

ABSTRAK

Waktu pelayanan servis yang terlalu lama dapat menurunkan kepuasan pelanggan dan produktivitas perusahaan. PT Suzuki Indojaya Motor Sukses menghadapi permasalahan rata-rata waktu siklus servis motor sebesar 93,14 menit, jauh di atas target perusahaan sebesar 63,7 menit. Selain itu, kondisi ergonomi mekanik juga kurang mendukung, ditunjukkan dengan skor *Nordic Body Map* (NBM) sebesar 57, skor *Rapid Entire Body Assessment* (REBA) sebesar 8, serta *Cardiovascular Load* (CVL) sebesar 36,19% yang melebihi batas normal. Kondisi ini menunjukkan adanya pemborosan gerakan (*waste of motion*) serta risiko gangguan muskuloskeletal, sehingga diperlukan solusi yang tidak hanya menekan waktu servis, tetapi juga memperbaiki aspek ergonomi kerja.

Penelitian ini menggunakan pendekatan *Ergonomic Value Stream Mapping* (ErgoVSM) untuk menganalisis dan memperbaiki proses servis. Tahapan penelitian meliputi pemetaan kondisi eksisting melalui *Current State Mapping*, identifikasi aktivitas bernilai tambah atau *value added* (VA), aktivitas tidak bernilai tambah atau *non value added* (NVA), dan aktivitas perlu tetapi tidak bernilai tambah *non necessary value added* (NNVA). Analisis ergonomi dilakukan menggunakan metode *Nordic Body Map* (NBM), *Rapid Entire Body Assessment* (REBA), serta *Cardiovascular Load* (CVL). Usulan perbaikan dirancang melalui penerapan konsep 5S, perbaikan *bikelift*, serta penyusunan *Future State Mapping* untuk menggambarkan kondisi proses setelah implementasi perbaikan.

Hasil penelitian menunjukkan bahwa aktivitas NVA yang dominan berupa pencarian peralatan, postur membungkuk saat servis, dan waktu tunggu suku cadang. Dengan penerapan perbaikan berupa *redesign* alur kerja dan inovasi *bikelift*, waktu siklus servis berhasil dipangkas menjadi 60,19 menit. Skor NBM turun dari 57 menjadi 31, skor REBA dari 8 menjadi 1, dan %CVL dari 36,19% menjadi 25,47%. Temuan ini membuktikan bahwa penerapan ErgoVSM efektif dalam mengurangi pemborosan, meningkatkan efisiensi waktu pelayanan, sekaligus memperbaiki kondisi ergonomi mekanik sehingga mendukung peningkatan produktivitas perusahaan.

Kata kunci: *Ergonomic Value Stream Mapping*, Waktu Pelayanan, Risiko Ergonomi, Efisiensi, Servis Motor

MOTORCYCLE TIME SERVICE IMPROVEMENT WITH ERGONOMIC VALUE STREAM MAPPING (ERGOVSM)

APPROACH

(Case Study: PT Suzuki Indojoya Motor Sukses, Jombor, Yogyakarta)

ABSTRACT

Excessive service lead time can decrease customer satisfaction and reduce company productivity. PT Suzuki Indojoya Motor Sukses faces a major problem with an average motorcycle service cycle time of 93.14 minutes, which is far above the company's target of 63.7 minutes. In addition, the mechanics' ergonomic conditions were less than ideal, indicated by a Nordic Body Map (NBM) score of 57, a Rapid Entire Body Assessment (REBA) score of 8, and a Cardiovascular Load (CVL) score of 36.19%, which exceeds the normal threshold. These findings highlight the presence of motion waste and potential musculoskeletal disorders, thus requiring a solution that not only reduces service time but also improves ergonomic aspects of the workplace.

This research applied the Ergonomic Value Stream Mapping (ErgoVSM) approach to analyze and improve the service process. The research stages included mapping the current condition through a Current State Mapping, identifying value added (VA), non-value added (NVA), and necessary but non-value added (NNVA) activities. Ergonomic risks were analyzed using Nordic Body Map (NBM), Rapid Entire Body Assessment (REBA), and Cardiovascular Load (CVL). The proposed improvements were developed through the implementation of the 5S concept, repairing the bike lift, and designing a Future State Mapping to illustrate the improved service process.

The results indicate that the dominant NVA activities were tool searching, non-ergonomic bending postures during servicing, and waiting for spare parts. By applying workflow redesign and bike lift innovation, the service cycle time was successfully reduced to 60.19 minutes. The NBM score decreased from 57 to 31, the REBA score from 8 to 1, and the CVL percentage from 36.19% to 25.47%. These findings demonstrate that the ErgoVSM approach is effective in eliminating waste, improving service efficiency, and enhancing mechanics' ergonomic conditions, thereby supporting the company's productivity improvement.

Keywords: *Ergonomic Value Stream Mapping, Service Lead Time, Ergonomic Risk, Efficiency, Motorcycle Service*