

INTISARI

Kebijakan kenaikan tarif dagang yang ditetapkan oleh Donald Trump selaku presiden Amerika Serikat memberikan imbas pada bisnis PT. Alis Jaya Ciptatama. Perusahaan menetapkan penurunan harga jual 7% hingga 10% harga *freight on board* (FOB) guna tetap dapat bersaing dipasar yang berimbas pada penurunan rata – rata penjualan dari 150.000 USD menjadi 90.000 USD per bulan. Penelitian yang dilakukan bertujuan untuk mengidentifikasi jenis pemborosan, penyebab terjadinya pemborosan, dan memberikan rancangan perbaikan guna mengoptimalkan proses operasional manufacturing perusahaan. Penelitian dilakukan menggunakan pendekatan *lean six sigma* dengan pendekatan DMAIC (*Define, Measure, Analyze, Improve, Control*). Pada tahap *define* penelitian menggunakan diagram SIPOC (*supplier, input, process, output, control*) dan *current value stream mapping* guna mengidentifikasi kegiatan dengan kategori *value added* (VA), *non value added* (NVA), dan *necessary non value added* (NNVA) pada proses produksi perusahaan saat ini. Tahap *measure* ditujukan untuk melakukan pengukuran kondisi saat ini dengan menggunakan *process cycle efficiency, critical to control, p-chart*, dan *sigma level*. Pada tahap *analyze*, dilakukan analisis seperti analisis pemborosan berdasarkan waktu produksi, analisis pemborosan berdasarkan cacat, *cause and effect diagram*, dan *5 whys analysis*. Pada tahap *improve*, perbaikan dilakukan dengan menggunakan *future value stream mapping* dan 5S (*seiri, seiton, seiso, seiketsu, dan shitsuke*). Pada tahap terakhir yaitu *control* rancangan perbaikan diberikan dalam bentuk berupa *control sheet, standard operating procedure* baru, dan *visual control*. Penelitian ini menggunakan data berdasar pada observasi waktu produksi salah satu SKU yaitu Rak McCormick dan data cacat periode Maret-September 2025. Berdasarkan penelitian yang dilakukan, terdapat dua jenis pemborosan yaitu *waiting* dan *defect* yang disebabkan oleh tingginya waktu kegiatan dengan katogori NVA dan sebagian besar dikarenakan SOP belum optimal. Pemberian rancangan alur produksi baru dan SOP baru diberikan pada hasil penelitian ini guna memberikan rancangan peningkatan bagi perusahaan. Dengan rancangan baru tersebut, perusahaan dapat bersaing dengan lebih optimal guna menjawab tantangan industri yang terjadi saat ini.

Kata kunci: *Lean Six Sigma, DMAIC, Value Stream Mapping, Process Cycle Efficiency, 5S, Pareto Diagram. Standard Operating Procedure, Check Sheet*

ABSTRACT

The trade tariff increase policy established by Donald Trump as President of the United States has had an impact on the business of PT. Alis Jaya Ciptatama. The company has set a 7% to 10% reduction in the freight on board (FOB) selling price in order to remain competitive in the market, which has resulted in a decline in average sales from USD 150,000 to USD 90,000 per month. The research aims to identify types of waste, causes of waste, and provide improvement plans to optimize the company's manufacturing operational processes. The research was conducted using the lean six sigma approach with the DMAIC (Define, Measure, Analyze, Improve, Control) approach. In the define stage, the research used a SIPOC (supplier, input, process, output, control) diagram and current value stream mapping to identify activities in the categories of value added (VA), non-value added (NVA), and necessary non-value added (NNVA) in the company's current production process. The measure stage was aimed at measuring the current conditions using process cycle efficiency, critical to control, p-chart, and sigma level. In the analyze stage, analyses such as waste analysis based on production time, waste analysis based on defects, cause and effect diagrams, and 5 whys analysis were carried out. In the improve stage, improvements are made using future value stream mapping and 5S (seiri, seiton, seiso, seiketsu, and shitsuke). In the final stage, control, the improvement plan is presented in the form of a control sheet, new standard operating procedures, and visual control. This study uses data based on observations of the production time of one SKU, namely the McCormick Rack, and defect data for the period March-September 2025. Based on the research conducted, there are two types of waste, namely waiting and defects, caused by high activity time in the NVA category and largely due to suboptimal SOPs. A new production flow design and new SOPs are provided in the results of this study to provide an improvement plan for the company. With this new design, the company can compete more optimally to respond to current industry challenges.

Keywords: *Lean Six Sigma, DMAIC, Value Stream Mapping, Process Cycle Efficiency, 5S, Pareto Diagram. Standard Operating Procedure, Check Sheet*