ABSTRACT

The projected 100% increase in the number of telecommunications towers in Indonesia by 2026 reflects rapid growth in the telecommunications infrastructure sector, driven by rising data demand and the adoption of 5G technology. In the Asia-Pacific region, similar demand indicates significant opportunities for industry development. PT Dayamitra Telekomunikasi Tbk (Mitratel) is a leading player in Indonesia's telecommunications infrastructure industry. With a vision to become the "Digital InfraCo #1" in the Asia-Pacific (APAC) market, Mitratel continues to strengthen its position despite intense competition from major companies such as China Tower, Indus Towers, and GTL Infrastructure. Although it has a connectivity advantage and a tower count reaching 35,418 as of December 2022, Mitratel strives to achieve a leading position in the APAC region.

This research analyzes efficiency in the telecommunications infrastructure industry using Data Envelopment Analysis (DEA), a method proven effective in measuring organizational unit efficiency across various fields based on previous literature. DEA will be used to compare Mitratel's efficiency with PT Sarana Menara Nusantara Tbk at the national level, and China Tower and Indus Towers at the APAC level. Input variables include current assets, non-current assets, current liabilities, non-current liabilities, CAPEX, number of towers, and operating expenses. Output variables include total revenue, EBITDA, and number of tenants. Data are sourced from the annual reports and financial statements of the companies under study.

The research findings show that over the five-year observation period, Mitratel achieved full efficiency in nearly every year, with efficiency levels comparable to PT Sarana Menara Nusantara Tbk. Meanwhile, the annual efficiency levels for Indus Towers and China Tower were somewhat volatile but remained high. Trend analysis and Pearson Correlation coefficients between average efficiency and input/output variables indicate that current assets, non-current liabilities, and CAPEX have a significant negative impact on Mitratel's efficiency, while current liabilities have a notable positive impact. Based on this analysis, improvements to increase Mitratel's efficiency and competitive edge should focus on controlling *current assets, non-current liabilities, and CAPEX, while considering an increase in current liabilities.*

The benefits of this research can serve as a reference for PT Dayamitra Telekomunikasi Tbk (Mitratel) to analyze the variables needed to improve its efficiency by comparing itself with competitors. Through efficiency analysis and Pearson Correlation, along with recommendations from benchmarking with competitors, this study emphasizes the importance of optimal tower management, considering economic aspects, tenant purchasing power, and market potential in the region. By adopting these strategies, Mitratel can maintain its national leadership and achieve its vision of becoming number one in the APAC market.

Keywords: Data Envelopment Analysis (DEA), Efficiency, Telecommunication Infrastructure