

ABSTRAK

Industri manufaktur makanan menghadapi banyak masalah dalam menjaga ketepatan waktu dan konsistensi kualitas. PT XYZ, perusahaan manufaktur makanan, mengalami penurunan kinerja operasional yang ditandai dengan tingkat kesalahan yang meningkat, keterlambatan pengiriman, dan penurunan produktivitas karyawan. Tujuan penelitian ini adalah untuk mempelajari bagaimana penerapan Lean dan Six Sigma berdampak pada kinerja operasional PT XYZ. Penelitian ini dilakukan dengan menggunakan pendekatan kuantitatif dengan desain deskriptif-eksplanatori. Data dikumpulkan melalui kuesioner yang dibagikan kepada 120 pekerja yang berpartisipasi dalam operasi. Untuk menganalisis data, penelitian ini menggunakan regresi linier berganda dan program analisis statistik SPSS. Hasil menunjukkan bahwa Lean dan Six Sigma berpengaruh positif dan signifikan terhadap kinerja operasional ($t = 5,797$, $p = 0,001$), dan Lean dan Six Sigma berpengaruh positif dan signifikan terhadap kinerja operasional ($t = 12,211$, $p = 0,001$), dan keduanya berpengaruh secara bersamaan ($F = 3653,825$, $p = 0,001$), dengan kontribusi penjelasan sebesar 98,4 persen.

Kata Kunci: Lean, Six Sigma, Kinerja Operasional, Manufaktur Makanan, Regresi Linier Berganda.

ABSTRACT

The food manufacturing industry faces serious challenges in maintaining product quality consistency and production timeliness. PT XYZ as a food manufacturing company experienced declining operational performance marked by increased defect rates, delivery delays, and decreased employee productivity. This study aims to analyze the effect of Lean and Six Sigma implementation on operational performance at PT XYZ. The research method uses a quantitative approach with descriptive-explanatory design. Data was collected through questionnaires from 120 employee respondents involved in operational activities. Data analysis uses multiple linear regression with SPSS assistance. The results show that Lean has a positive and significant effect on operational performance ($t = 5.797$, $p < 0.001$), Six Sigma has a positive and significant effect on operational performance ($t = 12.211$, $p < 0.001$), and simultaneously both have a significant effect ($F = 3653.825$, $p < 0.001$) with an explanatory contribution of 98.4%. The conclusion of this study is that consistent implementation of Lean and Six Sigma is able to improve company operational performance through process efficiency and systematic quality control.

Keywords: *Lean, Six Sigma, Operational Performance, Food Manufacturing, Multiple Linear Regression.*