

Technical efficiency estimates of paddy farming in peninsular Malaysia : a comparative analysis

ABSTRACT

Estimating technical efficiency of production technology is important for policy purposes, particularly for a sector which has strategic importance in self sufficiency level such as paddy farming. This study compared technical efficiency of paddy farming in east coast and west coast of Peninsular Malaysia by using data envelopment analysis (DEA) and Stochastic Frontier Analysis (SFA). Primary data were collected using a set of structured questionnaire from 230 farmers in east coast and west coast of Peninsular Malaysia. The data are analyzed by using DEA and SFA. The results indicated that the differences in methodologies employed produced different efficiency estimates. The DEA result showed that efficiency score for Peninsular Malaysia is 56%, which is lower from the efficiency score obtained using the SFA at 69%. Due to the large differences in technical efficiency results, recommendation for policy purpose should not depend on only one method as it is inaccurate.

Keyword: Technical efficiency; Data envelopment analysis; Stochastic frontier production; Comparative analysis