Factors to be considered for Improving Free Economic Zone in Korea

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1. Introduction

The World is facing a new paradigm being made for the 21st century market economy under WTO System. The Northeast Asian region is one of the fastest growing economic blocs of the world. Three countries, Korea, China and Japan, of the region serve as a driving force for the growth and development of the world in particular; Korea functions as a gateway to Northeast Asia in line with utilizing its geographical and economic advantages in terms of information, communication and logistics infrastructure.

The Republic of Korea is presently pursuing a strategy to transform the country into business hub of Northeast Asia. In middle term base, Korea has plan to launch FTA(Free Trade Agreement) among the China and Japan. The main theme of the business hub can be achieving the bridge role among the countries. A cental aspect in those strategies is the development of the Korea Free Economic Zone(KFEZ) which consist of three region linked with seaports and airport respectively.

Meantime Korea is facing the risks of being sandwiched between the two economic giants of China and Japan. With a view of leveraging opportunities and threats Korea has designated three areas which are Incheon, Busan-Jinhae and Gwangyang Bay as Free Economic Zone.

The purposes of this paper are to introduce the Korean FEZ system and to suggest factors to be deployed for improving FEZs' management in Korea.

2. Development of KFEZs

Free economic zones have been deployed in response to government objectives and policies in line with their social and economical environment. Samseong Economy Institute published major function of the world wide FEZ as three dimensions; manufacturing; Trade; combined Zone with respect of objectives of development

As the global economy becomes more open, Northeast economies such as China Japan, Taiwan and Korea have been newly emerging as a dynamic center of growth. In fact Northeast Asian region is expected to form the large economic block in the world, accounting for 26% of total global production with around 40% of container traffic by 2020. China, in particular, has successfully positioned itself as a favorite destination for foreign direct investment (FDI), recording the highest FDI in the world.

In recent survey of multinational corporations' location preference for regional distribution centers, Oum and Park identified seven critical determinants for locating distribution centers; 1)geolocation, transport and market accessibility; 2)market size and growth potional of catchment's region; 3) port, airport and intermodal transport facilities; 4) skill

labour force, labour quality, and labour peace; 5) modern logistics service providers and costs; 6) probusiness government and officials; and 6) political stability.

Considering those factors Korean Government would like to have an opportunity to attract FDI as a matter of priority not only for economic development but close relationship among the Asian countries..

The Korean government plans to develop FEZ-designated Incheon International Airport, Busan Seaport, and Gwangyang Seaport as the mega-logistics hub of Northeast Asia. Incheon International Airport will undergo cargo terminal expansion, a duty-free district, a 24 hour operation system, and an entry/exit facilitation. World-class express couriers and other logistics are holding talks with the Korean government to establish their Asian regional headquarters in the Incheon International Airport area. Busan Port and Gwangyang Port areas will be developed into the maritime logistics hubs. Parallel to port infrastructure expansion, the backdrop support complexes will host logistical, manufacturing, and processing companies and be linked to neighboring regions' industrial capabilities to maximize their support function.



Figure 1) Three FEZ's location.

