PROFITABILITY OF BROILERS PRODUCTION IN LAFIA AREA OF NASARAWA STATE, NIGERIA

E. G. Onuk, H. Y. Ibrahim and H. I. Ibrahim
Faculty of Agriculture, Nasarawa State University, Keffi, Nigeria
Corresponding author: hussein464@yahoo.com
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Abstract

The research examines the profitability of broiler production in Lafia Area of Nasarawa State, Nigeria. A simple random sampling technique was used in selecting the sample used for the study. Data was collected with the aid of well–structured questionnaire and analyzed using descriptive statistics, net farm income model. The result of the study revealed that broiler production is profitable with a net return of ₦323, 695.52 and a Benefit Cost Ratio (BCR) of 0.96. The major constraints to poultry production in the research area are inadequate capital and outbreak of diseases.

Keywords: Broilers, capital, diseases, profitability.

INTRODUCTION

Poultry production is an important part of farming in Nigeria Agriculture. People depend on poultry for food and its serves as an additional occupation to supplement the income of small and marginal farm families. Poultry occupies an essential position because of its vast potential to bring about rapid economic growth (Okunade, 2010). Poultry production especially broilers provides a rapid means of producing animal protein to meet the nutritional consuming more eggs and poultry meat each year. The share of

livestock credit going to poultry production reflects the importance of poultry in Nigeria. In 1999, out of ₦16,193,500 granted to the livestock sector ₦11,668,000 (72.05 %) of livestock was disbursed to poultry production (Udoh & Etim, 2008).

Poultry business was first introduced to Nigeria in the late 1950s with the importation of selected breeds of exotic poultry, namely White Leghorn, Rhode Island Red and the Barred Plymouth Rock. The initial success of introduction and adoption as evidenced by improved production records reveals several folds higher than what could be claimed for the local breeds. This stimulated the expansion of the industry by the government and later by the entrepreneurs who were quick to recognize the profit potentials of the new industry (Oluyemi & Roberts, 2000). The demand for broiler chickens in Nigeria is progressively rising as meat consumers' interest is gradually being shifted from red to white meat. But this is presently being undermined by high cost of production necessitated by escalating cost of major and essential ingredients required for feed production. However, Uzegbu *et al.* (2007) maintained that as the cost of these major feed needs of the teaming Nigerian populace. Poultry is accepted by all and holds the key to bridging the animal protein gap in the third world countries (FAO, 1990). Poultry is by far the largest livestock group and is estimated to be about 14,000 million, consisting mainly of Chickens, Ducks and Turkeys. Poultry production has evolved as one of the most efficient industries producing food. More people especially in developing countries are

ingredients continues to increase, there is still the need to maximize productivity.

The two main branches of the poultry are broilers and layers for meat and egg production respectively. Prior to the introduction of commercial poultry business in Nigeria, a few commercial houses were importing processed broilers and table eggs with other animal products from overseas. With the successful adoption of some breeds of poultry in Nigeria around the Mid' 40s to late' 50s, the foundation for modern commercial poultry was laid and government programmes were developed based on the accelerated poultry production through the distribution of day old chicks at subsidized price to farmers and importation of laying flock. Subsequently, the government embarked on enlightenment programmes to improve nutritional education and break the taboo on egg consumption by children and women. The period from the' 60s to date saw a steady and progressive increase in price of poultry products throughout Nigeria. The price of broilers has increased 50 folds from the early' 60s to the early' 90s, the same applied to the price of eggs (Obioha, 1992). These sharp increases in price can

be explained by increase in demand through better nutrition education and high population growth rate. These factors coupled with the sporadic increase in standardization and general increase in feed commodity prices throughout the country.

Problem Statement

As the demand for broiler meat increases due to rise in population growth, the gap between demand and supply also increases. Inspite of the fact that broiler production is a rewarding business with accompanied benefits, the industry is yet to attain its goals at bridging the persistent protein deficiency gap in the country, even though its potential is also, well recognized. CBN (2004) reported that the consumption of animal protein in Nigeria as a vital ingredient critical to growth has been inadequate. Also, Kaankuka *et al.* (2005) maintained that conventional protein sources are particularly becoming increasingly scarce. The competition for the available protein and energy sources between humans and animals has resulted in high cost of feed ingredients and the near collapse of the poultry industry in Nigeria.

