

ABSTRAK

Unit Wiping Solution Recovery Treatment bertugas untuk melakukan produksi daur ulang larutan penyapu tinta. Adanya permasalahan kadar *total solid dried* (TSD) yang sering melebihi batas standar perusahaan, sehingga dapat menurunkan kualitas akhir produk dan menyebabkan kerugian bagi *internal customer*. Penelitian ini bertujuan untuk melakukan *benchmarking* internal terhadap kualitas kadar TSD antara Plant AB yang menggunakan metode semi otomatis dengan Plant CD yang menggunakan metode manual yang dilakukan pada variasi suhu proses (30°C, 35°C, 40°C). Analisis dilakukan menggunakan *Partial Least Squares Structural Equation Modeling* (PLS-SEM) dengan menggunakan program SmartPLS. Hasil penelitian menunjukkan bahwa Plant AB memiliki nilai koefisien jalur negatif (-0.479) dan Plant CD memiliki nilai koefisien jalur positif (0.409) yang menunjukkan Plant AB lebih optimal dalam menurunkan kadar *total solid dried*, selain itu indikator suhu proses 40°C menunjukkan nilai *outer loading* tertinggi sebesar 0.614 yang berarti memiliki pengaruh paling kuat terhadap variabel laten Plant AB dalam menurunkan kadar TSD dibandingkan suhu proses lainnya. Hal ini menunjukkan bahwa metode semi otomatis pada Plant AB bekerja paling optimal pada suhu 40°C dalam mengurangi kadar TSD.

Kata Kunci : *benchmarking, larutan penyapu tinta, smartpls, total padatan kering, structural equation modelling (SEM)*



ABSTRACT

The Wiping Solution Recovery Treatment Unit is tasked with producing recycled ink wiping solution. There is a problem with total solid dried (TSD) levels which often exceed company standard limits, which can reduce the final product quality and cause losses for internal customers. This research aims to carry out internal benchmarking of the quality of TSD levels between Plant AB which uses a semi-automatic method and Plant CD which uses a manual method carried out at various process temperatures (30°C, 35°C, 40°C). Analysis was carried out using Partial Least Squares Structural Equation Modeling (PLS-SEM) using the SmartPLS program. The research results show that Plant AB has a negative path coefficient value (-0.479) and Plant CD has a positive path coefficient value (0.409) which shows that Plant AB is more optimal in reducing the total solid dried content, besides that the process temperature indicator of 40°C shows the outer value. The highest loading is 0.614, which means it has the strongest influence on the latent variable Plant AB in reducing TSD levels compared to other process temperatures. This shows that the semi-automatic method at Plant AB works optimally at a temperature of 40°C in reducing TSD levels.

Keywords : benchmarking, ink wiping solution, smartpls, total solid dried, structural equation modelling (SEM)

