

ABSTRACT

PT XYZ is a state-owned third party logistic (3PL) company which has several branch across Indonesia and one of them is located in DKI Jakarta. The major activity of PT XYZ is about warehouse space rent and warehouse management. PT XYZ owned several warehouse building in a warehouse area. One of the warehouse building are rent by PT ABC. PT ABC using these warehouse building as a place for keeping several type of electronics stuff such as laptop, CPU, LCD, etc. During 2012, warehouse overcapacity was recorded an average value about 13.05% which is passed the limit of racking capacity in warehouse and gave the impact to order picking activity tardiness. Order picking activity has it own standard which have to be finished less than an hour.

The first step that took to solve this problem is mapping the whole material and information flow processes in PT XYZ warehouse using Value Stream Mapping (VSM). Then, process activity mapping is used to breakdown every warehouse activity and divide it become several classification. After that, identify any activities that detected as a waste using checklist tools. The result of identified waste are waste of transportation, waiting, motion and overprocessing. The root cause of the waste are being discovered by using fishbone diagram.

The improvement which is proposed is classifying item by using FSN Analysis, item allocation based on Zone Aisle Bay Level Slot (ZABLS) arrangement, visual control, and 5S. Based on the future state map, it can be concluded that the NVA activity has been reduced in the amount of 11% to become 55% and VA activity become 45%. The total process time reduced in the amount of 813.69 seconds to become 2532.07 seconds or 42.201 minutes.

Keywords : 3PL, Value Stream Mapping, Process Activity Mapping, Checklist, Fishbone Diagram, FSN Analysis, Visual Control.