

REVIEWER'S REPORT

Manuscript No.: IJAR-59121

Title: Refinement of Inventory Policy for Perishable Item under Combined Effect of Inflation, Limited Storage and Hybrid Backlogging Function.

Recommendation:

Accept as it is ☐☐☐☐..

Accept after minor revision ☒☐☐☐

Accept after major revision ☐☐☐☐☐

Do not accept (*Reasons below*) ☐☐☐

Rating	Excel.	Good	Fair	Poor
Originality		√		
Techn. Quality		√		
Clarity		√		
Significance		√		

Reviewer ID: JP085

Reviewer's Comment for Publication.

The manuscript develops an inventory model for perishable items considering inflation, limited storage capacity, deterioration, and hybrid backlogging. The topic is relevant to inventory and supply-chain management, but several mathematical, notation, presentation, and validation issues need correction

Strength:

1. The study addresses an important and practical inventory problem.
2. It combines inflation, deterioration, storage limitation, and partial backlogging in one model.
3. The inclusion of both waiting time and price in the backlogging function is relevant.
4. Numerical and sensitivity analyses are included.
5. The manuscript attempts to provide an integrated optimization framework..

Weakness:

1. Some mathematical equations are incomplete or unclear.
2. Notations are inconsistent in different sections.
3. The same symbols are used for different parameters.
4. The derivation of the equations needs more explanation.
5. The storage-capacity constraint is not clearly applied.
6. The backlogging function needs clearer explanation.

Overall assessment:

The topic is relevant and the proposed integrated model has potential, but substantial mathematical correction, clarification of assumptions and notation, verification of equations and numerical results, improvement of figures, and language editing are required before the manuscript can be considered further.

Recommendation: Manuscript accepted for publication after minor revision.