Journal of Korea Port Economic Association, Vol.25(1), 2009, pp.87~106
한국항만경제학회지 제25집 제1호 (2009. 3)
www.kportea.or.kr

Benchmarking Ascension Prospects for the Gwangyang Port as a Hub for International Logistics

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국제물류허브를 위한 광양항의 벤치마킹 증대방안

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목 차

Key Words: Benchmarking ascension, Gwangyang Port, Free Trade Zone(FTZ), International logistics

Abstract

This paper is intended to suggest benchmarking ascension for the Gwangyang Port as a hub for international logistics. Most countries that seek to join, and lead, the global trading system as they work to develop production and logistics systems that establish a reputation for leadership in international logistics. Our focus in this research is on the Gwangyang Port and whether Gwangyang Port is capable of carving out a competitive niche as a hub of international logistics. Our analysis is based on comparison and analysis with benchmark port developments around the world.

As proposals to promote and activate Gwangyang Port as a hub for international logistics, we recommended in this paper several benchmarks. First, Gwangyang Port FTZ must strengthen the incentive system for tenant companies and providing an inducement for new global companies. Second, Gwangyang Port needs to moderation of regulation on the investment tenant companies and strengthening one-stop service. Third, it is required to stabilize labor and management relationship and securing of flexibility of labor market. Lastly, Gwangyang Port must strengthen mutual interaction of Free Economic Zone(FEZ), Customs Free Zone(CFZ) and Free Trade Zone(FTZ) in Korea.

▷ 논문접수: 2009.1.10 ▷ 심사완료: 2009.03.06 ▷ 게재확정: 2009.03.10
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I. Introduction

To the casual observer of the history of trade led economic growth there seems to be an obvious connection between port facilities, and trade logistics infrastructure more generally, and the capacity for trade innovators to facilitate the creation and dissemination of wealth. However, in the competitive environment of modern manifestations of globalization, academics and practitioners continue to explore the subtle effects of globalization and trade policy on localized economic growth patterns and potentials. This problem is increasingly complex as local, regional and national governments become more involved in facilitating increased investment in trade related infrastructure.

As a result of patterns of trade that have developed within the World Trade Organization (WTO) system, we have observed drastic changes in political and economic environments as countries seek to establish both comparative and competitive advantage. As one significant element in this strategic evolution, we have increasingly observed the emergence of territory independent trade arrangements based upon the notion of Free Trade Zones (FTZ). These institutional arrangements are designed to capture both cost efficiencies and mitigate exposure to the effects of legal and political barriers to trade. Strategic placement of FTZs in proximity to port infrastructure and other logistics hub facilities can lead to a reduction in both domestic and international logistics costs as countries and companies seek to capitalize on locational and institutional advantages. This strategy is dominated by anecdotal evidence that efficient port operations have an important influence on export competitiveness, and thus national economies, as logistics costs are minimized and reduction in time to transport goods to market is realized as an important part of the value driven supply chain.

As countries pursue trade liberalization strategies they appear to confront a market dichotomy. On the one hand, leaders of countries around world express an understanding of the value creation and wealth building effects that result from free trade but on the other hand they actively erect barriers to competition as they seek establish a sustainable presence in the marketplace. This is not unlike the businessman that boasts of his commitment to free market principles and need for open access to markets until he has an established presence in the market with exposure to significant capital risk . . . then he wants to erect as many barriers to competitive encroachment on his market share as possible. Most countries that seek to join, and lead, the global trading system as they work to develop production and logistics systems that establish and anchor a reputation for leadership in international logistics. Most recent successful examples include China, Hong Kong, Singapore, Taiwan, Dubai and the Netherlands. In each case, governments have made significant infrastructure investments in order to develop a hub of global production and logistics as a major strategy to catalyze regional and national economic development. Others have been a little later to the game, but have significant potential to emerge as significant forces for change in the global logistics landscape.

Institutional arrangements that support innovation in the global logistics landscape include the establishment and operation of free ports, free trade cities, customs free zones (CFZ), free trade zones (FTZ) and other agreements that foster the creation of efficient trade activities around its major ports. These strategies are designed to encourage increased trade volume, increased domestic production, and thus increased economic well being of a region's residents.

In the specific case of Korea, revisions to its "Free Trade Act" in 2004 together with the integration and operation of the Customs Free Region Act and the Free Trade Zone Act have significantly enhanced its competitive posture in the competition for a larger share of global trade facilitation in the region. Currently, Korea has established FTZs in Masan, Iksan, Gunsan, Daebul Region, Busan Port, Gwangyang Port, Incheon Airport and others. Our focus in this research is on the Gwangyang Port and whether Gwangyang Port is capable of carving out a competitive niche as a hub of international logistics. Our analysis is based on comparison and analysis with benchmark port developments around the world.

