Economic Impact of Poultry Production among Farmers in Kogi State, Nigeria

Adejumobi Paul Olusegun, Saliu Hassan Onipe and Audu Yahaya Bajeh,

Department of Agricultural Education, Kogi State College of Education (Technical) Kabba, Kogi Sate, Nigeria

***Abstract*: The study examined the economic impact of poultry production on poultry farmers in Kogi State, Nigeria. Data were collected using questionnaire from 150 poultry farmers. One LGA each was randomly selected from the three senatorial district in Kogi State; The data collected were analyzed using descriptive statistics. The results revealed that the 47% were within the age of 30-39 years and 68% of the respondents have farming experience 1-5 years. The results revealed that poultry keeping help in poverty alleviation, improves standard of living and enhanced income as evidenced by mean scores of 3.26, 3.52 and 3.29 respectively. The study revealed high cost of feeds (90.5%), lack of access to credit facilities (80.5%) and incidence of diseases (80.0%) were the main constraints. Other constraints include: high mortality rate birds (70.0%); high cost of vaccines (65.5%) and poor marketing outlets for the birds (60.0%). Poultry production play an important role in the study areas. Its recommended that government should made provision for market for products, regulation of prices of inputs and possible provision of vaccine to the farmers in the study area.**

***Keyword*: Poultry, Birds, Impact, social- economic**

I. INTRODUCTION

The poultry industry plays a key role in economic development in Nigeria. The poultry industry provides employment to a significant number of the population. It serves as source of income to the farmers, protein in diets and the by-products. The poultry industry contributes approximately 58.2% of the overall animal production in Nigeria (Amos, 2006). As such, the demand for poultry products has been on the increase due to many factors; some of which are rising population, urbanisation and increasing income (Food and Agricultural Organisation, 2020). Poultry is special because it has the highest feed conversion rates and produces the least expensive and best sources of animal protein. It has been described as the fastest means of solving the problem of protein deficiency in Nigeria (Chukwu, 2007). Poultry products (meat and eggs) supply man with high quality nourishment such as proteins, minerals, and vitamins (USDA, 1999). These nutrients aid growth, development and tissue replacement, thus impacting the health status of the labor force and by consequence, the advancement of a country and its economy (Amos, 2006). Poultry meat is the fastest growing component of global meat production, consumption, and trade, with developing and transition economies playing a leading role in and the quickest returns to investment outlay in the livestock enterprise (Sanni and Ogundipe, 2005). In addition to providing opportunities to increase poultry exports, rising poultry production spurs growth in global import demand for feeds and other inputs and generates up and downstream in investment opportunities (Rao, 2015).

Despite the seeming potential of chicken production to become the fastest growing agribusiness sector in sub Saharan Africa, and the nutritive value of its product, its production in the nation is insufficient. This is reflected in the wide gap between demand and supply of the product.

The study therefore attempts to examine the impact of poultry farming on economic development and to identify major constraints militating against the poultry value chain in Nigeria.

II. RESEARCH METHODOLOGY

A. The Study Area

The study was carried out in kogi State, Nigeria. Kogi State is located between latitudes 6^0 33'and 8^0 44'North and longitudes 5^0 22' and 7^0 49' East of the Equator (Kogi State Government, 2007). The state has a total population of about 3,278,000, with an average of about 228,964 farm families (NPC, 2007). Based on 3.2 percent annual growth rate, the projected population of Kogi State as at 2021 was 4,217,000. About 70% of the people live in rural areas and are engaged in agricultural production. The average farm family is made up of 7 people, with an average farm size of about 2 hectares per farmer (Kogi State Government, 2007).

B. Sampling Technique and Sample Size

A multi-stage sampling technique was used for the selection of respondents. The first stage was random selection of three Local Government Areas from each of the senatorial district in Kogi State, Dekina, Kabba bunnu and Adavi Local Government Areas. Secondly, five villages were randomly selected from each of the three Local Government Areas, after which 150 poultry farmers were purposively selected based on the record of farming/poultry activities.

C. Data Collection

For this study, only primary data were used. The primary data were collected for the 2021 poultry farming season with the aid of structured questionnaire. The information collected includes: socio-economic variables such as age, poultry

farming experience, household size, educational level, extension contact, amount of credit obtained and membership of farmers' group/associations. Information was also collected on the input-output level, income and expenditure of the respondents and the constraints associated with poultry production in the study area.

D. Analytical Techniques

The analytical tools that were used to achieve the objectives of this study include: Data collected were analysed using the SPSS 16.0 software. Descriptive statistics was employed (frequencies and percentages), while the perception of farmers on the benefits of poultry production and key factors affecting productivity was measured on 3-scale of very important, important and not important with a mean score (M) of ≥ 2.5 considered accepted as an important factor. Mean score was calculated on the scale rather than individual responses. The impact of poultry to farmers and economic development was measured on a 4-point scale of strongly agree, agree, strongly disagree and disagree.

