

**SCIENTIFIC ARTICLE TITLE**  
**PRODUCTIVITY ANALYSIS OF PT TORABIKA EKA SEMESTA USING**  
**OBJECTIVE MATRIX (OMAX) AND FAULT TREE ANALYSIS (FTA)**  
**METHODS**

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PT Torabika Eka Semesta is a company producing healthy drinks and food. The existence of factories and various products certainly requires effectiveness and efficiency at work. The productivity level in the company is quite good, as seen from the achievement of the output target from January to December 2023 above 80%. The achievement of the output target can be caused by several things, such as off-production machines, delays in starting production, and output fluctuations. The purpose of doing productivity analysis is to discover the problems that affect productivity.

The productivity analysis uses three methods: the Objective Matrix (OMAX), the Fault Tree Analysis (FTA), and the Analytical Hierarchy Process (AHP). The OMAX method is designed to calculate productivity values. The FTA method is used to identify how a problem can occur at the highest level in a system. The AHP method is used to calculate the weighting of each indicator.

The results of the AHP method obtained values of 0.1888, 0.4121, 0.1252, 0.1728, 0.1011 for indicator 1 to indicator 5 respectively. Then, using the OMAX method, the productivity values of 1.640, 1.415, 6.665, 5.548, 2.371, 1.716, 2.227, 2.470, 2.089, 1.387, 1.591, 1.396 were obtained from January 2022 to January 2023. Based on the calculation results, it is known that defect/rework output, machine stop time and late start of production are indicators that have deficient performance. Implementation was performed by attaching a "Cello Replacement Instructions" sticker to the machine. The implementation results showed an increase in productivity value in January by 1.613.

**Keywords:** Analysis of Productivity, Objective Matrix Method, Fault Tree Analysis Method, Analytical Hierarchy Process.