the barriers between Rookie Plan and real demands will show up, the property and prospect of it could be discussed afterwards

There are two parts of data collection. The first one is looking for relevant information towards to the Rookie Plan, which mainly comes from the secondary data. This parts could approached through online searching, the information includes both data from Alibaba Group’s webpages and news in this area. The second step is to gather primary data by researchers. In this part, since there is no chance to gather information through company’s interviews, questionnaire survey is chosen as the
main approach. The objects are identified as Taobao online sellers. The reason will show on section 4. For gaining reliable data, the survey is conducted step by step.

1. **Design**: Researchers firstly define the aim of the questionnaire survey. It should be clear that the aim of survey is to obtain enough primary data for answering the research objectives which presented in the previous sections. The first objective would be answered through secondary data. While the second and third research objectives are about how is Rookie Plan’s future, and which area should it focus to improve so that meeting the market demands. The answers for such questions could find from this survey. Objects are selected as Taobao online shops’ owners, and they are all volunteers. The questions are designed in a way which is easy to answer, most of the questions are choice or multiple choice, so that could both saving volunteers’ time and gather the key information which researchers aim to gain. The questionnaire is designed base on objective 2 and 3. It could separate as four parts: Basic information of objects’ online shops; their logistics partners’ information and their views and expectations to them; objects’ understanding about Rookie Plan; and finally, their point of views and expectations to Rookie Plan. In such way, the research could gain a clear understanding about how the future of Rookie Plan in markets’ opinion is and what factors Rookie Plan are expected to improve. Last but not least, in order to gain a comprehensive picture of the market situation, the questionnaire concludes both quantitative and qualitative questions. For instance, when attempt to gain the knowledge about the recent situation of logistics service market, we set a “how” question: Which logistics company will you choose as your partner? Then, seeking for the reason of that, the “why” question is also important. Therefore, we set some questions like: How much do you consider the following factors when you choose logistics partners? According to such process, both quantitative and qualitative answers could be obtained.

2. **Objects selection**: Due to the purpose of survey, objects are identified as Taobao online sellers, since they are both Rookie Plan’s direct users in the future and have the closest connections with end users who represent the market demands. The objects of the survey are all volunteers. Consider different kinds of seller may hold different point of view with the same question, the researchers attempt to gather various objects together to answer this questionnaire. Therefore, all big, medium, small scales of online shop owners are involved in the survey. What is more, the sellers for different products are chosen by the researchers as well. In this survey, objects from ten different varieties are involved, which include food, wears, and appliance and so on. The varieties are determined depends on the homepage of Taobao, where shows a table of content for common products.

3. **Connection and data collection**: After a scientific designing and objects selection, the next step is to gain the connection with objects. Hence, through Taobao webpage,
the researchers determined large scales of online shop owners in ten areas which mentioned above. Alibaba Group, as the owner of Taobao online shop platform, provide a special chat tool which called “trade manager” to help end users and online sellers communicate with each other. Through this chat tool, researchers could contact online servicers of each shop directly one by one so that gaining a good communication on time with object group. There were 192 voluntary respondents found for the survey, while the questionnaire is also finished on this chat tool. The researchers asked all questions online, and the online owners gave their answers immediately. In such way, the feedbacks of the survey was gained efficiently.

### 4. Data description

When all the feedbacks were obtained, the data selection and statistics is necessary. During this process, the research firstly selected out the valid feedbacks and delete the answers which unfinished or has different answers in one single choice questions. Afterwards, the answers was collected by accounting and statistics process, then, a set of brief and clear chart which conclude all the feedbacks for each question was made. And finally, in order to make such data could be understand easier for the readers and analysis hereafter, some statistics figures which show the answers for key questions are made by the researchers as well.

Through the questionnaire survey, the researchers could achieve enough quantitative data from respondents, such data will make contribution on helping researchers comparing the implementation of Rookie Plan with real needs from markets so that meeting both of the objective 2 and 3 indirectly. Due to the missions above, questionnaires must prepared beforehand. On the other hand, secondary data would also pursue for this research as another method of data gathering in order to help the research to obtain a fuller understanding of Rookie Plan.

#### 3.4 Framework for Data Analysis

The aim of this section is to provide a whole picture and clear structure on how to make data analysis after survey and secondary data gathering processes finished. For the mission of meeting research objectives through survey, a comprehensive questionnaire contain the questions which can reflect their opinions and demands for recently logistics market’s situation and Rookie Plan will be the main method for this research.

Due to the goal of data analysis, there are four phases of analysis will be used by researchers which showed as follow. Once the feedback of questionnaire is obtained, the researchers will summarize the results. Apparently, some point of views from respondents would be ambiguous at the first place. Therefore, during this phase, gaining the real opinions behind such words is identified as the core work. Hereafter,
the description of results will show up which provide a whole picture about what the feedback reflects. Through such description, the general understanding of the case could be achieved, while the analysis direction for the next step will be clear as well. In that way, researchers could figure out which question should be focused in the afterwards analysis. In the next phase, the objective 1 and 2 should be fulfilled. Combining the results from survey and other information with scientific theories which presented in section 2, Literature Review, a deep and comprehensive analysis of Rookie Plan will be achieved to meet the objectives of this research. Last but not least, according to the description and analysis processes above, some recommendations for the development of Rookie Plan in the future will be proposed and summarized at the end of analysis section.

3.5 Pest Model

In order to reach the objective to analysis the property and prospect of Rookie Plan, the model of PEST which including political factor, economic factor, social factor and technology factor should be used. Through the PEST analysis, the key drivers of change will be analyzed (Johnson et al., 2008). The political factor related to the government policy and decision can impact the development of 4PL through many vital areas. Through the economic factor, the economic growth of China can be linked to the development of Rookie Plan. The social factor can used to analysis the pressures faced to Rookie Plan, while the technology factor can used to find out useful techniques to the case company.

3.6 Quality of The Study

3.6.1 Limitations and Potential Problems

No matter how hard we try to achieve a perfect research, the limitations will always existe, more or less. In this research, which is a case study on explaining and analyzing Rookie Plan that executes in the Chinese market, limitations and potential problems cannot be avoided.

Among such limitations, the most significant and important set of problems should be the pursuing of case study as research strategy. As one of the most common research strategy, case study could be identified as one of the best helper for researchers, but some lacks of it still hard to be ignored. These problems are based on the nature of case study that cannot be avoided in this research. Thence, the limitation of case study should also be defined as the most significant part which requires to discuss in this section.
Bathmaker & Harnett (2010) has recommended a set of limitations of the case study, compare to this research, there are several of them are compliance with this research which show as blew.

**Big Amount of Data Collection Require to be Fulfilled and Pursue for the Research**

As the last section mentioned above, one of the characteristics of case study is the requirement for combination between cases in reality and acknowledge from previous researches. Especially in this case, big amount of information which should include both of Rookie Plan itself and the opinions about the research objectives from other survey respondents are necessary to be gathered and pursue as the aim of fulfilling purpose. As Bathmaker & Harnett (2010) recommended, somehow, such set of works would not only confused readers about the research emphasis since there are too many information, but also a time consume work. In this research, researchers were attempted to find easier approaches for the readers with clear context and less unnecessary information. Even though, the huge data searching works and survey design with feedback collection works are still a big difficulty for the researchers. Nevertheless, since there are only two researchers for these works, the lack of labor problem is quite significant as well.