Figure 2) South Korea-Planned Port Development	Figure 2)	South	Korea	-Planned	Port	Development
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Inchon			Existing Contain	er Terminals:	36 Berths	Gwangyang						
	South Po (PSA)	rt South Outport	-Busan:	HBCT (5), PECT (4), Gamman (4), DPCT (3),	21 berths	 According to the berths by 2011 	Gove	ernmer	nt plar	n, ther	e will	be 25
Operational Date:	2004-06 2	011 2006-11				Phase	2-2	3-1	3-2	3-3	4-1	4-2
No. of Berths:	2	1 6		Uam (3), Gamcheon (2)		Operational Date:	2006	2006	2011	2011	2011	2011
Handling Capacity (k TEU):		250 1,750 300 1,600	-Gwangyang:	Phase I (4), Phase II-1 (4)	8 berths	Berthing Capacity* (mm TEU):	1.5	2.0	1.5	2.5	2.0	2.5
Quay Length (m):	600 .	300 1,600	-Incheon		4 berths	QuayLength (km):	1.15	1.4	1.05	1.75	1.4	1.75
Pyongtaek – East Port			-Masan		2 berths	No. of Berths:	4	4	3	5	4	5
	2000		-Ulsan		1 berths		53	107	97	106*	85*	106*
Operational Date: No. of Berths:	2006 2		Development by	2011:	86 Berths	•HPH's estimate						
Handling Capacity (k TEU):	2 500			tainer Terminals by 2011:	122 Berths	Pohang - Yongilm	ian					
Quay Length (m):	480					Operational Date: No. of Berths:		200 4	99			
	100			LC		Handling Capacity (k	TEU):	1,00	00			
Kunsan – Pier No. 6				820k	X	Quay Length (m):	-,	1,00				
Operational Date:	2006	2011			$ \lambda $	Ulsan – New Port						
No. of Berths:	3	1		Pyongtaek		Operational Date:		2	006	2011	1	
Handling Capacity (k TEU):	750	250	52	20 V 152k		No. of Berths:			2	2011		
Quay Length (m):	730	240		South	1 (1	Handling Capacity (k	TEU):		500	500		
Mokpo			Yellow Sea	Korea		Quay Length (m):		5	500	500		
	New Outport	Daebul		Isan	Pohang	Busan						
Operational Date:	2006	2011	t. Born in the	OZA /	SOM 9	North Port (Extension	on of S	Shinsur	ndae te	rminal)		
No. of Berths:	3	1		5	11-1-1	Operational Date:			2006			
Handling Capacity (k TEU):	750	250		C - C - C - C - C - C - C - C - C - C -	Ulsan	No. of Berth:			1			
Quay Length (m):	750	250		Gwangyang	315k	Handling Capacity	(k TEU	J):	400			
Masan			Mokpo		Busan	Quay Length (m): • Busan New Port			300			
Operational Date:	2006	2011 *	73k (e		n) 10,367k	- 30 berths will be	develo	ped by	2011			
No. of Berths:	2	1	1	47k	0						0047	
Handling Capacity (k TEU):	500	250	0		17	Operational Date:			200		2011 12.0	
Quay Length (m): *Converted from a multi-purp	500	480		Key Ports	with >1 million	Berthing Capacity Quay Length (km)		IEU):	3.		12.0 7.85	
* Converter from a multi-num					with $> 100k$				2.			

2.1 Incheon Free Economic Zone

The Incheon Free Economic Zone includes Songdo Intelligent City, Yeongjong Area and Cheongna Area. (Total area 209 km²; Projected population 475,000).

Yeoungjong Area will develop as an air logistics base, including Incheon Airport and adjacent port area, an International freight terminal, and an industrial site. Songdo Area will develop as an International business and high-tech Mecca, having the Asia Pacific headquarters of multinational companies and global companies related to information technology and biotechnology. Finally, Cheongna Area will develop as new cradle of International finance and entertainment, having a sports and leisure complex, a theme park, and other recreational facilities.

Songdo Area

-Area: 13,200 acres

-Development period: First phase between 2002 and 2008, completion by 2020

Asia-Pacific multinational headquarters, international organizations, convention centers, trade centers, and office buildings are being recruited to invest in the Incheon FEZ.

■ The Gale Corporation, a U.S.-based real estate company, has signed on as an investment partner for construction projects worth US\$12.7 billion that will cover 1,400 acres.

Yeongjong Area

-Area: 5,900 acres

-Development period: first phase by 2008, second phase by 2020

■ The Incheon FEZ will include a multinational network of IT, computer, electronic communications, machinery, and aerospace manufacturers.

■ As a Tariff Free Zone, it will also include an international special delivery center, logistics park, and air cargo warehouse. DHL and TNT are being recruited to establish cargo terminals on a special seven-acre site.

Cheongna Area

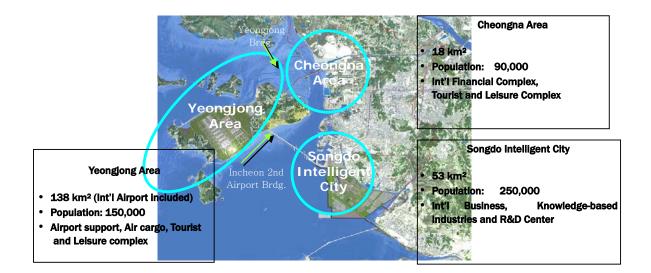
-Area: 4,400 acres

-Development period: completion by 2008

■ International businesses and financial institutions will be recruited to set up shop in the

Cheongna district, including offshore financial centers, banks, and international financial institution offices.

