

ABSTRAK

PT. Astra Daihatsu Motor memproduksi unit D40D (*Lite Ace/Town Ace*) untuk dipasarkan di Jepang dengan merek Toyota. Proses pada *line quality* untuk unit D40D berbeda dengan unit *regular* lain yang harus melewati tahap *vehicle inspection dynamic*, *vehicle inspection static* dan *vehicle audit*. Dengan tahapan-tahapan tersebut membuat *achievement delivery* unit D40D tidak dapat tercapai setiap bulannya dan *manufacturing cost* selalu naik. Penelitian ini menggabungkan *value stream mapping* dengan aspek biaya untuk menganalisis *value stream* yang ada pada *line quality* unit D40D. Tujuan penelitian ini untuk mengetahui kondisi *existing* aktivitas dan biaya berdasarkan *activity based costing* (ABC), mengetahui faktor-faktor yang menyebabkan target *delivery* unit tidak tercapai yang berdampak pada *manufacturing cost* terus naik serta melakukan upaya perbaikan agar target *delivery* unit dapat tercapai dan *manufacturing cost* tidak naik. Berdasarkan *process activity mapping* (PAM) dapat diketahui total aktivitas pada *line quality* unit D40D berjumlah 65 aktivitas, untuk jenis aktivitas *value added* berjumlah 38 aktivitas, *necessary but non value added* (NBNVA) berjumlah 8 aktivitas, *non value added* (NVA) berjumlah 19 aktivitas. Faktor-faktor yang menjadi penyebab masalahnya antara lain: Terjadi proses berlebih yaitu pada tahap VIS, pada *workstation appearance* VA pengerjaan unit tidak beraturan, kurangnya standarisasi pekerjaan pada *workstation repair* unit dan pengerjaan unit setelah *workstation repair* VID tidak terkontrol. Untuk upaya perbaikan yang dilakukannya antara lain: Menghilangkan tahap VIS., memindahkan *workstation appearance & function* VA ke bekas *workstation appearance & function* VIS, membuat nomor *kanban* yang dipasangkan pada unit, membuat papan *monitoring kanban*, membuat standarisasi untuk pengerjaan *repair* berat & *repair* ringan, membuat *supermarket* pada area antara *workstation repair* VID dengan *workstation appearance* VA dan menentukan *pacemaker* pada *workstation appearance* VA. Hasil penelitian menunjukkan bahwa dengan implementasi *cost integrated value stream mapping* dapat menurunkan beberapa hal, antara lain: *Lead time* turun sebesar 58,1%, total *cycle time* turun sebesar 47,8%, total *value added cost* turun sebesar 17,9%, total *non value added cost* turun sebesar 54,6% dan *travel distance* turun sebesar 55,5%. Hasil pada bulan Oktober 2019 menunjukkan target *delivery* unit dapat tercapai dengan +43 unit dan *manufacturing cost* berkurang sebesar Rp 12.353.370.040.

Kata kunci :

Lean manufacturing, *value stream mapping* (VSM), *activity based costing* (ABC), *cost integrated value stream mapping* (CIVSM), *process activity mapping* (PAM), *value added*, *necessary but non value added*, *non value added*, *value added cost*, *non value added cost*.

ABSTRACT

PT. Astra Daihatsu Motor manufactures D40D units (Lite Ace / Town Ace) to be marketed in Japan under the Toyota brand. The line quality process for the D40D unit is different from other regular units which must pass the vehicle inspection dynamic, vehicle inspection static and vehicle audit stages. With these stages, the D40D unit delivery achievement cannot be achieved every month and manufacturing costs always go up. This study combines value stream mapping with cost aspects to analyze the value stream that exists in the D40D line quality unit. The purpose of this study is to determine the condition of existing activities and costs based on activity based costing (ABC), to know the factors that cause the unit delivery target is not achieved which has an impact on manufacturing costs continue to rise and make efforts to improve so that the target delivery unit can be achieved and the manufacturing cost is not goes up. Based on the process activity mapping (PAM), it can be seen that the total activities in the line quality unit of D40D amounted to 65 activities, for the type of value added activities amounted to 38 activities, necessary but non value added (NBNVA) totaling 8 activities, non-value added (NVA) totaling 19 activities . Factors that cause the problem include: Excess processes occur at the VIS stage, at the VA workstation appearance irregular workmanship units, lack of standardization of work at workstation repair units and workmanship of the unit after VID repair workstations are not controlled. The improvement efforts he undertook include: Eliminating the VIS stage, moving the appearance & function VA workstations to the former appearance & function workstation, making a kanban number that is attached to the unit, making a kanban monitoring board, making standardization for heavy repair and light repair work, make a supermarket in the area between the VID repair workstation with the VA workstation appearance and determine the pacemaker on the VA worktation appearance. The results showed that the implementation of cost integrated value stream mapping can reduce several things, including: Lead time decreased by 58.1%, total cycle time decreased by 47.8%, total value added cost decreased by 17.9%, total non value added cost decreased by 54.6% and travel distance decreased by 55.5%. The results in October 2019 showed that unit delivery targets could be achieved by +43 units and manufacturing costs reduced by Rp 12.353.370.040.

Keyword :

Lean manufacturing, value stream mapping (VSM), activity based costing (ABC), cost integrated value stream mapping (CIVSM), process activity mapping (PAM),value added, necessary but non value added, non value added, value added cost, non value added cost.