**Case Study Cannot Focus on Big Amount of Relevant Questions**

Except the problem above, Bathmaker & Harnett (2010) also explained there should not be so many research questions in a case study since it can only focus on a small range research. That is because the big amount of data gathering is easy to cause a huge work, and if research questions are too many, it will become an extremely hard mission. That is why, for most of case study, they always focus on some small area of research instead of a big one. What is more, the nature of case study is easily to cause some significant lacks on research focus or other relevant areas. In this research, despite researchers attempted to narrow down and gain a deeper understanding to the specific research focus, consider the possibility of completion and limited time, the objections have to focus on a more general level.

**Risks in the Area of Data Collection**

Apparently, since the questionnaire survey is pursued as the main method of primary data collection, big amount of respondents are needed to choose for gaining reliable results while the data gathering and summarizing process would be extremely complicated and hard for researchers. Despite 200 voluntary respondents are chosen by researchers and 192 of them are valid, it may not reflect all opinions from markets because of the huge amount of online shop owners. Nevertheless, except Taobao
website, there are still many e-commercial platforms in China. Although the biggest and most common one is chose by researchers for achieving reliable results as much as possible, considering the situation differences from various platforms, some point of views may not accounted in the survey which may cause the risk of unreliable and invalid for this research. At last, since survey is selected as the main approach for empirical study, it would be hard to achieve a deep understanding about the company’s thought and visions. Instead, focus will be put on what the markets expect, which may be hard to gaining a comprehensive picture for the research issue.

Language Barriers

For the primary data collection, during the survey, researchers use the questionnaire which is an easy way to collect data from online shop owners through a set of easy questions. Somehow, since respondents are Chinese and mostly not good at English, for eliminating the barrier, the questionnaire was made by Chinese, and then, translated to English. The overall progress is easy to cause some mistranslation between two languages and there might show some misunderstandings as well. Another similar issue could show during secondary data collection process. The focus of this research is a set of Chinese companies, and there is no doubt that English information in such area is much less than Chinese one. As the aim of achieving more valid and useful information, some Chinese data were pursuit by the researchers, which might also cause some misunderstandings during the translation process.

3.6.2 Reliability and validity

A qualified research should ensure its reliability and validity which need a reliable and valid survey. Data collection, as a significant part in research, the reliability and validity is extremely important since it will causes the reliable and valid analysis and conclusion directly, which is one of the most basic vision for the whole research. In order to achieve the target, the scientific data collect methods are chosen as the literature review and questionnaire survey for this research.

Yin (2008) has presented, internal validity and external validity should be identified as two main aspects of validity. For the explanatory research, internal validity is mainly about building causal relationship which means under a certain circumstances, something could happen as the lead of another thing. External validity on the other hand, is for regulating the research result could be generalize in what kind of domain.

The description of Rookie Plan from Alibaba’s website and other online news. Another one is primary data from survey. For the first part of data, since the information come from Alibaba Group’s websites and their reliability and validity could be confirmed. Somehow, in the website there will show little negative side of
Rookie Plan, since Alibaba is the owner of it. That is why, some news about Rookie Plan from websites will be pursuit as well. A more important resource for confirming the validity is the scientific researches which collected as secondary data. Through cross analysis of various resources, the validity and reliability could be improved so that ensuring mutual verification. The second part of data resource is from questionnaire survey, to collect people’s opinions about smart logistics and Rookie Plan. As the reason of raising internal validity, online shop owners, who have the most voices on judging their logistics system while gaining the best understanding on demands of markets are chosen as survey respondents. Researchers have use random selection of respondents rather than nonrandom procedure which could improving external validity. The sample is representative since the survey involves in ten different kinds of product sellers which covers all common areas and the amount of survey respondents is big enough. The table of what kinds of sellers are involved in shows in Appendix, chart 1. Meanwhile, internal validity is gained through asking same questions to different product sellers so that getting various results which could reduce personal judgment impacts. Hence, to some extent, the reliability and validity of such area could be guaranteed.

What is more, since case study is chosen as the research strategy, some shortages from its own natures which presented in the last section will also affect the reliability and validity of this research. In order to deal with them, the research rather concentrate on few research questions than many. During data collection, researchers attempted to involve and manage big amount of survey respondent while gathering many information and theories from multiple resources. Last but not least, despite huge amount of respondents is not possible to gathered, researchers still involved various areas’ product sellers which could gain representative for survey. On the other hand, the internal and external validity should be concerned as well. Due to the research is single case study, while Rookie Plan runs with its own structure and procedure and does not relate with other companies in this research, the external validity should be low. According to Riege (2003), doing within-case analysis, explanation-building, and guaranteeing the internal coherence of findings could be identified as effective techniques to enhance internal validity. In this thesis, the explanation of the case is firstly presented in result chapter combined with the description of data from survey. The discussion of the case is presented in analysis chapter. At the same time, the theories which introduced in section 2, Literature Review, are used to analyze with contents of the case. Therefore, a systematic structure is built for this research.
4. Results

In this section, the results of case study will be described in a comprehensive way. The discussion will focus on the main purpose, execution and achievements which Rookie Plan have obtained so far. Meanwhile, the result which told from the feedback from questionnaire will show up as well. Consider the focus of this research, which is to figure out the property and prospect of Rookie Plan, it is an important mission for this section to explain the achievements, executions and markets' demands. The research will separate into two part, the first one is introduction of Rookie Plan, which information mainly come from websites and the next one is to presents a clear structure about the Rookie Plan’s purpose and achievements. Hereafter, the data that collected from questionnaire will be summarized and presented in the next section which will point out what is expected to logistics companies by markets in China and people’s opinions to Rookie Plan.

In the following parts of this section, the case study of Rookie Plan will be presented. Afterwards, the analysis of this case will be discussed together with relevant literatures which showed before, therefore, the conclusion could show up hereafter. The transcripts of the questionnaire survey can be found in Appendix which at the end of this research.

4.1 The Background of the Rookie Plan

Rookie Plan is established in 28th of May in 2013, Alibaba Group allied with Intime Group, Fosun Group, Fuchun Holdings, China Post, EMS, SF Express, Daily Express, ZTO Express, YTO Express, STO Express, Yunda Express, ZJS Express, BEST Express, and related financial institutions announced together that they were officially start the program of China Smart logistics Network (CSN). All the cooperators of this program established a company which called Rookie network technology .Ltd in Shenzhen city of China. Among this shareholders, Alibaba Group owns the share of 51% which is the biggest shareholder of the company and owns power to in charge of it. The main focus of this Rookie Company is to establish a smart logistic network which could provide an open and clear logistics infrastructure in the overall China, so that a CSN which can hold 30 billion per day and 10 trillion per year's online sales could be built. (news.xinhuanet.com) Base on wide range of cooperation with existing online shops and logistics service providers, with huge scale of investment on building large number of storage and transport facilities, high transparency of information systems, and other support facilities in the area of whole China, no matter where the customers’ locations are, products that they purchased online could be delivered within 24 hours. Meanwhile, the company will use high developed internet
technologies to build an open, clear and shareable data application platform not only for electronic business companies, logistics companies and warehousing companies, but also for third party logistics service providers, supply chain providers and other kinds of companies. In that way, the overall logistics industry in China could become a high value-added industry (Alibaba Group 2014b).

As the Rookie Company planed, after 5-8 years development, the CSN can be built completely. When the plan has completely achieved, each products from all kinds of manufactures in China will get its own electronic ID which may made by two-dimensional code, barcode, RFID or others. Meanwhile, once the produce processes of goods are finished, they will be stored in the warehousing centers of the company. Since the shareholders of the company involves Alibaba, Dangdang, Gome and Haier which are almost all the e-commercial providers in China, no matter which e-commercial platform the end customers purchase from, the products that they buy will be sent from the warehousing centers, through route transport, distribution center and delivery staff of districts, the products will finally be delivered to the end customers within 24 hours. As sum, the mission of Rookie Plan is to build a logistics platform, so that all high efficiency logistics services, from online ordering to end delivery processes could execute through it. It is extremely necessary to highlight that, although there has no doubt about the strong function of CSN, the objective is not competing with logistics service providers. Instead, the company is aim to build a public logistics service platform for all the logistics providers so that affect the business mode in nowadays which followed by all the express companies (Alibaba Group 2014b).

