

## Article Abstract

Title:	A cash flow oriented EOQ model under permissible delay in payments
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Abstract:	This study presents an inventory model to determine an optimal ordering policy for non-deteriorating items and time-dependent demand rate with delay in payments permitted by the supplier under inflation and time discounting. Mathematical models have been derived under two different situations, i.e. Case I: The permissible delay period is less than or equal to replenishment cycle period for settling the account and Case II: The permissible delay period is greater than replenishment cycle period for settling the account. This study determines the optimal cycle period and optimal payment period for item so that the annual total relevant cost is minimized. An algorithm is given to obtain optimal solution. The main purpose of this paper is to investigate the optimal (minimum) total present value of the costs over the time horizon H for both cases (i.e. case I and II). An algorithm is used to obtain the minimum total present value of the costs over the time horizon H. Finally, a numerical example and sensitivity analysis demonstrate the applicability of the proposed model and managerial insights.
Keywords:	Pricing, Inventory, Non-Deterioration, Inflation, Delay in payments, Permissible, Replenishments, Cash flow.