

Comparative Efficiency of Mechanized and Non-Mechanized Farms in Oyo State of Nigeria: A Stochastic Frontier Approach

A. O. Ajao, J. O. Ajetomobi and L. O. Olarinde

*Agricultural Economics and Extension Department, Lsdoke, Akintola University of Technology, Ogbomosho, 210001 Oyo State, Nigeria
E-mail: dayo_67@hotmail.com*

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ABSTRACT This paper examined the technical efficiency of mechanized and non-mechanized maize farmers in Oyo State using stochastic frontier model to access the potentials in maize farms in Nigeria. The mean technical efficiency is 0.72 and 0.62 for mechanized and non-mechanized respectively. It was observed that the income of respondent could be improved if resources were efficiently used at the existing technology. Thus, in the short-run, there lies a potential of about 28 percent to increase the output of maize by adoption the technology and techniques of best practice rice farms in mechanized farms while the potential therein in non-mechanized farms is about 38 percent. Also, the entire variable specified in the efficiency model have positive coefficient with fertilizer being the only significant variable for both mechanized and non-mechanized. This implies that fertilizer application is an important variable regardless of the form of the farm. Other cost and labour is another variable that is significantly different from zero for mechanized farm.