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Foldable Containers: a New Perspective on Reducing Container- Repositioning Costs

Technological, logistic and economic issues

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Abstract

There is little doubt that the requirement to reposition empty containers is one of the more persistent problems in the container transport industry, and is a key factor in cutting operating costs. Empty container transport involves high costs, particularly for shipping lines, since they generally bear these container management costs. Not surprisingly, shipping lines try to reduce the costs of moving empty containers as much as they can. Most strategies are focussed on improving the instruments to match cargo with empty containers. However, due to trade imbalances transport movements of empty containers remain to some extent unavoidable. Therefore, foldable containers seem an attractive option from the point of view of saving transport costs as well as handling and storage costs. So far, however, these containers have not been introduced successfully.

In this paper we analyse why previous initiatives for foldable containers failed and discuss the conditions required for successful commercial applications.

Although the economic advantages of foldable containers seem evident, we explain that these types of boxes have to cope with scepticism about technical performance, the complexity of the folding and unfolding process in particular, as well as logistical and organisational problems with using foldable containers.

Based on past experiences it is argued that the technical characteristics of foldable containers should be improved. Technological innovations form the basic condition to enhance the economic viability of these types of boxes, as well as gaining the confidence of potential users. The logistic concept according to which foldable containers are used proves decisive to overcome logistic and organisational barriers.

The most promising market opportunities for foldable containers are in logistic chains with a limited number of links within closed loops. In this situation there are expertise, experience and scale advantages in the folding and unfolding process and low organisational costs.

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