Economic order quantity models with upstream partial trade credit and downstream full trade credit

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Abstrak

Traditional EOQ models are assumed that it is upstream full trade credit and down steam partial trade credit. In most business transactions, this assumption is debatable. In this note, this paper establishes a new EOQ model under two levels of trade credit, in which the supplier offers to the retailer a partial trade credit period for payments even if the order quantity is less than W, and simultaneously the retailer in turn provides a full trade credit period to its customers. Furthermore, we assume that the trade credit period (N) offered by the retailer to the customers is less than or equal to the trade credit period (M) offered by the supplier. And the retailer starts earning revenue from time N to time (T + A/), not from time 0 to time T. Six theorems are developed to determine retailer's optimal ordering policies and numerical examples are given to illustrate these theorems.