

THE CHANGES OF THE AIR TRANSPORT MARKET AND THE INTERNATIONAL TRANSPORT AROUND THE REPUBLIC OF KOREA

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Introduction

In the last 10 years' period, the air transport market of this region has been expanding, including both passengers and freights as Figure1 & Figure2. The international transport between China and Korea, China and Japan has been extended. The market share of new entry airlines (called LCCs in Korea) still continues to grow, such as Asia-Pacific region increased from 4% in 2004 to 21% in 2013.

Furthermore, the International Civil Air Organization (ICAO, 2014) reported that the 7 airports in Asia-Pacific by freight tonnes handled make 47.2% share of the top 15 airports in the world. All of the 7 airports located around Korea (Republic of) as Table 1. Focus on Northeast Asia Transport Market includes top 7 airports which an improvement of efficiency in international transport is sought after.

These are also target of 'The CHINA-JAPAN-KOREA Ministerial Conference on Transport and Logistics'. The 5th conference announced that the Northeast Asia Logistics Information Service Network (NEAL-NET) has started its public trial of pilot ports service since August 2014. And the conference continue to make efforts to realize 'seamless logistics' through standardized logistics system among Japan, Korea and China while considering logistics with other regions like Southeast Asia, Australia and so on. Especially, Sea & Air multi-transport attracted attention between China and Japan, China and Korea. Background of that, the first, there are insufficient infrastructure related transport and logistics inter-China. Secondary, there are different of logistics system due to technical capabilities. Lastly, there is no choice using land transport cross the border.

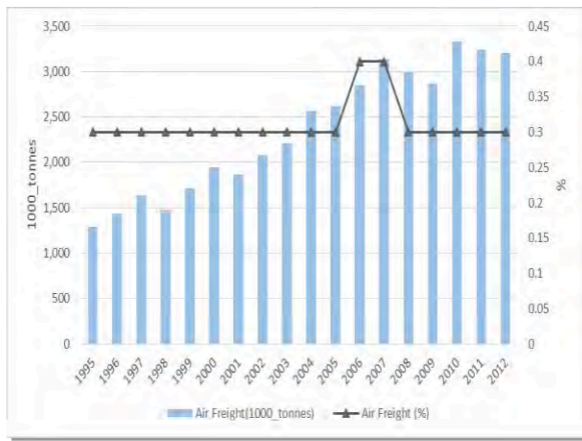


Figure 1: International air freights in Korea
source: MLIT

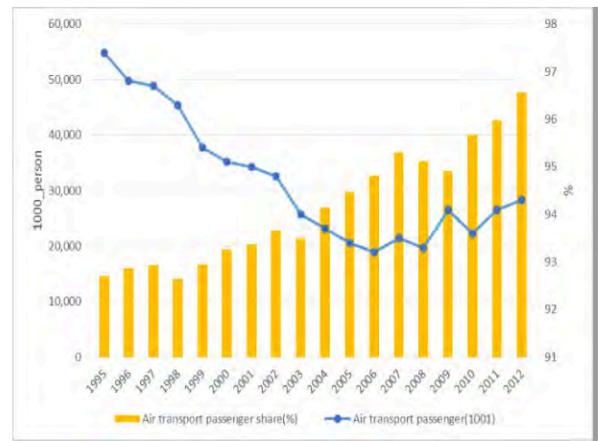


Figure 2: International air passengers in Korea
source: MLIT

	City	ICAO-code	Freight tonnes(1000)
1	hongkong	HKG	4,127
2	shanghai	PVG	2,856
3	seoul	ICN	2,395
4	tokyo	NRT	1,980
5	singapore	SIN	1,850
6	beijing	PEK	1,844
7	taipei	TPE	1,556

Table 1: Top 7 airports in Asia-Pacific region by freight tonnes handled (ICAO,2014)

The role of spoke airports and ports in Asia-Pacific region is increasing. It depends on the existence of the difference seen in this local logistics system, which is the problem for efficient logistics systems between Asia-Pacific region and other areas.

