

## ABSTRAK

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Judul Laporan Skripsi : Minimasi *waste* dengan pendekatan *Lean* untuk optimasi proses pengujian *scoville heat units* pada capsicum (Studi Kasus Laboratorium Flavor di Indonesia)  
Pembimbing : Hayu Kartika, S.T., M.T.,

Perusahaan ini merupakan perusahaan flavor and fregrance di indonesia. Kunci keberhasilan perusahaan A adalah semua departement yang bekerja sesuai dengan target KPI yang diberikan. Dalam menjalankan business processnya, departement QC mengalami kendala yaitu adanya keterlambatan dalam penyelesaian uji Scoville Heat Units pada Capsicum. Untuk mengetahui waste yang ditimbulkan, dilakukan analisa menggunakan VSM (Value Stream MAPPING). Hasil pembuatan Current Value Stream Mapping CVSM menunjukkan lead time uji Scoville Heat Units lebih besar dibandingkan cycle time yaitu 276,23 menit. Selanjutnya dilakukan pembobotan jenis waste dengan kuisoner , dan diperoleh waiting memiliki score terbesar. Metode PAM (Process Activity Mapping) terpilih digunakan untuk menguraikan aktivitas uji Scoville Heat Units, yang menunjukkan adanya non value added (NVA) sebesar 18%. Kemudian dilakukan analisa penyebab masalah menggunakan fishbone, untuk menemukan penyebab NVA yaitu Starting Up Mesin yang terlalu lama (waiting), dan input parameter setting terlalu lama (waiting). Implementasi SMED dilakukan sebagai pendekatan untuk mengurangi %Changeover pergantian setting metode uji Scoville Heat Units. Dan proses perubahan setting manual menjadi database call berhasil mengurangi waktu changeover terakhir sekitar 50% dari sebelumnya 47 menit 54 detik menjadi 24 menit 7 detik. Hal tersebut juga berhasil menurunkan lead time sebesar 15%.

**Kata Kunci** : VSM, PAM, SMED, Uji Scoville Heat Units.

## ABSTRACT

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*Title Thesis Report* : *Minimizing waste with a lean approach to optimize the process of testing scoville heat units on capsicum (Case Study of Flavor Laboratories in Indonesia)*  
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*This Company is a flavor and fragrance company in Indonesia. The key to the success of company A is all departments that work according to the given KPI targets. In carrying out its business processes, the QC department experienced a problem, namely a delay in completing the Scoville Heat Units test on Capsicum. To find out the waste generated, an analysis is carried out using VSM (Value Stream Mapping). The results of the CVSM Current Value Stream Mapping show that the lead time for the Scoville Heat Units test is greater than the cycle time, which is 276.23 minutes. Furthermore, the type of waste was weighted using a questionnaire, and it was obtained that waiting had the largest score. The selected PAM (Process Activity Mapping) method was used to describe the Scoville Heat Units test activity, which showed a non value added (NVA) of 18%. Then an analysis of the causes of the problem was carried out using fishbone, to find the causes of NVA, namely the Starting Up Machine that was too long (waiting), and the input parameter setting was too long (waiting). SMED implementation is carried out as an approach to reduce the % Changeover change of settings for the Scoville Heat Units test method. And the process of changing manual settings to a database call managed to reduce the last changeover time by around 50% from the previous 47 minutes 54 seconds to 24 minutes 7 seconds. It also managed to reduce lead time by 15%.*

**Keywords:** VSM, PAM, SMED, Scoville Heat Units Test.