

Multimodal transport integration strategy to import steel slabs. A case study.

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Abstract

In recent years, material imports in the steel industry has increased for several reasons, therefore efforts have focused on optimizing port logistics processes to increase their efficiency. The steel slab is a semi-finished steel product of rectangular section, obtained by continuous casting processes for its use in rolling mills to produce rolled steel rolls. On the other hand, the port of Brownsville represents for the company under study the main point for the importation of steel slabs. Due the demand growth of this material in the last years and the reduction of space in the closest yards to the unloading zone inside the port, the management of the material handling is indispensable. The case study presented on this article aims to reduce costs in their logistic processes in the importation of steel slabs starting on the material unload of the ship to the load of rail wagons that go to the manufacturing facility. Based on the methodology for the analysis of logistics processes a reduction of more than 30% of logistics costs was calculated.

Keywords

Steel slab, Logistics, transportation integration, port of Brownsville, material handling, analysis of logistics processes

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Biographies

Teresa Verduzco-Garza is a Researcher Professor at the Industrial and Systems Engineering School in University of Monterrey (UDEM) in Mexico. She received a BS in Industrial and Systems Engineering in 1998, an MS in Business Administration in 2005, and a MS in International Commerce in 2006 at UDEM. At the moment, she is a PhD Candidate in Management focused on logistics and supply chain operations at the Autonomous University of Nuevo León (UANL) in Mexico. Her expertise focuses on Logistics clusters for competitiveness, Operations Management, Supply Chain Operations, and Soft Systems Management. Prior industry experience includes 12 years improving enterprises performance through project management and strategic planning. She is an active member of the American Production and Inventory Control Society (APICS) and The Competitiveness Institute (TCI). She has published and presented her work at international forums like IISE World Conferences, TCI Global Conferences, SISE World Conferences and other regional conferences.