4.2 Achievements of the Rookie Plan

The Rookie Company has established for more than one year, and the plan has still executed in process. Despite the mission of the plan definitely cannot be meet in such short time, there are still some significant achievements has been obtained by the company and they have already changed people's daily life in China.

During such one year, the Rookie Company mainly focus on cooperating with 14 express companies of China to build 15 warehousing centers all over the country which include Beijing, Shanghai, Guangzhou, Chongqing and so on so that providing supports for logistics companies. What is more, the logistics database sharing platform net has established, while the appliances like logistics data radar, weather warning and logistics forecast has been used by both of logistics companies and other companies for forecasting and decision making. As one of the most significant achievement, a set of innovation logistics service which meet the demands of end users are developed by Rookie company and its partners. For instance, because of the
efforts which Rookie Plan made, the program such as “American cheery direct deliver to China”, “Oysters in New Zealand deliver to bowls within 72 hours”, “American ice cream deliver to China and reparation for melting” now can be served for the end customers already. Moreover, the 150 million packages in the day of Taobao’s ‘double eleven sales’ (an online shopping festival in China) in last year was done in a smoothly way without any massive hoarding or delay because of the database platform which Rookie Plan made.

Although Rookie Plan still need a long time development, it has really works and bring lots of benefits. According to the achievements above, we could say Rookie Plan actually is changing people’ daily lives. Fast delivery not only enriches people's dinner tables and improve the people's living standards, but also provide a more convenient life style for normal people, and even made their fantasies come true. Nevertheless, as the increasingly develop of Rookie Plan, it will change both of Chinese logistics industry and people’s daily life rapidly in its own way. One of the significant instance in recent months is lot of people start become a part-time sellers for fresh product fast delivery programs which initiate by the Rookie Plan in Wechat (a chat application in China, like “whatsapp”). What they only need to do is post the advertisement of the fresh products on this platform and collect orders for the programs. All the other processes will be execute by Rookie Company. Such new marketing model has never been established before in China.

4.3 Result from Questionnaire Survey

In this section, the primary data which the researchers gathered from about 200 online shop owners in Taobao website through questionnaire will be summarized and presented. There are two reasons why such group of online shop owners is chosen as survey respondents for this research. First of all, as the nearest node to end users and direct customers of third party logistics providers, online shop owners own the best understanding about market demands and their own needs. Taobao website, as the largest online shop platform in China, has the biggest amount of online shops. Moreover, there is no doubt such website is the biggest online shop platform in China. Secondly, despite there are still many other online shop platforms, most of them usually pursue the logistics service which provided by the platform companies. (JD for instance) Instead of this mode, online shops in Taobao all have their own logistics partners which involve all popular express providers in China. Therefore, the opinions of logistics industry from them could be seen as the best reflection of reality. As mentioned above, the mission of this section is to answer the research objective 2 and 3 from the market demand point of view.
In order to achieve the data which can easy to compare for afterwards research, the same questions are asked for them by researchers, so that gathering different answers based on different products. As the reason of trying to reflect the whole picture, while considering the different thinking and situations of different products, the respondents of this questionnaire survey involves the online shop of clothes, shoes, bags, baby products, digital products, household appliances, foods, skin cares, household goods and sporting goods. Among the feedbacks of questionnaire, 8 results of them are invalid which cannot be accounted in.

4.3.1 Basic Information of Online Shops

Through the information which the researchers gathered from survey, for most of online shops, choosing multi logistics partners could be seen as a common way. Through the feedback of questionnaires, single logistics partner strategy are pursued by 42 shops, while others are all prefer multi logistics partners. Among them, there are 67 shops choose two logistics companies as their partners at the same time, and 59 shops choose three companies. While, the shops which choose four, five or more than five companies as their logistics partners are all less than 15. It is obviously that, for most online shops, multiple logistics partners which includes two or three companies is the best solution in the area of logistics. What is more, according to the survey, the most popular express companies which chosen as logistics partners of online shops are STO Express, YTO Express, Yunda Express, EMS, ZTO-Express and SF-express. Despite other choices also own almost 50% shares of the market, since the mount of them are fairly big, it hardly to account them as main third party logistics provider of the market.

Figure 2. How many logistics partners for per online shop (Source: own structured)

Figure 3. The component of logistics servicer (Source: own structured)
Why such set of logistics companies can be chose as main servicers? For figuring out this question, researchers defined eight factors which are seen as most important issues by online sellers for choosing logistics partners. The defined factors are identified according to the discussion from Web Forum of online sellers, which shows the most sellers’ opinions. As the summarize of survey feedback, when online shops owner consider about the factors which affect their decisions in such questions, cost has been chosen as very important factors by 152 respondents, and could be seen as the most significant one of all. At the meantime, the efficiency is also a significant factor which selected by 146 respondents as very important element. Afterwards, the factors of range, quality and service also could be seen as the important factors which will highly influence the logistics partner choosing decision. Apparently, through the data which collected from the questionnaire, the factor of sustainability is the least one which affect the online shop owners during selecting logistics partner.

Figure 4. Factors affecting the chosen of service providers (Source: own structured)

Although, the efficiency is the most significant factor, when online shop owners choosing express companies, most of them still wonder a higher efficiency service. As the result which questionnaire presents, efficiency, range and cost are still the factor which customers expect their logistics servicers to improve the most. Moreover, rate of damage and information sharing are important to be improved as well.
4.3.2 Opinions of Smart logistics and Rookie Plan

According to the survey, as the customers of third party logistics providers, there are not so many online shop owners willing to pay more for the smart logistics service. Among the survey respondents of this research, only 43 of them show that they would like to choose smart logistics for better logistics service. While 98 of them prefer do not choose smart logistics since the high cost made it not worthy. 38 respondents think it is not necessary so that they will not pursue it. The rest of respondents believe the smart logistics technique should not be used since it is not necessary and it costs a lot.
When considering the benefit which should be highlighted the most that online shops gained from logistics partners, good reputation are chosen by most of respondents. Meanwhile, transportation quality guarantee and high efficiency as another two options, are chosen by many online shop owners as well, and the option of low cost only obtain few supports. Since most of online shop take the reputation of logistics in an extremely serious way, the questionnaire also set a question for knowing the most important demand from their markets. After summarized data from the feedback, the demand of wider range of delivery which pointed out by 57 respondents, information sharing which showed in 38 feedbacks and efficiency which showed in 32 questionnaires are the main expectation of then end users. As the results of survey shows, 126 online shop owners would like to pay more to their logistics partners if their products can be delivered to end users within 24 hours.

