國立高雄大學統計學研究所
巨量資料研究中心
聯合演講

Order Placement Strategy Based on Trend Forecast of Bulk Shipping Hire Rate Methods

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時間│ 2025年3月19日(星期三)上午10:30-11:30

地點│ 統計所多媒體教室(理學院 320室)

茶會│ 上午10:00 於統計所辦公室(理學院 325室)

摘要

In this talk, we introduce a data-driven methodology to optimize chartering strategy within the steel industry, with a specific focus on Taiwan's bulk carrier imports from Australia. A high charter rate means the steel industry needs to incur higher costs to rent the bulk carrier. To reduce these costs, we propose a strategy that aims to place orders when the charter rate is relatively low, and consists of two steps: (1) predicting the trend of charter rates for the upcoming month using an ARX model, and (2) determining the optimal time to charter a vessel based on the predicted trend from step (1). Through our research, we identify several key factors that influence charter rates, including fuel prices, demand fluctuations, and geopolitical events. Our findings demonstrate a substantial cost reduction ratio (CRR) of 0.10, representing a 10% cost reduction, leading to significant savings compared to alternative strategies. This study provides valuable insights to enhance supply chain management and improve the efficiency of raw material imports in the steel industry.

Keywords: Maritime Transport, Bulker Charter Rate, Forecasting, Order Placement, Strategy Design.

近期演講內容: https://statsite.nuk.edu.tw/

高大交通資訊: https://statsite.nuk.edu.tw/p/412-1037-5044.php?Lang=zh-tw

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