Abstract

This work addressed the tactical production planning for perishable products with partial postponement strategy in which the cost is minimized subject to a set of constraints such as labor working time and machine time. For a specific final configuration some portion of demand has less demand fluctuation and we can use make-to-stock strategy to respond demand. But for
other portion of demand which has high degree of uncertainty, we use concept of postponement and it will be beneficial. We compute the level of postponement capacity and finished goods inventory by developing a mixed integer nonlinear programming model. We have analyzed the behavior of the model to make managerial insight under different scenarios of fill rates and finished-goods inventory costs. Our finding shows the finished goods inventory and fill rates can decrease the expected total cost and increases postponement capacity.

Reference

- Bish, EK. Suwandechochai, R. 2010. optimal capacity for substitutable products under operational postponement. European Journal of Operational Research 207: 775–783


Production Planning for Perishable Products with Partial Postponement Strategy

Index Terms
- Computer Science
- Operational Research

Key words
- Production management
- mass customization
- partial postponement
- perishable