INTISARI

Industri batik merupakan salah satu sektor penting dalam perekonomian Indonesia yang dituntut untuk mampu memenuhi permintaan konsumen dengan variasi produk yang beragam. Tantangan yang dihadapi IKM batik, khususnya pada proses produksi batik kombinasi, adalah waktu *change over* saat pergantian motif sehingga mengurangi fleksibilitas produksi. Penelitian ini bertujuan untuk mengurangi waktu *change over* pada proses produksi batik kombinasi dengan menerapkan metode *Single Minute Exchange of Dies* (SMED) guna mendukung kapabilitas *mass customization*. Studi kasus dilakukan di IKM Omah Batik Sekar Turi, Sleman, Yogyakarta, dengan fokus pada proses pengecapan batik motif Campursari.

Metode penelitian meliputi observasi, wawancara, dan pengumpulan data. Aktivitas pada proses *change over* dianalisis menggunakan *Operation Analytical Chart* dan akar permasalahan diidentifikasi dengan *Fishbone Diagram*. Usulan perbaikan dirancang untuk mengkonversi aktivitas internal menjadi aktivitas eksternal serta mengeliminasi aktivitas *non-value added*, kemudian divalidasi melalui *expert judgement* dan eksperimen sederhana.

Hasil penelitian menunjukkan bahwa penerapan metode SMED dan konsep 5S berhasil menurunkan waktu *change over* rata-rata sebesar 1377 detik atau 96,71% dari total waktu dan mengurangi jumlah aktivitas rata-rata sebanyak 12 aktivitas atau sebesar 52,48%. Perbaikan yang paling berdampak meliputi perancangan SOP pengecapan, penambahan kompor untuk *pre-heat* cap, serta alokasi pekerja *idle* untuk membantu proses *change over*. Kesimpulan penelitian ini adalah bahwa penerapan metode SMED efektif dalam meningkatkan efisiensi proses produksi batik kombinasi, sehingga IKM batik dapat lebih responsif terhadap variasi permintaan konsumen dan mendukung tercapainya kapabilitas *mass customization*.

Kata kunci: Batik kombinasi, *Change Over Time*, SMED, *Mass Customization*.

ABSTRACT

The batik industry is one of the key sectors in Indonesia's economy, expected to meet consumer demands through diverse product variations. A major challenge faced by small and medium batik enterprises (IKM), particularly in the production of combination batik, is the changeover time during motif transitions, which reduces production flexibility. This study aims to reduce changeover time in the combination batik production process by implementing the Single Minute Exchange of Dies (SMED) method to support mass customization capabilities. A case study was conducted at IKM Omah Batik Sekar Turi, located in Sleman, Yogyakarta, focusing on the stamping process of the Campursari batik motif.

The research methods included observation, interviews, and the collection of both primary and secondary data. Changeover activities were analyzed using an Operation Analytical Chart, and root causes were identified through a Fishbone Diagram. Improvement proposals were designed to convert internal activities into external ones and eliminate non-value-added activities. These proposals were validated through expert judgment and simple experiments.

The results showed that the implementation of the SMED method and the 5S concept successfully reduced the average changeover time by 1377 seconds or 96.71% of the total time and decreased the average number of activities by 12, equivalent to a 62.48% reduction. The most impactful improvements included the development of a stamping Standard Operating Procedure (SOP), the addition of a pre-heating stove for the stamp, and the allocation of idle workers to assist in the changeover process. The study concludes that the application of the SMED method is effective in enhancing the efficiency of the combination batik production process, enabling batik SMEs to be more responsive to varying consumer demands and supporting the achievement of mass customization capabilities.

***Keywords**: Combination batik, Change Over Time*, SMED, *Mass Customization*.