

ABSTRACT

This research combines of the distribution fertilizer products, consists of distribution costs, total demand of each distribution destination, and total capacity of each distribution destination. The aim of this research is to optimizing the distribution costs, which in other words to minimize any costs at each destination of distribution, capacity and demand that have been determined by consumer. Minimizing cost of this research is carried out for 3 products namely Urea fertilizer, NPK fertilizer, and MOP fertilizer.

Processing of the data in this study aided by using one software named program solver where this program is part of Microsoft Excel. Have several stages for using solver program to minimize costs, including the presence of several parameters.

The parameters including objective function, adjustable function, and the latter is constrained. There three parameters have been automatically installed in the program solver, and only takes a few formulas to obtain the results from the minimization of the solver program.

The results value is minimum value of financing in the total distribution on each type of fertilizer and regions.

*The optimum value of the overall total of which can be minimized by 50.77%, is about **Idr.5,907,940,000**.*

Concluded that, by using Program Solve, financing can be minimized and hopefully PT Dehael can evaluate the process of financing, due to Program solver can reduce the cost.

Keywords : *Distribution Plan; Integer Linear Programing; Optimasi Biaya; Program Solver; Transshipment*