Figure 3) Development plan for Incheon FEZ



2.2 Busan and Jinhae Free Economic Zone

A 104 million square meter swath of land with a population of 235,000 in the Busan and Jinhae areas will be developed as part of the Northeast Asian hub plan into a seaport and logistics center for the 21st century. This development will be completed in 3 phases, with phase 1 scheduled for completion by 2006; phase 2 by 2010; and phase 3 by 2020.

The FEZ Designation Plans cover 5 strategic areas, including logistics/ distribution/ international business function upgrades for the New Port area; aviation logistics and parts/material industry improvements in the Myeongji area; cutting-edge industry and R&D enhancements for the Jisa area; leisure, vacation and marina resorts in the Woongdong area; and mechatronics, public service, educational and R&D facilities in the Doodong area.

Busan international seaport is the third largest in the world in terms of cargo handling capacity and 60 shipping multinational companies conduct business there. A new seaport with 30 berths will be built in Busan and Jinhae by 2011. The first phase of construction will include 6 container terminal berths to be completed by 2006, and another 24 berths will be built by 2011 to increase the cargo handling capacity. A four million square meter international logistics and business complex will be built to house logistics handling, distribution services, and maritime & oceanic affairs centers.

New Port Area : Developed as a key position of logistics, circulations, international business and marine affairs

- 2,647acres, 8 million TEUs
- 30 berths (6 berths by 2006, additional 24 berths by 2011)
- Government & Private Investment

Myeongji Area : Developed as a base for air logistics to supply ultra-modern parts and materials

- 2,704 acre
- International New Town
- Residential, Commercial, International School & Hospital

Jisa Area : Ultra-modern industry and R&D center

- 9,965 acres
- Automobile / Shipbuilding Parts Manufacturing and R&D

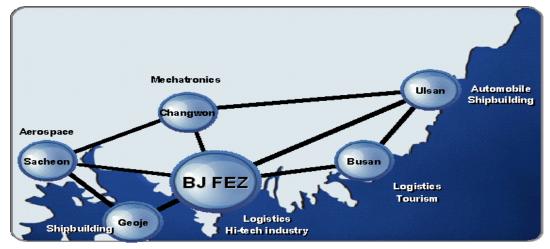
Doodong Area : Mechatronics and specialized education, and R&D center

- 5,089 acres
- Mechatronics, Education and R&D
- University Campus and Research Lab

Ungdong Area : Developed as a key position of logistics, circulation, recreation, and leisure

- 5,360 acres
- Marine resort & leisure, F1 Race

Figure 4) Development plan for Busan/Jinhae FEZ



2.3 Gwangyang Bay Area Free Economic Zone

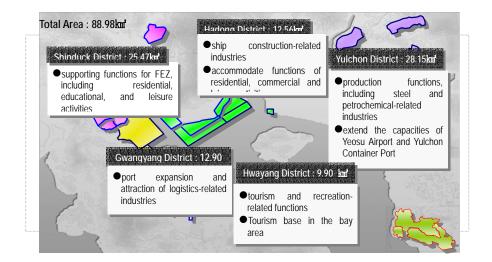
The Gwangyang Bay area development will transform 89 million square meters of land inhabited by 220,000 residents into a Northeast Asian maritime transportation, petroleum and steel center for the 21st century. This project will include 24 complexes in 5 different districts when completed, with phase 1 scheduled for completion by 2006; phase 2 by 2010; and phase 3 by 2020. The Gwangyang Bay Area FEZ lies in the border area between Jeollanamdo and Kyungsangnamdo and includes Yeosu, Sunchon and Gwangyang of Jeollanamdo and Kyungsangnamdo's Hadong-gun. Gwangyang Bay Area FEZ; s development strategies divided into 3 main categories such as the Logistics Hub of Northeast Asia,

