The Current Situation and Future Prospects of Korean Logistics Industry

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Abstract. The study examines the current development and obstacles of Korean Logistics industry. It analyses Korean Logistics industry systems from four aspects (strengths, weakness, opportunity, threat) with SWOT method. Finally, the study reveals future prospects to strengthen competitive power of Korean logistics industry. This study provides some enlightenment for Chinese logistics industry to learn from Korean advanced logistics managements and operation experiences.

Introduction

Logistics is widely recognized as an important ingredient for a country to succeed in the globalization era. The development level of the logistics industry in a country reflects its national power and overall competitiveness. In recent year, the importance of logistics industry has been recognized among the North East Asian (NEA) countries. As leading countries in North East Asia, China and Korea have great influence both in the region and in the global market in terms of output and international trade volume. In this regarding, increasing in efficiency and effectiveness of logistics service in China and Korea would be benefit for the bilateral trade and cooperation, and strengthen the competitions of the two countries in the global market. Although two countries need to further development of logistics industry, Korean logistics industry is in the higher stage comparing with Chinese logistics industry, because of its comparative cost advantages. It is necessary to draw lessons from Korean advanced logistics management and operation experience, which will be great help to speed up Chinese logistics industry development. Therefore, it is important to gain further insight into the current development and future strategies of Korean logistics industry.

Current States

Environmental Changes in Logistics Industry

Globalization, development in information and communications technology, and trade liberalization has contributed to the integration of commodity markets, and the movement of international capital has increased at high speed. Based on the current situations such as ever increasing trade across the world and globalization of companies, it is predicted that there will be notable increase in the world traffic of transportation and the demand for logistics globalization. Korea, which is highly dependent on exportation, is likely to be under the influence of those situations.

Meanwhile, Asia is emerging as the hub of the container shipping market accounting for 45% of the total traffic across the world (The container traffic in Northeast Asia is 34% of the total). The Northeast Asian countries have extended their logistics infrastructures competing seriously to hold the predominant position in logistics.

Moreover, China is rising at a notable speed as a manufacturing hub in the global supply chain. The economic position of China in the world has contributed to creating domestic and international demands of Korean logistics, which is expected to be a new source of profits for global logistics companies.

Finally, the rapid growth of electronic commerce creates demands for shipping and the need for new logistics services differentiated from existing ones. Korean Logistics has shown great development across the world responding to these demands, and is expected to grow more than ever before.
Logistics Services Infrastructure

Increasing Investment in Railroads. Korean government moved away from road-oriented infrastructure investments to increase investment in railroads. About 9~10 trillion won was collected in transportation taxes every year and 65.6% was invested in roads and less than 20% in railroads. An adjustment will be made increase railroad investment to 20~30% and lower road investments to 54~60%. Such as Multi-trackage rate: 32.3% (2003) --51.4% (2009) -- 80.0(2019); Electrification rate: 21.7% (2003) -- 61.9% (2009) --82.0 (2019).

Hubbing Incheon International Airport. Korean government executed Stage 2 of Incheon Int’l Airport Project: Total of 5.9 trillion won will be invested by 2008 to add one more runway (from 2 to 3 runways) and enlarged parking area from 365,000 to 560,000pyung, and to construct cargo terminal measuring 30,000 pyung.

Hubbing of Busan and Gwangyang Ports (From 2010-2015). Korean government built 29 more berths at New Busan Port and 21 berths at Gwangyang Port by 2011. And these berths have achieved development of adjacent complex 930,000 pyung at New Busan Port by 2013 and 590,000 pyung at Gwangyang Port by 2011 to enable them to serve as integrated logistics nodal port.

Expansion and Linking of Logistics Nodes and Improving Information of Logistics. Korean government built logistics nodes in 5 major regions (Jungbu regions, Youngnam regions, Honam regions, Seoul regions and Busan regions) and equipped freight terminals with processing/assembly facilities so that they can function as integrated logistics terminals. Meanwhile, Korean government is also integrating information technologies into the logistics industry.

