

**ANALYSIS OF RISK MANAGEMENT STRATEGIES AMONG COMMERCIAL EGG
PRODUCERS IN OSUN STATE, NIGERIA**

BY

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B.Tech Agric (Hons.) LAUTECH

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CERTIFICATION

This project written by JEGEDE, Busayo Banke has been read and approved to meet part of the requirement for the award of Master of Science (M.Sc.) Degree in the Department of Agricultural Economics, Obafemi Awolowo University, Ile Ife, Osun State, Nigeria.

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DEDICATION

This thesis is dedicated to the Almighty God, the Author and the Finisher of my faith. In Him I live, move and have my being. May His Excellent name be praised forever more. Amen!

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LIST OF ACRONYMS

ADP -	Agricultural Development Project
FGLS -	Feasible Generalized Least Square
LGAs -	Local Government Areas
NAERLS -	National Agricultural Extension and Research Liaison Services
NAIC -	National Agricultural Insurance Scheme
OLS -	Ordinary Least Square.

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ABSTRACT

This study described the socio-economic characteristics of the respondents in the study area, profiled the risk management strategies adopted by the farmers and determined the effects of risk management strategies adopted on the profitability of egg production in Osun State with a view to providing information on the various risk management strategies employed by poultry farmers in the face of uncertainties.

A multistage sampling method was adopted for the study. In the first stage, two Local Government areas (LGAs) were randomly selected from each of the three Agricultural zones of Osun State as classified by Agricultural Development Programme (ADP). At the second stage, two communities were randomly selected from each of the six LGAs making a total of 12 communities. At the third stage, using a list of registered poultry farmers, 15 respondents were randomly selected from each of the communities. In all, 180 respondents were sampled for the study. Data were collected on socio-economic characteristics of respondents such as age, sex, and household size, mitigation practice adopted including medication, security and insurance. Data were analyzed using descriptive statistics, budgetary techniques and Ordinary Least Square Regression model.

The findings revealed that the respondents were faced with different types of risks including the death of birds, outbreak of diseases, high cost of feed and inputs. The risk of high cost of feed ranked highest at 95 percent, closely followed by outbreak of diseases with 91.1 percent. The risk management strategies adopted by the respondents were restocking, sales of assets, insurance, extension visits and diversification. The least strategy adopted was formal borrowing (22.2 percent) and consumptions of infected birds (9.4 percent). The study revealed that 65 percent of the respondents were none risk averse indicating their readiness to increase their

investment in spite of the challenges confronting the enterprise. The cost of feed averaging ₦2,465,987.00 and cost of building averaging ₦74988.82 ranked highest in the variable cost and fixed cost components respectively. It also revealed that the enterprise was profitable with a net income of ₦1,290,620.39. The benefit cost ratio of 1.41 showed that for every ₦1 invested in the business, there was a return of 41kobo. The business operating cash ratio of 0.67 which showed that the liabilities of the company were covered by 67 percent of its cash. The regression analysis revealed that extension visits, membership of cooperative society, restocking of the birds, quantity of feed (kg) and insurance had positive impacts on profitability.

The study concluded that diversification of livelihood should be encouraged to enable farm families augment proceeds from the poultry business, and provide additional another source of income to the family.

CHAPTER ONE

1.0

Introduction

1.1 Background of the Study

Poultry is a general term for birds of several species such as chicken or domestic fowls, ducks, geese, guinea fowl, pigeons, turkeys, quails, Pheasants ostriches and other game birds Ezedinma (1999). People depend on poultry for food and it also serves as an additional occupation to supplement the income of small and marginal farm families. Afolami and Oladimeji (2003) stated that the poultry industry is an important part of the livestock industry in Nigeria. It has two main parts: egg and meat production. The hens are usually slaughtered and consumed as meat at the end of the laying period. Poultry meat and eggs are highly nutritious. The meat is rich in protein and it is a good source of minerals and vitamins. Poultry liver is essentially rich in vitamin A. Also, poultry provides feathers for both import and export use. Poultry waste such as their droppings serves as raw materials for crops and fish production. Poultry production is one of the fastest growing livestock industries as a result of its advantages in terms of land use, short generation interval, rapid turnaround rate and improvements in the food conversion rate of genetically superior poultry breeds Odunsi (2005).

Those domestic fowls producing commercial eggs are divided into two main groups- light and heavy breeds. The light breeds (predominantly the white leghorn breed) are small birds 1.5-1.9kg in weight which lay white shelled eggs. They are economical on food due to small size and have the advantage of rarely going broody in contrast to the heavy birds. The heavier breeds with their big carcass command a substantially better salvage price at the end of laying season especially if the birds have been kept in cages, because the absence of activity ensures that the flesh is tender.

Ekunwe *et al.* (2006) reported that egg production is the major index of performance of commercial layer business because it accounts for 90 per cent of the income from the enterprise. The economically important traits which can be used to determine the performance of the layer-chicken include egg qualities (particularly egg size), efficiency of feed utilization and mortality. Nutritionally, eggs have been recognized as an important source of protein in the diet of man and even for livestock; it is a protective food because it contains nutrients which protect and compliment body losses in a diseased state. It provides not only protein but also highly bioavailable essential micronutrients, such as iron, vitamin A and zinc, which are crucial especially for child nutrition and health Iannotti *et al.*, (2008).

Egg contains 74 per cent water; it supplies 11 per cent of the daily recommended protein intake for adults. The fat of egg is readily digestible and is made up of both saturated and unsaturated fatty acids. Eggs are low in calories but contain many vitamins. Eggs are used in various food industries, confectionary and for production of cosmetics and vaccines.

Over the past decades, the poultry sector's growth and trends towards intensification and concentration have given rise to a number of risks and concerns. Intensification can involve a very large numbers of birds being raised on limited land which may require large amounts of food, water and medical inputs (required to keep the birds healthy in cramped conditions). A very large or confined intensive poultry operation gives rise to low level of animal welfare and associated pollutions and health issues. Enhancement of bio-security measures is generally agreed to be the best way to minimize this risk, but not all farms are in a position to implement stringent bio security, especially those that rely on rearing poultry outdoors. Risk management in decision making intuitively corresponds to the fact that when facing choices with comparable returns, farmers tend to choose the less risky alternative. Risk management and individual

subjective probability completely determine the individual decision-making behavior, at least locally (Holt and Laury, 2002).

The livelihood of smallholder households in developing countries is severely affected by income and asset risks in the absence of functioning insurance and credit markets. Without accessible insurance and credit markets, rural households have to self insure through accumulation of liquid assets, diversification of income sources and participation in local informal insurance network strategies. Risk management affects the production decisions of the households with the aim of reducing the riskiness of *ex ante* processes. These strategies includes income diversification which is achieved by combining activities that are not too strongly positively correlated (Dercon, 2002). Farming households often combine crop cultivation and livestock rearing as sources of income. Also, a few engage in off-farm activities like handicraft, simple food processing or gathering activities. The risk bearing-capacity of households' increases with higher wealth owned or access to consumption credit assuming the same level of risk preference across households. Thus, otherwise identical households with larger livestock holdings and saving, in general, are able to specialize in activities with higher risk and higher expected return, while for asset-poor households it is difficult to escape from poverty Vigh (2008).

1.2 Statement of the Research Problem

Poultry production is very productive and also very risky. Therefore, it requires careful management. The major risks are characterized by the limited access to formal financial

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