Sensitivity analysis of stochastic (s, S) inventory model with Poisson demand process and exponential lifetimes

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In [L. Liu, Operations Research Letters 9 (1990), pp. 161–167] a stochastic (s, S) inventory model with Poisson demand process and exponential lifetimes is proposed. Based on those results, we give an algorithm for finding optimal values of the parameters s and S. The algorithm is tested on numerical examples for different values of the model parameters. Also, theoretical results are obtained for the sensitivity analysis of the optimal values depending on the change of some of the parameters of the mentioned inventory model.