

# **PERANCANGAN SISTEM KERJA OPERASIONAL BERBASIS *LEAN OPERATION* DAN *WORKPLACE ORGANIZATION* MELALUI METODE 5S UNTUK MENINGKATKAN PRODUKTIVITAS OPERASIONAL *CREW* FESTIVAL MUSIK BELFEST**

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## **Abstrak**

Penelitian ini bertujuan untuk merancang sistem kerja operasional berbasis *Lean Operation* dan *Workplace Organization* melalui metode 5S untuk meningkatkan produktivitas operasional *crew* Festival Musik BELFEST di Universitas Pembangunan Nasional “Veteran” Jakarta. Permasalahan yang ditemukan pada kondisi awal meliputi keterlambatan kesiapan barang, kepatuhan SOP yang belum konsisten, pencatatan inventory yang belum optimal, serta penataan storage yang belum terstruktur. Penelitian ini menggunakan pendekatan kuantitatif dengan analisis proses kerja melalui *Current Process Flow*, *Process Activity Mapping* berbasis waktu, *Current State Value Stream Mapping*, identifikasi waste, *Root Cause Analysis*, perancangan perbaikan 5S, perhitungan waktu setelah perbaikan, dan *Future State Value Stream Mapping*. Evaluasi persepsi produktivitas operasional dilakukan menggunakan desain *One Group Pretest-Posttest* terhadap 100 responden *crew* aktif BELFEST. Hasil *Current State VSM* menunjukkan total process time sebesar 71 menit, waiting time sebesar 48 menit, lead time sebesar 119 menit, dan *Process Cycle Efficiency* sebesar 25,21%. Setelah rancangan perbaikan 5S disusun, hasil perhitungan future state menunjukkan *process time* menurun menjadi 49 menit, waiting time menjadi 11 menit, *lead time* menjadi 60 menit, dan *Process Cycle Efficiency* meningkat menjadi 41,67%. Selain itu, hasil pre-test dan post-test menunjukkan peningkatan skor rata-rata produktivitas operasional dari 64,71 menjadi 79,24, atau meningkat 22,45%, dengan nilai signifikansi Sig. < 0,001. Dengan demikian, rancangan sistem kerja operasional berbasis *Lean Operation*, *Workplace Organization*, dan metode 5S berpotensi meningkatkan produktivitas operasional *crew* BELFEST melalui pengurangan waste, standarisasi SOP, penataan storage, dan pengendalian inventory.

**Kata Kunci:** *Lean Operation*, *Workplace Organization*, Metode 5S

# OPERATIONAL WORK SYSTEM DEVELOPMENT THROUGH LEAN OPERATIONS AND 5S WORKPLACE ORGANIZATION FOR THE BELFEST MUSIC FESTIVAL CREW AT UPN VETERAN JAKARTA

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## *Abstract*

*This study aims to design an operational work system based on Lean Operation and Workplace Organization through the 5S method to improve the operational productivity of the BELFEST Music Festival crew at Universitas Pembangunan Nasional “Veteran” Jakarta. The initial problems identified in the operational process included delays in equipment readiness, inconsistent SOP compliance, suboptimal inventory recording, and unstructured storage arrangement. This research used a quantitative approach supported by process analysis through Current Process Flow, time-based Process Activity Mapping, Current State Value Stream Mapping, waste identification, Root Cause Analysis, 5S-based improvement design, recalculation of process time after improvement, and Future State Value Stream Mapping. The evaluation of operational productivity perception was conducted using a One Group Pretest-Posttest design involving 100 active BELFEST crew members. The Current State VSM showed a total process time of 71 minutes, waiting time of 48 minutes, lead time of 119 minutes, and Process Cycle Efficiency of 25.21%. After the 5S improvement design was developed, the future state calculation showed that process time decreased to 49 minutes, waiting time decreased to 11 minutes, lead time decreased to 60 minutes, and Process Cycle Efficiency increased to 41.67%. In addition, the pre-test and post-test results showed an increase in the average operational productivity score from 64.71 to 79.24, or an improvement of 22.45%, with a significance value of Sig. < 0.001. Therefore, the proposed operational work system based on Lean Operation, Workplace Organization, and the 5S method has the potential to improve the operational productivity of the BELFEST crew by reducing waste, standardizing SOPs, organizing storage, and improving inventory control.*

**Keywords:** *Lean Operation, Workplace Organization, 5S Method.*