the Business Hub of Northeast Asia, and the Tourism Hub of Northeast Asia. The Gwangyang district will be focused on maritime logistics, distribution and manufacturing.(see Figure 5) The Yulchon district will be developed to serve as a base for the new material, auto part and chemical industries. The Shindeok area will include a residential complex complete with international schools and overseas medical facilities. The Hwayang district will become a marina tourist resort for leisure and vacation activities. Hadong will provide industrial, business and residential facilities to compliment activity in Gwangyang. The Gwangyang Plan is expected to achieve the following: Maritime logistical capacity and specialty industries will be expanded. The number of Gwangyang seaport berths will increase from 8 to 33 to increase cargo carrier traffic and gain a competitive advantage over China. Sixteen berths will be available by 2006; 19 by 2008; and 33 by 2011. Phase 1 of the Gwangyang container dock development will expand the surrounding area an additional 1,947,000 square meters by 2006 and phase 2 another 1.749,000 square meters by 2015. This area will be home to an international maritime transportation business park, London Metal Exchange warehouse, agricultural and maritime product export center, and a university that specializes in training logistics professionals. A one-stop logistics/distribution park will be established for domestic and overseas precision machinery, auto parts and pharmaceutical industries to capitalize on the geographical advantage of being near the petrochemical industrial park in Yeosu and the steel complex in Gwangyang.

The industrial parks in Yulchon are intended to attract petrochemical, auto parts and steel multinationals. Park 1 will be built on 9,141,000 square meters of land by 2006; Park 2 on 9,537,000 square meters by 2015; and Park 3 on 4,950,000 square meters by 2020.

A leisure and sports complex planned for the Hwayang area is expected to be popular among tourists given its proximity to such natural parks as Dadohae-Haesang National Park. The logistics and industrial cluster infrastructure expansion will include new expressways, along with railway and local road network improvements. A 117.5-kilometer expressway extension between Gwangyang and Jeonju will be built, for example, to reduce the time it takes to travel to the Seoul metropolitan area by 2 or 3 hours.

Figure 5) Development plan for Gwangyang Bay Area FEZ



2.4 Incentives of KFEZ

The incentives to be offered in the KFEZ may be summarized into seven categories as shown below Table 1.

Sector	Benefits
Tax reductions	 Income and corporate tax exemptions for the initial three years and 50% reductions for the following two years Tariff exemption for imported capital goods for three years Acquisition, registration, property and aggregate land tax exemptions for the initial three years and 50% reductions for the following two years A flat 17% income tax for foreign corporate executives
Financial support	 Commercial lease fee subsidies and financial assistance for establishment of medical and educational institutions, housing and facilities Rent fee reductions for government-owned properties Use, profit-making, lease and sale allowed for government-owned properties through negotiated contracts
Deregulation	 A unified FEZ construction law encompassing 36 laws Relaxation of Seoul metropolitan area restrictions Elimination of small-and medium-sized enterprise business restrictions
Government financial support for early establishment of infrastructure	 Central government financial support for establishment of infrastructures in three free economic zones[\$1.06 billion(2004) → \$1.79 billion(2005)] Six new container berths for Busan New Port by 2006 Number of Incheon International Airport runways to increase from two to three and expansion of terminal by 2008

Table 1) The incentives of	KFEZs
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	• Four new container berths at Gwangyang Port by 2006					
	• Exemption of obligatory employment of veterans, the disabled and the elderly					
Labor flexibility	• Exemption of paid monthly leave application					
	• Unpaid holiday and menstruation leave allowed					
	• Eased regulations on the category and period of supporting workers					
	• FEZs are located within the economic, social, and cultural spheres of large cities such as					
	Incheon, Seoul, Busan, Jinhae and Gwangju					
	• Urban areas, beaches, mountains, leisure facilities and golf courses are located in and					
Comfortable living	around FEZs					
conditions	- Housing construction is allowed inside golf courses					
	- 36% of 13,145-acre Songdo District in Incheon FEZ is green space					
	• A convenient metropolitan traffic system, excellent security and kind, warm-hearted					
	neighbors provide a harmonious living environment					
World-class foreign	• Foreign educational foundations are allowed to establish and operate foreign educational					
medical and	institutions in FEZs ranging from elementary schools to universities					
educational services	• Foreign investors are allowed to establish and operate foreign medical institutions in FEZs					
educational services	ranging from pharmacies to general hospitals					
	• Incheon(Songdo) will be developed as a U-CITY taking full advantage of Intelligent					
	Building System(IBS) and a state-of-the-art ubiquitous environment to maximize business					
State-of-the-art well-	efficiency					
being city	- A grand consortium will be created to establish the Facility Management Center(FMC),					
being eny	Communication Data Center(CDC), IT infrastructure and Telco Hotel					
	• A new traffic system which promises to be free of congestion, accidents and pollution will					
	be introduced					
	• The central government supervises financial support, regulation improvement and relevant					
	agencies through the Planning Office of Free Economic Zone established under the Ministry					
	of Finance and Economy					
one-stop services for	Three independent FEZ authorities provide one-stop administrative services					
foreign investors	- Investment consultation and advice available for licensing and permit approvals at each					
Toreign investors	FEZ authority					
	- Port-to-port service managers for foreign investors					
	• A dispute settlement body will be created to maintain order in international transactions by					
	resolving commercial disputes arising in FEZs in a fair and speedy manner					
	nister of Finance and Frances 2005					

