

- The use of vehicles with capacity of 30 or more. The payback period of this investment will remarkably be small since multiple shifts are being transported on a daily basis.
- The use of vehicles with bigger capacity will help the company gain considerable time every day. This may contribute to the increase of production for VIR. Also, this decision will help the company minimize both risks and costs.
- The use of optimal set of routes and vehicles with bigger capacity is directly linked to Green Logistics. The company should adopt this strategy to help reduce CO2 emissions and consequently decrease the risk of pollution and climate change.

Conclusion

This work summarizes the models of the Vehicle Routing Problem. This logistics problem consists of finding an optimal set of routes for one or more vehicles visiting different locations.

Working on this project, various obstacles were encountered mainly relatively to the technical aspect of the problem. Working with software like Matlab was limiting in terms of the lack of adaptability for inserting new constraints. OptiMap was limiting in terms of the number of stations allowed and also for inserting a variety of constraints. Therefore Excel was used to solve a large scope problem with using clustering and incorporating constraints relative to the capacity of the vehicles and also to time windows.

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