NETWORK ANALYSIS TO MEASURE TIME EFFICIENCY AND IMPLEMENTATION COST PRODUCTION PROCESS: A CASE STUDY ON MUJUR JAYA COMPANY

Toto Sugiharto[1]
Nofi Triana[2]

Economic Faculty of Gunadarma University
[1]tsharto@staff.gunadarma.ac.id

ABSTRACT

Competition in industrial sector does not only apply to garment and electronic subsectors but also to food & beverage subsectors. Accordingly Mujur Jaya—a medium enterprise operating in food & beverage subsector—is required to maintain its existence, growth, and competitiveness. This can be accomplished through production decision which leads to production efficiency and product quality improvement. The objective of this study is to analyze time efficiency and cost of production processes within the firm. Network analysis was applied. Primary data regarding chronological order, time, and costs of production processes were collected and directly measured at the location of the firm. Critical Path Methods, in particular methods of Earliest Start Time & Earliest Finish and Latest Start Time & Latest Finish Time were used to analyze data. Results of the study indicated that production process cost can be reduced up to IDR1870 per production cycle by cutting production time by approximately 2 minutes. In the long term, this improvement (i.e., time and cost of production process) would be of beneficials for the firm.

Key words: Network analysis; critical path methods; time of production process; cost of production process.