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# ASSESSING THE ROLE OF POULTRY FARMING IN ALLEVIATING HOUSEHOLD POVERTY IN SELECTED LOCAL GOVERNMENT AREAS OF ANAMBRA STATE, NIGERIA.

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**Abstract**

This study examined the role of poultry farming in alleviating household poverty in selected local government areas of Anambra State. Using survey research design, primary data were collected from 360 respondents using stratified sampling technique. The data were analysed using descriptive statistics, t-tests and logistic regression models and the results showed that 80.6% of respondents were aware of the policy banning poultry imports, while 68.1% of poultry farmers were female and 63% were married. The logistic regression analysis revealed an R-squared value of 57%, indicating a good fit in explaining variations in household poverty status. The study concludes that poultry farming has a positive and significant impact on reducing household poverty in the long run. Therefore, it is recommended that the Anambra State government should integrate poultry farming into its poverty reduction policies. There should be a strategic implementation plan that employs a bottom-up, community-based participatory approach throughout all stages of policy execution.

**Keywords:** Household poverty, poultry farming, poverty alleviation, Anambra State.

**JEL Classification Codes:** I28, I32, 013, Q12.

## 1. Introduction

It is regrettable fact that over one billion people in the world are living in extreme poverty today, who depend on less than $1 per day to survive on (Christopher, Joseph & Solomon, 2018). This is a chronic and pathetic problem facing mankind ever since humanity (Etim, 2009). Poverty is a multi-dimensional notion, as such its definition was often dependent on the angle from which it was being perceived (World Health Organisation [WHO], 2012). Hence, no society can surely be flourishing and happy of which by far the greater part of the numbers are poor (Adam, 1776). Anambra State stands as one of the thirty-six states of Nigeria, which has twenty-one (21) LGAs namely: Anambra East, Anambra West, Ayamelum, Awka North, Dunkofia, Awka South, Njikoka, Anaocha, Orumba North, Orumba South, Aguata, Nnewi South, Nnewi North, Ekwusigo, Ihiala, Idemili South, Idemili North, Oyi, Onitsha

North, Onitsha South and Ogbaru. Accordingly, the poverty rate in Anambra State shows an increase in head count per capita measure from 41.4% in 2003 to 53.7% in 2010 (NBS-NPRN, 2010).

From this time, poverty alleviation has been identified as one of the globe's most pressing issues (Hipsher, 2013). Reducing the poverty level can impact lives of millions of people across the globe. As seen in National Bureau of Statistics (NBS, 2019), Anambra State poverty rate dropped to 14.76 percent with a poverty gap of 30.24 percent and poverty severity of 1.06 percent. Nonetheless, there still exist pockets of poverty in the State. Hence, poverty robs people of any sense of control over their lives, violates human rights and exposes man to life-threatening dangers (Yunus & Weber, 2007). This was corroborated by the first goal of sustainable development goals (SDGs) in 2015, which recognized the abolition of poverty in all its dimensions and forms as a necessary condition for any nation to achieve sustainable development (Nzeribe, Ezenekwe, Uzonwanne, Metu & Maidchie, 2022). Additionally, the strategic global efforts to ameliorate the menace of poverty among households include: Universal Social Protection (USP) in (2018). In (2019), Partnership on Economic Inclusion (PIE) and Global Skills Partnerships (GSP) in (2019). Moreover, the fight against poverty was paramount in Nigeria and Anambra State in particular with successive governments' initiating several poverty alleviation policies which include; Operation Feed the Nation (OFN) in (1976); Poultry ban on Importation of Frozen Animal Products and Pest and Disease control policy in (2002); the Home School-Feeding Programme (Meals for school children) in 2016; among others. Nevertheless, the world economy was characterized by various problems where the most disturbing one is how to alleviate extreme poverty (Kazeem, 2018, as cited in Ozoh, Metu, Stephen & Madueke, 2020).

Despite the various policies to eradicate poverty in Anambra State, the people are yet to feel the impact of these programmes, hence the worsening incidence of poverty (Ozoh, Metu, Stephen & Madueke, 2020). So, Okuokenye, Onyemekihian and Jov (2023) notes that poultry farming income helped in alleviating the poverty status of households. As a result, poultry farming has been a vital component of agricultural activities in Anambra State. It plays a multifaceted role in contributing to food security, income generation and livelihood improvement of households.

Notwithstanding the acknowledge importance of poultry farming Akanni (2007) opined that low production due to limited finance for obtaining basic poultry inputs and materials coupled with unfriendly government policies

were the major hurdles to the overall performance of poultry farmers. It is on this backdrop that, this paper looks at the role of poultry farming in alleviating household poverty in selected LGAs in Anambra State. The objective of the study is to examine the socio-economic impact of poultry farming in reducing household poverty in Anambra state. The study also provide recommendations for improved poultry farming initiatives as a means for poverty alleviation among households.