The commercialization of poultry keeping is recent in the humid tropic countries, as contrasted with the temperate countries. The industries are less capitalized, consisting of small units and over dependent on manual labour. The birds usually perform at a lower level. The poultry producers are also faced with various limiting problems in the areas of management and marketing, making the price of the products exorbitant. Many entrepreneurs venture into the poultry business enthusiastically, hardly having prior knowledge of or obtaining adequate information relevant to the management, and choice of enterprise. Therefore, failure equivalent to the level of ignorance is always the consequence (Howard & Moore, 2002). In Lafia area of Nasarawa state, broiler production is a very common economic activity. Broilers are raised mostly to meet the demand for meat during festive seasons such as Sallah, Easter and Christmas. The farms are mostly medium scale and hardly meet local demand coupled with a high production cost. For the growth and sustainability of these farms, it is pertinent that they make profit. This study attempts to assess the performance of the poultry farms with particular focus on broiler production.

The specific objectives are to:

(i) Describe the socio–economic characteristics of the Broiler farmers in the study area;
(ii) Estimate the cost and returns in broiler production and to;
(iii) Identify constraints to broiler production in the area of research.

MATERIALS AND METHODS

Study Area

The study was conducted in Lafia Local Government State. Lafia Local Government itude 9^0 33' N and 9^0 33' E with an altitude of 181.53 m. The area has an estimated land area of about 2733 km^2 and a population of 330,712 people. The area has an annual temperature of about 32^0C, which is favourable for agricultural production. The soil characteristic is sandy loam and about 70 percent of the total land is under agricultural activities. Farming is the dominant revenue yielding activities. Annual average rainfall is about 1288 mm (Lafia Local Government Information Unit, 2006).

Data Collection

Data were collected with the aid of a structured questionnaire that was administered to the respondents. A simple random sampling was adopted for the study and a total of fifty (50) Broiler farmers were selected from the six (6) districts that make up the Local Government Area. Descriptive statistics such as frequency counts, mean and percentages was used to satisfy objectives i and iii of the study, while the Net Farm Income model was used to satisfy objective ii. The straight line method of depreciation was used to determine the costs of the fixed inputs.

Net Farm Income= NFI=GR–TC

Where,

NFI=Net farm income; **TC=**TVC+FC

GR=$P_y.Y$; **GR=**Gross return; $\mathbf{P_y}$ = unit price of broiler (₦); **Y** = Number of broilers; **TC** = Total Cost (₦);

TVC = Total variable cost (₦) (this includes the cost of feeds, day–old, medication, labour). **TFC** = Total fixed cost (₦) (this includes depreciation of poultry houses, equipment, etc). Using straight line method,

Depreciation $D = \frac{P - S}{n}$

Where;

D = Depreciation; S = Salvage value

n = No. of useful years.

RESULTS AND DISCUSSION

Socio Economic Characteristics of Poultry Farmers

The result presented in Table 1 shows that 70 % of the broiler producers were males, while 30 % were females. Ukonu (2001) identified lack of fund, shortage of land and lack of control over land, lack of time and other domestic duties at home as the constraints faced by women farmers in Nigeria. Majority of the respondents (44 %) were within the age range of 30–39 years, while 26 % were within the age range of 40–49. This is closely followed by those within the age range of 20–29 years. This finding shows that the Broiler producers in the research area

were relatively within the active years of farming. The result further revealed that majority of the poultry farmers (42 %) had tertiary education. These are mostly graduates in agriculture and other disciplines who had no job but have decided to respectively. However, a few of the respondents (6%) were illiterates. The result further revealed that the method of acquiring land on which the poultry farm was built was mainly by inheritance (52 %). Some of the respondents (30 %) built their poultry farms on family owned lands, while only about 8 % of the poultry farmers purchased their land. All the respondents had considerable number of years of experience in broiler production. However, majority of the respondents have between 11–15 years in poultry production. Respondents with more than 15 years experience in poultry production were quite few (12 %). In terms of stock size, majority (52 %) of the broiler producers have between 500 – 1000 birds, while 10 % of the broiler farmers have between 2500 and 3000 birds. This finding implies that majority of the poultry farmers in the study area were mostly medium scale poultry farmers. Ibrahim & Ibrahim (2011) also made the same observation in the study area. The 2006 outbreak of Avian Influenza in north central Nigeria could have resulted into changes in the scale or size of poultry farms in the study area.

