

ABSTRAK

PT. Garam (Persero) merupakan satu-satunya Badan Usaha Milik Negara (BUMN) yang bergerak di bidang industri pengolahan dan perdagangan garam serta tetap konsisten dalam menjaga ketersediaan Garam Nasional. PT. Garam (Persero) memiliki gudang pusat di daerah Segoromadu (Gresik) dan memiliki *customer* yang terletak di wilayah Jakarta yang cukup jauh dari gudang pusat milik PT. Garam (Persero), sehingga pendistribusian garam olahan karungan menjadi kurang efektif dan tentunya biaya transportasi yang dibutuhkan cukup tinggi. Penggunaan metode *gravity location models* dan metode *saving matrix* memungkinkan pengiriman menggunakan satu truk untuk beberapa *customer* dalam satu rute, sehingga hal tersebut diharapkan dapat meminimalkan biaya transportasi. Perhitungan menggunakan metode *gravity location models* menunjukkan lokasi optimal gudang distribusi baru untuk wilayah pemasaran Jakarta terletak di jalan Rotan No.114, Limo, Kecamatan Limo, Kota Depok, Jawa Barat dengan keuntungan biaya transportasi sebanyak Rp. 5.345.494.

Kata Kunci: Garam Konsumsi Karungan, *Gravity Location Models*, *Saving Matrix*

ABSTRACT

PT. Garam (Persero) is the only State-Owned Enterprise (BUMN) which is engaged in the salt processing and trading industry and remains consistent in maintaining the availability of National Salt. PT. Garam (Persero) has a central warehouse in the Segoromadu (Gresik) area and has customers located in the Jakarta area which is quite far from the central warehouse owned by PT. Garam (Persero), so that the distribution of processed salt in sacks becomes less effective and of course the transportation costs required are quite high. The use of the gravity location models method and the saving matrix method allows delivery using one truck for several customers in one route, so that it is expected to minimize transportation costs. Calculations using the gravity location models method show that the optimal location for the new distribution warehouse for the Jakarta marketing area is located on Rotan street No.114, Limo, Limo District, Depok City, West Java with a transportation cost advantage of Rp. 5,345,494.

Keywords: Sack Consumption Salt, Gravity Location Models, Saving Matrix

DAFTAR ISI

LEMBAR PENGESAHAN	Error! Bookmark not defined.
LEMBAR PERNYATAAN	Error! Bookmark not defined.
ABSTRAK	iv
<i>ABSTRACT</i>	v
KATA PENGANTAR	Error! Bookmark not defined.
DAFTAR ISI	ix
DAFTAR TABEL	xi
DAFTAR GAMBAR	xii
BAB I PENDAHULUAN	Error! Bookmark not defined.
1.1 Latar Belakang	Error! Bookmark not defined.
1.2 Rumusan Masalah	Error! Bookmark not defined.
1.3 Tujuan Penelitian	Error! Bookmark not defined.
1.4 Manfaat Penelitian	Error! Bookmark not defined.
1.5 Batasan Masalah	Error! Bookmark not defined.
1.6 Asumsi	Error! Bookmark not defined.
BAB II TINJAUAN PUSTAKA	Error! Bookmark not defined.
2.1 Garam	Error! Bookmark not defined.
2.2 Lokasi Fasilitas	Error! Bookmark not defined.
2.3 <i>Gravity Location Models</i>	Error! Bookmark not defined.
2.4 Distribusi	Error! Bookmark not defined.
2.5 Optimasi	Error! Bookmark not defined.
2.6 <i>Saving Matrix</i>	Error! Bookmark not defined.
2.7 Penelitian Pendahulu	Error! Bookmark not defined.
BAB III METODE PENELITIAN	Error! Bookmark not defined.
3.1 Waktu dan Tempat Penelitian	Error! Bookmark not defined.
3.2 Alat dan Bahan Penelitian	Error! Bookmark not defined.
3.3 Variabel Penelitian	Error! Bookmark not defined.
3.4 Teknik Pengambilan Data	Error! Bookmark not defined.
3.5 Metode Pengolahan Data	Error! Bookmark not defined.