This study is significant for several reasons; first, study holds implications for policymakers, extension workers, poultry farmers and others. By understanding the intricate relationship between poultry farming and poverty reduction among households in that way we can design targeted interventions, promote sustainable practices and empower rural households. Lastly, this study is a guide to policy makers in developing new policies in poultry farming towards increasing food security and reducing household poverty which adds broader goal of achieving resilient agricultural development in Anambra State. Following this introduction, the rest of the paper explores on literature review, methodology, data presentation and analysis, conclusion, recommendation, limitations and future research directions.

**Problem Statement**

Poverty is a global issue that affects humanity and erodes human dignity, manifesting in different ways for different people depending on their circumstances. Sanni (2000) identified poverty as the primary cause of hunger and malnutrition, further exacerbated by rapid population growth and inconsistent policies. According to the World Bank Report (2002), poverty level in Nigeria have worsened. Reason for the rise as opined by Ehigiamusoe (2000) was modes of programmes implementation which was insensitive to basic needs of the poor. Thus, policies for the poor were only seen in policy statements and documents. Equally, Agbi (2011) argued that all the poverty alleviation initiatives in Nigeria since independence have yielded very little profit. Ezekwesili (2013) described Nigerians as a paradox kind of wealth that breeds poverty. Also in the agricultural sector, livestock and poultry farming began to suffer neglect in 1970s due to the era of oil boom in Nigeria. From 1970 to 1974, an average of about one hundred and twelve million naira was spent annually on food imports (Ayodele, Obafemi & Ebong, 2013; World Bank, 2021).

Agriculture remains the largest sector in many developing countries and most notably, majority of the world's active but impoverished population resides in rural areas, where farming is their primary

occupation. Invariably, agriculture increases productivity, reduces poverty and general well-being of the population would imply improving the livelihood of the households and this hinges on the performance of the agricultural sector (Uzonwanne, Francis & Nwokoye, 2023). Equally, Akubue, Ezenekwe and Uzonwanne (2016) note that poultry sector in Anambra State is dominated by smallholder farmers operating between 0.5 to 3 hectares and experiencing a limited access to improved farm inputs and poor access extension services. Thus, posing a greater pressure or challenge to our local farmers' to commercially produce to meet the ever-increasing demand of poultry products in the country due to population increase.

Notwithstanding poultry farming's role in alleviating household poverty, there remains a gap in understanding its direct impact on farmers' poverty levels. Investigating the link between poultry farming and household poverty reduction, along with the development of evidence-based policies and enhanced extension services, could empower farmers to make more informed decisions. Hence,

the main objective of the study is assessing the role of poultry farming in alleviating household poverty in Anambra State.

## 2. Literature Review

### Conceptual Literature

The main thrust of this study is to assess the role of poultry farming in reducing household poverty in selected areas in Anambra State. This starts with a discussion on the key variables in the study.

Poverty is a multidimensional issue and has been defined by different scholars. For instance, World Bank (2000) view poverty as a multidimensional concept involving lack of social, cultural and economic means necessary to procure a minimum level of nutrition, to participate in everyday life of society and to ensure economic and social reproduction. In the words of Karl Marx (1818-1883), capitalist system creates poverty and inequality by exploiting the working class and the sustainable way to achieve poverty reduction is via proletarian revolution as cited in Jhingan (2007).

According to the CBN (1999) as stated in Metu and Kalu (2019) a poor person cannot meet social and economic obligations; has little or no access to education, health, sanitation and has a limited chance of welfare advancement to the limit of their capabilities. Due to differences in the operational definition of poverty, the World Bank standard of living in extreme poverty is captured as living below $ 1.90 daily. People who live in extreme poverty are incapable of meeting the most basic survival necessities. Poverty is measured in the study using the Nigeria living standard survey (NLSS) as an

official survey for assessing poverty and living standards. This determines not only expenditure, consumption patterns but also living standards and income of households.

Household Poverty is inability of a household to achieve a minimum standard of living, which is considered acceptable by society (Sen, 1999). Furthermore, UNDP (1997) posits that household poverty is a denial of choices and opportunities, a violation of human dignity. Abbas (2016) note that poverty can manifest in poor health, insecurity, voicelessness, powerlessness, low level of income, food insecurity, denial of rights and other social exclusions in the society. For the purpose of this study, we adopt this definition by (Abbas, 2016).

