ABSTRAK

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Judul **: Analisis Perbandingan Algoritma Metode *Zero Suffix, Metode Zero Suffix Modern* dan Metode *Zero Neighbouring* Dalam Penyelesaian Masalah Transportasi**

Penelitian ini membahas tentang analisis perbandingan solusi optimal masalah transportasi kasus minimasi seimbang dan tidak seimbang dengan Metode *Zero Suffix, Zero Suffix Modern* dan *Zero Neighbouring*. Ketiga Metode tersebut merupakan beberapa Metode optimalisasi masalah transportasi yang langsung menguji keoptimalan dari tabel transportasi tanpa harus menentukan solusi layak awal terlebih dahulu. Analisis perbandingan 900 data random dengan kasus data seimbang dan tidak seimbang masing-masing sebanyak 30 percobaan dan ukuran data yang bervariasi. Metode *Zero Suffix* menghasilkan solusi optimal sebanyak 114 data, Metode *Zero Suffix Modern* menghasilkan solusi optimal sebanyak 125 data, sedangkan Metode *Zero Neighbouring* menghasilkan solusi optimal sebanyak 59 data. Dari hasil perhitungan menggunakan program *python* dapat disimpulkan pada kasus data seimbang solusi yang paling optimal dengan menggunakan Metode *Zero Suffix*, sedangkan untuk kasus data tidak seimbang solusi yang paling optimal dihasilkan oleh Metode *Zero Suffix Modern*.

Kata kunci : Masalah Transportasi, Solusi Optimal, Metode *Zero Suffix,* Metode *Zero Suffix Modern,* dan Metode *Zero Neighbourung*

ABSTRACT

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Title : ***Comparative Analysis of Zero Suffix Method Algorithm, Modern Zero Suffix Method and Zero Neighboring Method in Solving Transportation Problems***

This research explain the comparative analysis of the optimal solution to the problem of balanced and unbalanced minimization cases using the Zero Suffix, Zero Suffix Modern and Zero Neighboring methods. The three methods are several optimization methods of transportation problems that directly test the optimization of the transportation table without having to determine the initial feasible solution first. Comparative analysis of 900 random data with balanced and unbalanced data cases with 30 trials each and varying data sizes. The Zero Suffix method produces an optimal solution of 114 data, the Modern Zero Suffix method produces an optimal solution of 125 data, while the Zero Neighboring method produces an optimal solution of 59 data. From the results of calculations using the python program, it can be concluded that in the case of balanced data the most optimal solution is using the Zero Suffix Method, while for the case of unbalanced data the most optimal solution is produced by the Modern Zero Suffix Method.ta, the most optimal solution is produced by the Modern Zero Suffix Algorithm.

Keywords *: Transportation Problem, Optimal Solution, Zero Suffix Method, Modern Zero Suffix Method, and Zero Neighbor Method*