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论文

闭环供应链网络设施竞争选址模型研究

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Study on Location Model of Facility Competition for Closed Loop Supply Chain Network

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摘要 如何把握市场竞争趋势的变化,充分了解行业竞争状况,为企业新建设施选择具有竞争优势与发展前景的位置,是企业进入新市场要解决的首要问题。考虑一个大型企业计划开设一定数量的制造/再制造工厂和销售/回收中心以进入一个区域市场,在此市场上已存在若干同类设施的情况下,通过分析新进企业与这个区域内现有企业构成一主多从Stackelberg主从对策问题,将均衡模型捕捉的由新进企业引起的网络均衡态的变化引入位置决策过程,建立设施竞争选址模型决策在竞争环境中使新进企业利润最大化的位置,以及产品生产量、各层设施间的产品交易量和产品价格等决策。针对模型的特点,提出了遗传算法与QPADM算法相结合的求解策略,最后利用提出的模型和求解算法对算例进行计算与分析。

关键词： 闭环供应链网络 设施竞争 均衡模型

Abstract： To grasp the change of market competition trend,and fully acquaint industry competition situation,the most important thing for an entering enterprise to do is to choose locations which have the competitive advantage and developing prospect for the new facilities of the entering one.A large-scale enterprise will set up a number of manufacture/remanufacture firms and distribution/recycling centers and enter into a geographical market.There are already the same kinds of facilities in the market.Under the conditions,the entering enterprise and all competitors in the market form one-leader-multiple-follower Stackelberg strategies problem that is analyzed.An equilibrium model is developed to capture the change of the network equilibrium state caused by the entering one,and the change captured is led to the location decision process.A facility competition location model is build to determine location decision of these facilities to maximize the profit of the entering one under competitive condition,the amount of products produced,the amount of products transacted and the price,etc.According to characteristic of the model,a solution method integrates the genetic algorithm and QPADM method is built to solve the problem.Finally,numerical examples are solved and analyzed by using the proposed model and algorithm.

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[1] 崔连标, 范英, 朱磊, 毕清华, 张毅.碳排放交易对实现我国“十二五”减排目标的成本节约效应研究[J]. 中国管理科学, 2013,(1): 37-46

[2] 杨珺, 王玲, 杨超.优化设施服务的网络调整费用均衡问题研究[J]. 中国管理科学, 2009,17(5): 75-80

[3] 四兵锋, 高自友.多模式交通条件下合理制定旅客票价的优化模型及算法[J]. 中国管理科学, 2000,(4): 56-63