

ABSTRAK

PT Terminal Teluk Lamong merupakan perusahaan jasa yang berperan dalam kegiatan proses bongkar muat petikemas. Dalam proses bongkar muat petikemas, terdapat beberapa kapal domestik yang kinerja operasional dinilai belum pencapaian target karena adanya pemborosan. Hasil observasi yang di dapat yaitu terdapatnya *crane* STS yang cukup lama menunggu *truck trailer*, dan *truck trailer* cukup lama menunggu *crane* STS memindahkan kontainer ke sisi lain kapal. Tujuan penelitian adalah mengidentifikasi terjadinya *waste*, menemukan penyebab *waste*, dan memberikan usulan perbaikan untuk meminimalkan *waste* pada proses bongkar muat petikemas. Teknik pengolahan data berupa *value stream mapping*, *process activity mapping*, identifikasi *waste*, *value stream analysis tools* (VALSAT), *root cause analysis* dengan *tools 5 whys*, serta wawancara tidak terstruktur dalam menentukan usulan perbaikan. Usulan perbaikan berupa standar operasional prosedur bongkar muat petikemas, jadwal *maintenance* alat, perbaikan *layout* lapangan penumpukan petikemas, penambahan alat *crane Rubber Container Gantry/RTG*, penambahan CCTV, dan penambahan kapal pandu. Setelah dilakukan perbaikan dengan meminimasi pemborosan dapat diperoleh nilai *lead time* semula 1416.1 menit turun menjadi 603 menit, aktivitas *value added* (VA) semula 35,1% menjadi 82,4%, aktivitas *non value added* (NVA) semula 57,4% berkurang menjadi 0%, aktivitas *necessary non value added* (NNVA) semula 7,5%, meningkat sebesar 17,6%.

Kata kunci: *lean service, value stream mapping, waste, root cause analysis, loading-unloading container*

ABSTRACT

PT Terminal Teluk Lamong is a service company that plays a role in the container loading and unloading process. In the process of loading and unloading containers, there are several domestic ships whose operational performance is considered not to have achieved the target due to waste. The observation results obtained are that the STS crane waits long enough for the truck trailer, and the truck trailer waits long enough for the STS crane to move the container to the other side of the ship. The research objectives are to identify the occurrence of waste, find the causes of waste, and provide improvement proposals to minimise waste in the container loading and unloading process. Data processing techniques include value stream mapping, process activity mapping, waste identification, value stream analysis tools (VALSAT), root cause analysis with the 5 whys tool, and unstructured interviews in determining improvement proposals. Proposed improvements are in the form of standard operating procedures for loading and unloading containers, equipment maintenance schedules, improvements to the layout of the container stacking field, the addition of Rubber Container Gantry / RTG cranes, the addition of CCTV, and the addition of pilot boats. After making improvements by minimising waste, the original lead time value of 1416.1 minutes decreased to 603 minutes, value added activity (VA) from 35.1% to 82.4%, non-value added activity (NVA) from 57.4% reduced to 0%, necessary non-value added activity (NNVA) from 7.5%, increased by 17.6%.

Keywords: *lean service, value stream mapping, waste, root cause analysis, loading-unloading container*