

ABSTRACT

With the continuing globalization of the economy, the volume of container shipments has significantly increased. A key concern in the transportation industry is to design efficient and effective loading schemes for maximizing container space utilization, thereby reducing the container shipment volume, and saving logistics costs and delivery time. Therefore this research is interested in finding a method for an optimal number of cartons and arranging a loading plan to achieve container space utilization by introducing optimization computer software. Solving the ABC company's problems reduces transportation cost and reduces order cycle time by applying logistics and supply chain strategies such as eliminating waste time in the process, and improving supply chain collaboration to increase effectiveness and efficiency by all the parties concerned. This will also enhance customer satisfaction and enable the company to become more competitive in the market.