

# Minmax Distribution Free Policies for Continuous Review and Periodic Review Inventory Models

문 일경

부산대학교 공과대학 산업공학과

## Abstract

The stochastic inventory models, such as continuous review models and periodic review models, require the information on the lead time demand. However, the distributional information of the lead time demand is often limited in practice. We relax the assumption that the cumulative distribution function, say  $F$ , of the lead time demand is completely known and merely assume that the first two moments of  $F$  are known and finite. The minmax distribution free approach for the inventory model consists of finding the most unfavorable distribution for each decision variable and then minimizing over the decision variable. We solve both the continuous review model and the periodic review model with a mixture of backorders and lost sales using the minmax distribution free approach.