Poultry Farming is defined as art of rearing all domesticated bird's that are kept for meat, eggs, aesthetic value, and feathers (Omiti & Okuthe, 2008). Also, poultry farming is a business enterprise that involves the production of poultry and production products, using a combination of genetic, nutritional and management practices to optimize productivity and profitability (Sonaiya, 2007). In Nigeria, these birds include; pigeons, ducks, ostriches, guinea fowl, quail, chickens and turkeys which are widely kept, yet, chickens are by far the most common (Okwokenye, Onyemekihian & Jov, 2023). Nigeria livestock population is dominated with chickens of 166,564,000 as against other species with a total of 329,457,554 poultry sizes.

Poverty Reduction is defined as deliberately designed policies and action either by individuals, governments or international bodies aimed at reducing the misery, hardship and suffering of people in a given place at a particular time (Abbas, 2016). As well, John Maynard Keynes (1883-1946) argued that government intervention is a necessary condition to reduce poverty and stabilize the economy via fiscal policies and social welfare. Also, Olaitan, Ali, Onyemachi & Nwachukwu (2000) enumerated five (5) broad purposes of poverty reduction as follows:

i. The control of arbitrary human population growth;
ii. Provision of training in skill acquisition to all those who need and can use them;
iii. Tackling the problems of unemployment and under-employment through massive job creation;
iv. Provision of ample and affordable services and improvement of the environment via food production to ease hunger and poverty;
v. Control of rural-urban drift.

For the purpose of this study, we adopt this definition by Abbas (2016).

**Theoretical Framework:**

This study is anchored on two relevant theories. These include the vicious circle of

poverty theory and the social exclusion theory of poverty. The vicious circle of poverty theory propounded by Ragnar Nurkse (1953). The theory states that there is a circular constellation of forces tending to act and react upon one another in such a way as to keep a poor person, a society or country in a state of poverty. This further explains that a poor man may be physically weak his working capacity will be low, which will not make him have enough to eat and hence the circle continues.

On the other hand, the social exclusion theory of poverty advocated by Bill Jordan in (1960). Theory assumption was on social exclusion process of being marginalized, excluded or disenfranchised from the mainstream society. Theory argued that poverty was not just an economic issue but also a social and political one. Hence, social exclusion from decision making prevented poor people in rural areas from receiving equal recognition in the society during the process of formation/ implementation of poverty reduction policies. The relevance of the theories is informed by the fact that it is in the quest to satisfy the very pressing human needs that encouraged poultry farmers to venture into farming business for food security and livelihood improvement.

**Measurement of Poverty**

Generally, quantifying poverty has remained problematic and Scholars have developed several models for measuring absolute and relative poverty as;

i. **Head Count Ratio:** Poverty can be expressed in a single index and most common measure as the head count ratio (H), which stands as the ratio of the number of poor to total population.
ii. **Nigeria Living Standard Survey (NLSS):** This an official survey for measuring poverty and living standards. This measure was used to determine not only expenditure consumption patterns but also living standards and income of households in the country. This collects information on the living conditions of the Nigeria population which are carried out by National Bureau of Statistics (NBS). However, Ehigiamusoe (2000), improved on these indices that the inadequacy of using income as determinants of poverty line, prompted the development of supplementary non-economic measures such as; life expectancy, access to safe drinking water, educational and health facilities. According to United Nations Human Development (2002) as cited in Obikeze, Ananti and Onyekwelu (2015) points some indices as yardstick for measuring poverty such as; life expectancy, infant mortality rate, primary school enrollment ratio and number of persons per physician. But, Hettne (2002) classified poverty into five including

relative poverty, chronic/structural poverty, conjucture (transitory) poverty, spatial (location) poverty now per-capita income, poor accommodation and poor conditions of living of the greater number of people.

iii. **Absolute Poverty:** Occurs when an individual lives in a state of deficiency or deprivation as a result of meagre income or lack of access to basic human needs such as: food, shelter, safe water, health, education and information.

**Poverty Profile in Nigeria**

The state of poverty in Nigeria, remained quite high as a misnomer (Edemodu, 2000). Here is a country enormously blessed with abundant economic, natural and human resources of diverse inclinations, but in low developmental level with high poverty rating. Nigeria is the poverty capital of the world and this has led to the prevalence of phenomena such as; infant and maternal mortality, low school enrolment rate, criminality, unemployment, inequality, deprivation and exclusion (Kazeem, 2018).

According to survey by NBS (2013) report showed national poverty rate in Nigeria increased to 72.0 percent in 2012 with a drastic fall of about 64.2 percent in 2013. Therefore, as at the year 2013 the level of poverty in the nation reduced by 7.8 percent and drastically rose to 40.1 percent in 2019, where by Urban is 18 percent and Rural is 52.1 percent (NBS, 2019; 2020). This implies, poverty is more seen among the rural areas which is dominantly occupied with the active farming people than the urban areas. See table 2.0 on poverty and inequality indicators in Nigeria in 2019/2020.

