this paper is independent of G . Consequently, Theorem 1 in this paper not only gives the complete proof for Theorem 1 in Teng (2002) but also generalizes it.

Adopting the same notation as Teng (2002), we have

$$Q(T_1^*) = DT_1^* = \sqrt{\frac{D[2S + Dt^2(cI_c - pI_d)]}{h + cI_c}} \quad \text{if } G > 0 \quad (19)$$

$$Q(T_2^*) = DT_2^* = \sqrt{\frac{2DS}{h + pI_c}} \quad (20)$$

and

$$Q^* = EOQ = \sqrt{\frac{2DS}{h + cI_c}} \quad (21)$$

Equation (10) shows that if $G \leq 0$, then T_1^* does not exist. So, Equation (19) is not defined. Consequently, Theorem 2 in Teng (2002) should be modified as follows.

Theorem 2 (A) Suppose that $G \leq 0$. Hence,

- (a1) If $cI_c < pI_d$, then $Q(T_2^*) < Q^*$.
- (a2) If $cI_c > pI_d$, then $Q(T_2^*) > Q^*$.
- (a3) If $cI_c = pI_d$, then $Q(T_2^*) = Q^*$.

(B) Suppose that $G > 0$. Hence,

- (b1) If $cI_c < pI_d$, then $Q(T_1^*) < Q^*$ and $Q(T_2^*) < Q^*$.
- (b2) If $cI_c > pI_d$, then $Q(T_1^*) > Q^*$ and $Q(T_2^*) > Q^*$.
- (b3) If $cI_c = pI_d$, then $Q(T_1^*) = Q^*$ and $Q(T_2^*) = Q^*$.

Conclusions

No matter which method is used to prove Theorems 1 and 2 in Teng (2002), processes of proofs should be logical and reasonable such that readers can accept them. This viewpoint has demonstrated that the processes of proofs about Theorems 1 and 2 in Teng (2002) has shortcomings. So, Theorems 1

and 2 in this paper are used to overcome shortcomings of Theorems 1 and 2 in Teng (2002). Finally, Theorem 1 in this paper not only gives the complete proof for Theorem 1 in Teng (2002) but also generalizes it.

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As shown in Teng (2002), the optimal replenishment cycle time T_1^* for the case of $T \geq t$ is

$$T_1^* = \sqrt{[2S + Dt^2(cI_c - pI_d)]/[D(h + cI_c)]} \quad (6)$$

Therefore, I simply assumed that $2S + Dt^2(cI_c - pI_d) > 0$, and ignored the uninteresting case of $2S + Dt^2(cI_c - pI_d) < 0$, in which T_1^* does not exist. I thank the authors of this viewpoint for paying attention to the details and discussing the case in which T_1^* does not exist.

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