II. Status of the Gwangyang Port FTZ

Gwangyang Port was developed by the Korean government to establish a world class port facility that would maximize the efficiency of land used and drive significant savings in global trade logistics costs. The role of Gwangyang Port has become more important to Korea's overall trade strategy because of the central role it is expected to play in facilitating the increase of trade volume expected to follow trade expansion within the Northeast Asian region, including trade between Korea and China. Geographically, Gwangyang Port is equipped with natural features needed for a deep water port facility along with hinterland areas proximate to the port that are available for the siting of affiliated and complementary business activities. Also, because of relative proximity to Busan Port it can play a broader facilitating role for trade related economic activity already occurring in the region.

With the logistics facilitation capacity of the Gwangyang Port, Korea is able to effectively manage port operations in a way that virtually eliminates extended vessel backlog. Increased competition with other ports (particularly port facilities in China) seems to have had an effect of flattening the rate of growth in container volume at the Gwangyang Port (between 9% to 11%) during the 2001 to 2005 time period. However results for 2006 suggest a significant leap in container volume to almost 22% growth over 2005 container volume.

<Table 1> Status of nationwide container cargo processing by volume and degree of concentration

Classification (Year, %)	Nationwide	Busan Port	Gwangyang Port	Incheon Port	Other Ports
2000	9,116,448 (100.0)	7,540,387 (82.7)	642,230 (7.0)	611,261 (6.7)	86,274 (1.0)
2001	9,990,111 (100.0)	8,072,814 (80.8)	855,310 (8.6)	663,042 (6.6)	140,477 (1.4)
2002	11,889,798 (100.0)	9,453,356 (79.5)	1,080,333 (9.1)	769,791 (6.5)	309,781 (2.6)
2003	13,139,516 (100.0)	10,366,881 (78.9)	1,183,876 (9.0)	820,130 (6.2)	453,361 (3.5)
2004	14,523,138 (100.0)	11,491,968 (79.1)	1,321,865 (9.1)	934,954 (6.5)	774,351 (5.3)
2005	15,216,460 (100.0)	11,843,151 (77.8)	1,441,259 (9.5)	1,148,666 (7.6)	783,384 (5.1)
2006	15,964,896 (100.0)	12,038,786 (75.4)	1,755,813 (11.0)	1,377,050 (8.6)	793,247 (5.0)
2007	17,544,000 (100.0)	13,261,000 (75.6)	1,723,000 (9.8)	1,664,000 (9.5)	896,000 (5.1)

Data: "Status of concentration of container cargo", Homepage of the Korea Container Terminal Authority, (http://www.kca.or.k)

Ports and their hinterlands are designated as port free trade zones at the working level, and the minister of maritime affairs and fisheries has authority over them. The piers and hinterlands of Busan new port and Gwangyang port, the core parts of the Busan Jinhae Free Economic Zone and the Gwangyang Free Economic Zone, were designated on October 30, 2003 for the residential and business support of foreigners.

On December 31, 2004, they were also designated as free trade zones for logistics and manufacturing businesses.[1] <Table 2> presents the most significant elements of the Gwangyang Port investment.

<Table 2> Designation status of the Gwangyang Port Free Trade Zone

Development Description	Size (㎡)	Date of Implementation
Phase 1 and Phase 2-1 container terminal	1,388,000	January, 2002
Sebang Company LME warehouse	52,000	March 28, 2003
Expansion designated,:	5,315,000	December 31, 2004
· Phases 2-2, 3 1and 3-2,	2,597,000	Under Construction
· Port hinterland,	2,360,000	
· Others (roads, etc.),	358,000	
Total	6,755,000	

Data: Gwangyang city, "Introduction of Gwangyang Port", *The report of Gwangyang Port*, 2007, p.13.

III. General Concepts of Korean Free Trade Zone Designation

Many characteristics of FTZs can be found in literature. As a general rule, the following four characteristics highlight the main elements of a free trade zone:

■ fenced in industrial estates specializing in manufacturing for export and offering their resident firms free trade conditions and a liberal regulatory environment (World Bank, 1992).

■ industrial zones with special incentives set up to attract foreign investors, in which imported materials undergo some degree of processing before being re exported (ILO, 1998)

■ clearly delimited and enclosed areas of a national customs territory, often at an advantageous geographical location (Madani, 1999) with an infrastructure suited to the conduct of trade and industrial operations and subject to the principle of customs and fiscal segregation.

