ABSTRACK

Distribution refers to the steps taken to move and store a product from point of origin to point of destination. Usually the company faces distribution problems associated with limited resources or capacity that the company should distribute its products to various destinations.

PT. Circle K Indonesia Utama, Bandung has 42 Circle K outlets scattered in Bandung. In this time, PT. Circle K Indonesia Utama, Bandung using 5 fleet with five distribution routes to serve these outlets. But the design of the five routes of this distribution is only based on estimates, without any mathematical calculations that support, so that the optimization capacity of each fleet is still lacking, it can be seen from the number of empty space on each vehicle dispatched. This case can be inserted into Single-Depot CVRP.

In this study will be analysed logistic distribution route using Clarke and Wright algorithm in order to obtain the optimal route, so that known the number of trips that should be conducted in accordance with the capacity of each fleet. Data distance between outlets and outlets to the depot will be analyzed to obtain the savings distance of each pair combination outlet, then the savings distance will be ranked to determine priority in determining order of a route, taking into account the total demand of outlets in a single route in order not to exceed capacity of the fleet .

From processing data based on Clarke and Wright algorithm, obtained four proposals route a more optimal. By using the four proposed routes, the fleet is used only four pieces fleet with a total travel distance of 17.718 km shorter than using five routes in the existing condition. In terms of distribution cost efficiencies can be obtained distribution cost savings for Rp1.754.500, - per month.

Key words: Distribution, Single-Depot CVRP, Clarke and Wright algorithm.