

Analisis Keseimbangan Lintasan Produksi ***Cold-Pressed Juice* di Akkar Juice Bar Yogyakarta**

INTISARI

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Peningkatan produksi yang hampir lima kali lipat dalam kurun waktu dua tahun melatarbelakangi dibuatnya penelitian ini. Peningkatan produksi perlu dibarengi dengan kapasitas produksi yang mumpuni juga. Sementara penambahan mesin produksi atau penambahan tenaga kerja masih terkendala biaya. Bahan baku yang berupa sayur dan buah merupakan sebuah masalah lain karena karakteristik bahan pertanian yang mudah rusak (*perishable*) sehingga perlu diolah atau ditangani dengan cepat. Umur simpan jus yang hanya empat hari membuat produksi hanya bisa dibuat sesuai keinginan konsumen. Sedangkan bahan tambahan seperti botol dan tutup botol yang perlu disterilisasi menyebabkan penumpukan bahan dan keterbatasan produksi sesuai dengan *cue* (jadwal produksi jus) yang sudah dibuat. hal yang paling memungkinkan untuk meningkatkan produksi salah satunya dengan mengefisiensikan produksi *cold-pressed juice*.

Tujuan penelitian ini adalah menganalisis penyebab ketidakseimbangan lintasan produksi, membandingkan efisiensi alternatif usulan perbaikan lintasan produksi dengan kondisi awal lintasan produksi, dan menyusun perbaikan lintasan produksi yang terbaik untuk diimplementasikan pada lintasan produksi *cold-pressed juice* di Akkar Juice Bar. Varian jus yang diteliti adalah *hangover doctor*, *glow tonic*, dan *root boost*.

Pertama, dilakukan studi waktu digunakan untuk menentukan waktu baku dan mencari efisiensi awal lintasan produksi. Lalu baru setelahnya dilakukan perbaikan menggunakan metode *Eliminate, Combine, Rearrange*, dan *Simplify* (ECRS) dan *Ranked Positional Weighted Method* (RPW). Perbaikan menggunakan metode ECRS dan RPW menghasilkan efisiensi lintasan produksi yang sama yaitu 72%. *Smoothing index* yang didapat hampir sama metode RPW 1098,82 sedangkan ECRS 1099,26.

Kata Kunci: *Cold-Pressed Juice*, *Line Balancing*, *Eliminate, Combine, Rearrange*, dan *Simplify* (ECRS), dan *Ranked Positional Weighted Method* (RPW).

Line Balancing Analysis of Cold-Pressed Juice Production Line

in Akkar Juice Bar Yogyakarta

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ABSTRACT

The five-fold increase in production in two years is the background for this research. Increased production needs to be accompanied by a qualified production capacity as well. Meanwhile, the addition of production machines or the addition of labor is still constrained by costs. Vegetable and fruit raw materials are also a problem because of the perishable nature of agricultural materials, so they need to be processed immediately. The shelf life of the juice, which is only four days, means that production can only be done according to the wishes of consumers with precision. While additional materials such as bottles and bottle caps that need to be sterilized cause a large number of ingredients and limited production according to the juice production schedule that has been made. One of the most possible things to increase production is to make cold-pressed juice production more effective.

The purpose of this research is to analyze the causes of production correction corrections, improve the efficiency of alternative improvements to production line improvements with the initial conditions of the production line, and arrange the best production line improvements to be implemented on cold-pressed juice production lines at Akkar Juice Bar. The juice variants studied were hangover doctor, glow tonic, and root boost.

First, time studies are used to determine the standard time and find the initial efficiency of the production line. Then the new settings are corrected using the Eliminate, Combine, Rearrange and Simplify (E CRS) method and the Ranked Positional Weighted Method (RPW). Improvements using the E CRS and RPW methods resulted in the same production recovery efficiency of 72%. But, the smoothing index obtained is similar, the RPW method is 1098,82 while the E CRS is 1099,26.

Keyword: Cold-Pressed Juice, Line Balancing, Eliminate, Combine, Rearrange, and Simplify (E CRS), and Ranked Positional Weighted Method (RPW).