■ a clearly delineated industrial estate which constitutes a free trade enclave in the

1) Gwangyang city, "Introduction of Gwangyang Port", *The report of Gwangyang port*, 2007, p.12.

customs and trade regime of a country, and where foreign manufacturing firms, mainly producing for export, benefit from a certain number of fiscal and financial incentives (Kusang & Tzannatos 1998).[2]

Free trade zones are established with the objective of having a positive effect on the economy.[3] Many countries operate special customs areas, such as free trade zones and export processing zones.[4] The United States may have the most developed network of free trade zones, but such zones (or their equivalent) can now be found in most trading countries. They go by many names, such as "foreign trade zone", "free port", "free zone", "customs free zone", "industrial free zone" and "transit zone."[5]

Resident companies in free trade zones receive various incentives such as zero customs duties, tax reductions, several other exemptions, and low rents.[6] A variety of activities can be conducted in a free trade zone, including assembling, packaging, destroying, storing, cleaning, exhibiting, re packing, distributing, sorting, grading, testing, labeling, repairing, combining with foreign or domestic content, or processing.[7]

Based on the definitions above, the common characteristics of the free trade zone concept are:

1. Above average business infrastructure. Within a fenced industrial estate, tenants are provided with above quality infrastructure and services compared to the standards of the host country such as land, office space, utilities, logistics service, business services and other facilities.

2. More flexible business regulations. Customs services are streamlined and red tape is kept to a minimum by employing a one stop shopping strategy for permits and investment applications. Labor and other business related legislation is generally more flexible compared to the laws and regulations applied to business located elsewhere in the host country.

3. An offshore location. The free trade zone is chosen as a location for business activities moving offshore, away from the markets where the finished products are sold in search of a low or lower cost manufacturing basis.

4. Focus on exports. Enterprises located within the zones produce mainly or

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2) UN, *Free Trade Zone and Port Hinterland Development*, United Nations, New York, 2005, p.6.
3) *Ibid.*, p.7
4) Dennis Puccinelli, *Foreign Trade Zone: U.S. Customs Procedures and Requirements*, Foreign Trade Zone Board, 2002, p.1.
5) Josh Martin, "Gateways for the Global Economy", *Management Review*, December 1998, p.23.
6) GFEZ, "Free Trade Zone", *GFEZ Journal*, Vol.7 · 8, July/August 2006, p.19.
7) Ian MacLeod, "TIC's Questions and Answer", *Foreign Trade Zones*, June 2000, p.1.

exclusively for foreign markets.

5. Attractive incentive packages. Major components of the FTZ concept are the incentive packages offered to foreign investors. These include:

- Unlimited duty drawbacks or exemptions from import duties on raw materials, intermediate inputs and capital goods used in the production of exported products.
- Exemptions from the payment of sales tax on exported products as well as on all goods and services domestically purchased and used in their production.
- Tax holidays, rebates of reduced tax rates on corporate income or profits, linked to the export performance of companies or to the percentage of exports in total production.[8)]

In Korea, a FTZ designation describes an area where economic agents are granted exemptions from customs and trade regulations concerning manufacturing, logistics, and distribution. Each zone is designated in the "Act on Designation and Operation of Free Trade Zones"(abbreviated as the Free Trade Zone Act). Industrial complexes, airports, ports, and their hinterlands, logistics complexes, and freight terminals which meet certain qualifications stipulated by applicable laws, can be designated as free trade zones by the minister of commerce, industry, and energy at the request of the head of a central administrative agency, a city mayor, or a provincial governor in Korea.

Ⅳ. Prospects for the Gwangyang Port FTZ as a Hub for International Logistics

1. Strengthening the incentive system for tenant companies and providing an inducement for new global companies

Global competition for logistics facilitation and the host of services provided by port facilities and attendant FTZ's is intense. In order for the Gwangyang Port FTZ to be successful in carving out a strong niche in this market it will need to be aggressive in establishing both comparative and competitive advantage. In this vein, both legal framework and institutional structure will be important elements in framing the

8) UN, *op. cit.*, pp.6-7.

competitive posture of the Gwangyang Port FTZ. As one element of this competitive posture, the management environment for foreign investment companies and the accompanying business environment offered to foreign investors will need to be improved. The challenges of creating optimum policy rules for taxation, customs, financing incentives, foreign exchange, securities and fair transaction, labor and management relationships should be of paramount concern. In addition attention will need to be paid to building convenience into the legal system that governs operations within the FTZ; including one stop service and others so the system presented to investors is seamlessly aligned with their own strategic business interests.9)

