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[Field Research]

Promotional Plans of Fourth-Party Logistics in Korea: Applicability in Entering the Chinese Logistics Market*

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Abstract

Purpose – This study aims to disclose the problems of both the government and the logistics industry regarding fourth-party logistics, and to provide various solutions at the level of enterprises as well as the government for the introduction of fourth-party logistics in China.

Research design, data, and methodology – This study aims to reveal how a shipping company recognizes the creation of partnerships with fourth-party logistics providers, and it reveals several related implications.

Results – Fourth-party logistics organizations can be used to achieve maximum business performance as professional logistics companies by incorporating the benefits of outsourcing and insourcing. Outsourcing logistics services through focusing on core competencies and improving customer service can have financial effects and advantages such as the simplification of labor issues.

Conclusions – This study did not investigate Korean enterprises through an empirical analysis and provided fourth-party logistics concepts and promotional plans according to domestic and foreign literature. Further studies shall investigate not only the Korean fourth-party logistics model but also the training of logistics professionals to generate profits for both shippers as well as logistics enterprises.

Keywords: China 4PL, Korean Company, Logistics Market.

JEL Classifications: F01, L91, L92.

1. Introduction

The Chinese logistics industry has alleviated regulation on lo-

gistics industry upon request of openness to strengthen investment of logistics area at the level of central government. The Chinese logistics industry with inferior logistics infrastructure has low management level of various kinds of system yet. However, the Chinese logistics industry is likely to grow up very much owing to economic growth in China and to be attractive market for the Korean logistics businesses.

The purpose of the study is to disclose problems of both the government and logistics industry on the 4th party logistics and to give solutions at the level of enterprises as well as the government for introduction of the 4th party logistics in China and to find out solutions for introduction of the 4th party logistics in China.

Therefore, Korean logistics enterprises having competitiveness is demanded to enter Chinese 4th party logistics market actively to dominate the market in advance and to create new revenue sources. The Korean logistics enterprises shall increase quantity of goods transported in accordance with 4th party logistics infrastructure construction not at the level of competition but at the level of connection and/or supplementation to give high value added service and to make change of strategies(Choei, 2006).

In the beginning, logistics was thought to be a part of essential production process in the enterprise and to include transportation, storage, stevedore, shipping, distribution & processing, and data processing.

These days, enterprise competitiveness was needed under keen competition of industries so that first party logistics type of enterprise management could not elevate effectiveness of enterprise logistics activities nor save expenses. In modern society, variety and individuality of logistics service were thought to be important and global management expanded not only areas of logistics services but also scope of logistics management of supply chain. Application of information technology improved information of logistics management.

The third party logistics (3PL) that started from the 1980s was disadvantageous than the fourth logistics (4PL) from point of view of customer service supply. This was because the third logistics was concentrated on special logistics management not to supply logistics services that customers wanted. Despite customers' request of integrated logistics service, the third party lo-

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gistics was effective at enterprise logistics having specific scope to be short of solution of logistics barriers of economic development process as well as e-commerce process (Lee & Kim, 2007).

In December 2005, the Chinese government opened logistics market completely to cancel limitation on share of foreign enterprises and to let multi-national logistics enterprises enter the Chinese market and to expand business. At the end of 2004, multinational logistics enterprises started to establish distribution facilities in China and to build up service network: Since 2005, multinational enterprises expanded investment to construct logistics base and/or branches and to expand branches and to build up nationwide networks and to invest in logistics market actively.

After joining WTO in 2001, the Chinese logistics industry made change from world production base to logistics base, and demand on international logistics services rapidly increased owing to quick growth of international foreign trade. So, global logistics enterprises have made great effort to enter the Chinese market, and most of global logistics enterprises have kept not only production base but also logistics base in China.

The Chinese logistics and distribution market was opened to reorganize corporate structure and to let shipper cognize use of logistics outsourcing. And, foreign logistics businesses have joined Chinese logistics market and Chinese shippers cognized logistics outsourcing to be likely to expand scale of logistics service business in China rapidly.