Previous Studies on Northeast Asia Transport Market

Many countries in Asia-Pacific region have liberalized their freight sectors first. The first step was de-linking air freight from passenger services, and removing entrance restrictions, and lifting the restrictions on third, fourth, and fifth freedom capacity. Since 2000, almost all of them in these regions introduced the so-called 'Open Sky Policy'. KIM, *et al.* (2012) reported Air transport market in Korea is currently facing with a new competitive system different from the formal by the two major airlines (Korean Air (KE), Asiana Airlines (OZ)).

The Sea & Air multi-transport developed annually with more than 50% due to the rising trade between Korea and China since 1990s. Even though the increasing rate of the Sea & Air multi-transport was slowdown, the demand for air freight transport has increased between China and Korea (Figure 1) (MLIT (2014), Jung, *et al.* (2012)). Demand for Sea & Air intermodal transport has increased between north-China coastal cities and Incheon since China's international airline network was still under development (Chung and Han, 2010).

Trace, *et al.* (2009) focuses on air transport market in the Archipelagic Southeast Asia region⁹. The markets has been under pressure for change to expand air transport market in t h e w o r l d . B y t h i s

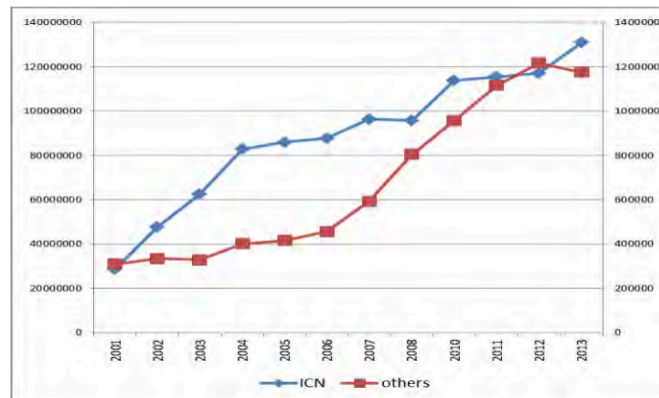


Figure 3: The air freight volume of ICN and other airports in Korea
source: The Korea International Trade Association (KITA)

tendency, this region bring about an aviation industry that provides improved connectivity. They note as valid that changes in logistics systems by increase in access through Sea & Air multi-transport between islands in this region.

⁹ Archipelagic Southeast Asia covers five Association of Southeast Asian Nations (ASEAN) member countries - Brunei Darussalam, Indonesia, Malaysia, the Philippines, and Singapore - together with Papua New Guinea and Timor-Leste (Trace, *et al.* (2009)).

Many reports were announced around 2009 concerning about Korea air transport market. Chung and Han (2010) analysed the freight demand of Incheon's Sea & Air multi-transport. This paper discussed the port and shipping environmental changes and the logistic situation of China. Open Sky Policy and Direct-Call Service have been carried out between China and other countries (i.e. North America). Incheon could imagine a loss of competitiveness in Sea & Air multi-transport due to the enhancement of the connectivity of Chinese airlines and shipping lines. This study shows that the Sea & Air multi-transport volume will have either slight increase or decrease in the recent situation. Chung and Han's study offered that Road Feeder Service expansion and system & service improvement through strong ties with major cities in China ¹⁰.

Jung, *et al.* (2012) estimated the volume of Sea & Air multi-transport by the data from the years 2007 to 2012 on the ARIMA-model, and volume will produce approximately 33,000 tons in the 2015. As a result, this study shows that 'Sea & Air multi-transportation-related information system policies' and 'the construction of consolidation logistics center' are the most important factor among the principle criteria.

Air Freight Transport Market after the Participation of New Airlines

The new entry airlines took a strategy based local airport that they established after the deregulation in Korea. An airport works not only for passengers and freights, but for local economic development. Even though the economic depression and new high speed rail way began, air transport continued to increase its demand both for hub airports such as Incheon international airport (ICN) and regional airports. The new airlines and local government which have above regional airports have made efforts to increase a demand for air transports. But, local airports still have been operated chiefly by central government as well as airport facilities, expansion and improvement of the airport, innovation of the airport system, development of international routes, and so on. Other airports in Asia-Pacific region have the similar problems except some other cases.

The new entry airlines which have been established in 2004. Table 2 shows 9 regional airports which started international air freights in 2005. Practically, international air freight handled started in 2006. The air freight volumes of regional airports had increased from 2007 until 2012 as Figure 3.

