

## عنوان مقاله:

A new model for design of green closed-loop supply chain

## محل انتشار:

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## خلاصه مقاله:

Integration between forward and reverse logistics has been modeled in closed-loop supply chain model. The proposed model is with changes such as adding collection center, recycling center and distribution center to the base model of closed-loop supply chain, flow returns of material to the cycle of production, green selection and evaluation of suppliers with a new approach and operational risk suppliers. Model is multi-objective, multi-product, and multi-part. The objective functions are briefly maximizing profits minimizing the poor quality. Various sectors such as supply chain capacity constraints, demand, and balance of flow in different sections of closed-loop supply chain and supply budgets are included. Mixedinteger programming model but is NP-hard problem. This problem is solved with epsilon constraint. The effectiveness of the mathematical model with GAMS 22.0 is demonstrated in a numerical example

## کلمات کلیدی:

Closed Loop Supply Chain, Green Supplier Selection, Mathematical Model, Epsilon Constraint

## لینک ثابت مقاله در پایگاه سیویلیکا:

<https://civilica.com/doc/766810>

