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A Comparative Study on South-East Asian Leading Container Ports: Jawaharlal Nehru Port Trust, Chennai, Singapore, Dubai, and Colombo Ports

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Abstract: In today's globalized world international business is a very key area for the country's growth. Some of the strategic areas for holding up a country's international business to grow are in the areas of connecting Ports, Road Network, and Rail Network. India's International Business is booming both in Exports as well as Imports. Ports play a very central part in the growth of international trade and ensuring competitive ports is of critical importance. India has a long coastline which is a big asset for the country as it has given the opportunity for development of a large number of major and minor ports which will contribute to the maritime trades' development. The National Economic Development of India requires a well-functioning seaport system. To know the comparative strength of Indian ports over South-east Asian similar ports, the study is considering the objectives of (I) to identify the key parameters of an international mega container port, (II) to compare the five selected container ports (JNPT, Chennai, Singapore, Dubai, and Colombo Ports) according to user of the ports and iii) to measure the growth of selected five container ports' throughput over time and their comparison. The study is based on both primary and secondary databases. The linear time trend analysis is done to show the trend in quantum of exports, imports and total goods/services handled by individual ports over the years. The comparative trend analysis is done for the selected five ports of cargo traffic handled in terms of Tonnage (weight) and number of containers (TEU's). The comparative trend analysis is done between containerized and non-containerized cargo traffic in the five selected five ports. The primary data analysis is done comprising of comparative analysis of factor ratings through bar diagrams, statistical inference of factor ratings for the selected five ports, consolidated comparative line charts of factor rating for the selected five ports, consolidated comparative bar charts of factor ratings of the selected five ports and the distribution of ratings (frequency terms). The linear regression model is used to forecast the container capacities required for JNPT Port and Chennai Port by the year 2030. Multiple regression analysis is carried out to measure the impact of selected 34 explanatory variables on the 'Overall Performance of the Port' for each of the selected five ports. The research outcome is of high significance to the stakeholders of Indian container handling ports. Indian container port of JNPT and Chennai are benchmarked against international ports such as Singapore, Dubai, and Colombo Ports which are the competing ports in the neighbouring region. The study has analysed the feedback ratings for the selected 35 factors regarding physical infrastructure and services rendered to the port users. This feedback would provide valuable data for carrying out improvements in the facilities provided to the port users. These installations would help the ports' users to carry out their work in more efficient manner.

Keywords: throughput, twenty equivalent units, TEUs, cargo traffic, shipping lines, freight forwarders

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