Compare changes of air freight volumes with growth rates of trade, Figure 4 does not show effective relations between air freight volumes and growth rates of trade. I expect trading in Korea would use shipping near 97% of International transport (Figure 1).

	airports	new	out
2001	10		
2002	9		1
2003	10		
2004	10		
2005	10	9	
2006	18		1*
2007	13		3
2008	12	2	
2009	13		
2010	17	1	
2011	13		
2012	15		
2013	14	2(1*)	
2014	14	1	

Table 2: The airports of international air freight handling in Korea

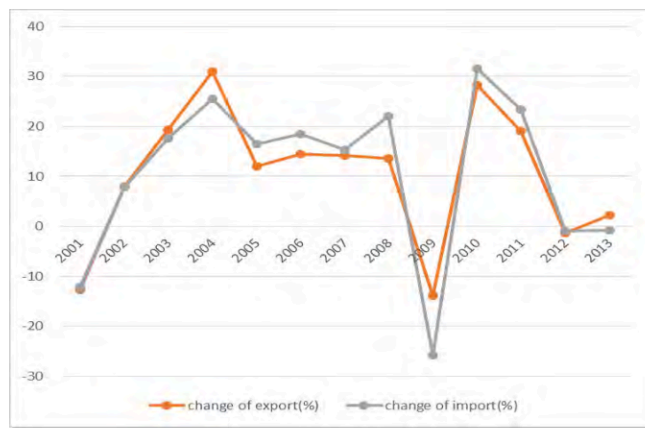


Figure 4: Growth rates of trade in Korea
Source: MTIE(2014)

¹⁰ Shanghai, Weihai, and Yantai.

source: KOSIS

	KOREA	ICN	PUS	CJU	TAE	CJJ	GMP
2001	-23	—	-29	5	-25	208	—
2002	16	61	12	23	-24	-94	-80
2003	25	25	3	128	-16	48	-46
2004	27	27	19	-12	-36	93	36
2005	5	6	-7	-7	-41	3958	307
2006	6	6	2	13	-12	76	1065
2007	10	10	3	-23	-49	-33	18
2008	0.3	0.3	3	45	177	28	349
2009	-12	-12	-17	58	-35	-46	-34
2010	29	29	32	-2	12	-59	21
2011	6	6	-1	-21	17	3549	197
2012	-2	-2	-34	-21	363	45	14
2013	8	8	-11	-16	6222	-100	-1
2014	4	4	2	-38	-26	121	-6

Table 3: Change rates of international air freights; top 6 airports in KOREA
source: KOSIS

There is a dramatic change in the rates of international air freights by top 6 airports in Korea as Table 3. Some of airports were often beyond 100%. One of them, Chungju international airport (CJJ) especially attracts attention. During a period of 13years, the change rate of was five times beyond 100%. CJJ announced it would become a hub airport of air freight in Northeast Asia region. In 2012, CJJ tied MOU (Memorandum of Understanding) with new airlines, Eastar Air (ZE, since 2007)¹¹. And CJJ was asked for privatization in 2012, but the project was not realized (2013)¹².

From the above research, it is apparent that air freight transport in regional airports had kept increasing volumes until 2012 since the introduction of Open Sky Policy. But, this study can reveal that international air freight transport from/to regional airport performance has not been stable. It is apparent that we should notice the data that transit freight marked over 50% on the international air freights.

Summarization

A remarkable increase on the international air freight transport and international air connectivity was improved. The efficient developments of international transport in Asia-Pacific region are required in various fields. My previous studies suggested system and service improvement and expansion, and mutual efforts by China, Japan and Korea standardized logistics systems. International Air Freights concentrate on Incheon and Pusan, and new entry airlines keep expanding their markets in the field of domestic air freight transport. Consequently, I consider it my major work to do further research on more effective development in Sea & Air multi-transport system.

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¹¹ Chungju Customs; Jan 12,2011 (access Sep 05,2015 from <http://www.customs.go.kr>)

¹² JoongAng Ilbo ;Jan 17,2013 (access Sep 05,2015 from: <http://article.joins.com/news>)

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