

A Two Stage Solution Procedure for Real-Life Location-Routing Problem

Warehouse location selection and vehicle routing are two important problems that are studied in supply chain literature. Although it is possible to solve the classical warehouse location selection problem at the optimal level for most cases, the vehicle routing problem is more difficult to solve. The simplest version of vehicle routing problem is the travelling salesman problem (TSP) which is NP-Hard. Recently, warehouse location selection and vehicle routing problems are analyzed together as an integrated problem referred as location-routing problem. In this study, we analyzed this integrated problem for a food manufacturer in Konya, Turkey and display a two stage solution procedure based on mathematical programming.