**Table 2.0: Poverty and Inequality Indicators in Nigeria 2019/2020**

| Country/ Category | Poverty headcount rate (% of population in strata) | Poverty gap index (% of poverty line | Gini Coefficient |
|---|---|---|---|
| **NIGERIA** | 40.1 | 12.9 | 35.1 |
| **Urban** | 18 | 4.5 | 31.9 |
| **Rural** | 52.1 | 17.4 | 32.8 |

**Source: NBS 2019/2020.**

**Approaches to Poverty Alleviation**

According to Ogwumike (2001) the approaches to poverty alleviation in Nigeria includes:

i. **Economic Growth Approach:** This encourages broad-based growth which focuses on capital formation as it relates to capital stock and human capital. Human capital formation has to do with education,

health, nutrition and housing needs of labour.

ii. **Basic Needs Approach:** This focuses on the provision of basic needs such as: food, shelter, water, health care, basic education and among others which would upgrade the living standard of households.

iii. **Rural Development Approach:** This approach sees the rural sector as a unique sector in terms of poverty reduction. This was based on majority of the poor in developing countries live in this sector.

iv. **Target Approach:** This approach directs poverty alleviation programme to specific groups within the country such as; social safety nets, micro credits and school meal programme. This requires proper identification of the target group as well as their need so as to minimize leakages. Study adopts basic need approach to poverty reduction based on food, shelter, water, health care, education which improve the living standards of households' in the study areas.

**Poultry Production Systems**

According to FAO (2005) poultry production systems can be done through different means such as:

i. **Traditional Backyard System/Free-Range Production System:** Under traditional conditions, the birds are not confined and can scavenge for food over a wide area. Rudimentary shelters may be provided. The birds may roost outside usually in trees and nest in the bush. The flock contains birds of different species.

ii. **Semi-intensive Production System:** These are combination of the extensive and intensive systems where birds are confined to a certain area with access to shelter. They are commonly found in urban and mini-urban areas as well as rural situations. In the rural system, the birds are confined in an enclosed area outside during the day and housed during the night. Feed and water are available in the house to avoid wastage by rain, wind and wild animals.

iii. **Commercial/Intensive Production System**: These systems are used by medium to large-scale commercial enterprises and at the household level. Birds are fully confined either in houses or cages with a higher capital outlay and the birds are totally dependent on the farmer's feed status and water supply. Production can be done in two different ways:

iv. **Deep Litter System:** Birds are fully confined but can move around freely. The floor covered with a deep litter (a 5 to 10cm deep layer) of grain husks (maize or rice), straw, wood shavings or a similarly absorbent but non-toxic) material. The fully enclosed system protects the birds from thieves and predators as suitable for specially

selected commercial breeds of egg or meat producing poultry (layers and broilers).

v. **Battery Cage System:** This was used for laying birds which are kept throughout their productive life in cages. The system was mostly confined to large- scale commercial egg layer operations with high initial capital.

**Empirical Literature Review**

Some empirical studies have been carried out as regards poultry farming in alleviating household poverty. In a study conducted by Ja'afar-Furo and Gabdo (2010) on the major factors of poultry production as sustainable enterprise among farmers' using improved methods in rural areas of Adamawa State, Nigeria. The data was collected from 80 respondents and analysed using descriptive statistics and correlation analysis. The results indicated that the major factors that mostly influenced improved poultry production includes: lands, labour and other investment expenses constraint production in the area. Inadequacy of ready market for poultry products (98.8%) and high cost of feeds (96.3%) were mostly reported. The study recommends that agencies should use improved methods of poultry production for rural empowerment. Babatude, Adekule and Olagunju (2012) carried out a study on the effect of poultry production on the poverty status of small-scale farmers in Oyo State, Nigeria. The study adopted Foster Greer-Thorbecke (FGT) model which was analyzed using descriptive statistics and logit regression. The results showed that, 87% were males, having a family size of 5 to 7 persons (53 percent) and with formal education (95%). The average net farm income (NFI) was ₦788, 164 per annum which implies, it was worth investing into the business. The study, therefore concludes that poultry income and education level of the household head had a significant but negative effect on poverty status of the households.

Akangbe, Awotoye, komolafe and Ajibola (2014) in their study, determined the contribution of small-scale poultry farming to poverty reduction in Kwara State using descriptive statistical and Pearson Product Moment Correlation (PPMC). The data were collected from 194 Small Scale Poultry farmers and the results revealed that, 62.4% of the respondents were married. The study concludes that, low savings from small scale poultry farming was not enough to meet the needs of farmers.

