ABSTRACT

Perum BULOG Sub-Divisi Regional Subang is one of Indonesian company who operated in national food. In Inpres No.3 2012, explained that one of main task of Perum BULOG is provide and distributing subsidized rice for low income people whom created in RASKIN's program. Distribution process of subsidized rice is not only do in regional. But also spesificlly serve customer in lower state on city by every sub-division unit.

Currently, distribution process whose do by Perum BULOG Sub-Divisi Regional Subang which have 4 storages and 8 cars transportation, often have many obstacleses. Many obstacles of distribution process are when distribution process from storage to customer take a far way or distance, not have distribution route yet, and did not have schedule for distribution so that every transportations are not in maximum usefull to distributing rice for 253 villages in subang. So that in that case, the problem of distribution is Multi Depot Vehicle Routing Problem.

To solve this case, do the "cluster first, route second" with clustering nearest insertion algorithm whose clustering the distribution point for every storages with nearest distance and it will have 4 cluster after clustering process. Next, 8 transportations that have of this company will allocated for every storage. And then, in routing process can do with clark and wright saving algorithm which route the transportation that have short saving distance and transportations capacity. Then scheduling process do with attention the allocated transport and operational time with limited work time.

Then it will have counted result when created 4 depot are Binong that have 56 distribution point and created 47 route with distribution process in 7 days and 2 truck for transportation. Pamanukan that have 45 distribution point and created 43 route with distribution process in 8 days and 1 truck for transportation and 2 truck which help. Patokbeusi that have 48 distribution point and created 57 route with distribution process in 8 days and 2 truck for transportation. Subang that have 104 distribution point and created 74 route with distribution process in 8 days and 3 truck for transportation.

Keywords : MDVRP, Cluster First-Route Second, Nearest Insertion, Algoritma Saving Clark and Wright, Perum Bulog