Sources: Ministry of Finance and Economy 2005

3. Survey on Implmenting KFEZs

To perform an analysis of the FEZ's implementation in Korea, the field survey was conducted. A simple questionnaire that measures the understanding, prospective, and alternative about FEZs was developed. Respondents were selected from three areas in order to show the diverse opinion and understanding about their FEZs. In particular, the surveys collected from respondents from the three areas (Incheon, Busan, Gwangyang) consisted of experts related with three FEZs. The selected respondents were thought to possess the level of knowledge about FEZs required to answer the questionnaire. The respondents have followings three characteristics. First, sample group 1 consists of people from the Incheon area (government officer of Incheon city, Incheon development Institute, Incheon FEZ Authority). Second, sample group 2 consists of people from the Busan area(government officer of Busan city, Busan Port Authority, BusanJinhae FEZ Authority). Finally, sample group 3 consists of people from the Gwangyang area(government officer of Gwangyang city, Gwangyang Bay Area FEZ Authority).

The Survey was run from April 26th through May 14th, 2004. Using a structured questionnaire, a total of 207 questionnaires were collected.

3.1 The level of understanding about KFEZs

To evaluate the level of understanding about FEZs, "Have you ever heard that EFZ's detail projection?" was asked. The results of this question are shown in figure 6. Generally, most of respondents (85%) understand the FEZ's plans in detail due to the characteristics of the respondents.

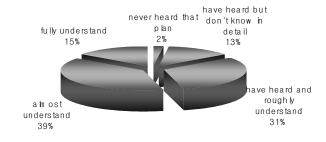


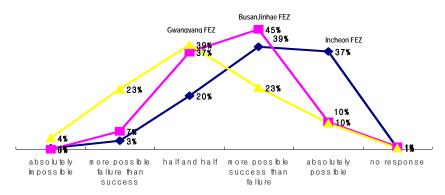
Figure 6) The level of understanding about FEZ

3.2 The possibility of success of the three KFEZs

Three FEZs in Korea have different geographical, economical, and social environments. Therefore, there are different prospects about the possibility of success. To analyze the possibility of success in the three FEZs, the following question was presented. "What do you think about the possibility of success in the three FEZs(Incheon, BusanJinhae, Gwangyang Bay)". The analysis shows that most of the respondents say the Incheon FEZ has a higher possibility than the other FEZs. The reasons are the following. First, Incheon FEZ was designated as the first free economic zone in August, 2003. Second, the Incheon FEZ is located close to Seoul, the capital of South Korea. Third, the Incheon FEZ has

consumption markets in the Seoul and Gyung-gi areas whose population range is 23 million and is accessible to these areas through a convenient transportation infrastructure. Fourth, Incheon International Airport is located in Incheon and it has a comprehensive transportation infrastructure that offers access to air, sea and ground-transportation such as airports, expressways and subways.

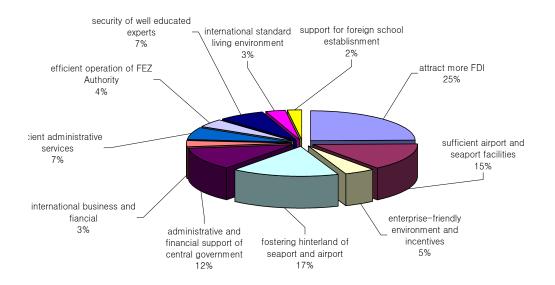
Figure 7) The possibility of success in three FEZs



3.3 The success factors of KFEZs

There are a lot of successful factors to promote FEZs. To find out the most important factor to promote FEZs, "Which factor is the most important to promote FEZs?" was presented. For this question, respondents could choose more than one answer. The most cited success factor to promote FEZs was attract more FDI (25%) followed by fostering hinterland of seaport and airport (17%), sufficient airport and seaport facilities(15%) and administrative and financial support of central government(12%). Among respondents, the order of the top two responses was "attract more FDI(25%)" and "fostering hinterland of seaport and airport(17%)". This result means that most respondents consider the aspect of hardware expansion. However, hardware expansion alone does not warrant the coming of the world's top firms to Korea. Without the matching software provision of systematical improvement in labor, education, medical care, and immigrations to enhance the business and living environment for foreigners, top firms will hesitate to come even if provided with physical hardware and space.