3.6 <i>Flowchart</i> Penelitian	Error! Bookmark not defined.
BAB IV HASIL DAN PEMBAHASAN	Error! Bookmark not defined.
4.1 Deskripsi Objek	Error! Bookmark not defined.
4.2 Data Awal <i>Customer</i> PT Garam (Persero) Wilayah Jakarta	Error! Bookmark not defined.
4.3 <i>Mapping</i> /Pemetaan	Error! Bookmark not defined.
4.4 Penentuan Lokasi Gudang Baru dengan <i>Gravity Location Models</i>	Error! Bookmark not defined.
4.4.1 Jarak Pusat Distribusi Terhadap <i>Customer</i> PT. Garam (Persero)	Error! Bookmark not defined.
4.4.2 Koordinat Lokasi Optimal Gudang Distribusi Baru	Error! Bookmark not defined.
4.4.3 Validasi Titik Lokasi Gudang Baru	Error! Bookmark not defined.
4.5 Penentuan Rute Optimal dengan <i>Saving Matrix</i>	Error! Bookmark not defined.
4.5.1 Matriks Jarak	Error! Bookmark not defined.
4.5.2 Matriks Penghematan	Error! Bookmark not defined.
4.5.3 Pembentukan Rute	Error! Bookmark not defined.
4.5.4 Urutan Rute dengan <i>Nearest Insert</i> dan <i>Nearest Neighbour</i>	Error! Bookmark not defined.
4.5.5 Penentuan Rute Optimal	Error! Bookmark not defined.
4.6 Perbandingan Biaya Transportasi	Error! Bookmark not defined.
BAB V KESIMPULAN DAN SARAN	Error! Bookmark not defined.
5.1 KESIMPULAN	Error! Bookmark not defined.
5.2 SARAN	Error! Bookmark not defined.
DAFTAR PUSTAKA	Error! Bookmark not defined.
LAMPIRAN	Error! Bookmark not defined.

DAFTAR TABEL

Tabel 2.1	Penelitian pendahulu	Error! Bookmark not defined.
Tabel 3.2	<i>Ganttchart</i> penelitian	Error! Bookmark not defined.
Tabel 4.3	<i>Customer</i> PT. Garam (Persero) wilayah pemasaran Jakarta 2021	Error! Bookmark not defined.
Tabel 4.4	Pesanan <i>customer</i> wilayah pemasaran Jakarta 2021	Error! Bookmark not defined.
Tabel 4.5	Jarak gudang pusat (Gresik) terhadap <i>customer</i> PT. Garam (Persero)	Error! Bookmark not defined.
Tabel 4.6	Iterasi 1 penentuan lokasi gudang baru wilayah pemasaran Jakarta	Error! Bookmark not defined.
Tabel 4.7	Titik lokasi gudang baru wilayah pemasaran Jakarta iterasi 1	Error! Bookmark not defined.
Tabel 4.8	Matriks jarak pada <i>customer</i> wilayah pemasaran Jakarta	Error! Bookmark not defined.
Tabel 4.9	Matriks penghematan data <i>customer</i> wilayah pemasaran Jakarta	Error! Bookmark not defined.
Tabel 4.10	Pembentukan rute pengiriman wilayah Jakarta	Error! Bookmark not defined.
Tabel 4.11	Jarak tempuh antara gudang dan <i>customer</i> wilayah Jakarta	Error! Bookmark not defined.
Tabel 4.12	Perbandingan biaya transportasi	Error! Bookmark not defined.

DAFTAR GAMBAR

Gambar 3.1 *Flowchart* penelitian **Error! Bookmark not defined.**

Gambar 4.2 Pemetaan titik lokasi gudang dan *customer* PT. Garam (Persero)**Error! Bookmark not defined.**

Gambar 4.3 Validasi titik lokasi gudang baru **Error! Bookmark not defined.**