

ABSTRACT

PT. Amas Iscindo Utama is a shipping service company whose duty is to deliver client's cargo. To simplify the business process, the company bought two new ships namely MV. Flores Sea and MV. Sawu Sea and sold their old ship, the Arafura Sea ship, due to the condition of the ship that was not suitable for use and did not have an internet network. The digitalization of the two vessels purchased by the company facilitates business processes and provides benefits related to the company's profitability. Therefore, the writing of this Final Project is intended to analyze the efficiency of the use of digitalization that has been done, by comparing the efficiency before digitization and after digitization. The initial step in this research is carried out by measuring the efficiency of the cycle time of the company's business processes and comparing the cycle time between before and after. Calculation of efficiency based on cycle time results in an increase in the percentage value from 62% to 69%. Then the next step is using the Data Envelopment Analysis (DEA) method to measure efficiency in terms of operational costs which are related to the level of profitability of the company and the Return on Asset (ROA) measurement. DEA calculation results in increased efficiency based on inputs and outputs, namely operating costs and total revenue and net profit, with a percentage value of 82% to 93%. The trend value of the ROA percentage is measured to determine whether there is significance between before and after digitalization using the hypothesis test, the Paired T-Test and the Wilcoxon Signed Rank Test. Based on the results of hypothesis testing it is known that there is significance between ROA before and ROA after digitalization.

Keywords : Digitalization, Business Process, Processing Time Efficiency, Data Envelopment Analysis, Return on Asset..