

## ABSTRAK

*Overall Equipment Effectiveness (OEE)* merupakan suatu pengukuran kinerja mesin yang digunakan untuk mengevaluasi efektivitas sebuah peralatan dalam sebuah sistem produksi. OEE terdiri dari tiga rasio utama yaitu *Availability*, *Performance Rate*, dan *Rate of Quality Products*. Ketiga nilai rasio tersebut akan mencakup seluruh pokok permasalahan yang dapat mempengaruhi seberapa banyak produk yang dapat dihasilkan oleh peralatan dan operator sistem yang digunakan. Metode OEE merupakan cara terbaik untuk mengidentifikasi performansi proses dan mencari pada bagian mana titik tertinggi atau rendahnya efektivitas dari mesin. PT. Torabika Eka Semesta merupakan perusahaan yang bergerak di bidang industri pangan yaitu produk susu sereal. Salah satu hambatan yang dihadapi perusahaan pada produksi ialah tingginya *downtime* mesin *wrapping* yang menyebabkan terganggunya produksi. Efek dari *downtime* tersebut adalah menurunnya kecepatan mesin sehingga dapat mempengaruhi hasil produksi yang tidak sesuai rencana, banyak hasil produksi yang *reject and rework*, dan lamanya waktu *setup and adjustment*. Untuk mendapatkan nilai persentase OEE dibutuhkan perkalian dari hasil rasio *Availability*, *Performance Rate*, dan *Rate of Quality*. Nilai OEE tertinggi yaitu terdapat pada periode minggu ke-8 dengan persentase sebesar 70,70%, dari hasil *Availability* 80,31%, *Performance Rate* 95,71%, dan *Rate of Quality* 99,79%. Sedangkan nilai OEE terendah terdapat pada periode minggu ke-8 yaitu sebesar 58,50% dari *Availability* 82,92%, *Performance Rate* 70,70%, dan *Rate of Quality* 99,97%. Faktor *Six Big Losses* yang berpengaruh terhadap rendahnya efektivitas mesin *Wrapping High Speed Line 4* diketahui dengan analisa korelasi berganda adalah variabel X2 yaitu *Breakdown Losse* dengan hasil interpretasi cukup mempengaruhi yaitu sebesar -0,46. Hasil implementasi OEE yang dilakukan menunjukkan peningkatan pada OEE, nilai OEE meningkat dari 68,31% sebelum implementasi, menjadi 71,83% setelah implementasi.

**Kata Kunci:** *Overall Equipment Effectiveness (OEE), Rasio, Availability, Performance Rate, Rate of Quality Products, Downtime, Six Big Losses, Korelasi Berganda, Breakdown.*

## ABSTRACT

*Overall Equipment Effectiveness (OEE) is a measure of the performance of the machine used to evaluate the effectiveness of a piece of equipment in a production system. OEE is composed of three main Ratio Availability, Performance Rate, and Rate of Quality Products. The third value of the ratio will cover the entire subject matter that can affect how much product can be generated by the equipment and operator systems are used. OEE method is the best way to identify the performance of the process and look at the part where the highest point or the low effectiveness of the machine. PT. Torabika Eka Semesta is a company engaged in the food industry are dairy products cereals. One of the obstacles faced by companies in the production of wrapping machine downtime is high which causes disruption of production. The effect of downtime is decreasing engine speed so that it can affect the outcome of production that is not according to plan, a lot of the products that reject and rework, and the length of time the setup and adjustment. To get the required percentage value OEE multiplication of the results of the ratio of Availability, Performance Rate, and Rate of Quality. The highest OEE value is found in the period of 8 weeks with a percentage of 70.70%, of the results of Availability 80.31%, 95.71% Performance Rate and Quality Rate of 99.79%. While the value of OEE lowest for the period of 8 weeks is equal to 58.50% from 82.92% Availability, Performance Rate 70.70%, and 99.97% Rate of Quality. Six Big Losses factors that influence the effectiveness of the low Wrapping machines High Speed Line 4 is known by multiple correlation analysis is X2 ie Breakdown Losse with sufficient influence the interpretation that is equal to -0.46. Results OEE implementations that do show an increase in OEE, OEE values increased from 68.31% before implementation, being 71.83% after implementation.*

**Keywords:** *Overall Equipment Effectiveness (OEE), Ratio, Availability, Performance Rate, Rate of Quality Products, Downtime, Six Big Losses, Multiple Correlation, Breakdown.*