

ABSTRACT

OPTIMIZATION OF GOODS DISTRIBUTION ROUTES FROM WAREHOUSE TO OUTLETS USING THE *SAVING MATRIX METHOD* (Case PT Sumber Sari Gejrot Tasikmalaya)

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Distribution is a crucial element in the operational success of the Food and Beverage (F&B) industry. PT Sumber Sari Gejrot faces distribution inefficiency issues due to the application of conventional point-to-point methods, where deliveries are made separately for each outlet (5 round trips). This condition causes the total daily mileage to reach 38.6 km with an empty running rate of 50%. This study aims to optimize distribution routes to minimize distance and travel time using the Saving Matrix method. This type of research is descriptive quantitative with data collection techniques through field observations, interviews with distributors (Mr. Asep Udin), and digital mapping. The results showed that the application of the Saving Matrix method successfully reduced the number of trips from 5 to 2 combined routes. The optimized route cut the travel distance to 30.1 km. In addition, travel time was reduced from 57.9 minutes to 45.1 minutes. In conclusion, route integration based on the highest saving value is proven to be able to reduce distribution operational costs and increase the productivity of the company's three wheeled fleet.

Keywords: Distribution, Saving Matrix, Route Optimization, Efficiency, Distribution.

ABSTRAK

OPTIMALISASI RUTE DISTRIBUSI PENGIRIMAN BARANG DARI GUDANG KE OUTLET MENGGUNAKAN *METODE SAVING MATRIX*

(Kasus PT Sumber Sari Gejrot, Tasikmalaya)

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Distribusi merupakan elemen krusial dalam keberhasilan operasional industri Food and Beverage (F&B). PT Sumber Sari Gejrot menghadapi permasalahan inefisiensi distribusi akibat penerapan metode konvensional point-to-point, di mana pengiriman dilakukan secara terpisah untuk setiap outlet (5 trip bolak-balik). Kondisi ini menyebabkan total jarak tempuh harian mencapai 38,6 km dengan tingkat perjalanan kosong (empty running) sebesar 50%. Penelitian ini bertujuan untuk mengoptimalkan rute distribusi guna meminimalkan jarak dan waktu tempuh menggunakan metode Saving Matrix. Jenis penelitian ini adalah deskriptif kuantitatif dengan teknik pengumpulan data melalui observasi lapangan, wawancara dengan distributor (Bpk. Asep Udin), dan pemetaan digital. Hasil penelitian menunjukkan bahwa penerapan metode Saving Matrix berhasil mereduksi jumlah trip dari 5 menjadi 2 rute gabungan. Rute teroptimasi memangkas jarak tempuh menjadi 30,1 km. Selain itu, waktu tempuh berkurang dari 57,9 menit menjadi 45,1 menit. Kesimpulannya, integrasi rute berbasis nilai penghematan tertinggi terbukti mampu menekan biaya operasional distribusi dan meningkatkan produktivitas armada roda tiga perusahaan.

Kata Kunci: Distribusi, Saving Matrix, Optimalisasi Rute, Efisiensi, Distribusi