

# 棧板租賃產業之逆物流績效評估模型

呂紹銘, 鄭弘裕, 馬恆

工業工程與系統管理學系

管理學院

hengma@chu.edu.tw

## 摘要

Global warming has recently raised a number of important issues, such as raw material usage, carbon emission, and resource recycling. As far as resource recycling is concerned, reverse logistics has increasingly drawn researchers' attention. This research has developed a reverse logistics model for pallet renting industries. Pallets have been widely used in a variety of channel selling or storage companies as containers for semi and final products. It is the most popular way that pallets are acquired by enterprises by purchasing; however, tasks like pallet amount determining, recycling, cleaning, wearing, and cost present problems. Pallet renting industries have accommodated these problems by centrally performing the tasks. As pallet renting becomes more and more popular, a business model that can effectively control the inventory, cost and throughput has become very important. This research proposes a forecasting model which integrates VMI, RFID, simulation and statistical methods for analyzing purposes. The proposed model has devoted itself to increased throughput, lower inventory cost and idle time, and thus promotes the customer satisfaction.

**關鍵字** : Reverse logistics, Retrieving performance evaluation, Vender management inventory (VMI), System simulation