The Chinese government cognized values of logistics in accordance with changes of the Chinese logistics market to support foundation and growth of Chinese logistics enterprises and to establish many logistics enterprises owing to the government's policy to protect Chinese logistics market and to elevate competitiveness.

The Chinese logistics market that has been much developed has uncertain position of logistics industry among all of the industries to have plenty of problems of the government's policy and dispersed organization, local area logistics resources and high entry barrier, and public enterprises' industrial monopoly and so on.

Korean enterprises have made effort to enter the Chinese logistics market having enormous potential as soon as possible, and the Korean government has promoted North Eastern Asian logistics hub strategy to have important subject of not only development of logistics enterprises but also active overseas expansion.

Important political subject is to collect objective information on the Chinese logistics industry and to investigate and keep in order and to establish counteraction strategy on the entry into the Chinese market of domestic logistics enterprises.

This study investigated changes of logistics market in accordance with development of the Chinese economy and foreign trade to examine not only the Chinese logistics market but also logistics infrastructure based on latest materials in China and to find out changes of the Chinese logistics market at joining WTO and to give strategic subjects of Korean logistics enterprises for

entry into the Chinese logistics market. The study investigated not by statistical processing but by market survey.

In the 21st century, not only enterprises but also supply chains compete each other. The 4th party logistics controls and supports corporate supply chains effectively to strengthen corporate competitiveness and to incorporate enterprises. The Chinese logistics enterprises have made efforts to introduce the 4th party logistics by supply chain management (SCM) and to save expenses & costs and to elevate service levels. At the moment, the 4th party logistics in China is at the stage of exploration and introduction and studies on the 4th party logistics in China are negligible.

This study investigated the 4th party logistics infrastructure in China as well as domestic and foreign logistics enterprises' entry into the 4th party logistics market in China to establish strategies of entry into the 4th party logistics market in China by Korean logistics enterprises and to help Korean enterprises enter the 4th party logistics market in China.

2. Precedent Studies on the 4th Party Logistics in China

2.1. Precedent Studies

The Chinese logistics industry that is in initial stage has low levels of macroscopic control system and infrastructure, market and services and so on. Nonetheless, global logistics enterprises have entered Chinese logistics market and the Chinese government has logistics support policy to do economic globalization and information very much quickly and to grow Chinese logistics industry rapidly.

Precedent studies on the Chinese logistics infrastructure investigated Chinese logistics, for instance, study on the Chinese 4th party logistics industry and infrastructure Oh (2013a, b) and Yan et al. (2010) to reinvestigate strategy of logistics base in North East Asia. The precedent study put an emphasis upon logistics cooperation based on mutual supplementation between Korea and China to supplement legal system and to build up technical software and to alleviate license qualification for multimodal transport and to expand freedom of aviation between both countries and other practical measures.

A study on 4th party logistics market at the time of WTO joining said that the Chinese government control system on logistics market was ineffective to be short of laws and regulations Won & Joe (2005). Macroscopic investigation into prospect of the Chinese logistics market said that Korean enterprises should overcome production cost based estimation to select regions carefully and to make use of strategic ties with the Chinese enterprises and to give counteractions of entry into 4th party logistics market.

Small businesses had difficulties at solving of logistics problems of Korean enterprises in China based on mutual cooperation between Korea and China to develop logistics intermediary

agency and to put an emphasis upon integrated logistics control and support policy by 4th party logistics. Korean enterprises that recently entered China based on cooperation of enterprises of both countries had difficulties at solving problems from point of view of small business, so that logistics intermediary agency should be developed to put an emphasis upon values of logistics control support policy by the 4th party logistics (Ye, 2005).

A case study put an emphasis upon values of third party logistics to investigate introduction and application of 3rd party logistics in China (Hoffman, 2007). The case study gave counteraction strategy to let Korean 3rd party logistics enterprises enter 8PL market in China based on decision-making concerning 3PL selection.

A study on concentration on harbor logistics in China (Lee, 2007) investigated logistics concentration in the Chinese harbors internally and externally to examine development and logistics of not only Shanghai port but also the Yangtze River and to find out counteractions of Korea.

A study investigated changes of the Chinese logistics market from point of view of logistics enterprise to be focused on changes of corporate policy and to examine changes of the Chinese logistics market in the future and to give counteractions of both Korean government and logistics enterprises (Choei & Lee, 2009).

