ABSTRACT

PT Pikiran Rakyat is a manufacturing company that produces the pikiran rakyat newspaper which produced and distributed everyday to customers. In the implementation of the distribution of newspapers used subagents whose job is to distribute the newspaper to the customer. One strategy to save on distribution costs is to minimize the distance distribution traveled. From the observation that has been done, subagent in charge do not care how far away the location of the customer from the distribution center. Moreover, in practice the distribution of the subagent do not have a definite route in distributing newspapers to customers, resulting in differences in fuel consumption on each route. The purpose of this study is to determine the distribution route for the minimum distance traveled subagent in order to distribute the newspaper to the customer.

If the distance traveled by the subagents is minimum, then the automatic distribution costs for fuel must be minimum. Based on calculations and analysis has been carried out by comparing sample of existing route, route that have been maximized, with route that have been minimized by using Branch and Bound algorithm for all subagents, and an example of a Jayagiri Agency's subagent 1 obtained by using the shortest route Branch and Bound Algorithm, amounting to 36,2 km. The existing samples of the total distance traveled by a Jayagiri Agency's subagent 1 is 43,6 km and the route that have been maximized is 46,8 km. Saving the distance gained is of 7,4 km or 16,9 % of the existing distance. The way also performed to calculate the total mileage will be pursued by all subagents.

Keywords : Branch and Bound Algorithm (B&B Algorithm), transportation and distribution management, minimum route.