

عنوان مقاله:

Optimizing a Sustainable Battery Closed-Loop Supply Chain

محل انتشار:

سیزدهمین کنفرانس بین المللی انجمن ایرانی تحقیق در عملیات (سال: 1399)

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خلاصه مقاله:

One reason that companies collect their used products and use them again is the gained profit that derives from using them in the production process. Other reasons, such as the environmental and social effects of using these products, motivate companies to have a closed-loop supply chain by adding reverse logistics to their supply chain. The battery is one of the products that can be used again after the end of its lifecycle. A supply chain can be sustainably optimized through the performance of its different facilities regarding sustainable regulations. In situations that there is more than one facility on each level, these facilities can be prioritized by different means such as the Analytic Hierarchy Process. In this paper, the environmental and social objective functions are modeled by the performance level of different facilities multiplied to their priority. Finally, the formed multi-objective model is solved by the fuzzy goal programming approach.

کلمات کلیدی:

Sustainable supply chain, Closed-loop supply chain, Battery, Fuzzy goal programming, Analytic Hierarchy Process

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