Reviewer Comments & Respond

|  |  |  |  |
| --- | --- | --- | --- |
| Reviewer | Comment no | Comment | Respond |
| 1 | 1 | the author need add conclusion section | The conclusion section has been added |
| 4 | 1 | The graphical representation should be improved! | We have made some improvements on the graphic representation. |
| 7 | 1 | In p. 7, the definition of yk is not complete, in which case yk = 0 | The definition has been edited. |
|  | 2 | More justifications are needed to show that the penalty function introduced in the optimization problem fulfills the one-year minimum order quantity contracts | We made graphic comparison between distribution of one-year minimum order and one-month order quantities. |
|  | 3 | Since the objective function is defined as the sum of the holding cost, the purchase cost, the authors should show the optimum costs obtained in validation examples and discuss if these costs are acceptable. | We made a clear statement that the purchased cost obtained by obj function III has the lowest cost. |
| 9 | 1 | This method should be compared with other methods in detail. | We discuss the comparison in the supplementary material we write after the article. |
|  | 2 | Graphical representation of some results is required | Noted |
|  | 3 | The structure of sentences needs some improvement. | We made some sentence improvements. |
|  | 4 | The motivation of the method is not discussed. | The motivation of the method has been added on the first paragraph of section 1. |
|  | 5 | The history of the subject needs to be defined. | We discuss the history in the first paragraph of Section 1 and in the supplementary material we write after the article. |
|  | 6 | A geometric explanation needs to be described along with a mathematical explanation. | We have added some explanations following some mathematical expressions. |
|  | 7 | What would happen if we changed constraints? | We discuss it in the conclusion section. |
|  | 8 | Limitations of the method are not discussed. | We discuss it in the conclusion section. |
|  | 9 | There should be some supporting theorems. | We focus on the derivation of the optimization model and the selection of an appropriate solver. The ompr package in fact offers the possibility to solve a model with different solvers, and the most appropriate solver will be used. Our experiences with the ompr package made us confident with the algorithms in the ompr package. For that, we did not propose any theorem on the solution technique. |
|  | 10 | Efficiency and consistency of the method should be discussed. | We discuss it in the conclusion section. |