Figure 7. Expectation for the benefits from logistics partners (Source: own structured)

Through the data collected from questionnaire, among the 192 respondents, 137 of them have heard or have a deep understanding about Rookie Plan. While 133 respondents believe Rookie Plan could affect the overall logistics market more or less. Somehow, on the other hand, most of online shop owners do not believe that it is necessary for meeting the recent demands of markets. Respondents of the research are all think Rookie Plan will bring them some benefits of efficiency and information sharing and believe Rookie Plan could gain a big success in the future. Since then, almost 85% of online shop owners who knows Rookie Plan think they will choose the shareholders of Rookie Company as their logistics partners.
Figure 8. Perspectives of Rookie Plan from objects (Source: own structured)

Figure 9 and 10. Recent situation of Rookie Plan from objects’ perspectives (Source: own structured)

Figure 11. Whether the objects would choose the Rookie Plan’s services (Source: own structured)
4.4 Summary of Result

In order to meet the demands of markets, the efficiency, cost, information sharing and range of delivery are still the main factors that third party logistics companies should improve. Such demands are exactly the purpose which Rookie Plan would like to fulfill in the future. That is why, the result from survey reflects that despite the demands of Rookie Plan is not so strong in recent period, as time pass by, the demands will become increasingly stronger. Through the point of views from survey respondents, Rookie Plan will achieve a big success in the future and people are willing to be involved in such plan since the benefits it brings could fulfill their expectations.

However, during summarizing feedback of survey, an interesting phenomenon is found out by researchers. Although the demands mentioned above are existing, most of online shops would not pursue smart logistics technologies which could exactly help them to solve their problems for the reason of higher cost. Smart logistics, as one of the most important element to promote the development of fourth party logistics and Rookie Plan, is hard to be ignored. People are expect a better services which should be gain by the elements like smart logistics, but the cost of such things are still hard to be accepted by them until now. This issue could also be seen as the most significant barriers to fourth party logistics in China.
5. Analysis and Discussion

5.1 Introduction

In this chapter, the analysis will be carried out by using relevant literatures and empirical study from previous parts to achieve the research questions. In this section, the analysis for the implementation of Rookie Plan will be provided. In order to forecast the property of Rookie Plan, its implementation and measures will be analyzed. To analyze the prospect of Rookie Plan related to objective 2, there will be analysis for four parts including political, economic, social, and technology of China. After the analysis and discussion through relevant literatures, there will bring out the conclusion for Rookie Plan.

The fourth party logistics is a relative new concept in the logistics market of China. The development of fourth party logistics is effected by many factors. The main focus of this research was to analyze the new type of logistics service provider in China through political, economic, social, and technology factors. Thus, objective 2 which describes the Rookie Plan and analyze its property and prospect will be satisfied in this part.

5.2 The Property of Rookie Plan

In order to differ fourth party logistics from third party logistics, Hamilton and Selen (2003) have claimed the fourth party logistics service provider use strategic sourcing to assemble and manage resources, capabilities, and technologies, assemble other leading third party logistics service provider as comprehensive supply chain solution. For Rookie Plan, they have a good deal of control over 14 key logistics partners in China, such as China Post, SF-express and so on. Rookie Plan has collect the key logistics partners in China to open up logistics data as the basis for further exploration of the logistics for consumer products and services.

Unlike third party logistics, the fourth party logistics service provider combines process, technology and management (Mukhopandhyay and Setaputra2006). Therefore, the fourth party logistics service provider is neither the manufacturer nor the buyer. The 4PL is developed upon the 3PL, the 3PL is a third party other than the supplier and buyer to provide logistics services for the upstream and downstream of supply chain, which is not involved in the production chain. Rookie Plan has integrating many mature logistics companies together, but never involved in the production chain, it has the characteristics of the fourth party logistics enterprises.
As a fourth party logistics enterprise, it works as a provider to offer both information technologies and supply chain integration capabilities (Cheng et al. 2008). The solution which fourth party logistics provides is concentrated on all aspects of supply chain management, continuously updated and optimized technologies (Li et al. 2003). It is clear that fourth party logistics establish a logistics information platform as the main function, and this information platform has to realize the logistics service trade as its core function. The information platform has the characteristics including professional, comprehensive, reliable and efficient. The IT system of fourth party logistics should yield better information on spending and knowledge management (Hamilton and Selen, 2003). According to Rookie Plan, which using big data, cloud computing, networking and other high-technologies to establish an open, transparent and shared data application platform for e-commerce businesses, logistics companies, warehousing companies, third-party logistics service providers, supply chain service providers and other types of services providers, sharing information and resources. Obviously, Rookie Plan is in line with this characteristic of fourth party logistics.

Gattorna (1998) explored the differences between third party logistics and fourth party logistics, including all aspects of the customer’s supply chain are managed by the fourth party logistics enterprise. This means the fourth party logistics service provider should have enough capabilities to manage the supply chain, while the supply chain management is aimed at manage the relationship between upstream supplier and downstream customers, and provide superior value in a low cost. The China Smart Logistic Network (CSN) plan proposed by Rookie Network Technology Company plans to establish some special, intelligent, modern warehouse in more than 200 cities across China. The CSN combined data from Taobao and other e-commerce, use these data to integrate commodity resources, including the integration of supply chain, production chain, to serve the entire e-commerce industry, which can result in changing in the entire logistics system. According to Gattorna (1998), the benefits from fourth party logistics including savings from improved rates and greater efficiencies brought by greater integration of supply chain. Rookie Plan is trying to build a society based logistics infrastructure platform, to hold the upstream and downstream industry chain firmly in their own hands. This greater integration supply chain can bring all aspects of the supply chain greater value obviously. Thus, the Rookie Network Technology Company should be classify as the fourth party logistics service provider.

5.3 The Prospect of Rookie Plan

The development of fourth party logistics requires the full use of computer network information technology and the market mechanism to serve the logistics enterprises, and form an organic cooperation. Form an entity adjustment and integration hub to
protect and adjust the efficient integration of logistics companies and many other aspects of logistics through the regulation and legal means. The fourth party logistics is the ladder for the development of logistics market, it combines the e-commerce and e-government, and play the role of specific organizer, coordination, service and supervisor for the operational activities of the logistics market, the most important is that it is the guide to develop traditional logistics into modern logistics. The development of Rookie Plan has a significant role in the development of Chinese logistics market, the process of development definitely affected by many factors. The following will analysis the prospect of Rookie Plan through four parts.

5.3.1 Political

The development of logistics in China is still in the initial stage, relevant systems and regulations need to be improved. In recent years, the National inter-ministerial joint conference of modern logistics in China approved by State Council has developed special planning related to logistics and introduce policies on access to logistics market. It has strengthen the logistics supervision and improve the customs clearance of port logistics, which plays active role in the development of modern logistics. The industrial policies has request for the development of large-scale logistics enterprises, improve the level of logistics modernization. After experiencing an economic crisis, the State Council has promote the logistics industry development to further enhance its basic supporting role in the national economy, to create a favorable external environment for the development of logistics industry. According to Bhattasali (2004), the opening up of different sectors in logistics of China have a significant impact for the logistics enterprises. In such situation, the fourth party logistics can definitely achieve a huge development in China. The government always play a vital role in promoting the development of logistics industry. Wang et al. (2006) argued that China’s government encourages investment into logistics industry. Which means the Rookie Plan has obtained support from government.

5.3.2 Economic

China's sustained and rapid development of economic and constantly opening up has brought the huge development space for the logistics industry. From 2001 to 2010, the GDP of China has increasing 10.8% per year on average, the logistics cost takes about 18% of the GDP (Chen and Lee, 2013). According to Wang et al. (2006), China’s infrastructure such as highways and expressways are all achieved significant improvements. These will create a good economic environment for the development of the logistics industry. The boom economic has been appeared since China has entering the WTO. In 2001, the logistics cost of United States accounted for 10.3% of its GDP, The Japan is about 14%, and European Union is about 10 to 13%, while China is at 20% of its GDP (Waters 2010). Compare to these developed countries,
Chinese companies have less advantages in terms of excess profits which been based on product innovation, while the spending on the supply chain also makes the profit margins become more modest. In summary, Rookie plan has faced an economic environment that full of challenge and opportunities. The rapid development of China can provide Rookie Plan a huge potential market.