Currently, foreign manufacturers that invest $10 million or more, and foreign logistics companies that invest $5 million or more, in the Gwangyang Port FTZ receive: (1) a 100% customs tax exemption; (2) a 100% exemption from corporate income tax and income tax for the first three years of operation and a 50% exemption for the two years thereafter; (3) a 100% exemption for 15 years for acquisition tax and registration tax; (4) and a 100% property tax exemption for the first 10 years of operation and 50% exemption for the next 5 years. However, the $10 million investment hurdle has become a significant limiting factor to attract firms because it is considerably higher than other ports competing for business that could be serviced by Korean ports. For example, the investment hurdle for Taiwan is $2.28 million dollars and for China it is only $200,000 to be eligible for various investment incentives. One investment incentive in China Bonded Zones that has proven to be very successful is an exemption of lease payments for up to 30 years for international companies. Another incentive example in the region is the 'Singapore Vision 2018 Minimization of Direct Tax Burden of Corporate and Individual Entities' policy that allows foreign enterprises to reduce corporate and income tax rates from 25% to 20%.10)

Korea's high hurdle investment has been a barrier to attracting development. As a proof, there were only 2 of 41 international firms that satisfied the hurdle investment for strategic incentives; making such an incentive system essentially meaninglessly. In particular, in the international logistics industry, most intense investment is concentrated in one or two strategic locations. As such, when they are looking to expand operations on a global scale they are not looking to make a $5 million

9) Heung-Hoon Jang, " A Study on the Facilitation Plan of the Gwangyang Port and the FEZ of the Gwangyang Bay Area", *Journal of Korea Port Economic Association*, Vol.20 No.1, The Korea Port Economic Association, September 2004, p.130.

10) Jong-Kyun Woo, "Improvement plan of the CFZ System for the Promotion of the international logistics", *Proceedings of Korea Port Economic Association Review*, The Korea Port Economic Association, 2003, p.56.

investment, but rather they are looking at a much smaller scale of operations related investment in secondary and tertiary ports.[11]

Fortunately, the Gwangyang Port FTZ has presented an advantageous lease payment for Korean and foreign investment companies and it provides some inducement to firms looking to expand operations. For foreign manufacturing and logistics companies, the lease rate is 360 won per year for ㎡ of space and for domestic logistics companies, it is 2,400 won per year per ㎡. This lease rate is very competitive with competing ports in other countries. Information in <Table 3> below summarizes select competitive lease rates.

<Table 3> Comparison of land lease costs of major competing countries and the Gwangyang Port FTZ (1000 won per year per ㎡).

Country	Port	Land lease cost	Use of hinterland
Korea	Hinterland of Gwangyang Port	Foreign investment company: 0.36	Free Trade Zone
		Domestic investment company: 2.4	Free Trade Zone
Taiwan	Export district of Kaoshung Port	4	Export district
China	Shanghai Port	12	Bonded district
	Tianjin Port	18	Bonded district
UAE	Jebel Ali Free Zone	2.5	Free Trade Zone
Singapore	PSA terminal logistics center	38	Free Trade Zone
Netherlands	Rotterdam Port, hinter logistics center	18	Logistics center

Data: Jong-Kyun Woo, "Improvement plan of the CFZ System for the Promotion of the international logistics", *Proceedings of Korea Port Economic Association Review*, The Korea Port Economic Association, 2003

In order for the Gwangyang Port FTZ to expand to its full potential, the most important strategic focus must be placed on inducing domestic and overseas investment companies to locate in the region and use the facilities. As a central part of this strategy, Korea must create synergy effects by linking the various feeder networks with the FTZ of Korea as well as capturing geographic advantage in Northeast Asia. Following the example of China, Korea must undertake various

11) Jong-Chil Kim, "Efficient operation plan of the FTZ for generating the added value logistics", *Korea International Commerce Review*, Vol.21 No.1, Korean Academy of International Commerce, 2006, pp.58-59.

operations within the port hinterland facilities so that domestic and international investment companies clearly see Gwangyang port FTZ as central to their strategy to strengthen competitive posture and that Korean ports become central to their production and supply chain strategy for Europe and Northeast Asian trade.[12)]

Currently, Busan Port and Gwangyang Port are seen as important elements of a forward trade strategy to effectively manage inventory and commodity trade flows between Europe, China and Japan. For example, when a Japanese company imports wine from France it will pass through Busan Port/Gwangyang Port as the logistics base. This can save approximately 30% of logistics costs. As another example, when a Japanese company that imports clothes from China passes the goods through Busan Port/Gwangyang Port to delver to its feeder network in Japan, they can see logistics cost savings of up to 43%.[13)]

Investigating, calculating and articulating where these trade and cost advantages arise will help to stimulate the interest of foreign business enterprises in using the Gwangyang and Busan port facilities. Continuous research into emerging innovation regarding laws, systems and operations, and consideration of facilities expansion will be critical to future success. Management research should also focus on continuous assessment of the competitive landscape and benchmark to standards of excellence within the industry. To induce investments by global manufacturers and logistics companies, there also needs to be an effective and targeted marketing and publicity campaign.

