

SUBSTANTIATING THE OPTIMAL DISTRIBUTION POLICY USING MARKOV DECISION PROCESSES

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Abstract

The paper represents a means of substantiating the optimal policy of transport and distribution of goods groupage using Markov's decisional processes, respectively through R. Howard's method of strategies' space. This kind of method is based on an iterative optimization algorithm, whose structure permits that, with the successive covering of each method, to limit the number of ulterior repetitions. In this way, the optimal policy that result, constituted from a number of decisions, finite or not, aims at optimizing the following decisions in a close connection with the first decision's consequences, whatever that would be.

Concretely, a logistic centre's managers have the responsibility of identifying the optimal transport policy of the unit loads prepared for being shipped in three ways: palletized, containerized and packaged, according to the ways of transport which will be used: causeway, railway and airway, and the costs associated to each shipping means.

Keywords: distribution centre, optimal policy, decision, average cost, unit loads.

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