5.3.3 Social

Although China’s economic has achieved significant development, it has led the environmental pollution, resource depletion, energy crisis, ecological destruction and climate anomalies such serious global crisis. Traditional industrial development model of high input, high consumption, and high pollution has been characterized by unsustainable. To do this, Rookie Plan need to search for the ideal way to minimize the negative impacts of industry, so as to achieve sustained growth and achieve the harmony between man and nature. Besides that, the unbalanced economic development, and regional protectionism are also the bricks that hinder the development of China’s logistics (Jiang and Prater 2002). According to Bhattasali (2004), there exist imbalance development between eastern and western parts of China. Deliver the goods within 24 hours anywhere in China is one of the objectives of Rookie Plan, but the unbalanced economic development result in unbalanced development of IT infrastructure can hinder the development of Rookie Plan.

On the other hand, according to the result from questionnaire, the development of Rookie Plan has attracted high level of attentions of the overall society. Despite few of potential consumers still not accept the use of Rookie Plan, most of them do believe such project would become more and more powerful and general for impacting people’s daily lives. Somehow, for achieving such expectation, one of the most emergence objective for Rookie Plan is the costs of smart logistics techniques must be reduced, or make consumers accept the high costs of it in some way.

5.3.4 Technology

Although China has achieve significant economic progress in logistics industry, they still have some problems and some growth challenges. According to Zhang and Figliozzi (2010), the transportation and logistics in China have low efficiencies and high logistics costs, they don’t have nationally integrated intermodal transport network, the IT infrastructure in China is poor and the warehousing service is underdeveloped also. The improvements of those are also the most significant requests from online shop owners, according to the result from survey shows in the last section. Compare to China’s logistics enterprises, technology and equipment of foreign logistics enterprises has reached a very high level. The logistics infrastructure and facilities available to logistics services suppliers are relatively poor (Bhattasali,
Despite the underdevelopment of IT infrastructure, ancient port facilities, and limited runways and airports, China really achieved huge improvement in recent years (Wang et al. 2006). China now has the transport system formed by five different modes including rail, highways, waterways, civil aviation and pipeline, the infrastructure, technology and equipment, management, transportation markets have made tremendous development.

5.4 The Risks for Rookie Plan

Through the data advantages of Alibaba and attempt in the field of Internet financial, Rookie Plan is playing the role of changing. The huge amount of customer information mastered by Taobao make Rookie Plan almost have the all online history of the customer's name, home address and phone number. What Rookie Plan make is not a product or service, but to a platform which never appeared before. Both Taobao and the CSN are the platform to provide customers information and supply chain solutions, also let the consumer get cheaper consumption experience. As Hamilton and Selen (2003) said, the creation of fourth party logistics is aimed at moving the customers to a more competitive position.

The fourth party logistics is rather to join the coordination of supply chain than operational service, and it is highly rely on information and co-ordinates multiple asset-based players on behalf of its customer (van Hoek and Chong 2001). In the Rookie Plan, it will not dismantled these express enterprises to and re-established a new company, but to unified management and operational standards to these respective advantages, independent business, and profitability enterprises. The problem is if there has a problem in any one aspect, it will bring difficulties to the implementation of overall plan.

In terms of technology, the greatest difficulty for the implementation of Rookie Plan should be issues to resource integration, including the precise allocation of resources, rational distribution of operation, effective protection for the timeliness, coherence of information flow and the distribution of profits, all of these issues requires a very powerful engineering systems as a support. As Aljifri et al. (2003) said, the technical and industrial infrastructure are the barriers affecting the e-commerce. The underdevelopment logistics infrastructure in China also hinder the development of Rookie Plan. The difficult for logistics integration is much higher that integration of internet resources, Rookie Plan still lack of logistics and inventory management expertise reserves so far. More importantly, how to balance the interests of all parties in such a large project with many participants has become a key to whether the Rookie network could eventually be achieved. The parochialism, interfirm conflicts
and coordinating various competing interesting are all the barriers should overcome in order to achieve success fourth party logistics (Hingley et al. 2011).

At present, China is in the transformation stage that transform from traditional logistics into modern logistics, with the development of the Internet and e-commerce, people have more understanding and recognition of third-party logistics. But the reality is that the imperfection of the China logistics infrastructure, the shortage of logistics talent, unfinished logistics information platform, the relatively new concept of fourth party logistics, and the lack of systematic theoretical research and successful cases. So in such circumstances, the implementation of Rookie Plan is to bear a big risk.

5.5 The Impacts of Smart Logistics on Customer Satisfaction or Requests

The customer satisfaction refers to the reaction to value which they have received in the processes of purchase or utilization of the offering. The impact of smart logistics on customer satisfaction or requests should first explore the impacts bring by ubiquitous technologies which including Radio Frequency Identification (RFID), sensor networks, embedded systems, wearable computing, service-orientated architecture, and web service according to Resch and Blecker (2012).

With the development of economic, people have a higher expectation on the diversification and personalization of product, as well as the higher request to product variety, quality and after-sales service. According to the survey mentioned above, efficiency and information sharing has been choose as the most factors the online shop owners want to improve. About 22.4% online shop owners want to choose RFID and other smart logistics technologies to achieve a better logistics service even at the expense of higher cost. In terms of the advantages bring by smart logistics, the RFID will bring benefits including bulk reading, large memory, re-writable or changeable data storage, ease to customer use, speed of enter to data (Uckelmann, 2008). This can no doubt meet customers’ request in a better way. Since customer satisfaction is influenced by the perception of the value delivered, they do not only want their logistics service providers to meet the needs at a suitable prices, but also require capability to learn more about logistics operations in various states. The logistics information platform which provided by smart logistics can fulfill this demands with better services.

Use of the Internet for logistics tracking control has become more and more common needs for customers, they want to keep track the logistics process-related information
of the goods through the network at various stages, and to adjust and optimize the logistics decision. According to the results of survey, good quality and service are always the most important factors influence the online shop owners to choose their logistics service providers. Through using smart logistics, logistics service providers could increase customers’ satisfaction to some degree. The smart logistics can analyze customer service levels, to better understand customer needs, identify the key problems in modern logistics management and improve the forecast accuracy.
6. Conclusion

6.1 Introduction

The main aim of this research is focus on achieving a deep and comprehensive understanding both about smart logistics and property and prospect of Rookie Plan while analyzing what are requested from market perspective for Rookie Plan’s further development. In the section of conclusion, the objectives will be revisited, while the summary of both results and conclusion will present as well. Additionally, this section will also discuss and conclude recommendations for the development of Rookie Plan in the future researches, and provide suggestion for researchers who would like to gain further researches afterwards. Besides, researchers will provide the reflection of this thesis at the end of this section as well.

6.2 Summary of Findings and Conclusion

6.2.1 Research Objective 1: Smart Logistics and the Factors Comprised It

The definition of smart logistics is pursuing ubiquitous technologies during logistics process so that helping logistics providers to achieve better service performance. The most significant benefits which could gain from smart logistics is free human from activities since smart products and smart services can do such things for them. Moreover, through smart logistics, the costs and time of logistics can decrease and the reduction of both social and natural resources can be gained as well. That is why, logistics providers could promote their profits through the using of smart logistics. In order to implement smart logistics in reality, a set of technologies are introduced in this study which not only contains RFID, sensor network and embedded system, but also wearable computing, service oriented architecture and web services. With the using of such ubiquitous skills, smart logistics is easy to achieve, as well as bring benefits for logistics providers. It is necessary to highlight that in order to build fourth party logistics in China, the development of smart logistics, as the most important element of it should never be ignored during both of planning and execution processes.