A strategy to specifically target investment from companies with headquarters in China and Japan, Korea must focus on the critical complementary role of human capital resources available in the region. Targeted investment strategies that focus on the needs of particular firms could also serve to attract suitable investment in the region. These targeted incentive packages should complement the set of port services that may already serve as an inducement to global manufacturing companies and logistics companies who may be on the margin of considering expansion in the

12) Jong-Won Lee, "Contemplation on strengthening of competitiveness in the port hinterland complex", *The journal of Korea Research Society for Customs*, Vol.7 No.4, Korea Research Society for Customs, 2004, pp.308-309.

13) In the IR data, it is analyzed to have possible attraction of approximately 30%(87,000 FEU) per year as the total import volume in Japan if it originates from China and Southeast Asia for one item of clothing as a result of facilitating the logistics advantage of Busan and Gwangyang Port. (J&K Logistics & Consulting, Possibility of Korean port hinterland under the view of Japanese business enterprises, Presentation data of IR for investment in port hinterland complex of Busan Port and Gwangyang Port in Korea, December 2003)

Gwangyang Port region.

An example of how targeted incentives have proven effective is in the case of Singapore where return on investment for foreign investors has been boosted by providing various incentives such as, Pioneer Status,[14] Accelerated Depreciated Scheme,[15] Expansion Incentive,[16] Investment Allowance Incentive[17] and others. They have also engaged in an active marketing campaign to induce relocation of the Asia regional headquarters for 300 global companies by 2010.[18] Such systematic support in Singapore is designed to capture the interest of companies that have complementary business relations with each other.[19]

China has also been able to attract a portfolio of premier global manufacturing companies, such as GE, Intel, IBM and Sharp, and premier global logistics companies such as Fedex and UPS, to their Waigaoqiao FTZ facilities. Their strategy is built around the provision of incentives, such as, customs tax exemptions, income tax exemptions, moderation of regulation of foreign exchange transactions and other tax exemption/reduction strategies. Specifically, China's FTZs exempt customs tax and value added tax on imported construction materials, raw materials, parts, fuel, office goods and others for storage or facilities constructed by tenant companies.[20]

14) In the event of introducing new technology for the product manufacturing that has not been produced in Singapore, this system exempts the corporate income tax (22% of general tax rate) for 5 10 years depending on the product type and technology level and applies the corporate income tax rate of 10% for up to 10 years once approved as the post pioneer after expiring the pioneering period.

15) This is the system to recognize 100% a year or 33.3% of depreciation, or recognize the depreciation of 25 years on the industrial buildings on the computer and automation facilities, industrial robot and others in lieu of normal depreciation rate (20% initially, 5 20% per year) on machinery and equipment.

16) This is the system to exempt the corporate income tax up to 10 years from the expanded date on the income of expanding the manufacturing facilities for 6 million U.S. Dollars by the existing manufacturing company.

17) This is the system to deduct the income from taxable income up to 50% of the new investment amount when implementing the investment within the 5 year legal period on the capital facilities for the approved industrial activities (manufacturing, R&D, construction and water saving) by the pioneer companies and companies not receiving the tax support.

18) Major investment countries to Singapore are in the order of the U.S. (39%), Europe (34%), Japan (11%), and others (17%), and the current major multi national business headquarters in the area are UPS, BMW, Foxboro, General Electric, Matsushita, Reuters, Hilton, Compaq, HP, IBM, Motorola, 3M, Nokia, Philips, Clatex and others.

19) Jong-Won Lee, "*op. cit.*", pp.308-309.

20) Jong-Chil Kim, "*op. cit.*", p.44.