A study suggested effects of SCM strategy integration of the Chinese enterprises upon outcome of logistics enterprises based on not only SCM strategy integration of the Chinese logistics enterprises but also changes of logistics environment in China.

A lot of researches investigated rapid growth and counteractions of Chinese logistics infrastructure to be political and common theories mostly and to fail to disclose fundamental problems of rapid growth as well as on-the-spot findings of enterprises entering China and to be abstract and conceptional researches.

Therefore, this study investigated basic directions of concrete and systematic logistics strategies based on Pan-Bohai Economic Rim that Korean enterprises entered the most frequently. The study investigated on-the-spot from point of view of practical practice.

3. The Chinese Logistics

3.1. The 4th Party Logistics

Despite remarkable development of logistics area in China, ratio of logistics expense of GDP of China is higher than that of advanced countries more than 10 percent. The fact says that the Chinese logistics development level is not high to have low efficiency. Last some years, logistics of China differed from that of advanced countries at quality and quantity of logistics management, profits, effective assignment of resources, prompt supply chain system of resource integration, and competitiveness of logistics enterprises, and integration.

The 4th party logistics could be developed subject to high level of 3rd party logistics and active outsourcing of supply

chain of enterprises: At the moment, the Chinese enterprises has almost no demand on 4th party logistics to be short of capability of promotion of inner development of the Chinese logistics. In Southern China, some of logistics firms, consulting firms and software firms publicly announced that they could give 4th party logistics services, and those firms regarded 4th party logistics as a kind of fashion without transportation and/or warehouse. Those firms are said to have information technology to be short of supply chain design ability and to regard 4th party logistics as a kind of commercial advertising. This was because they did not cognize 4th party logistics nor investigated needs of 4th party logistics deeply to imitate commercially. Currently, Chinese 4th party logistics has great difficulty not to overcome soon.

4. Development Strategies of the Chinese Logistics

4.1. Chinese Government's Development Strategies

4.1.1. Chinese Government's Problems

The Chinese government has strategical policy of logistics market development of 'logistics control and promotion'. However, the government has not released enforcement plan so far, and each administration has development plan and equipment on logistics market to be short of control and supervision of all of the markets. The Chinese logistics market has been very much complicated because many control organizations that are scattered and diversified. So, 4th party logistics is very much difficult to introduce it.

The logistics information system controls logistics information in integrated way. Logistics information's asymmetry prevents not only norms but also horizontal dispersion of logistics upon request of interior of enterprises, commodities market and consumption subject. Each independent economic organization has limited logistics information at specific range to close it and not to exchange enough and effectively. Annoying transportation, overlapped operations and transportation with small quantity of cargo wasted logistics resources. At the moment, 4th party logistics should solve difficult problems of reintegration of logistics resources to lessen incomplete and asymmetric information.

The Chinese logistics infrastructure and equipment conditions have distinct gap with the 4th party logistics development. China has had roads, railways, aviation, harbours, pipelines of 5 kinds of transportation systems so far to develop infrastructure, technology & equipment, control levels and transportation market, etc remarkably. However, logistics infrastructure could not satisfy supply as much as demand to have very much slow growth of infrastructure compared with economic development speed. Technical levels, facilities and structure of logistics facilities have been fallen behind, and equipment and facilities have not been standardized enough to be obstacles of the 4th party logistics development.

The 4th party logistics that has combined the 3rd party logis-

tics with IT and consulting ability requires high level professionals to support. However, high quality logistics professionals who can diagnose, investigate and evaluate supply chains of the shipper are in short supply. Logistics professionals shall have basic knowledge and plenty of experience on the logistics, and knowledge and capability of IT, human resources management and technology collection and others: But, professionals have not been trained systematically.