6.2.2 Research Objective 2: Describe the Property and Prospect of Rookie Plan

Rookie Plan, as a fourth party logistics establishing plan which is initiated by Alibaba Group and ally with other enterprises, including most of third party logistics providers
and financial institutions in China. The mission is establishing a logistics infrastructure to improve the logistics industry development all over China. In such way, Rookie Company could become a fourth party logistics providers which able to offer a public logistics service platform so that leading the whole Chinese logistics industry to become a high value-added industry.

As the conclusion of literature review section mentioned, the nature drawbacks of third party logistics make it hard to meet rapid growing demands in the area of logistics service. Nowadays, most of customers are expecting faster, cheaper and more convenience logistics service which is obviously can only achieved by developing fourth party logistics in China since it is capable to handle such demands through in charging and improving the overall supply chain. Wherefore, the emergence of Rookie Plan is not haphazard, but come from the markets’ demand.

There is no doubt, since Rookie Plan is established by most of powerful enterprises not only in the area of e-commercial and logistics, but also in financial area, it could obtain powerful internal supports for further development. According to the result from survey of this research, customers are expecting a better services which would be gain through Rookie Plan. At the same time, most of customers got a fairly high confidents on Rookie Plan, which could be seen as a big external supports of it. For the reasons above, the property of Rookie Plan could be seen in a positive way.

6.2.3 Objective 3: Classify the Impact of Smart Logistics on Customer Satisfaction or Requests

According to the results from survey, online shop owners have a high expectation on the quality and service in chosen of logistics service providers. In order to better fulfill the demands of customers, the adoption of smart logistics can achieve a better performance. The use of RFID can bring benefits including bulk reading, large memory, re-writable or changeable data storage, ease to customer use, speed of enter to data. This can meet customers’ satisfaction not only by the suitable price, but also offers a chance to let the customers be able to learn more about logistics operations in various states.

The customers now request to know the logistics information in various stages to adjust their strategies, the smart logistics can increase customers’ satisfaction through analysis of customer service levels, needs, key problems to improve their forecast accuracy to achieve a better performance.
6.3 Recommendations

The fourth party logistics is an integrator that assembles the resources, capabilities, and technology to design, build and run comprehensive supply chain solutions. The resources, capabilities and technology not only come from its own company, but also comes from others services provider, so the development of fourth party logistics are affects by many factors. Since China is still a developing country and do not have a completely successful example of fourth party logistics company, the development of Rookie Plan faced lots of difficulties. In this part, related to the reality of China and results from the survey, some recommendations are proposed to help Rookie Plan to achieve a better development.

Firstly, strengthen the planning and construction of logistics infrastructure. One of the barriers to the development of fourth party logistics in China is the underdevelopment logistics infrastructure. Besides that, according to the survey, most online shop owners think it is necessary to bring the smart logistics into e-commerce. While the adoption of smart logistics requires the well-functioning infrastructures. Despite Rookie Plan has obtain significant achievement in building logistics infrastructure, such as warehousing center, most of them are located in metropolises. Thus, in order to achieve a better development, Rookie Plan should strengthen its planning and construction of logistics infrastructure all over China.

Secondly, promote the development of third party logistics service provider. In the whole supply chain, the fourth party logistics is the manager and integrator of third party logistics, the integration of social resources for fourth party logistics is based on the third party logistics. Only promoting the development of third party logistics can the fourth party logistics achieve a better development. According to the survey to online shop owners of Taobao, most of them have the expectation to their service provider to improve their efficiency and quality of service. In terms of Chinese logistics market, the third party logistics are still required development. Therefore, Rookie Plan should promote the development of third party logistics service providers which has joint them, such as STO express, YTO express etc.

Thirdly, accelerate the integration of e-commerce and modern logistics industry. The integration of e-commerce and modern logistics industry is the requirement for the rapid development of economic in China. The best way to integrate e-commerce and modern logistics is to develop E-commerce logistics, establish a national logistics public information platform. China Smart logistics network (CSN) which proposed by Rookie Plan, should established a relatively comprehensive logistics network system, and also provide network services in the process of business operations.
6.4 Self-Reflection

Apparently, the research objectives which are set up at the first place of this research have been completely achieved while the whole research was went with a scientific method. Therefore, it could be identified as a successful research. Somehow, the weaknesses of this study are hard to be ignored as well.

In order to obtain the point of views from customers of logistics provider and end users, there are 200 online shop owns are identified as survey respondents, and 192 feedbacks are valid. Comparing with the large amount of online shop owners from e-commercial platforms, the sample may not big enough to reflect the whole picture and providing a perfect answer for research objective. Another shortage of this research is also come from the process of data collection. In order to reflect the reality as much as possible, the researchers choose Taobao website, which is the biggest and most representative e-commercial platform as data gathering resource. Somehow, consider the different situations of different platforms, the information collected from this resource may not reflect the whole industry in a comprehensive way. Thence, such weaknesses might increase the risk of unreliability for this research.

Through working with this research, there are some advices can be identified and offered by researchers. The first advice is planning the overall research process as much carefully and comprehensively as possible, no matter which method and strategy are pursued for the research. In this research, the research objectives are defined and basic information of the case were prepared at the first place. Hereafter, the case study mix survey based research and questionnaire survey were chosen as the main strategy and data collection method by researchers. At last, the researchers discussed and set up the questions for survey before the process of primary data gathering. Secondly, choosing the interesting area and gain a deep understanding of it for your research so that pursuing the most suitable topic while keeping right direction during researching.

6.5 Contribution & Suggestion for Further Research

This research explained content and logistics type of Rookie Plan. Through the information gathering and analysis processes, the research present the conclusion and affirmed the future of it. At last, some recommendations for Rookie Plan are pointed out as well. Despite the fourth party logistics is still new for Chinese market and there are fairly few researches in such area, the demands of it are growing rapidly. Hence, this research is exactly trying to fulfill such gap in accordance with relevant theories, and relate to reality so that provide feasible suggestions for the development of
Rookie Plan. Such achievements could also be identified as one of the most significant contribution of this thesis.

As a suggestion for further research, the problem during execution would become an interesting question and necessary to be studied in the future. Considering the Rookie Plan is still in process, it is impossible for this research to gain the specific problems or obstacles during implementation and the solutions of them. As the reason of this, instead of such aspects, the research is only focus the whole picture of Rookie Plan and its property. However, such set of questions should become an interesting topic in the future and necessary to be filled as a gap for improving the performance of overall logistics industry in China. As an advice, the topic such as how Rookie Company builds the whole supply chain, how the company gain higher efficiency and lower cost at the same time and what has the company done for gaining better fourth party logistics business mode can be choose as core research objectives.
7. References:


程婕. (2013). 我国第四方物流发展新进程——“菜鸟”计划的性质及其前景分析. 中外企业家, 14, 003. (Translation as below)


8. Appendix

8.1 Questionnaire

Questionnaire for Rookie Plan

Hi, we are Ronghe and Yi Xiao. We are students from the University of Gävle. We investigate smart logistics the prospect of “Cai Niao” Plan in the vision of 4PL (fourth party logistics). Since you are one of the potential user of “Cai Niao” Plan, we hope you can help us answer the questionnaire to provide the suggestion for us to do better job in the future. Thank you so much!

