

ABSTRACT

The era of digitalization which is very rapid raises, challenges for players in the telecommunications industry to meet customer needs by providing services with high speed and broad reach. The telecommunications industry in the countries of East and Southeast Asia still shows a positive growth trend in terms of average income of 2.3% and growth in the number of customers an average of 4.1% per year. But this was not matched by EBITDA margins which actually declined at a rate of -1.12% during 2013-2017.

This research was conducted to determine, analyze and compare the efficiency values of 25 telecommunications companies in East and Southeast Asia which were included in the list of the most 300 valuable brands in 2018 in the 2013-2017 observation period.

The method used to calculate the value of company efficiency in this study is Data Envelopment Analysis (DEA). By determining the input output variables based on previous studies, then the value of the variables obtained from the foreign financial statements of each company is processed and then processed in the MaxDEA-7 software to get the value of company efficiency.

To find out the influence and relationship between input output variables and efficiency values, a correlation analysis is carried out to produce the correlation coefficient between them. The results of the efficiency value and the value of the correlation coefficient are then compared between each company and per each group of countries, to find out which companies and countries are the most efficient and the variables that most strongly influence the value of efficiency.

From the analysis of the results of the study it can be concluded that the telecommunications company PT. NTT (Japan) is a company that has the highest efficiency value and is most influenced by capex, revenue and subscriber variables, while PT. FarEasTone (Taiwan) has the lowest efficiency value and is most contributed by capex and subscriber variables. And of the 10 countries in East and Southeast Asia studied in the past 5 years in a row, on average telecommunications companies in Japan have the highest efficiency values with the most influential variables being capex, revenue and subscriber, and on average Singapore has the lowest efficiency value with the most influential variables being opex, personal expense and total assets.

Keywords: *Data Envelopment Analysis (DEA), East and Southeast Asia, Efficiency, Telecommunication Industry*