Nwaogwugwu and Lemea (2016) examined the level of awareness of agricultural policies among poultry farmers' in Gokaka LGA Rivers State, Nigeria. The data were collected from 85 poultry farmers' and analysed using descriptive statistics. Findings of the study showed that, 72.5% of poultry farmers were male and 58.8% of them were married. Poultry farmers' awareness of policies related

to poultry production include: ban on importation of frozen chicken product (mean=2.98) and micro credit (mean=2.55). The constraints include: lack of interest to listen to radio for information (mean=2.67) and inadequate radio programme on poultry policies (mean=3.39). Study recommends, frequent seminar and training programmes be mounted by extension agencies.

Chiekezie, Ozor and Isibor (2021) agreed on economic analysis of layers production in Anambra State, Nigeria. The study adopted enterprise budgeting technique and multiple regression analysis and the indings revealed that, gender distribution of 54% were males while 46% are females between the ages of 31-40 years and have household size of 4.6%. Also, the feeding cost was 42.82% of the total cost. The estimated profitability index (PI) was 0.32 which means that for every naira earned as revenue 0.32 kobo was returned to the farmers as net income. The study recommended, credit facilities for poultry financing be made available in order to boost poultry production. Afodu, et al. (2024) studied on the effect of poverty level and food insecurity status on poultry farmers' response to high feed cost in South-West, Nigeria using a multistage sampling technique. Data collected from 575 poultry farmers were analysed using descriptive statistics, mean per capita household expenditure, household food insecurity and stochastic frontier production models at $p < 0.05$. The result showed that, 48% of poultry farmers adopted mixed farming to cope with the rising feed cost while 24.7%, 16.1% and 6.2% adopted the use of finished feed, downsizing their flock size. Study conclude that more educated poultry farmers are likely to adopt most suitable strategies to reduce the effect of rising feed cost. Study recommends mixed farming for poultry farmers.

## 3. Research Methodology

Anambra State is among the 36 states in Nigeria, in the South East geographical zone. It shares boundaries with Enugu, Kogi, Rivers, Imo and Delta State respectively. This study was carried out among two selected LGAs drawn from each of the four agricultural zones in the State (Aguata zone; Aguata and Orumba North, Anambra zone; Anambra East and Oyi, Awka zone; Njikoka and Dunkofia and Onitsha zone; Onitsha North and Ihiala) which were randomly selected based on pilot testing of dominance of poultry farming activity in the study areas.

The population is predominantly agrarian with an estimated registered population of four thousand, six hundred and ninety-eight (4,698) poultry farmers' (Anambra State Ministry of Agriculture, 2019). Stratified sampling technique was used for the study. Data for the study were obtained using questionnaire from 360 respondents. Data collected were analysed using descriptive

statistics, t-test analysis and logit regression model.

**Analytical Techniques**

Study data were analysed with use of descriptive statistics, t-test and logit regression. The descriptive tools used include; frequency tables, charts, percentages for analysing socio-economic characteristics of the respondents. Also, t-test and logit model were used to establish the maximum likelihood estimation technique (the binary logit method). The model was appraised to ascertain the effect of poultry farming on the poverty status of the sampled poultry farmers.

**The Model**

In this paper, household poverty status was incorporated in the logit model such that it proxies poultry farming since it was income generating. Hence, an increase or decrease in farmers' income signifies a decrease or increase in their poverty levels ceteris paribus. This study adopted the logit model from the study by (Ahemen, Bakkihs & Apeh, 2013). The model is stated in its normal form:

$$\text{In } (P1/1\text{-}P) = Z = \alpha + \beta X + u. \qquad (3.1)$$

Arising from the analysis of the logistic regression specification used to examine the impact of poultry farmers' on the poverty status of beneficiaries in Anambra State, the econometric model for this study is stated in its functional form as follows:

$$Z = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \beta_6 X_6 + \beta_7 X_7 + \beta_8 X_8 + U_i \qquad (3.2)$$

Where: Z = Pov status (dependent variable) and calculated as:

$$\text{POV} = \frac{\text{Average Annual Income of Household from poultry farming}}{\text{Total Number of Days in year (365 days)}}$$

Thus, proxy by income from poultry farming taking values of 1 if poverty was high and 0 if otherwise.

Pov status= Poverty status; $\beta_1$= Average annual income from poultry farming; $\beta_2$= Flock size of poultry farmers; $\beta_3$= Educational qualification of respondent (1 if respondent attends at least a secondary school, 0 if otherwise); $\beta_4$ = Household size; $\beta_5$ = Family access to medical health care (1 if household has access to maternity, general and specialist hospitals, 0 if otherwise); $\beta_6$ = Feed cost for poultry farming (1 if feeds was commercially purchased, 0 if otherwise); $\beta_7$ = Number of meals taken per day by the family (1 if thrice, 0 if otherwise); $\beta_8$ = Market access and disease management (1 if poultry marketing was viable, 0 if otherwise); $\beta_0$ = the logistic regression constant; $\beta_1$- $\beta_8$ = the regression coefficients or parameters of the independent variables; and $U_i$ = the disturbance term.

