

ABSTRACT

Operational efficiency is a major challenge for PT PLN (Persero) in ensuring resource optimization amidst the dynamics of the energy industry. This study uses descriptive verification with a population of PT PLN (Persero) financial reports and a purposive sampling technique that includes PT PLN (Persero) financial reports from 2019 semester 1 to 2023 semester 2. This study aims to analyze the development of Return on Assets (ROA), Debt To Equity Ratio (DER), and Total Asset Turnover (TATO), and measure the level of efficiency of PT PLN (Persero) in the period 2019–2023. In addition, this study examines the effect of ROA, DER, and TATO on company efficiency partially and simultaneously. The method used is Data Envelopment Analysis (DEA) for the first stage and Multivariate Tobit Regression Analysis for the second stage. The results of the study in the first stage showed that constant return to scale (CRS) efficiency occurred in semesters 2-2020 and 1-2022. The efficiency of the return to scale (VRS) variable occurred in semesters 1 and 2 of 2020, 1 and 2 of 2022, 1 and 2 of 2023. Then in the second stage the TATO variable has a significant effect on ROA. This finding provides implications for PT PLN management that the importance of efficient asset management is the main determinant of operational efficiency.

Keyword : two stage data envelopment analysis, efficiency, return on assets, debt to equity ratio, total asset turnover