عنوان مقاله:

Proposing a Mathematical Model in Close-Loop Supply Chain with Production Time and under Suppliers' Uncertainty

محل انتشار:

اولین کنفرانس بین المللی بهینه سازی سیستم ها و مدیریت کسب و کار (سال: 1396)

تعداد صفحات اصل مقاله: 8

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خلاصه مقاله:

In recent decades, raw materials and resources have become remarkable, in other words, they have significant role in production industries or service organizations. In other hand, population is increased every day. Increasing population means increasing demand for goods or services. So it is necessary to consume more resources for provision of services or goods. In addition, there are many government or Environmental Protection Agency laws that restrict the use of resources. Therefore, supply chain has become one of the most important problems nowadays. In this research, close loop supply chain with considering suppliers' uncertainty, disruptions and also production cost are modeled. The purpose of this problem is minimizing the considered system according to location decisions, the flow rate between levels and lost sales. Lagrangian relaxation method is used in order to solve this NP-hard problem. At the end, a numerical example for model and method has been tested. Results show that running time of the problem with GAMS is higher than with this method in big scale problem. Sensitivity analysis have been done on the rate of return, capacity and budget

کلمات کلیدی:

Close-Loop supply chain, Lagrangian Relaxation