4.1.2. Problems and Development Strategies of the Chinese Government

China shall develop current industrial policies in balanced way to create high level development environment in order to develop modern logistics industries much more. Since July 2002, China has allowed 50% share foreign investors of the joint venture to give 3rd party logistics service in the area of international logistics service to compete with foreign enterprises in the future. The Chinese logistics enterprises shall strengthen power enough to compete with foreign-funded logistics enterprises in order to elevate international competitiveness: The 4th party logistics can strengthen competitiveness. The 4th party logistics concept has been introduced to make logistics industry one of strategic industries in the process of the Chinese economic development. The logistics information system is able to create effects, for instance, minimized inventory, rational transportation and shipping, and planned production and so on.

The 4th party logistics enterprises shall make effort to develop IT technology that is base of one stop integrated logistics service and to make supplementation system such as cooperation relationship to let small-sized businesses make use of latest logistics information system. Information system shall be standardized to attain strategic tie-up, and the Chinese government shall have strong will and invest continuously to introduce the system.

The Chinese government has integrated logistics resources again by an unified plan to invest logistics infrastructure more that is still in short supply. So, the Chinese government shall standardize basic facilities of logistics infrastructure to have norms of logistics industry development policy, and to construct logistics complex, bases and centers in China in reasonable way. Standardized logistics businesses based on norms shall develop logistics with support of the government's strong will.

The Chinese government has opened logistics subjects in colleges to introduce logistics enterprise development and certification system that is still insufficient. The 4th logistics enterprises need a lot of logistics professionals who are important to develop 4th party logistics. The ones who have logistics professionalism to experience management shall educate and train systematically logistics experts to let them learn information technology, human resources management and network technology at business groups and logistics management.

5. Chinese Logistics Infrastructure Prospects and Promotional Strategies in Korea

5.1. Chinese Logistics Infrastructure Prospects

The Chinese logistics market is likely to grow up rapidly owing to rapid economic growth and expansion of volume of the trade to have good market potential and development prospect. Golbalinsight, market survey agent in the United States, said that China occupied 8% of ratio of international trade in the world in 2011 to be 14% in 2020 and to be the largest international trade country:

First, effective control of logistics is likely to save expenses and to increase demand on harbor, aviation, express delivery and cold chain and to raise development speed of logistics system. Second, logistics market shall be divided depending upon characteristics of each product, and logistics enterprise of specific products make appearance to establish supply net of the Chinese logistics market based on important competitiveness. Third, local governments in not only along sea coast but also middle and western regions shall make effort to expand logistics infrastructure. Fourth, enterprises shall expand autonomy to elevate efficiency and to put customer-oriented multi-functional and added value services into practice. Fifth, foreign enterprises' entry into Chinese logistics market at opening of the market to have keen competition between state owned enterprises, private enterprises, China-foreign country joint venture and foreign independent finance enterprise and to merge enterprises at the competition. Sixth, not only application of supply chain management (SCM) for development of logistics industry but also supply of finance for high quality labor force is likely to be strengthened. Seventh, same line of businesses under competition shall build up joint distribution center to integrate transportation business and warehousing business and to produce large-scaled logistics enterprises.

Currently, foreign logistics businesses have entered Chinese market actively to compete keenly each other, and international logistics enterprises such as EXCL, Danzas, Maersk, APL, UPS and DHL have established logistics operation system by using IT technology to provide multi-national enterprises with export-import logistic services, while the Chinese logistics enterprises such as COSCO, Sinotrans, China and Post have opened nationwide network in China to be likely to give Chinese enterprises domestic logistics services.

5.2. Promotional Strategies of the 4th Logistics Enterprise in Korea

In the United States, various kinds of logistics businesses, for instance, land, sea and air, have been developed in enormously spacious territory for a long time, and enterprises (shippers) have recently made use of e-commerce based logistics services constantly. In Western Europe where international logistics has been developed for a long time, enterprises had consigned lo-

gistics activities to outside logistics business considering expensive labor cost as well as heavy taxes to elevate management efficiency. In Korea, large-scaled and special logistics enterprises are able to develop 4th party logistics business, so that the Korean Government shall keep systems in order to support tax systems and to expand information services and to support infrastructure build up and to take effective measures as soon as possible.

