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Economic production lot size for deteriorating items taking account of the time-value of money. (English) [Zbl 0933.90007](#)

Comput. Oper. Res. 26, No. 6, 545-558 (1999).

Summary: This study applies the discounted cash-flow approach to a deterministic inventory model of an item that deteriorates over time at a varying rate. An optimization framework is presented to derive optimal production and pricing policies to maximize the net present value of profits over a finite planning horizon. A numerical example is provided to illustrate the optimization procedure.

MSC:

90B05 Inventory, storage, reservoirs

Cited in **21** Documents

Keywords:

varying rate of deterioration; price-dependent demand; time-value of money; deterministic inventory model

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