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# Executive Summary

## A Study on Influence of Global Logistics Route Changes on East Asian Logistics Market

### 1. Purpose

- This study aims to analyze influences that the changes of East Asia-North America and East Asia-Europe global logistics routes have on East Asia's shipping/port/logistics markets.
- The global logistics routes include East Asia-North America and East Asia-Europe container transport routes which have Busan as the port of call.
- The study reviews the current status of the subject global logistics routes of containers and conditions that change the existing global logistics routes of containers.
- It analyzes which channels have competitiveness based on the analysis model of the competitive relation of global logistics routes and forecasts influences that the changes of global logistics routes would have on East Asia's shipping/port/logistic sectors.

### 2. Methodologies and Features

#### 1) Methodologies

- Analyze various literatures including previous domestic and foreign studies and utilize experts' advises in related sectors in order to draw competition factors and analyze the competitive relations of global logistics routes.
- Compare transport distances, time and costs among competing routes to analyze the competitive relations by global logistics routes, and use the Log-Log model as the statistical analysis to predict cargo volume.
- For Log-Log model analysis, use the WISERTrade DB data of WISER (World Institute for Strategic Economic Research) that provides the trade statistics, data by import/export items and other information of about 130 countries around the world.

- Use AXSMARINE Data ([www.axsmarine.com](http://www.axsmarine.com)) for maritime transport distances and time and Time&Date ([www.timeanddate.com](http://www.timeanddate.com)) for inland transport distances.
- Use the data of Freight Analysis Framework Version 3 (FAF3) to analyze U.S inland logistics costs, the data of Euro-Asian Transport Linkages (UNECE, 2012) for Europe's logistics costs, and use market prices such as the actual market charges by Korea's major shipping companies for ocean freight charges.

## 2) Features

- This study identifies which region is most affected geographically by the changes of global logistics routes from a global perspective and how such changes ultimately influence East Asia's logistics market, rather than analyzing competitiveness and influence within limited zones which have been mainly covered by existing studies.
- In particular, it sheds light on the changes of global logistics routes from an East Asian perspective, presenting the direction and strategies that related Korean logistics companies and the government should take to approach the future logistics market.

## 3. Results

### 1) Summary

- In general, global maritime logistics routes have been connected from Asia to Europe via the Suez Canal, or from Asia to U.S west coast ports or via the Panama Canal to U.S east coasts without any significant changes for a long time.
- As the second Suez Canal was opened in 2015 and the Northern Sea Route that has been received attentions since the mid-2000s was commercialized, huge changes are expected for global logistics routes.
- In addition, the development of the Nicaragua Canal in South America and the Kra Canal in Asia is currently under discussion.
- This study analyzes competitiveness by channels by applying the change factors of the Suez Canal, Panama Canal, and North Pole Route out of global logistics routes.
- It draws competitiveness factors (time, cost) through review on previous studies, analyzing influences that the total transport costs by channels have on the cargo

- volume change through the Log-Log model with the data of VISERTrade.
- As for the routes from East Asian ports to U.S east coast ports, when comparing the U.S inland multimodal transport route and all water routes via the Panama Canal, the inland multimodal transport has slightly more competitive in terms of time, but the competitive advantage is expected to change depending on the origins/destinations of cargo in terms of cost.
  - As for Europe routes, TSR is shown to be most competitive, followed by the North Pole Route and Suez Canal, and such competitive edge becomes different depending on origins/destinations in Europe.
  - The influences that above results have on East Asia's logistics market are as follow.
    - Due to the expansion of the Panama Canal, the calling fleets are expected to be enlarged in U.S east coast ports, and as a result, ports would be required to improve port facilities and services for large ships to call at.
    - Since the opening of the second Suez Canal reduced the ship transit time, Hong Kong could have an advantage if cargos are transported toward U.S via the Panama Canal and Singapore could be more favorable if they pass through the Suez Canal to U.S in terms of cost and time.
    - Such changes would alter the calling pattern of transshipment cargos within the East Asian region, and it is possible that the transshipment function of Hong Kong becomes weaker while that of Singapore becomes stronger.
  - Korean logistics companies including shipping companies and port management companies are responding to the changes of global logistics routes as bellow.
    - Logistics companies need strategies to diversify and expand the comprehensive and professional service areas in respond to the change of end consumers' purchasing pattern and especially require strategies for the Central Eastern and Central and Southern U.S and Central and Eastern Europe where pierce competition is expected.
    - The competition range would be expanded for port management companies, and like Hong Kong the attracting strategies of cargos are required for ports that would have more options of cargo transport routes due to the change of the Suez Canal and Panama Canal.
    - Strategies should be established to undertake new projects including securing logistics centers at major hubs with the changing global logistics map and then to secure port hubs by stages.

## 2) Policy Contribution

- By analyzing the change of the global logistics map from various angles, this study helps the Korean government establish future response strategies and helps logistics companies extend their businesses abroad.

## 3) Expected Benefits

- Reduce the logistics costs and risks of companies by seeking the logistics routes with competitive advantages in North America and Europe which are the major trading regions of East Asian countries.
- Analyze the change of global logistics environment and utilize such analysis for logistics cooperation among East Asian countries down the road.
- Utilize such analysis as references for the overseas expansion of Korean private and public logistics companies.