The logistic regression equation becomes:

$$\text{Pov status} = \beta_0 + \beta_1 INCMPF + \beta_2 FLKSZE + \beta_3 EDURESP + \beta_4 HHSZE + \beta_5 ACSMEDCL + \beta_6 FEDC + \beta_7 NOMLS + \beta_8 MKTACDS + U_i \quad (3.3)$$

**A Priori Expectation**

Going by the theoretical framework backing this study and on economic theory it is expected that poultry farming would create employment opportunities, both directly or indirectly contributing to poverty reduction and livelihood improvement of households. Thus, increased in the income from poultry farming led to improved food security/nutrition, health and education thereby reducing the intergenerational transmission of poverty. Hence, a prior expectation of this study is that; $X_1$ coefficient is expected to be a negative sign including $X_3$ and $X_7$. While, the coefficient expected to be positive signs are $X_2, X_4, X_5, X_6$ and $X_8$.

## 4. Data Presentation and Analysis

**Socioeconomic Characteristics of Respondents**

Table 4.0 indicates that 68.1% were female respondents as against 31.9% for males. This implies that sex distribution of the poultry farmers in the areas were heavily skewed towards female respondents. Hence, poultry farming was a vital tool for reducing poverty among female-headed households, who were often more vulnerable to poverty. Oyelami, et al. (2022) reported similar results from Edo State, Nigeria.

**Table 4.1: Distribution of Respondents According to their Socio-economic Characteristics**

| Socioeconomic Characteristics | Categories | Frequency | Percentage |
|---|---|---|---|
| Sex | male | 115 | 31.9 |
| | female | 245 | 68.1 |
| | | 360 | 100 |
| Age | below 18 years<br>36<br>10 | below 18 years<br>36<br>10 | below 18 years<br>36<br>10 |
| | 18 -30 years | 108 | 30 |
| | above 30 years | 216 | 60 |
| | | 360 | 100 |
| Marital status | married | 230 | 63.9 |
| | single | 40 | 11.1 |
| | divorced | 30 | 8.3 |
| | widowed | 60 | 16.7 |
| | | 360 | 100 |
| Educational level | tertiary | 220 | 61.1 |
| | secondary | 80 | 22.2 |

| | | | |
|---|---|---|---|
| | non- formal | 15 | 4.2 |
| | | 360 | 100 |
| Feeding Status | thrice | 206 | 57.2 |
| | twice | 60 | 16.7 |
| | others | 94 | 26.1 |
| | once | - | - |
| | | 360 | 100 |
| Household size | less than 5 persons | 100 | 27.8 |
| | 5-10 persons | 180 | 50 |
| | 11-15 persons | 80 | 22.2 |
| | | 360 | 100 |
| Farming experience (years) | 1-5 years | 20 | 5.5 |
| | 6-10 years | 35 | 9.7 |
| | 11-15 years | 105 | 29.2 |
| | Above 15 years | 200 | 55.6 |
| | | 360 | 100 |
| Farmers role in poultry farming | strongly agree | 275 | 76.4 |
| | agree | 85 | 23.6 |
| | | 360 | 100 |

Source: Field Survey, 2024

Table 4.1 shows that 63.9% were married, while 11.1% are single. These implied married persons were responsible and rational in decision making concerning poultry farming practices. Most of the respondents (61.1%) had a higher education which could probably have encouraged them to choose poultry farming, not regarding the technicality involved in it. Thus, educational qualification had direct impact on poverty status of households for with better access to information on poultry farming practice, farmers were less likely to be poor. The study agreed with Babatude, Adekule and Olagunju (2012) a similar outcome. The years of experience of poultry farming; 55.6% of the respondents had above 15 years' experience, 29.2% had 11-15 years while 9.7% for 6-10 years and 1-5 years for 5.5%. Hence, poultry farmers had a wide experience which contributed to household economic stability and reducing the likelihood of household poverty. Onyebunama (2004), note that farmers experience aid in cost targets to identify production risks.

Table 4.1 indicates 27.8% had less than 5 persons. 50% had household size of 5-10 persons while 22.2% had 11-15 persons of household size. This implies, poultry farmers had fairly large household sizes which supply the needed labour at farm house for improved productivity and better standard of living. About 76.4% of respondents do not agree role of farming in poultry farming as against those that agreed at 23.6% and this is in line with the study by Akangbe, Awotoye, komolafe and Ajibola (2014).

