

Modifying Inventory Classification Policies Using Loss Rule

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Abstract

In modern world, inventory management is a complex task due to the ever increasing stock in inventory. It is very difficult to treat each item individually and then applying stock and service control guidelines. It is observed that in order to apply generic controlling policies, items are often grouped into categories. Traditionally, items were classified into A, B and C categories using ABC classification based on their dollar usage. However, the need of modification arises as the profit of each item is determined not only using its own sales, but also from its influence on the sales of other items, which is known as 'cross-selling effect'. The real profit of an item is always less than its self profit because a portion of its self-profit is influenced by other items that have cross-selling effect with it. This cross selling factor can be calculated with the help of loss rule. In this paper, a new approach for classification of inventory is proposed taking the concept of loss rule into consideration. Items are first classified according to their loss profits and separate economic order quantity (EOQ) for each category is calculated. The results obtained are then compared with the traditional approach.

Key words: EOQ, ABC Classification, Cross Selling Effect, Loss Rule