engage in poultry production as a means of livelihood. On the other hand, only about 24 % of them had primary education. Those with adult and secondary education both constitute about 14 %,

Table 1: Socio economic characteristics of poultry farmers

Variables	Frequency	Percentage
Gender (Sex)		
Male	35	70
Female	15	30
Total	**50**	**100**
Age Categories		
20 – 29	12	24
30 – 39	22	44
40 – 49	13	26
50 – 59	03	06
>60	00	00
Total	**50**	**100**
Educational level		
Illiterate	03	06
Adult education	07	14
Primary school	12	24
Secondary school	07	14
Tertiary education	21	42
Total	**50**	**100**
Land acquisition		
Inherited	26	52
Family land	15	30
Communal land	5	10
Purchase land	04	08
Total	**50**	**100**
Years of experience in broiler production		
1 – 5	10	20
6 – 10	14	28
11 – 15	20	40
>15	06	12
Total	**50**	**100**
Flock size (No. of birds)		
500 – 1000	26	52
1500 – 2000	14	28
2000 – 2500	05	10
2500 – 3000	04	8
3000 – 3500	01	2
Total	**50**	**100**

Cost and Returns in Broiler Production

The estimated costs and returns of broiler production are presented in Table 2. The results show that an average total of 440 birds were kept by the respondents and the price per bird was ₦1,500.00, while a gross return of ₦660,000.00 was obtained. The total variable cost dominated the total cost of 336,304.48. The costs of day old chicks and feeds dominated the total variable cost. The total variable cost per bird was ₦751. However, the net return was ₦323,695.52 which implies that a net return of ₦735 was obtainable per bird. The Benefit Cost ratio of 0.96 implies that for every one naira invested in broiler production, about 96 kobo is obtainable.

Table 2: Costs and Returns Analysis

Items	Unit	Quantity	Unit price (₦)	Value (₦)
Total Revenue	No.	440	1500	**660,000**
A. Variable Costs:				
Feeds	Bags	64	2,124:50k	135,968.00
Chicks	No.	500.00	180	900,000.00
Medication	Naira			12,852.84
Labour	Mandays	60	1,500	90,000.00
Transportation	Naira			949.22
Wood shavings	Naira			230.88
Water	Naira			224.08
Electricity	Naira			743.98
Total variable costs (TVC)				**₦330,744.92**
B. Fixed Inputs/Cost:				
Feeders				1,975.38
Drinkers				3,104.18
Housing				480.00
Total Fixed Cost (TFC)				**5,559.56**
Total cost of Production				**336,304.48**
Net Returns (NR) = TR – TC				**323,695.52**
Benefit Cost Ratio (BCR) = NR/TC				**0.96**

Constraints Militating Against Poultry Production

The constraints militating against poultry production in the study area are presented in Table 3. The result shows that that inadequate capital was the major problem affecting the poultry farmers as indicated by about 90 % of the broiler producers. The outbreak of diseases, inadequate feeds are however the other major challenges facing Broilers farmers as pointed out by 84 % and 80 % of the respondents, respectively

Table 3: Problems associated with Broilers production

Variables	F	Percentage	Ranking
Inadequate land	35	70	6
Inadequate Capital	45	90	1
High cost of Feeds	40	80	3
Unavailability of Market	38	76	4
Climatic factor	37	74	5
Disease outbreak	42	84	2
Inadequate extension service	31	62	7
Lack of insurance	29	58	8

Multiple responses allowed

CONCLUSION

Broiler production in the research area is profitable and it returns ₦0.96 to every ₦1.00 invested. However, the profitability can further be enhanced by linking the farmers to credit sources and by providing advisory services on poultry disease management.

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