5.2.1. Logistics enterprises

Logistics enterprises shall develop the fourth party logistics:

First, logistics enterprises shall have large scale. This is because most of logistics enterprises in Korea with small scale handle subcontracting of logistics business not to be given reliability of logistics outsourcing from shipper. The Ministry of Land, Infrastructure and Transport had announced revision of enforcement regulation of the Maritime Act in August 2009 to strengthen registration standards of outer port freight transportation business (common freight transportation) two times that is currently effective. The outer port freight transportation business was converted from license system to registration system on August 7, 1996 and to alleviate greatly registration standards on October 8, 1999 from 30,000 ton of total tonnage of the ships kept to 5,000 ton, and from 1 billion KRW of the capital to 500 million KRW. As a result, number of business registered of outer freight transportation rapidly increased from 33 in 1999 to 181 at the moment, and most of them have been small business and some of the businesses that did business based on charter did dishonour bills at fall down of freight charge at maritime business stagnation at the end of 2014 to do idle business. The Ministry of Land, Infrastructure and Transport said that 110 enterprises registered had less than 10,000 tons ships and/or less than 1 billion KRW capital to exceed 60% and 24 enterprises did idle business. The Ministry of Land, Infrastructure and Transport shall strengthen registration standards of outer port freight transportation business to develop maritime market and to readjust enterprises registered to realistic level. Domestic 4th party logistics enterprises shall do merge and acquisition to have strategic ties between businesses and to have large business scales. Logistics enterprises may have large scale by M&A and/or logistics collaboration.

Second, professionals who have the fourth party logistics service ability shall be trained. The fourth party logistics suppliers are commonly asked to have world level supply chain strategies, process design, integrated information technology and human resources control. The professionals are able to keep them not easily but by plenty of learning and/or input of resources. Only one of graduate school of the logistics has been opened in Korea. Plenty of professionals have worked for some areas of the third party logistics, for instance, warehousing and transportation, etc, and they rarely have special knowledge and/or know-how and professionals having information technology and/or logistics technology are in short supply. The fourth party logistics has innovated and performed not only IT but also SCM at the same time to have large demand on professional who

have logistics and information technology.

Third, the professionals shall be able to connect logistics with IT. The third party logistics has put an emphasis upon transportation and/or warehousing, while the fourth party logistics has done SCM integration business including IT and consulting to combine IT, logistics technology and consulting.

5.2.1.1. Manufacturers

Shippers shall give up prejudice on logistics outsourcing. They shall cognize competitiveness from logistics service to think of values of logistics outsourcing. They shall keep low inventory as much as possible to save transportation, storage and distribution costs from supply of raw materials of SCM to delivery of finished product and to build up high level logistics system and to improve customer services. So, manufacturers shall concentrate management supports on core competence as much as possible to do outsourcing of logistics services from the fourth party logistics and to save logistics costs and look for good customer service and efficiency. In the United States and/or Europe, logistics management is thought to be important and to be decided by top management, while in Korea, logistics management is mostly given lower priority than remaining areas and sometimes no department is responsible for overall logistics.

Second, shippers shall destroy shutdown of corporate culture. To build up logistics and distribution system being suitable to customer management strategies, the fourth party logistics enterprises need information on sales forecast, supply, production and transportation and so on from customers. However, manufacturers in Korea often do not disclose information under closed corporate culture, so that they shall establish reliability based partnership to introduce the fourth party logistics. Third, shippers shall manage the ones who can integrate logistics service suppliers to have excellent technology and coordinate interest relations. In other words, company-wide human resource management including training of logistics professional in the company shall be used. Information system and technology that are widely used can put it into practice for a short time to overcome technical difficulties. However, expectation on human resources, that is to say, members has not been communicated properly to produce undesirable results because of distrust and/or shortage of improvement will. As soon as building up inventory management and/or information system, management think of automatic solving of human resources management in organizations and/or between organizations. However, management of relations between individuals of organization may be the most difficult: Without competence and/or activities between members and/or reliability on the information, information system and contracting and other factors shall not play roles. So, not only integration of logistics service suppliers but also human resources management is needed. Fourth, benchmarking based on cases of introduction of the fourth party logistics is needed. Success cases of the fourth party logistics in foreign countries shall be used to do benchmarking of profit production not by logistics outsourcing by using the third party logistics businesses

but by logistics outsourcing in the fourth party logistics.