Figure 8) the success factors of FEZs



3.4 The opinion of the current KFEZs Authority System

The Ministry of Finance and Economy has established the Planning Office of Free Economic Zone to provide administrative support for foreign investors. The Planning Office is responsible for FEZ designations and operations, and investment attractions. In addition, an independent regional administrative agency was established in each FEZ(Incheon FEZ Authority, BusanJinhae Authority, Gwangyang Bay Authority), thereby providing one-stop administrative services for investors. Currently, each FEZ Authority belongs to its regional government. To evaluate this current FEZ Authority organization system, "What do you think about the current KFEZs authority system?" was asked. Most respondents agree strongly (61%) that they do not support the current FEZ Authority system.

This result means each current FEZ Authority has no power to drive FEZ Activities independently. FEZ is obviously a unique district compared to the other industry areas. In addition, FEZs were created in response to foreign suggestions about administrative regulations, children's education, housing, medical institutions and the language barrier. Therefore, one-stop administrative services, such as investment consultation and advice, and license and permit approvals, are essential and these activities should be regulated by each FEZ Authority.

From this point of view, each FEZ Authority has to be separated from the regional government to have power to decide more speedily and independently.

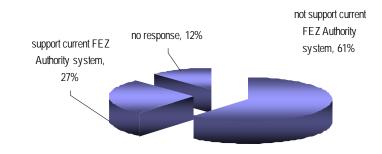
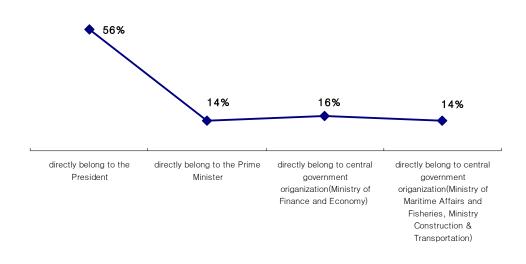


Figure 9) The opinion of current KFEZs Authority System

3.5 Improve the efficiency of the KFEZs Authority System

To analyze the efficiency of the FEZ Authority system, "If you don't support current FEZ Authority system, which is your preference" was presented to the respondent. The answer to have a more efficient FEZ Authority system was to "directly belong to the President(56%)" followed by directly belong to central government organization(Ministry of Finance and Economy) (16%)", "directly belong to the Prime Minister(12%)", "directly to belong to central government organization(Ministry of Maritime Affairs and Fishers or Ministry of Construction & Transportation(14%)". This result means that most respondents want the FEZ Authority to be more powerful and drive their plan independently by belonging to the President.

Figure 10) the efficient KFEZs Authority System



4. Conclusions

. This paper allowed us to make a number of suggestions to help make Korea attractive to foreign multinationals as the place to locate their northeast Asian regional distribution centers. Korea has many potential comparative advantages over many countries, such as Japan, China and Taiwan due to its superior geographical location, well functioning transportation and telecommunications infrastructure and network, efficient and productive airlines and shipping lines, well educated quality manpower and lower input prices than Japan, especially strong government support and will. However, the position of Korea as a premier logistics hub is currently being challenged. This is because many countries are now possessing excellent infrastructure and are also are planning to become logistics hubs. New seaports, airports, airlines and plans to develop new logistics hubs have threatened the position of Korea as a successful logistics and business hub. It will be difficult to create Korea's logistics hub position if it does not develop a specialized cluster of industries at specific locations such as near seaports and airports so as to achieve a competitive edge against its competitors. Korea can improve its chance for success by creating national consensus on this issue, by promoting a freer trade and transport environment in the Northeast Asian region, creating a champion organization to become a one-stop service provider, deregulating and reengineering bureaucracy, administrative procedures, rigid institutional systems, improved education and training of skilled and specialized manpower, and cultivating third party logistics service providers, etc. Most of all, providing more incentives to induce foreign companies to enter into FEZ and changing the organization structure of the FEZ authority into a flexible team organization are important in creating the logistics hub and moreover, for the continued growth of the economy.

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