Abstract

Container port production is both an important and complicated element in the modern-day global economy with extreme development in containerization which supports nations to grow. The enormous progress in shipping industry with regard to containerization has created a vast experimental lab. Having the aforementioned in mind this paper undertakes to estimate the effect of land and equipment or infrastructural or superstructure factors on the level of performance of a container port considering a sample of 30 ports in Asian region utilizing linear regression analysis. The scope of the study had to be limited to physical resources available in a container port due to the sensitivity of human resource data considering empirical studies that have been executed regarding the performance analysis of container ports, some of them have considered the human resource factor as well but some studies have clearly stated that due to the sensitivity of labour factor those studies only concerned on the infrastructure and superstructure factors.

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Container throughput has been taken as the output variable to describe the port performance and draft, number of quay cranes, number of berths, numbers of quay cranes etc. have been chosen as explanatory variables to analyze the response variable. Analysis were carried out employing a multiple linear regression model and it can be concluded according to the findings of the study that some factors such as number of berths and number of quay cranes have significant positive impacts on the port performance.

Since this study have not considered human resource factor it provide opportunities for further researches considering labour impacts and also this study wave paths for the exploration of the impacts of infrastructural and superstructure factors in container port performance considering other regions in the world as this study only considered the container ports in Asian region

Key terminology: seaport, terminal, container throughput, quay, berth, draft