

ABSTRACT

The health service industry plays an important role in determining the progress of the whole health sector. This study aims to analyze the score of technical efficiency of industrial health services and the factors that affect the level of efficiency at the regency level in Central Java Province during the 2016-2020 period. This research method uses a two-stage analysis approach. The first stage, input-oriented BCC DEA is used to measure the rate of technical efficiency. Second, the Tobit regression method is adapted to analyze the variable effect of constant GRDP, the number of children aged, the number of elderlies, the health expenditure, the number of hospitals, and the number of medical staff per 1,000 population on the level of technical efficiency.

The results showed that the level of technical efficiency of the health service industry in Central Java Province aggregately reached an average score of 87.33%. Individually, only the Banyumas Regency and Magelang Regency are always at the optimal efficiency level of 100% in the 2016-2020 period. Based on the results of the Tobit regression, the variable population age children and budget health realization significantly have a positive effect on the level of efficiency, whereas the number of elderly and the number of medical staff per 1,000 population have a negative effect on the level of efficiency. Meanwhile, the constant GRDP variables and the number of hospitals did not significantly affect the level of technical efficiency of the health service industry in Central Java Province during the 2016-2020 period.

Keywords: health service industry, technical efficiency, data envelopment analysis, tobit regression

JEL Classification; I10, I15