World Academy of Science, Engineering and Technology International Journal of Agricultural and Biosystems Engineering Vol:14, No:08, 2020

Determinants of Profit Efficiency among Poultry Egg Farmers in Ondo State, Nigeria: A Stochastic Profit Function Approach

Authors: Olufunke Olufunmilayo Ilemobayo, Barakat. O Abdulazeez

Abstract: Profit making among poultry egg farmers has been a challenge to efficient distribution of scarce farm resources over the years, due majorly to low capital base, inefficient management, technical inefficiency, economic inefficiency, thus poultry egg production has moved into an underperformed situation, characterised by low profit margin. Though previous studies focus mainly on broiler production and efficiency of its production, however, paucity of information exist in the areas of profit efficiency in the study area. Hence, determinants of profit efficiency among poultry egg farmers in Ondo State, Nigeria were investigated. A purposive sampling technique was used to obtain primary data from poultry egg farmers in Owo and Akure local government area of Ondo State, through a well-structured questionnaire. socio-economic characteristics such as age, gender, educational level, marital status, household size, access to credit, extension contact, other variables were input and output data like flock size, cost of feeder and drinker, cost of feed, cost of labour, cost of drugs and medications, cost of energy, price of crate of table egg, price of spent layers were variables used in the study. Data were analysed using descriptive statistics, budgeting analysis, and stochastic profit function/inefficiency model. Result of the descriptive statistics shows that 52 per cent of the poultry farmers were between 31-40 years, 62 per cent were male, 90 per cent had tertiary education, 66 per cent were primarily poultry farmers, 78 per cent were original poultry farm owners and 55 per cent had more than 5 years' work experience. Descriptive statistics on cost and returns indicated that 64 per cent of the return were from sales of egg, while the remaining 36 per cent was from sales of spent layers. The cost of feeding take the highest proportion of 69 per cent of cost of production and cost of medication the lowest (7 per cent). A positive gross margin of N5, 518,869.76, net farm income of \ 5, 500.446.82 and net return on investment of 0.28 indicated poultry egg production is profitable. Equipment's cost (22.757), feeding cost (18.3437), labour cost (136.698), flock size (16.209), drug and medication cost (4.509) were factors that affecting profit efficiency, while education (-2.3143), household size (-18.4291), access to credit (-16.027), and experience (-7.277) were determinant of profit efficiency. Education, household size, access to credit and experience in poultry production were the main determinants of profit efficiency of poultry egg production in Ondo State. Other factors that affect profit efficiency were cost of feeding, cost of labour, flock size, cost of drug and medication, they positively and significantly influenced profit efficiency in Ondo State, Nigeria.

Keywords: cost and returns, economic inefficiency, profit margin, technical inefficiency

Conference Title: ICAPT 2020: International Conference on Agricultural Production and Technologies

Conference Location : Vancouver, Canada **Conference Dates :** August 06-07, 2020