Logistics Services Providers

The logistics industry in Korea has rapidly grown over the past ten years. Multinational, major manufacturing and wholesale companies have concentrated on the internal and external efficiency and effectiveness of supply chains in an effort to reduce logistics costs. To that end, some companies have established their own logistics companies: second-party logistics (2PL) companies (also known as subsidiaries) owned through mergers and acquisitions in the logistics industry. The importance of logistics has increased and subsidiaries of major shippers have dominated the logistics industry market in Korea, extending the scope of scale and services. Major shippers focus on allocating resources to core competitiveness as logistics outsourcing, and this raises the competitive productivity of 2PL firms to concentrate the limited resources in house. Logistics subsidiaries usually have a greatly increased compound annual growth rate (CAGR) in their turnover. Key logistics subsidiaries such as Glovis, Pantos, and Samsung-Logitech have grown rapidly for the past decade, with approximately 15-40% CAGR, whereas the key 3PL companies, such as Korea Express and Hanjin, have increased steadily with an approximately 8% CAGR, which is relatively low when compared to the subsidiaries (Table 1).

Table 1. Turnover growth of major logistics companies in Korea (Unit: 100 million won).

<table>
<thead>
<tr>
<th>Category</th>
<th>2001</th>
<th>2005</th>
<th>2009</th>
<th>2010</th>
<th>CAGR</th>
</tr>
</thead>
<tbody>
<tr>
<td>2PL</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Glovis(Hyundai-KiaMotors)</td>
<td>15,408</td>
<td>31,928</td>
<td>58,340</td>
<td>41.0%</td>
<td></td>
</tr>
<tr>
<td>Pantos(LG Electronics)</td>
<td>1,867</td>
<td>10,009</td>
<td>11,346</td>
<td>16.7%</td>
<td></td>
</tr>
<tr>
<td>Samsung-Logitech</td>
<td>1,621</td>
<td>8,256</td>
<td>11,012</td>
<td>26.3%</td>
<td></td>
</tr>
<tr>
<td>3PL</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Korea Express</td>
<td>9,597</td>
<td>11,717</td>
<td>18,317</td>
<td>20,977</td>
<td>8.6%</td>
</tr>
<tr>
<td>Hanjin</td>
<td>6,061</td>
<td>7,427</td>
<td>9,032</td>
<td>10,847</td>
<td>8.0%</td>
</tr>
</tbody>
</table>

Source: Annual report of each company

Government Logistics Policies

Korea government has been developing comprehensive logistics plans and regulations since the 1990s. Prior to this, logistics plans focused on one transport mode at a time. Since the 2000s, logistics policies have focused on developing logistics as an industry, rather than a supporting function of manufacturing, and developing the Korea as a logistics hub. As a concrete sign of this, the Goods Distribution Promotion Act enacted in 1991 was replaced by a comprehensive Framework Act on
Logistics Policies in 2007. Every five years, a 10-year National Logistics Master Plan is developed based on the guidelines set by the Act.

The Framework Act on Logistics Policies provides the legal framework for the development of the logistics industry. It sets out the duties of both public and private sectors at various levels (from national to local), and draws particular focus on the institutional support for the industry and the promotion of efficiency and competitiveness. The Framework Act stipulates the formal process for the development of the national logistics plan. It addresses the efficiency of the logistics system through three factors. Firstly, the expansion of logistics facilities and equipment is supported by tasking the Ministry of Land, Transport and Maritime Affairs (MLTM) and the Ministry of Knowledge Economy with recommending and supporting (administratively and financially) the expansion of facilities and equipment by logistics enterprises. Secondly, standardization of logistics, in terms of equipment and calculation of logistics cost in particular, is encouraged. Thirdly, the importance of developing ICT capacity for logistics efficiency is recognized. In addition, the Act supports the construction of function specific and integrated logistics information networks by relevant government agencies.

Current Obstacles

Development Infrastructure

Although Public logistics facilities such as IFT and logistics center are continuously expanded, Hub & spoke function of national logistics network is not activated and each facility is not connected. Therefore, National logistics cost for import and export is increasing. Moreover, Road-oriented transportation system is continuously expanding to above 70%, which leads to overinvestment. The coverage of International transportation facilities is duplicated with each other. Lastly, confrontation of Environmental issues is still not sufficient.

“Software” Infrastructure

Some action items such as establishing the National Plan for logistics standardization public R&D for developing logistics standard technologies certification of standard logistics facility and instrument are continuously performed for constructing efficient logistics process. However, during recent 10 years most public IT projects in logistics division didn’t make a good performance. In terms of information and standardization, domestic logistics process is still behind international logistics such as customs freight forwarding marine and air transportation. Meanwhile, for cultivating logistics specialists and creating employment in logistics industry graduate school of logistics is opened by government fund and certification program for logistics specialist is improved into new program. But supply of logistics workforce is not sufficient in terms of logistics specialists and field operators

Domestics Logistics Industry

3PL promoting programs such as Certification program for integrated logistics company Tax Incentives for activating logistics outsourcing supporting consulting programs for logistics outsourcing is continuously processed. But logistics market system is seriously corrupted with transport unions’ strikes and bad management of SMEs. In addition to, domestics and functional service focused industry is more expanding, but the level of internationalization comprehensiveness economy of scale in logistics industry is not sufficiently matured. Finally, the policies are still lack for supporting SMEs in logistics industry.