5.2.1.2. Efficient SCM and Responsive SCM

The purpose of efficient supply chain is to control flow of materials and/or services and minimize inventory and to maximize efficiency of not only manufacturers but also service businesses in supply chains. The responsive supply chain shall set position of not only inventory but also production ability in preparation for uncertainty of the demand to take prompt actions against market demand. Efficient SCM may be suitable to environment that demand forecast is very much easy, for instance, grocery's basic food product and/or packed delivery service. The supply chain lessens inventory as many as possible based on effective flow of materials and services. Product and service design lasts for a long time owing to market characteristics to produce new products rarely and to have no variety. Prices play an important role at ordering in the market to have low contribution margin and to emphasize efficiency. As a result, corporation gives competition priority to production with low cost, even quality and keeping of delivery time.

On the other hand, responsive SCM may be suitable to the environment with various products and/or services and difficult demand forecast. Production of product and/or services is not known before a customer places order. Responsive SCM is focused on lessening of response time to reduce selling of inventory with discount at bargain price. Enterprises that have selected mass customization and/or assemble-to-order strategy also have same situation. Those enterprises shall release new products and/or services continuously to keep competitiveness and enjoy high contribution margin owing to innovation of the product and/or services. Responsive SCM has competition priority of development speed, quick delivery, customization, flexible quantity and high performance design quality and so on. Management of enterprises focused on specific market may make use of both types of supply chain.

5.2.1.3. Manufacturers' Logistics Enterprises Selection Procedures and Methods and Rating Factors

Manufacturers may select logistics enterprises in four ways, that is to say, open competitive bidding, existing suppliers, private contract and selection of logistics subsidiary, and large businesses prefer open bidding and small businesses do continuous transaction with existing supplier. Both of them select logistics enterprise considering contract price, logistics enterprise's reputation at market, service level and scope, financial stability, professionals hired and knowledge, information system and harmony of corporate culture and so on.

Manufacturers do outsourcing in order of mid-to-long term goal setting of outsourcing, investigation into core competence, investigation into areas of outsourcing, and selection of outsourcing performance. Outsourcing is performed in order of investigation into organizations from point of view of process, investigation into strategic values and risks, investigation into interconnection of technology, functions and processes, and check analysis of cost upon both outsourcing and in-sourcing, and in-

vestigation into value creation. At selection of the fourth party logistics, shippers shall consider knowledge and experience on logistics service, job performance in the past, substructure for partnership control, interest in the quality, consideration to the partners, flexibility and compatibility between enterprises. Shippers shall consider logistics outsourcing not for simple cost saving and/or reduction of number of employees but for better competitiveness and higher capital productivity by strengthening of core competence.

5.2.1.4. IT-based and Differentiated Logistics Services

The Chinese Government has actively promoted information policy to let Chinese enterprises invest in various kinds of information system, and the Chinese shippers and 4PL mostly have not introduced information technology much. Small logistics enterprises in China cognized needs of introduction of IT system for better logistics services, and they have difficulties at enormous investment costs and recruitment of professionals.

Therefore, Korean enterprises that want to enter the 4th logistics market in China shall make ties with businesses of human resources, software, and information system to be able to give logistics service of IT development and to build up IT based state-of-the-art logistics network of electronic products, home appliances, automobiles and parts and consumables enterprises that are ready to cooperate with Korean manufacturers.

5.2.1.5. Cooperation with Korean Manufacturers and Distribution Business in China

A majority of Korean logistics businesses in China had difficulties at low reliability of expenses and time because quantitative and qualitative shortage of logistics services in China to lose competitiveness. Distribution enterprises are likely to solve not only distribution complex but also excessive investment with cooperation of Korean logistics enterprises and distribution enterprises, and logistics enterprises are likely to realize economy of scale and to produce stable revenue source.

5.2.1.6. Regional and Industrial Specialization Strategies

Many provinces and municipalities in China have their own cultures and features to have different characteristics and legal applications. In the beginning stage, regions that are easy to enter considering regional characteristics of Hwabei, Hwadong and Hwanan shall be selected. An approach with income-based and/or customer-based consideration of each company is needed to expand region based on experience of specific region.

