ABSTRACT

PT XYZ is a pharmaceuticals warehouse company to store the products from the PBF *Supplier before it is distributed to Pharmacies. The products storage system at PT XYZ is random and the storage allocated only by the product categories itself. As the resulted, product delivery departure delays due to the high cycle time and can not achieving the target time on the order picking activity. Delay that causes high cycle time is at the process of finding the products storage location.*

From the description above, the purpose of this research is to determine the slot of storage products that can reduce the time departure delays that caused products delivery delays at the PT XYZ warehouse.

To overcome the delays issue that occurs in PT XYZ, products storage allocation using Class Based Storage will be proposed. The draft proposal starts from the identifications process using Value Stream Mapping delays identification. After classifying the products based on its movements in the warehouse using the FSN analysis, the final stage is stimulating travel time to prove the improvement that is obtained in the finding the locations process of the product after repaired.

Based on the results of Value Stream Mapping future state there is an increasing in value added time by 17% from the time of the initial process 5278.8 seconds to 3783.83 seconds of delay time. The reducing times percentage is 59.97% or 24.91 minutes. From the average of the beginning delays is in 41.54 minutes to 16.63 minutes after doing the improvement of product storage allocations.

Key Words: *Class Based Storage*, FSN *Analysis, Value Stream Mapping*, Simulasi *Travel Time*.