A mixed integer programming model formulation for solving the lot-sizing problem

Abstract

This paper addresses a mixed integer programming (MIP) formulation for the multi-item uncapacitated lot-sizing problem that is inspired from the trailer manufacturer. The proposed MIP model has been utilized to find out the optimum order quantity, optimum order time, and the minimum total cost of purchasing, ordering, and holding over the predefined planning horizon. This problem is known as NP-hard problem. The model was presented in an optimal software form using LINGO 13.0.