Global Logistics Network

Korean government is continuously expanding global logistics infra such as Incheon international airport and its hinterland Busan New Port and other specialized international ports. But some facilities are not activated currently. In example Gwangyang Port and Chungju/Muan Airport is not sufficiently activated as we anticipate. Another problem is that most of int’l logistics facilities are operating as export/import gateways, because they partially failed to attract global logistics company

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or manufacturing company. Therefore, increasing rate and value-added of freight are decreased in Busan Port, Incheon Airport and their hinterlands. In addition to, bad relationship with North Korea caused to delaying construction of continent-connected logistics network. Lastly, global network is not efficient for global shippers and not valuable for logistics companies, which leads Korean logistics companies often failed in global business.

**Establishing a Base of National Logistics System**

Through making a supporting group for activating logistics globalization regional committees of logistics policy and regional logistics master plan, Private-Public relationship in logistics is getting concrete. But some important national logistics projects are delayed because of a different view within logistics related ministries. As developing the national information depository was delayed, credibility of logistics policy is also decreased.

**Future Prospect**

There are four visions of Korean national logistics master plan for 2011-2020. One more objective is added to the previous version and a vision of master plan is also slightly changed with consideration of new objective. These visions further feed into three strategic objectives, contributing to five development strategies.

Each strategy is translated into specific implementation tasks. For the development of the infrastructure, there are six distinct tasks: Upgrading policy coordination mechanism for constructing an optimistic logistics network; Enhancing city logistics competency for constructing efficient regional logistics; Facility based logistics network plan changes to focus on connection with facility and transportation mode; Preparing the strategic approached for activating modal shift using railways; Developing physical and institutional tools for activating short sea shipping; Continuously developing additional port infra and improving current-operating infrastructure.

The development of “hardware” is complemented by six implementation tasks for “software”: Organization for processing and designing logistics policy have to be regularly operated; Constructing and improving the information infra for enhancing the national logistics visibility; Making better welfare and working condition in logistics industry for ensuring static and outstanding logistics human resource; Constructing human resource management system with consideration of customer’s needs; Consolidation of logistics standard policy; Preparing the total plan and supporting tools of logistics collaboration. The Master Plan addresses sustainability from several perspectives: Preparing a preceding and consolidated plan confronting new issues such as green and security; Constructing a regular control system for ensuring justice and fairness, and eliminating illegality in business relationship without blocking market function; Improving institutions and infrastructures for enhancing social stabilization and safety; Constructing sustainable growth power for confronting with the change of future society, such as aging, automation, and so on.

Main approaches for globalization: Developing various globalization strategies considering unique characteristic of each logistics industry, and continuously creating relationship with the related industries as finance; Preparing a comprehensive approaches confronting with various environmental changes in global logistics, such as regional economy unification by FTA, opening arctic route; Strengthen value-added business infrastructure of our international gateways(such as Busan Port, Incheon Airport and so on) and continuously expanding the related transport networks; Logistics companies specialized in international transport separate improving strategy with 3PL.

To improve the industry’s international competitiveness, logistics hubs are to be further developed into industrial complexes: Through increasing market stability, upbringing competing power against global logistics service providers; Inducing autonomous market restructuring; Expanding market size for pursuing economy of scale; Improving abilities to re-invest through high value-add and profitability.
Conclusion
This study attempted to reveal the current development and future prospect of Korean logistics industry. The global third party logistics market is changing faster than ever before. In this complex and capital-intensive market, logistics industry is extending their business networks at a high speed to dominate the world industry. Integration in Northeast Asia will lead to the increase of the potential benefits to countries. Global logistics corporations including China and Korea have being pushed forward with various strategies for improving their competitive edge in logistics. The logistics industry market size in Korea has rapidly grown for the past 10 years. It is striving to construct more complete SCM. It is obvious Korean logistics industry is in the higher stage comparing with Chinese logistics industry. China can learn a lot from Korea in logistics developing process. Chinese logistics industry can draw lessons from Korean advanced logistics management and operation experience, which will be open and enlighten to speed up Chinese logistics industry development.

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Reference