III. RESULTS AND DISCUSSION OF FINDINGS

A. The socio economic characteristics of the poultry farmers

Age distribution of the farmers

The result presented in Table 1 shows that 47% of farmers were within the age range of 30-39 years. The average age of farmers was found to be approximately 38 years. This implies that the farmers are strong, agile, and active and can participate adequately in farming activities. The average age of 38 years obtained for the farmers indicate that they were still in their active productive years which could lead to low level of technical inefficiency. This agrees with the findings of Maurice (2004), asserted that young farmers are more enthusiastic, energetic, active and more inclined to adopting innovation than elderly farmers

Table 1: Age distribution of farmers

Age (years)	Frequency	Percentage
20-29	29	19.5
30-39	70	47.0
40-49	20	13.4
50-59	20	13.4
≥60	11	6.7
Total	**150**	**100**

Household size of farmers

Table 2 shows the distribution of farmers by household size. Majority of the farmers (85.9%) had household sizes that ranged from 1-10 persons in their family. This implies that the farmers in the study area might have advantage of family labour availability if many household members participate in farm activities. However, the implication of large household size is that it will increase household consumption expenditure. According to Okoruwa and Ogundele (2006) large family size does not necessarily translate to higher use of family labour because some of the young able bodied family members may prefer other jobs than farming.

Table 2: Distribution of farmers according to their household size

Household size (number)	Frequency	Percentage
1-10	128	85.9
11-20	17	11.4
21-30	2	1.3
31-40	3	1.3
Total	**150**	**100**

Educational level of farmers

The result presented in Table 3 reveals that about 68% of farmers had no formal education, about 13% of the respondent had only primary education, and 8% had secondary education while about 11% had tertiary education. However, altogether about 68 percent of the farmers had no formal education. Illiteracy is believed to have a negative implication on efficient use of productive resources and adoption of farm innovation. This indicates that the farmers' educational level is low. Thus, literacy level will greatly influence the decision making and adoption of innovation by farmers, which may bring about increase in productivity.

Table 3: Distribution of farmers according to their level of education

Education (years)	Frequency	Percentage
No formal education	101	67.8
Primary education	20	13.4
Secondary education	12	8.1
Tertiary education	17	10.7
Total	**150**	**100**

Farming experience

The experience of the majority of the surveyed farmers shows that 68.5% of rice farmers had 1-5 years of experience. This implies that majority of the farmers are relatively new entrants into poultry production, as about 90% of them have less than or equal to 10 years' experience.

Table 4: Distribution of farmers according to farming experience

Farming Experience	Frequency	Percentage
1-5	102	68.5
6-10	29	19.5
11-15	13	8.7
16-20	2	1.3
>20	4	2.0
Total	**150**	**100**

Amount of credit obtained by farmers

The results presented in Table 5 indicate that majority (88.6%) of farmers had no access to credit to finance their poultry production activities while those who had access to credit, the amounts received ranged between ₦10,000 and ₦100,000. This low access to credit could be attributed to the fact that government seldom grants financial credit to large numbers of farmers. Ekong (2003) asserts that credit is a very strong factor that is needed to acquire or develop any enterprise; its availability could determine the extent of production capacity.

Table 5: Distribution of farmers according to amount of credit obtained.

Amount of credit (₦)	Frequency	Percentage
No access to credit	132	88.6
10,000- 40,000	6	4.0
40,001- 80,000	7	4.7
80,001-120,000	5	2.7
Total	**150**	**100**

Membership of cooperative society

The result in Table 6 reveals that about 77% of farmers did not participate in any cooperative or association. The average years of membership of cooperative society was 2. The effect of this result is that most of the farmers in the study area did not enjoy the assumed benefits of co-operative membership through pooling of resources together for a better expansion, efficiency and effective management of resources and for profit maximization. This finding is in line with Shehu *etal.*, (2010) that cooperative groups ensure that their members derive benefits from the groups such as they could not derive individually.

Table 6: Distribution of farmers according to years spent in the cooperative association

Cooperative association	Frequency	Percentage
Non members	115	77.2
1-3 years	15	10.1
4-6 years	9	6.0
7-9 years	8	5.4
10-12 years	3	1.3
Total	**150**	**100**

Number of extension contact

The ultimate aim of extension services is to enhance farmers' ability to efficiently utilize resources through the adoption of new and improved methods used in production instead of using traditional methods which are inefficient, resulting to low yield. The distribution of the sampled farmers based on number of extension visit is presented in Table 7. The result in Table 7 reveals that 88.6% of farmers in the study area had no contact with extension service. The maximum extension contacts observed was 5 times with a minimum of 1 time and average of 3 times per year. This could be attributed to low extension agent-farmers' ratio in the study area. According to Obwona (2000), extension service is very essential to the improvement of farm productivity and efficiency among farmers.

Table 7: Distribution of farmers according to extension visit

Extension Contact (Numbers)	Frequency	Percentage
No contact	132	88.6
1-3	15	10.1
4-6	3	1.3
Total	**150**	**100**

B. Economic Impact of Poultry Production to the Farmers

Table 8 shows that the farmers noted that poultry production helps in poverty reduction in the country (M=3.26). The study also reveals that poultry enhances their standard of living with a mean score of 3.52 and 3.29 respectively). More so, respondents with measurable high score attests that poultry farming has significantly assisted in ensuring sufficient food and food security, and efficiently reduced unemployment ratio in the study area.

