

The Reference Point as a Platform Design Variable: Information Disclosure Policies and Shipper Retention in Freight Matching

Ezgi Topuz Buldanli

Wageningen University & Research

Digital freight platforms remain viable only if they retain shippers and carriers. However, retention depends not only on match quality but on how users judge their matches against the information the platform decides to disclose. We develop an agent-based model in which a platform assigns shippers to carriers in each period under alternative matching objectives, including cost minimization, revenue maximization, and reliability maximization. Shippers evaluate each match against a reference point using a scale-invariant evaluation function, accumulate satisfaction over time, and exit permanently when satisfaction falls below a threshold. Three levels of information are compared: disclosure of the market range, disclosure of the market mean, and private references formed from shippers' own transaction histories. Under range disclosure, revenue maximizing matching earns more per shipment but retains only 23% of initial shippers against 86% for reliability-based matching, so its revenue per period is less than half. The revenue advantage of reliability-based matching narrows under mean disclosure and reverses under private references. Which matching objective maximizes platform revenue is therefore conditional on the disclosure policy rather than a property of the objective itself. The main insight is that short-term efficiency does not guarantee long-term viability.