

COMPARING PORT EFFICIENCY DEGREES BY MEANS OF DEAs (DATA ENVELOPMENT ANALYSES)

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ABSTRACT

The study of port logistic systems requires taking into account institutional, technical and economic factors. In particular, it follows that both formal and informal institutions influence the system in two disparate ways. On one hand they determine the incentives to invest in physical, technological and human capital. On the other, institutions have an influence on the economic organization, the competitiveness, and the quality of the services provided by a port. These aspects matter for the main attributes of the supply chains in the system, namely their timing, reliability, safeness and price. They define, in turn, the generation of wealth in ports. To analyze these features of port logistic systems we will apply the DEA (Data Envelopment Analysis) approach to assess the relative efficiency of decision units. This tool will provide the benchmarking necessary for establishing standards at all levels, both quantitative and qualitative. Finally, we will illustrate these ideas with concrete cases.

KEYWORDS. Operations Management, Logistics, Efficiency.