

ANALISIS PENYEBAB KECACATAN PRODUK SARI APEL FLAMBOYAN MELALUI PENDEKATAN *SIX SIGMA* DI PT BATU BHUMI SURYATAMA, KOTA BATU, JAWA TIMUR

Oleh:

Elma Novitasari¹, Anjar Ruspita Sari², Makhmudun Ainuri³, Iman Sabarisman⁴

RANGKUMAN

PT Batu Bhumi Suryatama merupakan salah satu perusahaan yang menghasilkan produk sari apel merek Flamboyan di Kota Batu, Jawa Timur. Pada hasil produksi sari apel Flamboyan ditemukan permasalahan yaitu adanya kecacatan produk. Kecacatan produk yang dihasilkan berupa produk bocor dan produk *below standard* (BS). Metode pengumpulan data dilakukan dengan cara pengamatan terhadap data jumlah produksi dan jumlah produk cacat yang dihasilkan meliputi produk bocor dan BS selama 9 minggu (Februari-Maret 2021). Analisis permasalahan dilakukan dengan menggunakan metode *Six Sigma* yang terdiri dari 5 tahapan yaitu *Define, Measure, Analyze, Improve, dan Control* (DMAIC). Hasil analisis dengan menggunakan langkah-langkah DMAIC diperoleh proses produksi sari apel Flamboyan PT Batu Bhumi Suryatama berada pada level 3,99 *sigma* berada pada tingkat rata-rata industri di Indonesia, dengan kemungkinan kecacatan produk sebanyak 7.116,78 dari 1.000.000 produk yang dihasilkan. Persentase kecacatan yang dihasilkan pada Februari-Maret 2021 sebesar 1,56% dengan 0,30% produk BS dan 1,26% produk bocor. Faktor penyebab kecacatan produk yang paling dominan adalah faktor manusia yaitu terlalu kuat dalam menekan produk, kurang memperhatikan SOP, serta terdapat produk BS dan bocor yang diloloskan dalam pengepakan. Rekomendasi perbaikan yang diusulkan sebagai upaya meminimalkan terjadinya kecacatan produk antara lain pembuatan SOP pemeliharaan mesin dan peralatan produksi, pengecekan komponen-komponen mesin setelah selesai produksi, pemberian pelatihan dan bimbingan terhadap pekerja, pembuatan SOP kerja untuk para pekerja, serta pengawasan secara berkala terhadap pekerja.

Kata kunci: Bocor, BS, Kecacatan, Sari Apel, *Six Sigma*

***ANALYSIS OF DEFECT PRODUCTS ROOT CAUSE ON FLAMBOYAN APPLE
CIDER PRODUCT USING SIX SIGMA APPROACH IN PT BATU BHUMI
SURYATAMA, KOTA BATU, JAWA TIMUR***

By:

Elma Novitasari¹, Anjar Ruspita Sari², Makhmudun Ainuri³, Iman Sabarisman⁴

SUMMARY

PT Batu Bhumih Suryatama is one of the companies that produces Flamboyan brand apple cider products in Batu City, East Java. In the production of Flamboyan apple cider, problems were found, namely product defects. The resulting product defects are leaky products and below standard (BS) products. The data collection method is carried out by observing the data on the amount of production and the number of defective products produced including leaky products and BS for 9 weeks (February-March 2021). Problem analysis is done using the Six Sigma method which consists of 5 stages, namely Define, Measure, Analyze, Improve, and Control (DMAIC). The results of the analysis using the Six Sigma method through DMAIC steps obtained that the production process of PT Batu Bhumih Suryatama's Flamboyan apple cider was at the level of 3.99 sigma, which was at the industry average level in Indonesia, with the possibility of product defects being 7,116,78 out of 1,000,000. the resulting product. The percentage of defects produced in February-March 2021 was 1.56% with 0.30% BS products and 1.26% leaking products. The most dominant factor causing product defects is the human factor, which is too strong in pressing the product, not paying attention to the SOP, and there are BS and leaky products that are released in packaging. Recommendations for improvement that are proposed as an effort to minimize the occurrence of product defects include making SOPs for maintenance of machines and production equipment, checking machine components after completion of production, providing training and guidance to workers, making work SOPs for workers, as well as regular supervision of workers.

Keywords: Apple Cider, BS, Disability, Leaking, Six Sigma