

## Delivery System Design of the Local Part to Reduce the Logistic Costs in an Automotive Industry

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**Abstract :** This research was conducted in an automotive company in Indonesia to overcome the problem of high logistics cost. The problem causes high of additional truck delivery. From the breakdown of the problem, chosen one route, which has the highest gap value, namely for RE-04. Research methodology will be started from calculating the ideal condition, making simulation, calculating the ideal logistic cost, and proposing an improvement. From the calculation of the ideal condition, box arrangement was done on the truck; the average efficiency was 97,4 % with three trucks delivery per day. Route simulation making uses Tecnomatix Plant Simulation software as a visualization for the company about how the system is occurred on route RE-04 in ideal condition. Furthermore, from the calculation of logistics cost of the ideal condition, it brings savings of Rp53.011.800,00 in a month. The last step is proposing improvements on the area of route RE-04. The route arrangement is done by Saving Method and sequence of each supplier with the Nearest Neighbor. The results of the proposed improvements are three new route groups, where was expected to decrease logistics cost Rp3.966.559,40 per day, and increase the average of the truck efficiency 8,78% per day.

**Keywords :** efficiency, logistic cost, milkrun, saving methode, simulation

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