Section 1 Basic information in order to know the online shops

1. Your company: _______

2. What kind of product do you sale _______

3. How much assets does your company own?
   a. Less than 10 thousands  
   b. 10 - 50 thousands
   c. 50 – 100 thousands  
   d. More than 100 thousands

4. How many staff do you have?
   a. Less than 3  
   b. 3-5
   c. 5-10  
   d. More than 10

5. How many sales do you have per month?
   a. Less than 50 thousands  
   b. 50 – 100 thousands
   c. 100-1 million  
   d. More than 1 million

6. Which logistics company will you choose as your partner? (Multi choice)

   a. SF-Express  
   b. YT-Express
   c. ZTO-Express
   d. STO-Express  
   e. Best-Express
   f. EMS
h. China Post  
i. ZJS-Express  
j. TTK-Express  
k. Yunda  
l. others

Section 2 the point of view to logistics partners

7. How much do you consider the following factors when you choose logistics partners? (In a scale of 1 to 10 there 1 is the lowest and 10 is the highest.)

Efficiency:

Unimportant 1-2-3-4-5-6-7-8-9-10 Important

Cost:

Unimportant 1-2-3-4-5-6-7-8-9-10 Important

Quality:

Unimportant 1-2-3-4-5-6-7-8-9-10 Important

Range:

Unimportant 1-2-3-4-5-6-7-8-9-10 Important

Service:

Unimportant 1-2-3-4-5-6-7-8-9-10 Important

Reputation:

Unimportant 1-2-3-4-5-6-7-8-9-10 Important

Information sharing:

Unimportant 1-2-3-4-5-6-7-8-9-10 Important

Sustainability:

Unimportant 1-2-3-4-5-6-7-8-9-10 Important

8. In the following elements, how necessary do you think your logistics partner should improve? (In a scale of 1 to 10 there 1 is the lowest and 10 is the highest.)

Efficiency:

Unimportant 1-2-3-4-5-6-7-8-9-10 Important
Cost:
Unimportant 1-2-3-4-5-6-7-8-9-10 Important

Service:
Unimportant 1-2-3-4-5-6-7-8-9-10 Important

Rate of cargo damage
Unimportant 1-2-3-4-5-6-7-8-9-10 Important

Range:
Unimportant 1-2-3-4-5-6-7-8-9-10 Important

Information sharing:
Unimportant 1-2-3-4-5-6-7-8-9-10 Important

Sustainability:
Unimportant 1-2-3-4-5-6-7-8-9-10 Important

Section3: The opinion of the Smart logistics

9. Will you choose RFID, Web service or other smart logistics technologies to get a better logistics service at the expense of higher cost?
   a. Yes
   b. No, because it cost more than it brings
   c. No, because it is not necessary
   d. No, because it cost more and not necessary

Section4: The opinion of the Rookie plan

10. What kind of benefit do you obtain from your logistics partner?
11. Do you want to pay more for your logistics partners if they can deliver your products to all customers in China in 24 hours?
   a. Yes        b. No

12. What is the most important demands of logistics from your markets? (Open question)

13. Do you know the Rookie plan?
   a. Yes        b. No (skip the rest of questions)

14. How much do you think it could affect the overall logistics market?
    Very little 1-2-3-4-5-6-7-8-9-10 Very much

15. How necessary do you think it is for the recent demands of markets?
    Very little1-2-3-4-5-6-7-8-9-10 Very much

16. What kind of benefit will you gain from the Rookie plan? (Multi choice)
   a. The benefit of time        b. The benefit of quality
   c. The benefit of information sharing    d. Other: ________
   f. Don’t know

17. Do you think the Rookie plan will achieve a big success in the future?
   a. YES        b. No
   c. Don't know

18. Will you choose the logistics partner who joins the Rookie plan if the service will become better but a little more expensive than before?
   a. Yes        b. No
   c. Indifferent    d. Don't know
### 8.2 Tables for the results of survey

**Question 2**

<table>
<thead>
<tr>
<th>Category</th>
<th>Cloth</th>
<th>Shoe</th>
<th>Bag</th>
<th>Baby product</th>
<th>Digital products</th>
<th>Household appliances</th>
<th>Food</th>
<th>Skin care</th>
<th>Household good</th>
<th>Sporting good</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amount</td>
<td>20</td>
<td>19</td>
<td>20</td>
<td>18</td>
<td>19</td>
<td>20</td>
<td>19</td>
<td>20</td>
<td>18</td>
<td>20</td>
</tr>
</tbody>
</table>

**Question 3**

<table>
<thead>
<tr>
<th>How much assets does your company own</th>
<th>Less than 10 thousands</th>
<th>10-50 thousands</th>
<th>50-100 thousands</th>
<th>More than 100 thousands</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amount</td>
<td>7</td>
<td>64</td>
<td>98</td>
<td>23</td>
</tr>
<tr>
<td>Percent</td>
<td>3.65%</td>
<td>33.33%</td>
<td>51.04%</td>
<td>11.98%</td>
</tr>
</tbody>
</table>

**Question 4**

<table>
<thead>
<tr>
<th>How many staff do you have</th>
<th>Less than 3</th>
<th>3-5</th>
<th>5-10</th>
<th>More than 10</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amount</td>
<td>37</td>
<td>70</td>
<td>53</td>
<td>32</td>
</tr>
<tr>
<td>Percent</td>
<td>19.27%</td>
<td>36.46%</td>
<td>27.60%</td>
<td>16.67%</td>
</tr>
</tbody>
</table>

**Question 5**

<table>
<thead>
<tr>
<th>How many sales do you have per month</th>
<th>Less than 50 thousands</th>
<th>50-100 thousands</th>
<th>100-1 million</th>
<th>More than 1 million</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amount</td>
<td>26</td>
<td>33</td>
<td>95</td>
<td>38</td>
</tr>
<tr>
<td>Percent</td>
<td>13.54%</td>
<td>17.19%</td>
<td>49.48%</td>
<td>19.79%</td>
</tr>
</tbody>
</table>

**Question 6**

<table>
<thead>
<tr>
<th>Which logistics company will you choose as your partner</th>
<th>SF</th>
<th>YT</th>
<th>ZTO</th>
<th>STO</th>
<th>Best-Express</th>
<th>EMS</th>
<th>China Post</th>
<th>ZJS</th>
<th>TTK</th>
<th>Yunda</th>
<th>others</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amount</td>
<td>18</td>
<td>45</td>
<td>25</td>
<td>102</td>
<td>23</td>
<td>28</td>
<td>21</td>
<td>6</td>
<td>12</td>
<td>33</td>
<td>17</td>
</tr>
</tbody>
</table>