2. Moderation of regulation on the investment tenant companies and strengthening one stop service

The revised Free Trade Zone Act of Korea specifies that, "any party engaging in business by taking tenancy in the FTZ has to obtain a tenancy permit from the authorized management entity." Because of the special tax and tariff inducements offered to businesses located in the FTZ the Ministry of Commerce, Industry and Trade has introduced the permit system to prevent abuse of tenancy authority. These new tenancy permit requirements have increased the burden of companies who locate in the FTZ to demonstrate that 50% or more of sales revenue is obtained from export and import activity for the year prior to seeking a tenancy permit within the FTZ.[21] In addition to the tenancy permit process, there are many other regulations that limit growth in the FTZ. These include: lack of tax incentives for restricted business territory, domestic and expatriate discrimination and lack of incentives for domestic companies. In other words, there are many regulations and complicated administrative procedures in place at the Gwangyang FTZ that are not evident in management of the successful FTZs of Dubai, Singapore, Shanghai and others.

In spite of the challenges, Gwangyang Port has made a substantial effort to secure increased trade volume from many domestic and foreign firms. Some growth has come at the expense of China and Japan as existing infrastructure reaches capacity constraints. These opportunities have fed aspirations of the Gwangyang Port to become a logistics hub for Northeast Asia. Another growth opportunity is manifest in the Korea and US FTA. This would facilitate the location of multinational companies in Korea as the logistics and manufacturer base for companies who are exporting out of the region into the U.S. In order to capture this opportunity it is critical that Korea remove regulatory inconveniences and increase administrative convenience within the FTZ.

In order to facilitate the necessary systematic support system to efficiently manage and operate the international logistics functions of the Gwangyang Port FTZ, it may be appropriate to identify a single management authority. This exclusive management entity would have stewardship for attracting foreign investment, management support of tenant companies, various administrative and convenience support systems, installation of control facilities, maintenance and management, marketing and others.

For the case of the FTZs in Korea, each local government has a separate Free

21) Press Release of the Ministry of Commerce, *Industry and Trade*, June 26th 2007.

Economic Zone Bureau to undertake management services and support the attraction of foreign investment companies. In many of these bureaus one stop service and Ombudsman systems are introduced to deliver advanced services, but the FTZ has no separate supporting organization. Therefore, there is need for institutional support that has a primary focus to induce domestic and overseas investment companies to locate within the FTZ and provide administrative and marketing support.[22]

3. Stabilization of labor and management relationships and increasing flexibility of labor contracts

One of the most challenging barriers foreign firms confront in establishing a presence in the Korea is the inflexibility in contracting for labor. In this regard, Korea must make sure to minimize strike risk and create the conditions for a stable labor and management relationship. Korea has had so many labor strikes that foreign investment companies are hesitant to invest no matter how advantageous the location benefits are. Policy reform that targets increased flexibility in the labor market is an inevitable international trend. For example, in Ireland, the Netherlands, and Singapore, wage increases are controlled by coordinated negotiations between labor, management, and government. Those countries benchmark the wage setting effort to formulate flexibility in the labor market. In order to enhance the flexibility of the labor market, there has to be an interest to review the legal framework that governs the labor market. Potential solutions include use of part time jobs for enhancing the long term employment generation, moderation of regulations and realistic or efficient amendment of the pertinent lay off laws.

For the case of Ireland, the "burning platform" that induced labor policy change was a national economic crisis that resulted in having 150,000 high skilled people immigrate to the US, the UK and other countries. Policy solutions encouraged foreign investment, stabilized the labor market, restricted wage increases, and decreased the corporate income tax to make it the lowest Europe. After providing various incentives over 1,200 multinational companies located in Ireland.

In 1997, the Netherlands was identified as the most difficult country to in Europe to conduct business by McKenzie. However, in 1999 the labor union of Netherlands (FNV) directly advocated for wage flexibility to be legislated by law in order to heighten the flexibility of the labor market. Since that time Ireland has been very

22) Jong-Chil Kim, "*op. cit.*", pp.59-60.

successful in attracting multinational companies and it has emerged as the largest logistics base in Europe.[23)]

Singapore requires firms to apply the wage guidelines established by the National Wage Commission (NWC) that consists of representatives from labor, management and government. As such it has emerged as the country with the world's best labor force and most stable labor environment. The NWC designs the logical performance based wage system to increase the productivity of labor and encourages a performance based wage system.[24)]

4. Strengthening of mutual interaction of FEZ, CFZ and FTZ

Korea's Free Economic Zone (FEZ) areas are built to sustain a high quality of life for foreign managers and a supporting environment for highly profitable business ventures. These areas are specifically established to be attractive to foreign capital by simplifying investment procedures, simplifying processing of permit and licenses, creating exemptions and reductions of various relevant tax contributions, education for foreigners, financial convenience and others.