Table 8: Impact of Poultry Production and Economic Development of Farmers

S/N		Strongly Agree	Agree	Strongly Disagree	Disagree	Total	Mean Cutoff=3.00	Remarks
1.	Poultry production helps in poverty alleviation	47 (31.3%)	45 (30.0%)	37 (24.6%)	21 (14.0%)	150	3.26	Accepted
2.	Poultry faming enhances the social status and standard of living of the farmers	48 (32.0%)	61 (40.7%)	20 (13.3%)	21 (14.0%)	150	3.52	Accepted
3.	Poultry farm products improve the level of income of the farmers	60 (40.0%)	34 (22.7%)	35 (23.3%)	21 (14.0%)	150	3.29	Accepted
4.	Poultry farm products improves the supply of food and food security in the community	60 (40.0%)	49 (32.7%)	20 (13.3%)	21 (14.0%)	150	3.52	Accepted
5.	Poultry farming helps to reduce the rate of unemployment in the society	74 (49.3%)	52 (34.7%)	23 (15.3%)	1 (0.67)	150	3.42	Accepted
6.	Poultry farming helps in boosting the country's Gross Domestic Product	72 (48.0%)	37 (24.7%)	20 (13.3%)	21 (14.0%)	150	3.21	Accepted
								Accepted

C. Constraints Associated with Poultry Production

Table 9 reveals that the three most crucial constraints at the moment faced by poultry farmers in the study area were high cost of feeds (90.5%), lack of access to credit facilities (80.5%) and incidence of diseases (80.0%). Other constraints include: high mortality rate birds (70.0%); high cost of vaccines (65.5%) and poor marketing outlets for the birds (60.0%).

Table 9: Distribution of the respondents on constraints faced in poultry production

Constraints	Percentage
High cost of feed	90.5
Lack of credit	80.5
Incidence of diseases	80.0
High mortality	70.0
High cost of vaccines	65.5
Poor marketing outlets	60.0

*Multiple responses

IV. CONCLUSION

The findings of the study suggested that despite numerous constraints affecting the poultry farming in Kogi State, poultry production is perceived to play significant beneficial roles. Poultry production helps in poverty reduction in the country. Also poultry enhances their standard of living and ensuring sufficient food and food security, and also efficiently reduced unemployment ratio in the study area. Farmers and government should work hand in hand to put appropriate measures, programmes and policies which will help minimize the constraints identified in this study.

REFERENCE

[1] Amos, T. T. (2006). Analysis of Backyard Poultry Production in Ondo State, Nigeria. International Journal of Poultry Science, 5: 247-250.

[2] Chukwu, J. A. (2007). Technical Efficiency of Broiler Production in Umuahia North and Umuahia South L. G. A., Abia State, Nigeria. B. Agric. Thesis. Dept. of Agric. Economics and Extension, Abia State University, Uturu.

[3] Ekong E. E. (2003) Rural Sociology: An Introduction and Analysis of Rural Nigeria, Uyo: Dove Educational Publication.

[4] Food and Agricultural Organisation (2020a). Gateway to Poultry Production and Products: Products and Processing. Retrieved March 3, 2022 from http://www.fao.org/poultry-production-products/productsprocessing/en/.

[5] Maurice, D.C. (2004). Resource Productivity in Cereal Crops Production among Fadama farmers in Adamawa state, Nigeria. Unpublished M.Sc. Thesis submitted to the department of Agricultural Economics and Extension, University of Maiduguri, Nigeria.

[6] Obwona M. (2000). Determinants of technical efficiency differentials amongst small and mediumscale farmers in Uganda: A case of tobacco growers. A final report presented at AERCbi-annual workshop at Grand Requency Hotel, Nairobi, Kenya.

[7] Okoruwa, V.O., Ogundele, O. O. and Oyewusi, B. O. (2006). Efficiency and Productivity of Farmers in Nigeria: A Study of Rice Farmers in North Central Nigeria. Poster Paper Prepared for Presentation at the International Association of Agricultural Economists Conference, Gold Coast, Australia, August, 12-18

[8] Rao, R.S. (2015). Trends and Challenges of Poultry Industry." International Journal of Engineering Technology and Management Research, 1 (1): 813.

[9] Sanni, S. A. and Ogundipe, S.O. (2005). Economics of some modules of poultry production in Kaduna State, Nigeria. Nigerian Journal of Animal Production, 32(1): 102 – 107.

[10] Shehu, J.F., Iyortyer, J.I., Mshelia, S.I. and Jongur, A.A.U. (2010). Determinants of yam production and Technical efficiency among yam farmers in Benue State, Nigeria. Journal of social science. 24(2):143-148.

[11] USDA. (1999). Summary, Layers and Egg Production. Economic Research Services/ USDA India poultry sector Development and prospect/WRS-04-03.