

# Replenishment planning in assembly systems under lead time uncertainty

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## **Abstract**

In literature, most papers examine several stochastic demand processes where order lead times are constant. In reality, manufacturing firms use inventory management software, especially MRP, which ignored lead time uncertainty. It is true that in certain special cases, lead time uncertainty has essentially no effect and can be ignored. Nevertheless more often, lead time fluctuations strongly degrade tools performance and cause high production costs, just as demand uncertainty does. Seemingly, uncertainty has been neglected for a long time in favour of studying demand uncertainties. Industry agrees that it is overdue and there is a need to rectify this oversight. Nowadays, this gap in research activity begins to be filled in order to respond to companies having non-deterministic lead-times constraints. A new approach of replenishment planning under uncertainty of lead times is proposed and a survey of our results is given.