

***PRODUCTION STOCK OPTIMIZATION MANAGEMENT USING LINEAR
PROGRAMMING SIMPLEX METHOD***

Bety Etikasari, S.Pd., M.Pd. (*As Chief Counselor*)

Anton Setyo Prihartanto

*Study Program Informatics Engineering
Majoring of Information Technology*

ABSTRACT

In the era of globalization and increasingly fierce business competition, efficiency and effectiveness in production management are crucial for a company's success. Alazka Company is an example of a business that is able to adapt and innovate in facing these challenges. By using linear programming methods, especially the Simplex Method, this research aims to optimize company production management. Through the application of the Simplex Method in a website-based system, this research provides an integrated and real-time solution to increase operational efficiency and business success. The results of optimization calculations show that the Alazka Company can gain a profit of IDR 104.754 by adjusting the amount of building material production, namely Bricks 3 pcs, Paving Block 11 m², Paving Hexagon 5m². This research is expected to provide an in-depth understanding of the application of the Simplex Method in production management and provide strategic recommendations for companies in managing production optimally through an interactive web-based platform.

Keywords : Building Materials, Simplex Method, Stock Optimization