**Question 7**

<table>
<thead>
<tr>
<th>How much do you consider the following factors when you choose logistics partners</th>
<th>Score Category</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
<th>Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>Efficiency</td>
<td>1</td>
<td>4</td>
<td>8</td>
<td>3</td>
<td>6</td>
<td>11</td>
<td>13</td>
<td>83</td>
<td>39</td>
<td>24</td>
<td>7.74</td>
<td></td>
</tr>
<tr>
<td>Cost</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>3</td>
<td>12</td>
<td>16</td>
<td>9</td>
<td>34</td>
<td>70</td>
<td>48</td>
<td>8.40</td>
<td></td>
</tr>
<tr>
<td>Quality</td>
<td>0</td>
<td>0</td>
<td>4</td>
<td>2</td>
<td>25</td>
<td>33</td>
<td>56</td>
<td>48</td>
<td>19</td>
<td>5</td>
<td>6.98</td>
<td></td>
</tr>
<tr>
<td>Reputation</td>
<td>5</td>
<td>9</td>
<td>28</td>
<td>17</td>
<td>32</td>
<td>66</td>
<td>20</td>
<td>9</td>
<td>2</td>
<td>4</td>
<td>5.37</td>
<td></td>
</tr>
<tr>
<td>Service</td>
<td>3</td>
<td>4</td>
<td>13</td>
<td>8</td>
<td>25</td>
<td>49</td>
<td>33</td>
<td>27</td>
<td>8</td>
<td>22</td>
<td>6.46</td>
<td></td>
</tr>
<tr>
<td>Range</td>
<td>2</td>
<td>0</td>
<td>7</td>
<td>19</td>
<td>68</td>
<td>37</td>
<td>26</td>
<td>7</td>
<td>15</td>
<td>11</td>
<td>5.96</td>
<td></td>
</tr>
<tr>
<td>Information sharing</td>
<td>6</td>
<td>6</td>
<td>38</td>
<td>30</td>
<td>44</td>
<td>52</td>
<td>3</td>
<td>5</td>
<td>8</td>
<td>0</td>
<td>4.78</td>
<td></td>
</tr>
<tr>
<td>Sustainability</td>
<td>8</td>
<td>12</td>
<td>35</td>
<td>67</td>
<td>28</td>
<td>19</td>
<td>14</td>
<td>7</td>
<td>2</td>
<td>0</td>
<td>4.33</td>
<td></td>
</tr>
</tbody>
</table>
### Question 8

In the following elements, how necessary do you think your logistics partner should improve?

<table>
<thead>
<tr>
<th>Score Category</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
<th>Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>Efficiency</td>
<td>5</td>
<td>2</td>
<td>11</td>
<td>15</td>
<td>7</td>
<td>36</td>
<td>31</td>
<td>44</td>
<td>28</td>
<td>13</td>
<td>6.69</td>
</tr>
<tr>
<td>Cost</td>
<td>3</td>
<td>3</td>
<td>9</td>
<td>12</td>
<td>25</td>
<td>39</td>
<td>17</td>
<td>52</td>
<td>21</td>
<td>11</td>
<td>6.13</td>
</tr>
<tr>
<td>Service</td>
<td>7</td>
<td>16</td>
<td>4</td>
<td>56</td>
<td>28</td>
<td>25</td>
<td>13</td>
<td>24</td>
<td>7</td>
<td>12</td>
<td>5.37</td>
</tr>
<tr>
<td>Rate of cargo damage</td>
<td>4</td>
<td>14</td>
<td>19</td>
<td>8</td>
<td>13</td>
<td>41</td>
<td>29</td>
<td>32</td>
<td>22</td>
<td>10</td>
<td>6.24</td>
</tr>
<tr>
<td>Range</td>
<td>3</td>
<td>4</td>
<td>13</td>
<td>8</td>
<td>25</td>
<td>49</td>
<td>33</td>
<td>27</td>
<td>8</td>
<td>22</td>
<td>6.46</td>
</tr>
<tr>
<td>Information sharing</td>
<td>8</td>
<td>22</td>
<td>2</td>
<td>18</td>
<td>26</td>
<td>22</td>
<td>25</td>
<td>34</td>
<td>26</td>
<td>9</td>
<td>6.06</td>
</tr>
<tr>
<td>Sustainability</td>
<td>0</td>
<td>29</td>
<td>17</td>
<td>44</td>
<td>57</td>
<td>7</td>
<td>25</td>
<td>12</td>
<td>0</td>
<td>1</td>
<td>4.63</td>
</tr>
</tbody>
</table>

### Question 9

Will you choose RFID, Web service or other smart logistics technologies to get a better logistics service at the expense of higher cost?

<table>
<thead>
<tr>
<th>Score</th>
<th>Yes</th>
<th>No, because it cost more than it brings</th>
<th>No, because it is not necessary</th>
<th>No, because it cost more and not necessary</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amount</td>
<td>43</td>
<td>98</td>
<td>38</td>
<td>13</td>
</tr>
<tr>
<td>Percent</td>
<td>22.40%</td>
<td>51.04%</td>
<td>19.79%</td>
<td>6.77%</td>
</tr>
</tbody>
</table>

### Question 10

What kind of benefit do you obtain from your logistics partner?

<table>
<thead>
<tr>
<th>Benefit</th>
<th>Low cost</th>
<th>High efficiency</th>
<th>Good reputation</th>
<th>Transportation guarantee</th>
<th>Wider range</th>
<th>others</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amount</td>
<td>9</td>
<td>39</td>
<td>72</td>
<td>43</td>
<td>23</td>
<td>6</td>
</tr>
<tr>
<td>Percent</td>
<td>4.69%</td>
<td>20.31%</td>
<td>37.5%</td>
<td>22.39%</td>
<td>11.98%</td>
<td>3.13%</td>
</tr>
</tbody>
</table>

### Question 11

Do you want to pay more for your logistics partners if they can deliver your products to all customers in China in 24 hours?

<table>
<thead>
<tr>
<th>Score</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amount</td>
<td>126</td>
<td>66</td>
</tr>
<tr>
<td>Percent</td>
<td>65.62%</td>
<td>34.38%</td>
</tr>
</tbody>
</table>

### Question 13

Do you know the Rookie plan?

<table>
<thead>
<tr>
<th>Score</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amount</td>
<td>137</td>
<td>55</td>
</tr>
<tr>
<td>Percent</td>
<td>71.35%</td>
<td>28.65%</td>
</tr>
</tbody>
</table>

### Question 14

How much do you think it could affect the overall logistics market?

<table>
<thead>
<tr>
<th>Score</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amount</td>
<td>1</td>
<td>0</td>
<td>2</td>
<td>1</td>
<td>0</td>
<td>13</td>
<td>45</td>
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<td>34</td>
<td>9</td>
</tr>
<tr>
<td>Percent</td>
<td>0.73%</td>
<td>0</td>
<td>1.46%</td>
<td>0.73%</td>
<td>0</td>
<td>9.49%</td>
<td>32.84%</td>
<td>23.36%</td>
<td>24.82%</td>
<td>6.57%</td>
</tr>
</tbody>
</table>

### Question 15
### How necessary do you think it is for the recent demands of markets

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amount</td>
<td>0</td>
<td>8</td>
<td>27</td>
<td>18</td>
<td>39</td>
<td>15</td>
<td>16</td>
<td>7</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Percent</td>
<td>0</td>
<td>5.84%</td>
<td>19.71%</td>
<td>13.14%</td>
<td>28.46%</td>
<td>10.95%</td>
<td>11.68%</td>
<td>5.11%</td>
<td>2.19%</td>
<td>2.92%</td>
</tr>
</tbody>
</table>

Question 16

### What kind of benefit will you gain from the Rookie plan

<table>
<thead>
<tr>
<th>Time</th>
<th>Quality</th>
<th>Information sharing</th>
<th>Other</th>
<th>Don’t know</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amount</td>
<td>137</td>
<td>96</td>
<td>137</td>
<td>48</td>
</tr>
</tbody>
</table>

Question 17

### Do you think the Rookie plan will achieve a big success in the future

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
<th>Don’t know</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amount</td>
<td>122</td>
<td>13</td>
</tr>
<tr>
<td>Percent</td>
<td>89.05%</td>
<td>9.49%</td>
</tr>
</tbody>
</table>

Question 18

### Will you choose the logistics partner who joins the Rookie plan if the service will become better but a little more expensive that before

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
<th>Indifferent</th>
<th>Don’t know</th>
</tr>
</thead>
<tbody>
<tr>
<td>115</td>
<td>13</td>
<td>9</td>
<td>0</td>
</tr>
<tr>
<td>83.94%</td>
<td>9.49%</td>
<td>6.57%</td>
<td>0</td>
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</table>