

عنوان مقاله:

Adjusting the credit sales using CVaR-based robust possibilistic programming approach

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خلاصه مقاله:

The purpose of this study is to develop a dairy global supply chain planning model in which operational and financial dimensions are appropriately integrated in order to adjust the credit sale strategy. In order to evaluate the financial performance of the dairy supply chain, economic value-added index and some financial ratios are used. The proposed model is compared to traditional approaches, which usually use the profit maximization as an objective function. Also, the amount of credit sales is considered as a decision variable for the first time in this research. The developed model utilized a new risk measure, i.e., the fuzzy CVaR, to cope with the uncertainty of the exchange rate and the quality and quantity of returned products. The effectiveness and efficiency of the proposed model are analyzed and assessed using the data of a real dairy supply chain. The analysis of results obtained from the developed fuzzy mathematical model shows an increase in profit and a reduction in semi-variance compared to previously developed models. Also, some numerical experiments analyses index and the impact of credit sales strategy.

کلمات کلیدی:

Financial flow, milk supply chain, credit sales, economic value-added, fuzzy mathematical programming, robust possibilistic programming, global supply chain

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