

Narat Doungpattra 2011: Study of Efficacy Indicators for Pallet Turnover Using Simulation Approach. Master of Science (Packaging Technology), Major Field: Packaging Technology, Department of Packaging and Materials Technology. Thesis Advisor: Mr. Lerpong Jarupan, Ph.D. 145 pages.

The attempt of this study was to explore possible bottlenecks toward the pallet flows within an illustrative factory and warehouse through a computer simulation technique. The rental pallet service provider was employed in the system. The number of pallets waiting in the queuing areas of the factory and distribution center was anticipated. The pallets utilization was also concerned in this study. The discrete simulation technique to investigate the pallet flows within the factory and warehouse was set for analyzing the system performance and investigating alternative configurations and policies for its operations.

To compare the alternatives, aggregated performance measures related to the average amount of pallet waiting in the queues within factory and distribution center and the average pallets utilization of pallet were used. The simulation results showed that when with out rental pallets to support the product helped eliminate an unnecessary waiting time of pallet and amount of pallet waiting and made the total amount of pallet waiting in the system decreased as well. Meanwhile when there is the greater customer delivery rate occurred, the more pallet movement in the system will be followed so the total amount of pallet waiting will be declining.

_____/ /
Student's signature

_____/ / / /
Thesis Advisor's signature