**Distribution of Annual Income of Poultry Farmers**

Table 4.2: Distribution of Annual Income of Poultry Farmers

| Annual income | Frequency | Percentage |
|---|---|---|
| less than ₦50,000 | 8 | 2.2 |
| ₦50,000 - ₦100,000 | 20 | 5.6 |
| ₦100,000 - ₦150,000 | 30 | 8.3 |
| ₦150,000 - ₦200,000 | 100 | 27.8 |
| Above ₦200,000 | 202 | 56.1 |

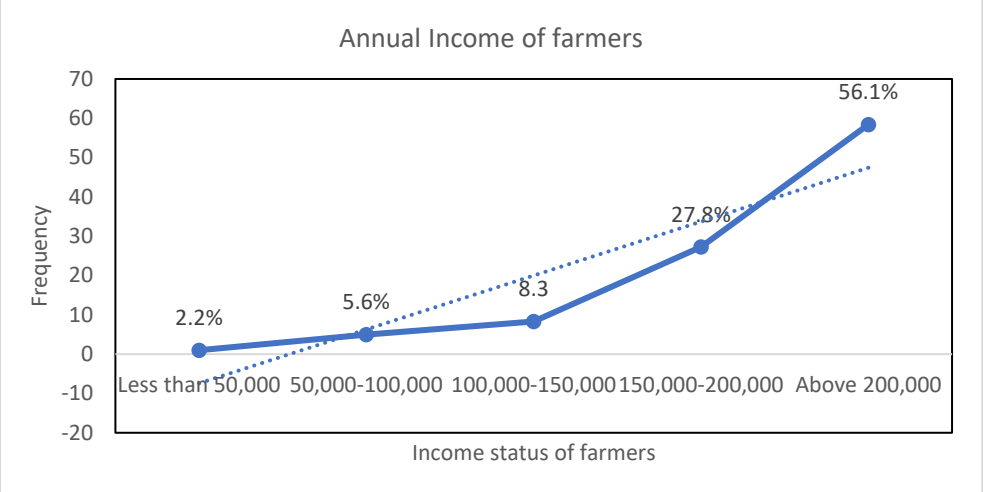



**Figure 4.1: Distribution of respondents based on Annual income of poultry farmers.**

Source: Microsoft excel package 2013

Table 4.2 shows the annual income of poultry farmers in the study areas within Anambra State is above ₦200,000 as represented by 56.1% of the respondents. This aligns with the findings by Okuokenye, Onyemekihian and Jov, (2023).

**Discussion**

The results from Table 4.1 revealed that, the coefficient of income from poultry farming (INCMFF) was negative (-0.315402) with the correct sign. This implied that, income from poultry farming of the sampled respondents contributed significantly positive at farmers' livelihood and negatively reduced the respondents' likelihood of being poorer by -0.315. The study had a similar report with Akangbe, Awotoye, komolafe and Ajibola, (2014). similarly, the result revealed that, the coefficient of flock size (FLKSZE) was positive (0.620713) with the correct sign. This implied, FLKSZE, of sampled respondents was significantly positive at influencing the probabilities of farmer's poverty level. This aligned with results by Otu, Kesit, Ekemini and Oto-Obong, (2024). On the other hand, the coefficient of educational level (EDURESP) of the sampled negative

relationship on poverty, with a coefficient of (-0.162740). The estimated result showed that, educational level of respondents had a negative influence on the probability of reducing the poverty level of poultry farmers within the study areas. This is in-line with the findings by Babatunde, Adekunle and Olagunju, (2012).

The estimated coefficient of household size (HHSZE) had a positive sign of (0.021516) with statistically significant of 5% critical level. Thus, increased household sizes lead to increase in the required labour need at farm house which significantly control the likelihood of being poor thereby increasing farmer's productivity. Thus, this conformed to Muazu, Idi, Gomina, Yisa and Afuwai (2024) that household size, was a determinant of profitability. The parameter estimates for family access to medical health care (ACSMEDCL) had a positive coefficient with (0.381201) and statistically significant at 5 percent which inferred that access to health facilities of the farmers had a positive relationship to poverty reduction among households. This aligns with Parkavi, Vaithianathan and Uma, (2023). The parameter estimates for feeding cost (FEDC) was negative and with the correct sign (-0.600225) and statistically significant at 5% level of significance. This implied that, the FEDC had an influence on the probability of farmers' being non-poor. This was supported with other results by Ja'afar-Furo and Gabdo, (2010). This finding was at variance with a prior expectation as $X_6$ (feed cost) which was expected to be a positive corrected sign but the logit analysis revealed a negative correct sign of (-0.60) which was due to market fluctuation that lead to high cost of feed thereby leading to decrease in income level and the likelihood of farmers being poor.