5.2.2. Industrial Level

5.2.2.1. Entry into the Market Together with Manufacturer

Manufacturers shall establish strategic relations in initial stage of entry into Chinese market. Korean manufacturers that enter the Chinese market shall establish strategic relations with help of logistics enterprises. Global manufacturers in foreign countries have investigated appropriateness of the investment with help of

logistics enterprises at the stage of selection of place in the beginning of overseas investment to solve problems of logistics.

However, Korean manufacturers often tend to neglect values of the logistics. The manufacturers shall compete with competitors under quite different environment from Korea to establish partnership by ties with logistics business. Korean manufacturers shall have not only customer strategy but also long-term vision in the beginning stage to promote entry into the Chinese market.

5.2.2.2. Mutual Support System and Contact Point

The fourth party logistics enterprises of Korea that entered the Chinese market have meetings to exchange information regularly with Korean logistics enterprises at neighboring places and to have no system and to promote friendly relations based on specific business. Some of Korean enterprises in China have suffered from losses and damages because of bad impression in China on Korean logistics enterprises from which the Chinese people and/or Chinese enterprises suffered from losses and damages.

And, difficulties of Korean enterprises in China are not solved not to give ideas to agencies and/or organizations in China. Windows shall be opened to play the roles and to strengthen relations with Korean enterprises in China and to collect and give information systematically and to negotiate with agencies and organizations in China.

5.2.2.3. Joint Logistics Support Center

Most of the fourth party logistics enterprises in China have not system of logistics activities in China to bear plenty of burdens of logistics. The enterprises had difficulties at customs clearance, inland transportation, and storing and access to domestic demand market to be short of facilities and logistics services with systematic and efficient support and to have limitation on high competition at domestic demand market in China. Joint logistics support centers at major cities shall be opened to solve difficulties of local management activities.

Therefore, joint logistics support centers shall be opened to support logistics activities of inland transportation and customs clearance enterprises of Korea to do customs clearance and to transport and store jointly and to do combined transport by railways and/or roads and to give joint and/or special logistics information and to manage pallet and other logistics equipment and/or devices jointly.

5.2.2.4. Chinese Government's Open-door Policy and Legal Systems

The Chinese government announced alleviation of regulations on 2005 - 2006 foreign investment firms to develop logistics industry. Currently, Chinese government does not give foreign enterprise single license of transportation service of combined transportation to have limitation on entry into the market of domestic truck transportation business and to ask for joint venture with the Chinese enterprise to enter specific area.

Regulations of not only central government but also local

governments of province and direct-controlled municipality shall be considered. Currently, local governments in China have decide upon transportation ordinances such as "the Ordinance of Local Roads Transportation Control" at their discretion to be assigned permit of land and sea transportation depending upon money values. So, investigation into regulations at the place to enter is required.

5.2.3. Government-based Supports

5.2.3.1. Development of Special Logistics Enterprises

Logistics enterprises of Korea shall be free from transportation oriented logistics service to give services of storing, assembling, processing, export/import and others to build up growth base and to have large-scaled logistics enterprises and to be specialized and to develop special logistics enterprises with international competitiveness. Logistics enterprises shall be given political support to build up software and infrastructure for the supply of IT based high added value logistics services.

5.2.3.2. Tax Support

Logistics enterprises that invest in foreign countries shall be given incentive from the government to invest actively and to enlarge business scale and to have global competition system. The enforcement ordinance of the Special Tax Treatment Control Law shall expand scope of asset of deduction of temporary investment tax and to increase deduction ratio from 15% to 30%. Transfer income tax at M&A between logistics enterprises shall be reduced.

5.2.3.3. Standardized Logistics System

Logistics equipment and devices shall be automated and standardized to elevate work efficiency to standardize logistics system not only in Korea but also in Korea, China and Japan in North East Asia and to keep good situation at logistics competition in North East Asia.

General logistics enterprise shall expand facilities to build up logistics information system for effective processing and to develop state-of-the-art logistics technology and to give application conditions. Standards of logistics information system of the industry shall be made to promote globalization and to support logistics hub base in North East Asia by the government.

