ABSTRACT

The purpose of this study is to analyze the technical efficiency and to determine the socio-economic factors related to waste management in DKI Jakarta. The framework uses secondary data. The secondary data are collected to the Indonesia central bureau of statistic and DKI Jakarta environmental services. Stochastic Frontier Analysis (SFA) using Frontier 4.1 software is applied in this study. The result show that DKI Jakarta waste management is inefficient with the average of the efficiency is 85%. Waste management efficiency occurs when waste management reaches a zero waste or 100% of transported waste. The socio-economic factors like per capita GRDP and gender ratio have positive impact on inefficiency, while population density, the average length of study and unployment have negative and significant impact on inefficiency of waste management in DKI Jakarta. Proportion of tertiary sector are insignificant affect waste management in DKI Jakarta. These findings have policy implications and can inform the related government departments how to formulate proper policies to improve cleaning facilities, landfill optimalization and the other policies to collection efficiency. Socio-economic factors have indirect affect to describe the role of society and industry to produce and manage solid waste. The role of socio-economic factors should be considered to deal with waste problems.

Keywords: *efficiency; municipal solid waste; waste management; stochastic frontier analysis*