The customs free zone (CFZ) of Korea is the restricted area that is located outside of the customs territory of a state, and it is a type of economic special district to grant the incentives, such as customs procedure, customs taxes and other dues and taxes. It is also the area where business can freely undertake entry and shipping out of cargo, relay trading, processing activities and others. However, CFZ investment mainly focuses on international logistics related businesses, such as, transportation, warehouse, sales, assembly, trademark attachment and others, and it limits the entry of manufacturing businesses. In order to address the challenge of attracting manufacturing business to the CFZ, Korea revised its 'Act on Designation of Free Trade and Others' in 2000 and 2004. These revisions reaffirm that the Free Trade Zone (FTZ) is the area for free guaranty of manufacturing, logistics, distribution and trade activities with the exemption of customs taxes and that it is the area to induce the investment of domestic and foreign people.

Goods that pass through the customs area generally subject to export and import tariffs, but the goods in the FTZ are subject to the procedures of entering and exiting

23) Hae-Bum Choi, "A Study on the Development Plan of the Masan FTZ", *Korea Logistics Review*, Vol.19 No.1, The Korean Logistics Research Association, June 2003, pp.85-86.

24) Type of Business Enterprises in Masan FTZ, *New beginning and encountered tasks of Masan FTZ*, December 2002, pp.91-92.

goods in principle under the FTZ Act and Customs Act. The two way system imbedded in laws and regulations that govern trade may cause some confusion. Therefore, it may be most effective to abolish administrative regulations and remove barriers to foreign investment that limit the growth of the Gwangyang Port FTZ.[25)]

The FEZ is designated as the space for corporate management and foreign business enterprises. The FTZ exists to perform the distribution, logistics, and manufacturing functions for tenant companies. Linkage of economic zones and free trade zones by supporting the development of complementary administrative and infrastructure arrangements would strengthen FEZ and FTZ operations. Potential complementary investments could include integrated transportation and transfer systems, such as, Ocean Air, Ocean Rail, Rail Air and the like.

As an example of a successful benchmark, Civil Aviation Authority of Singapore (CAAS) expanded to include a logistics park for third party logistics service (ALPS). This new development focuses on high tech, IT, electronics and others. To create opportunity for maximum investment returns it coordinates the activities of the Customs Service, Land Development Authority and Economy Development Administration. In addition, Singapore has no limit on the movement of capital, a relatively small corporate income tax (24.5%) and personal income tax (2~27%), minimized regulations, outstanding labor force, stable labor environment, reasonable government policy, English use and 26 foreign schools, and positive government employees that work to create a source of competitiveness in the FTZ. As a result, Singapore has some 6,000 global companies; 52% of the entire employee base and 35% of the GDP.[26)]

The FEZ has overlapping legal and strategic interest with the FTZ. While there is a different foci in the FTZ, both organizations must compete for foreign investment companies and the overlapping area of responsibility would suggest substantial benefits from integration. The Gwangyang Port area was designated as a FEZ on the basis of foreign residence in October 2003, and it was designated as a FTZ in 2004.

While securing the logistics functions, the FEZ may have conflict with the logistics function or manufacturing functions of the FTZs in Korea. In particular, it has become a strategic goal for the FEZ to facilitate important logistics functions. In reality, because of the FEZ's tax support system, incentive packages and other strategic assets

25) Myong-Bae Lee, "A rationalization plan for the cargo information management for attracting foreign investment at FTZ", *e-Business Review*, Vol.7 No.4, Global e Business Academy, 2006, p.331.

26) Suk-Tae Kim and Tae-In Kim, "A study on improvement of the FTZ in Incheon International Airport", *Journal of Commodity Science*, Vol.24 No.2, Korean Academy of Commodity Science, August 2006, pp.206-207.

it is not much different from the FTZ. Rather, the FEZ creates the opportunity for foreign investment to induce advantageous living conditions to provide not only industrial activities but also the central functions of various life concepts, such residence, recreation, medical and others.[27)]

Therefore, as the CFZ integrated into the FTZ in 2004, the strengths and weaknesses of legal authorities imbedded in FEZ and FTZ organizational and operational structures suggest a need to integrate functionality to capture the full benefits of their operations. For example, the port hinterland area may be designated as an FEZ or FTZ to expand foreign investment, improve living conditions and share the incentives, such as tax exemption and reduction, lease payment and others.[28)]

V. Conclusion

Recently, competition to attract global companies through targeted logistics investments and reform of manufacturing technology has become more intense. This competition has increased investment in international logistics networks and encouraged the emergence of sophisticated global logistics services. Countries located in the Northeast Asia region, including Korea, have become more aggressive in encouraging international transactions around their ports and concentrating trade volume and supporting operational systems within FTZ, FEZ and free trade port areas. Infrastructure expansion at the Shanghai Port has greatly threatened the growth of maritime activity and the economic viability of ports in Korea and Japan. It is also true that port development in several Korean cities has the potential to negatively impact the economic viability of the Gwangyang Port FTZ.