The parameter estimates for the number of meals taken per day (NOMLS) had a negative coefficient of (-0.201364) with the correct sign. Also, statistically significant at 5% level of significance. Study agrees with Afodu, et al., (2024). The coefficient for market access and disease management (MKTACDS) of sampled respondent was positive with the correct sign (0.875345) and statistically significant at 5% critical level. Hence, the positive sign indicates that market access and disease management had a significant and positive impact on reducing household poverty. This result contrast with Ja'afar-Furo and Gabdo, (2010) and agrees with Akubue, Ezenekwe and Uzonwanne, (2016).

In addition, the logit regression result in Table 4.1 showed that Mc Fadden R-squared was 0.576984. Thus, total variation in dependent variable (poverty status, POV) caused by all the explanatory variables in the model was 57% of the variation as such the included independent variables have a significant impact on poverty status of households. The LR statistics value of 56.94223 was high,

which showed a goodness of fit and suggests elements of joint effect by the explanatory variables or the model. It further showed that, the entire model had performed well. This was also confirmed by the very minimal value of prob. (LR statistics) (-0.541247) which indicated the reliability of the explanatory variables negatively influencing the dependent variable. More so, the results of the criterion test of predicted risk for goodness of fit in evaluating binary specification using Hannan-Quinn tests in Appendix III which indicated 90% was captured in the LR statistic. In all, these further showed that the high predictive power of the model. The constant (C) value of 2.978681 indicated given that respondents did not involve themselves in poultry farming they would have been poor by a magnitude of 2.97. That implied, if all the predictors were held constant poverty status would have increased by 2.97 times among the households. The results was interpreted in terms of the odds ratio (Gujarati & Porter, 2009).

In addition, this was in total agreement with a prior expectation, except for $X_6$. All the variables were statistically significant at a =0.05 level, except X $^{+}$(feed cost). Hence, we reject the null hypothesis ($H_0$) that all are not significantly different from zero; that is poultry farming has no socioeconomic impact on household poverty reduction. Thus, we concluded that poultry farming socioeconomic impact had actually reduced household poverty in the study areas.

## Conclusion

This study underscores the transformational potential of poultry farming in alleviating household poverty within selected local government areas of Anambra State. The evidence demonstrates a significant positive impact of poultry farming on reducing poverty, reflecting its critical role in improving economic well-being. The demographic findings indicate a predominance of married females in poultry farming, reflecting the gendered nature of agricultural practices in the region. Addressing critical challenges such as inadequate capital, high feed costs, and limited government support, while leveraging opportunities for growth, will be crucial. By doing so, stakeholders can drive a more resilient and sustainable poultry sector, thereby significantly improving living standards and contributing to comprehensive poverty alleviation.

Therefore, these insights call for a concerted effort to refine policy interventions and enhance support mechanisms, ultimately empowering poultry farmers' and elevating the socio-economic conditions of households across Anambra State.

## 5. Recommendations

Based on the findings of the study, the following recommendations were made to

enhance the impact of poultry farming on household poverty reduction in the study areas of Anambra State:

i. Due to the high cost of poultry feeds, policymakers need to establish and support reputable feed milling centres across the four agricultural zones in Anambra State. These centres would provide poultry operators with affordable feed to mitigate the impact of feed cost increases. Additionally, training programs are necessary to educate more farmers' on how to locally compound poultry feed using readily available and inexpensive grains.

ii. The Anambra State government needs to establish an international poultry market, equipped with a modern poultry processing factory, specifically in Awka, the capital of Anambra State. This initiative would enable stakeholders and policymakers to enhance market linkages, improve poultry market accessibility, and implement effective disease management strategies to alleviate household poverty among poultry farmers.

iii. It is recommended that poultry farming skill acquisition programs and rural community-based disease diagnosis and proactive centres be established across the four agricultural zones in Anambra State. Also, the government should strengthen collaborations between local, private, and public drug or vaccine suppliers and extension service providers.

iv. To encourage more farmers to venture into poultry farming for essential collective support and self-help cooperative structures that foster greater community engagement and grassroots development initiatives. Additionally, facilitating inter-state or international collaborative forums for farmers' which can provide valuable opportunities for the exchange of ideas and experiences related to poultry farming in the study areas.

v. The Anambra State government needs to formulate policies to mobilize an economic expert team from the Awka chapter of the Nigerian Economic Society (NES). This team would conduct comprehensive, efficient and effective analyses of all proposed policies, with a particular focus on identifying and addressing potential negative aspects. Their work would help mitigate issues related to policy interventions, ultimately supporting the goal of reducing household poverty in Anambra State and the Southeast region at large.

**Limitation and Future Research**

This study acknowledges limitation. However, the research did not encompass the entire Anambra State or the broader Eastern region of Nigeria. As a result of this, future studies could address this gap by conducting

an extensive analysis of the role of poultry farming in alleviating household poverty across all twenty-one local government areas in Anambra State or throughout the Eastern region of Nigeria.

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