

**The Effect of Time-Value of Money on Continuous Review  
Inventory Model with Controllable Lead Time**

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**Abstract**

This paper follows the discounted cash flow (DCF) approach to investigate inventory replenishment problem with controllable lead time. We establish a replenishment model and prove that the expected present value of total cost is a convex function of cycle length. The results are discussed through a numerical example. Sensitivity analysis of the optimal solution with respect to the parameters of the system is carried out.

*Keywords:* Inventory, Lead Time, Time Value of Money, DCF Approach.