

ABSTRAK

Persaingan bisnis yang tidak sehat antar UMKM *Ecoprint* di Kabupaten Pamekasan berdampak pada perbedaan harga, biaya produksi yang tinggi dan pendistribusian barang yang tidak efisien. Penelitian dilakukan dengan tujuan untuk menentukan lokasi gudang alternatif yang optimal dan merancang ulang tata letak fasilitas guna meminimalisir *cost*. Lokasi gudang alternatif ditentukan dengan menggunakan metode Centre of Gravity (COG) dengan pertimbangan jarak antar UMKM. Lokasi gudang alternatif dapat mengurangi biaya distribusi dari Rp. 5.354.837. menjadi Rp. 4.851.913. Perancangan ulang tata letak fasilitas dilakukan dengan metode *Systematic Layout Planning* (SLP) dimana layout awal memiliki total jarak sebesar 178,8 m dengan ongkos material handling sebesar Rp. 99.026, layout alternatif yang dihasilkan mampu mengurangi jarak menjadi 113,0 m dan ongkos material handling sebesar Rp. 62.639. Hasil penelitian menunjukkan bahwa lokasi gudang yang optimal mampu mengurangi biaya distribusi dan layout alternatif yang dihasilkan dengan menggunakan metode *Systematic Layout Planning* (SLP) dapat mengurangi jarak perpindahan material dan Ongkos Material Handling (OMH), sehingga penelitian ini berhasil memberikan solusi terkait masalah efisiensi proses produksi dan distribusi pada UMKM *Ecoprint* di Kabupaten Pamekasan.

Kata Kunci: *Ecoprint*, *Centre of Gravity* (COG), *Systematic Layput Planning* (SLP), *Layout Fasilitas*, *Jarak*, dan *Material Handling*.

ABSTRACT

Unhealthy business competition between Ecoprint MSMEs in Pamekasan Regency has an impact on price differences, high production costs and inefficient distribution of goods. The study was conducted with the aim of determining the optimal alternative warehouse location and redesigning the facility layout to minimize costs. The alternative warehouse location was determined using the Center of Gravity (COG) method by considering the distance between MSMEs. The alternative warehouse location can reduce distribution costs from Rp. 5,354,837. to Rp. 4,851,913. The redesign of the facility layout was carried out using the Systematic Layout Planning (SLP) method where the initial layout had a total distance of 178.8 m with a material handling cost of Rp. 99,026, and the resulting alternative layout was able to reduce the distance to 113.0 m and a material handling cost of Rp. 62,639. The results of the study indicate that the optimal warehouse location can reduce distribution costs and alternative layouts produced using the Systematic Layout Planning (SLP) method can reduce the distance of material movement and Material Handling Costs (OMH), so that this study has succeeded in providing solutions related to the problem of production and distribution process efficiency in Ecoprint UMKM in Pamekasan Regency.

Keywords: Ecoprint, Center of Gravity (COG), Systematic Layput Planning (SLP), Facility Layout, Distance, and Material Handling.