5.2.3.4. Professionals Training and Consulting Support

The government shall support training of professionals in charge of Chinese market. Training of professional requires long time as well as a lot of expenses of education, so that private enterprises have limitation on training at shortage of fund and absence of associated agency. The government shall open language course and explanation lecture of laws and regulations on-the-spot to establish and manage training school of general logistics practical practice enough to train working experts satisfying various kinds of demand of shippers, for instance, stevedore, warehousing, truck driving and handling of hazardous materials.

6. Summary

Global logistics enterprises have entered the 4th logistics market in China continuously that has very large market potential. The market is likely to expand owing to economic growth in China to let global logistics enterprise compete much each other. Currently, logistics infrastructure in China is not in completion stage but in initial stage of construction to have plenty of incompleteness, and the Chinese government has adopted intensive logistics policy to be likely to improve continuously. Current fourth party logistics in China is known to be at low level. Some of the Chinese enterprises having 4th party logistics related information and technology are unable to design supply chain to regard 4th party logistics as a kind of commercial advertising.

This study investigated problems under the Chinese logistics market environment, that is to say, problems of not only the Chinese government but also the fourth party logistics in China, to find out the most suitable development way:

First, the Chinese government has problems such as incompleteness of the 4th party logistics market, undeveloped logistics infrastructure, and shortage of logistics professionals. Coordination of the industrial policies, powerful promotion of logistics information system, strengthening of logistics infrastructure, prompt training of logistics professionals, fusion of both e-commerce and logistics industry, and leading roles of the government and so on.

Second, the fourth party logistics enterprises in China have problems and solutions: The problems include small sized logistics enterprises, shippers' shortage of cognition on logistics outsourcing, and lack of logistics services, and solutions include professionals of the fourth party logistics, logistics outsourcing, and diversification and integration of logistics services. The Chinese logistics market that has not been developed yet has a lot of market potentials to record two digits or more growth rate each year. The Chinese government thought of the fourth logistics industry that was core industry of economic development, and spent enormous budget to expand infrastructure and to build up systems and to alleviate regulations on foreign investors. The saying that logistics is last business area has been obsolete. Shippers have spent a lot of labor forces and finance at logistics area to attain high efficiency of corporate management that has been supported by the government policy. The fourth party logistics that is a kind of service industry has occupied the large scale of business area to require competitiveness the most in the era of internationalization. China that has the largest market in the world has joined WTO to destroy barriers of foreign trade more.

So, the fourth party logistics has been very much useful for the shippers. Effects of the fourth party logistics upon all of supply chains has increased corporate revenue to save operating costs and to lessen operating capital as well as fixed capital that has increased values of stockholders:

First, the fourth party logistics can increase firms' profit by better quality of products, higher efficiency of products, better

customer services and use of state-of-art-technology.

Second, higher work efficiency, process improvement and buying cost saving can lessen operating cost by about 15 percent. Careful selection of part, scale of economy and comprehensive outsourcing of supply chain can save costs and expenses. The ones who join supply chain shall share information to get technology and activities at the same time to integrate processes and to improve plans and practices of supply chain activities and to save operating costs as well as product costs.

Third, not only less inventory but also short cycle from ordering to collection of product payment shall save operating capital up to 30 percent. Order management shall be used to ship SKU(stock keeping unit) regularly in accordance with specific route and to let consumers buy goods easily and to shorten cycle time and minimize inventory.

Fourth, not only transfer of capital assets but also asset efficiency can lessen fixed capital. The fourth party logistics shall supply physical asset to let shippers do research and development, product development, sales business, and marketing and to innovate remarkably at better operating balance.

Business area can be distinguished to have good economy and/or bad economy considering wide scope of the logistics: To grow up with competitiveness and to survive, enterprises shall adapt them to changes.

The study had limitations: In Korea, the fourth party logistics has not become active yet. This study did not investigate Korean enterprises by empirical analysis and gave concepts of the fourth party logistics and promotional plans according to literatures at home and abroad.

Further studies shall investigate not only Korean model of the fourth party logistics but also training of logistics professionals to look for profits of both shippers and logistics enterprises.

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