

ABSTRACT

REDESIGN PRODUCT LAYOUT WITH CLASS-BASED AND RANDOMIZED STORAGE METHOD (Case Study in Vivi Shop)

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Vivi store is one of the shops that sell daily necessities such as rice, cooking oil, sugar, flour, milk, soap, etc. The percentage of expenditures for material handling costs incurred on operating costs is 15,934%. One of the main causes of the high cost of material handling is the high range that causes the movement of goods. These high displacement distance due to the preparation of goods that do not neatly on Vivi's shop and do not consider the location of the goods that are fastmoving. By using Class-Based Storage and Storage Randomized FIFO-based and distance calculation using the method Rectilinier. Distance moving and material handling costs can be minimized by changing the layout in accordance with the formation of the class into class A, B, and C using class-based storage. Distance movement of goods which initially is 3844, 5 m after implementation fell to 2.511,6 m with a percentage decrease of 34,670%. Material handling costs per month were initially Rp 243.166,5,00 to Rp 158,708,5,00 with a percentage decrease of 13,171%. OMH percentage of the operational costs (per month), which originally amounted to 20,180% down to 13,171%. and the number of expired goods which originally numbered 13 boxes into two boxes with a percentage decrease of 84.615% and a decline in the percentage of OMH to the operational costs to be 8,596%.

Keywords: Layout Warehouse, Class-Based Storage, Storage Randomized, First In First Out, Distance Rectilinier