ABSTRAK

PT Macakal Pangan Sejahtera merupakan perusahaan yang memproduksi tahu bulat dengan kapasitas produksi yang tinggi sehingga memerlukan pengendalian kualitas yang efektif untuk menjaga kesesuaian produk dengan standar perusahaan. Berdasarkan hasil observasi dan wawancara, masih ditemukan produk tahu bulat yang tidak memenuhi standar ukuran sehingga harus dikembalikan ke proses *Rework*. Kondisi tersebut menyebabkan penambahan waktu proses, penurunan efisiensi produksi, serta berpotensi meningkatkan biaya produksi. Penelitian ini bertujuan untuk mengidentifikasi kondisi pengendalian kualitas yang diterapkan perusahaan, menganalisis penyebab terjadinya produk *Rework* menggunakan metode Seven Tools, serta menyusun usulan perbaikan guna mengurangi tingkat kecacatan produk.

Penelitian ini menggunakan pendekatan deskriptif kuantitatif dengan metode Seven Tools yang meliputi *Check Sheet*, flow chart, *Histogram*, diagram *Pareto*, scatter diagram, *P-Chart*, dan *Fishbone* diagram. Data penelitian berupa data jumlah produksi dan produk *Rework* selama periode 1–31 Mei 2026 dengan 30 hari kerja efektif. Pengumpulan data dilakukan melalui observasi, wawancara, dokumentasi, dan pencatatan data produksi perusahaan. Selanjutnya, data dianalisis untuk mengetahui proporsi produk *Rework*, jenis ketidaksesuaian yang dominan, kestabilan proses produksi, serta faktor-faktor penyebab terjadinya ketidaksesuaian ukuran produk.

Hasil penelitian menunjukkan bahwa selama periode pengamatan jumlah produksi mencapai 4.571.067 butir dengan total produk *Rework* sebanyak 99.239,31 butir atau rata-rata proporsi *Rework* sebesar 2,17%. Diagram *Pareto* menunjukkan bahwa varian Semi dan Standar merupakan penyumbang *Rework* terbesar dengan kontribusi kumulatif sebesar 96,4%. Analisis *P-Chart* menunjukkan bahwa proses produksi secara umum berada dalam kondisi terkendali, meskipun terdapat dua titik pengamatan yang berada di luar batas kendali statistik. Analisis *Fishbone* diagram menunjukkan bahwa penyebab utama ketidaksesuaian ukuran produk berasal dari faktor manusia, mesin, metode, material, dan lingkungan. Berdasarkan hasil tersebut, usulan perbaikan yang direkomendasikan meliputi peningkatan ketelitian dan pelatihan operator, kalibrasi serta perawatan mesin secara berkala, penyempurnaan prosedur kerja, dan peningkatan pengawasan proses produksi untuk meminimalkan produk *Rework*.

Kata kunci: pengendalian kualitas, Seven Tools, tahu bulat, *Rework*, *P-Chart*.

ABSTRACT

PT Macakal Pangan Sejahtera is a company engaged in the production of round tofu (tahu bulat) with a high production capacity, requiring an effective Quality Control system to ensure product conformity with company standards. Based on observations and interviews, some products were found not to meet the specified size standards and therefore had to be returned for Rework. This condition increases processing time, reduces production efficiency, and potentially raises production costs. This study aims to identify the existing Quality Control practices, analyze the causes of Reworked products using the Seven Tools method, and propose improvement strategies to reduce product defects.

This research employed a descriptive quantitative approach using the Seven Tools of Quality, consisting of a Check Sheet, flow chart, Histogram, Pareto diagram, scatter diagram, P-Chart, and Fishbone diagram. The data consisted of production and Rework records collected during the period of May 1–31, 2026, covering 30 effective working days. Data were obtained through observation, interviews, documentation, and company production records. The collected data were analyzed to determine the proportion of Reworked products, identify dominant defects, evaluate process stability, and investigate the root causes of product size nonconformity.

The results indicate that the total production during the observation period reached 4,571,067 units, with 99,239.31 units classified as Rework, resulting in an average Rework proportion of 2.17%. The Pareto diagram revealed that the Semi and Standard variants contributed the highest cumulative percentage of Rework, accounting for 96.4% of the total. The P-Chart analysis showed that the production process was generally under statistical control, although two observation points were outside the control limits. Furthermore, the Fishbone diagram identified human, machine, method, material, and environmental factors as the primary causes of product size nonconformity. Based on these findings, the proposed improvements include enhancing operator accuracy through training, implementing regular machine calibration and maintenance, improving work procedures, and strengthening production supervision to minimize Reworked products.

Keywords: Quality Control, Seven Tools, round tofu, Rework, P-Chart.