ABSTRACT

UD. Sumber Rezeki is an MSME engaged in distributing rice to the Banjarnegara, Wonosobo, and Temanggung areas. The main problem faced is the delivery route that is not optimal, resulting in high operational costs such as fuel consumption, driver salaries, and vehicle maintenance. Distribution is carried out with a one-way system for one destination, which is inefficient in terms of both time and cost. This study aims to optimize the distribution route in order to reduce travel distance and reduce shipping costs. The method used is Saving Matrix, which is an optimization method that compiles distribution routes based on the efficiency of the distance between customer points. Data were collected through field observations, interviews, and distance measurements using Google Maps. The results of the study showed that the application of the Saving Matrix method succeeded in reducing the total distance traveled from 668.2 km to 345.8 km, or an efficiency of 51%. This reduction in distance had a direct impact on reducing operational costs from IDR 1,838,051 to IDR 951,105, which means an efficiency of IDR 886,946 (48%). These results prove that route optimization with the Saving Matrix approach can significantly improve distribution efficiency and company profitability.

Keywords: distribution, route optimization, operational costs, saving matrix, MSMEs