ABSTRAK

Industri Logistik tempat penelitian ini merupakan perusahaan yang menyimpan berbagai jenis produk makanan dengan skala yang besar. Gudang penyimpanan di industri logistic ini memiliki kapasitas pallet posisi yang cukup besar. Permasalahan yang terjadi pada Gudang tersebut belum di bentuknya penempatan produk secara spesifik dan Penataan penyimpanan antara jenis produk satu dengan produk yang lain masih bercampur sehingga pada pengambilan produk menambah proses hadling bolak–balik yang memperlambat proses pengambilan barang sehingga sistem FEFO *(first expired first out)* yang tidak berjalan. Berdasarkan permasalahan yang ada, dalam penelitian ini, dilakukan perancangan perbaikan tata letak menggunakan metode *Dedicated Storage* dan *Honeycomb* dengan tujuan dapat meningkatkan efektifitas jarak antar pintu ke area penyimpanan dan loading dock. Langkah-langkah perancangan ulang menggunakan *Dedicated Storage* dan *Honeycomb* dimulai dengan mengetahui luas area gudang, kapasitas gudang dan data gudang lainnya, serta pengumpulan data dengan menentukan kebutuhan ruang, penentuan *Allowance* ruang, dan jarak dari pintu masuk ke area penyimpanan dengan menggunakan *Euclidean Distance*. Dari hasil pengolahan data jarak menjadi teratur dan dapat diketahui tiap jaraknya. Berdasarkan perbandingan *Layout* awal dan usulan diketahui dengan menerapkan *Dedicated Storage* aktivitas bongkar muat menjadi lebih baik dan efektif. Dari hasil penelitian yang di lakukan dapat di peroleh jarak tempuh eksisting 59,41 meter sedangkan jarak tempuh usulan 30,79 meter sehingga terdapat selisih jarak 28,62 meter.

Kata Kunci : *Dedicated Storage* dan *Honeycomb*, *Allowance*, FEFO *(first expired first out)*

ABSTRACT

The Logistics Industry where this research is located is a company that stores various types of food products on a large scale. This storage warehouse in the logistics industry has a large enough pallet position. The problems that occur in the warehouse have not been in the form of specific product placement and storage arrangements between one type of product and another product are still mixed so that product retrieval adds a back-and-forth hadling process that slows down the process of taking goods so that the FEFO (first expired first out) system does not work. Based on existing problems, in this study, layout improvement design was carried out using the Dedicated Storage and Honeycomb methods with the aim of increasing the effectiveness of the distance between doors to the storage area and loading dock. The steps of redesigning using Dedicated Storage and Honeycomb begin with knowing the warehouse area, warehouse capacity and other warehouse data, as well as data collection by determining space requirements, determining space allowances, and distance from the entrance to the storage area using Euclidean Distance. From the results of processing distance data becomes regular and can be known each distance. Based on the comparison of the initial layout and proposals, it is known that by implementing Dedicated Storage loading and unloading activities become better and more effective. From the results of the research conducted, the existing distance can be obtained 59.41 meters while the proposed distance is 30.79 meters so that there is a distance difference of 28.62 meters.

Keywords: Dedicated Storage and Honeycomb, Allowance, FEFO (first expired first out)