عنوان مقاله:

Inventory-location, linear and single-objective model to minimize distribution and holding inventory costs of petroleum products

محل انتشار:

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خلاصه مقاله:

The existence of oil is vital for many industries and the industrial world depends on it for its survival, so oil is of particular importance to many countries.Iran is a global superpower in the field of energy and Iran's oil industry plays a key role in it. In general, the oil industry includes exploration, extraction, refining, transportation (often by oil tankers and pipelines) and finally marketing of petroleum products.The downstream part of oil, which includes crude oil refining, natural gas refining, production, marketing and distribution of products produced, has been studied in this study. The model is an inventory-location, linear, and single-objective model to minimize the costs of distributing petroleum products to warehouses by tanker, ship, or pipeline, and the costs of holding inventory of the product and finally the costs of constructing local warehouses in three of the six proposed locations. This model is considered multi-product (gasoline and diesel), multi-period and definite, and its network components include supplier, production, warehouse and distribution. Model constraints include access constraints, environmental constraints, material transfer capacity, facilities and warehouses, demand, material balance, and exports. At the output of the developed model, the amount of exports from local warehouses is zero and exports are only from transit warehouses. From three selected locations for local warehouses, two warehouses will be built in Bandar Abbas and one warehouse in Hajiabad.

کلمات کلیدی:

Supply chain, Inventory planning and control, Transportation, Oil, Location, Optimization, Modeling