To facilitate the ascension of the Gwangyang Port FTZ as a global logistics hub, laws and management systems that govern operations must be aligned with a commitment to foster economic growth. As a first priority, policy change should focus on expanding flexibility in the kind of incentive offers that are available to domestic and overseas investment companies. This should lead to improvement of the corporate environment for foreign investment companies. If various incentives are provided, it is expected that many more global companies will choose to establish tenancy at the

27) Kyung-Suk Kim, *Plan to facilitate the logistics base function of the FEZ*, Korea Research Institute for Human Settlements, Korea Research Institute for Human Settlements, 2004, p.39.

28) Korea Container Terminal Authority, A Strategic Plan for Global Logistics Hub in the Korean Peninsula and the Study on Promotional Strategy, *Container Information* No.3, 2003, p.428.

Gwangyang Port FTZ. Second, regulatory burdens placed on the investment tenant companies must be moderated. As part of this initiative, one stop service should be implemented to enhance convenient access to administrative services. Third, in order to induce foreign investment in the FTZ, Korea must create a stable labor and management environment that eliminates the risk of labor strikes. The power of a stable labor environment has been unequivocally observed in Ireland, the Netherlands, Singapore and other countries. Korea should benchmark their labor laws against these countries. And, forth, policy needs to clarify the roles of FEZ, CFZ, FTZ so that interdependent synergy can be stimulated by establishing mutual linkages.

Korea's investment in FTZs lags behind the United States, China, Dubai and Singapore. Therefore, in order for the Gwangyang Port FTZ to create the same kind of success that has been experienced in other countries, the key will likely hinge on cultivating a capacity to foster a business environment that is conducive to the value creation activities of both domestic and foreign investment.

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< 요 약 >

국제물류허브를 위한 광양항의 벤치마킹 증대방안

장흥훈 · Chris Fawson

본 논문은 국제물류허브를 위한 광양항의 벤치마킹 증대 방안에 관한 연구로서, 최근 세계 각 국은 경제·무역 및 기업의 글로벌화로 인하여 국제물류의 흐름을 주도하기 위하여 각 국 마다 생산 및 물류중심화를 추진하고 있으며, 범정부 차원에서 국가경제 발전의 주요한 전략으로서 자국을 세계의 생산 및 물류중심화로 발전시키려고 노력하고 있다. 본 연구는 광양항이 자유무역지역으로 지정됨에 따라 광양항이 국제물류거점지로 발전할 수 있을 것인지를 광양항의 자체 여건에 대하여 고찰하였고, 광양항 자유무역지역의 발전 전망을 외국의 사례와 함께 비교·분석하였다.

광양항 자유무역지역이 활성화되기 위해서는, 첫째 한국과 경쟁관계에 있는 중국, 홍콩, 싱가포르, 대만 등을 감안하여 광양항 자유무역지역이 성공하기 위해서 이들 외국의 사례와 같이 입주업체에 대한 인센티브를 적극적으로 확충하고 투자를 유치해야 한다. 둘째, 투자를 유치하기 위해서는 투자업체에 대한 각 종 규제와 법규의 완화가 필요하고 서비스를 강화해야 한다. 두바이, 싱가포르, 상해 등의 사례와 같이 각 종 규제와 복잡한 행정절차를 간소화 하여야 한다. 셋째, 한국에서 외국인 투자를 유치하기 위해 가장 중요한 것은 파업이 없고 노사가 안정되어 있는 국가로 만드는 것이 선행조건이라 할 수 있다. 광양항 자유무역지역이 앞으로 장기적 성장세를 지속하기 위해서는 노사관계의 안정 및 노동시장의 유연화가 필요하다. 넷째, 경제자유구역, 관세자유지역, 자유무역지역 등의 법규내용과 목적이 상호 중복되면서도 상이하여 똑 같이 국내외 투자업체를 대상으로 경쟁할 수밖에 없고, 설정된 지역이 다소 중복되는 경향이 있기 때문에 이러한 제도의 장점·단점을 분석하여 통합되어 운영하는 것이 필요하다.

□ 주제어: 벤치마킹 증대, 광양항, 자유무역지역, 국제물류