

Non-Parametric Analysis of Production Efficiency of Poultry Egg Farmers in Delta State, Nigeria

Ojo, M. A., A. O. Ojo, A. J. Jirgi and J. O. Ajayi

Department of Agricultural Economics and Extension Technology, School of Agriculture and Agricultural Technology, Federal University of Technology, Minna, Niger State, Nigeria.

Abstract

This study examined the non-parametric analysis of production efficiency of poultry eggs farmers in the Delta State Nigeria. Data used for the study were obtained using structured questionnaires administered to 120 randomly selected poultry farmers in four Local Government Areas of the State. Data envelopment analysis and Cobb- Douglas production function were used to analyze the data. Results showed that 30% of the poultry farmers in the study area were operating at frontier and optimum level of production with mean technical efficiency of 1.00. This implies that 70% of the poultry farmers in the study area can still improve on their level of efficiency through better utilization of available resources, given the current state of technology. The results of the Cobb-Douglas analysis of factors affecting the output of poultry farmers showed that stock capacity (number of birds), feed and medication cost positively and significantly affected the output of the poultry egg farmers in the study area. This indicated that a unit increase in these inputs led to increase in the gross output of poultry egg farmers in the study area by 49.12%, 46.99% and 20.74% respectively. The study further showed that most of the poultry farms could reduce total expenditures on the number of birds purchased, feed, labour, medication and capital inputs by 20.43%, 3.20%, 3.53%, 7.10%, and 31.80% respectively without reducing their current level of production. It is recommended that poultry egg farmers in the study area should form cooperative societies so as to enable them have access to productive inputs that will enable them expand. It is further recommended that enhanced research, extension delivery and farm advisory services should be put in place for farmers to learn the best farm practices carried out on the robustly efficient farms. This will go a long way to increase the efficiency level of the poultry farmers in the study area.

Keywords: DEA, efficiency and poultry production

Email: akinmiky@yahoo.co.uk

Received: 2012/08/14.

Accepted: 2013/10/10