

ABSTRACT

Competitiveness of marine container terminals in Poland

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Since 2006 the sector of marine container terminals in Poland has been developing very rapidly. The subject of research in the doctoral dissertation is the competitiveness of individual marine container terminals in Poland and the entire sector compared to competing container terminals in Western European ports. The area of competitiveness research is demanding due to many influencing factors, sometimes interrelated, of different importance and intensity of impact. The set of competitiveness factors seems to be hierarchical. The difficulty in determining the importance of each of them and determining the level of competitiveness of each terminal is the lack of a method that allows, using a simple indicator, a synthetic assessment of competitiveness based on the actual economic decisions of shippers. The paper proposes such an indicator. The level of expectations of various representatives of sea-owners and shippers was analysed in relation to the factors influencing the competitive ability. The competitiveness of marine container terminals in Poland was examined in the dissertation using various methods, including multi-criteria, principal component analysis (*PCA*), scaled heat map, correlation analysis, exploratory factor analysis (*EFA*), hierarchical clustering by k-means, J. Ward, non-parametric border analysis methods (*DEA*, *FDH*), parametric stochastic border analysis (*SFA*) and the objective ranking by A. Wierzbicki. Based on the study results of the competitiveness factors of these terminals their competitive ability was established, and by comparing their competitive positions, performance gaps were identified between container terminals operating in Polish seaports and terminals in Western European ports, and then recommendations were proposed to increase the competitiveness of the former.

Keywords: seaport, port services market, marine container terminal, marine container terminals competitiveness factors, methods of testing the competitiveness of container terminals, decision-making competitiveness indicator