NEW WAREHOUSE LOCATION DETERMINATION WITH MULTI CRITERIA GOAL PROGRAMMING APPROACH TO ACHIEVE EFFICIENT ROUTE DELIVERY
(Case Study: PT. Coca-Cola Amatil Indonesia unit Balinusa)

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ABSTRACT
In mid 2010, there are accumulation stocks in the west warehouse plant. Therefore, PT. Coca – Cola Amatil Indonesia Balinusa unit plans to build a new warehouse for Coca – Cola’s product which is produced by Balinusa and outside unit with OWP (One Way Packing) product. Deciding new warehouse location is using Multi Criteria Decision Making with Analytical Hierarchy Process (AHP) – Goal Programming (GP) to determine 2 alternative locations. Monte Carlo simulation is used to generate each sales center’s demand. At last, researcher simulate delivery product’s route based on 2 alternative locations to get the right location and efficient delivery route.

Results obtained in this research is Mengwi location as the candidate for efficient delivery route where the result is total delivery distance from Mengwi 19,4% lower than Tabanan location.

Key words: Multi Criteria Decision Making, Analytical Hierarchy Process (AHP), Goal programming (GP), Routing
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