

MEASURING THE PROFITABILITY OF SMALL SCALE BROILER PRODUCTION FOR ENTREPRENEURIAL SKILLS DEVELOPMENT

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ABSTRACT

Measuring the Profitability of Small scale Broiler Production for entrepreneurial skill development was carried out in the department of agricultural education, federal college of Education Kontagora. One hundred day old Broiler chicks were brooded for four weeks and reared for another four weeks; at eight weeks the experimental birds were sold. The data for the study was collected through primary source with the use of farm record. Net farm income and gross margin analysis were used to determine the costs and returns of broiler production for the study, using budgetary technique. The research findings revealed total variable cost of ₦97,400 was incurred during the experiment and fixed cost was ₦2,100 with gross income of ₦162,000 which resulted to net farm income ₦64,600.00 and return to capital of ₦0.40, this indicates that the small scale broiler production was profitable. It was therefore recommended that broiler farmers should increase their flock size, develop the skills of record keeping and self-formulation of quality poultry feed.

Keywords: Poultry production, Small Scale, Profitability, Entrepreneurial

INTRODUCTION

Agriculture remains the pillar of the Nigerian economy for growth, development, poverty alleviation, contribution to Gross domestic product (GDP), employment and income generation (Philip, Pender & Oni 2009). It is very important amongst the most vital segments of the economy; it utilizes more than 60% of the working populace and contributes with livestock, forestry, and fisheries and in terms of real (GDP); agriculture contributes around 42% between 2003-2007 and the sub sector became averagely 7.4% over the same period (Central Bank of Nigeria, 2007). Livestock production constitutes a critical and basic part of the agricultural

economy of Nigeria, a contribution that goes beyond direct food production however incorporates the generation of employment, source of income to farmers, development of a country's economy, source of vocation to farmers and other multipurpose uses. Poultry is a noteworthy sub sector in the livestock industry, which contains chickens, turkeys, ducks, quails, peafowl, guinea fowls and others; However, chicken alone constitutes as much as 95% of all poultry kept on the planet (Kalla, Barrier, Haruna, Abubakar, Hamidu, & Murtala, 2007).

Shaner (1982), refers small scale to those operations in which the farmers usually have difficulty obtaining sufficient inputs to allow them the use of technology available to medium and large scale farmers. Entrepreneurship according to Akande, (2011) is a process of bringing together creative and innovative ideas, combining them with management and organization skills in order to combine people, money, and resources to meet an identified need and thereby create wealth. Entrepreneurial skills on the other hand is the ability of an individual to exploit an idea and create an enterprise not only for personal gain but also for social and developmental gain (Nmadu, 2014).

Analysis of profitability on Poultry production is unique and offers the highest turnover rate and the quickest returns to investment outlay in the livestock enterprises (Sanni, & Ogundipe, 2005). The industry has been described as the fastest means of solving the problem of protein deficiency in Nigeria (Akpabio, Okon, Angba, & Aboh, 2007). Poultry production is special; it has the highest feed conversion rates and best sources of animal protein. It was reported that the poultry industry has turned into a diverse business with an assortment of business interest, for example, egg production, broiler production, hatchery and poultry hardware business (Amos 2006). The significance of animal protein remains undisputed; animal protein supply to man with high quality nourishment which aid growth, development and tissue replacement. It decides the level of nourishment of the populace and the health of the labor forces, which thusly decides the advancement of a country and its economy.

Broiler production plays a vital role in supply of protein for human's consumption and healthy labor force, is associated with adequate protein intake. In a recent study of the nutrient content of rabbit meat to other farm animals by (FAO), it was found that broiler (chicken) has the most astounding protein content of 21-50 percent contrasted with rabbit and beef, which contain 20-22 percent and 18 percent protein respectively (FAO, 2008).

Nigeria is a country with heavy human population and this population is continuously on the rise. This increase has led to high demand for the available animal and poultry products in all parts of the country. Among the cheapest and highly affordable protein source for this teeming population is mainly the poultry production. Poultry, particularly chickens are very important and has been recognised as an important genetic resource among the avian species (Olowufeso

Wang, Dai, Yang, Mekki & Musa, 2005). The facts remain a better understanding of husbandry practices and use of new technologies, poultry farms can be profitable enterprise. According to Sani, Tahir, & Kushwaha (2000), some factors that make poultry business a very attractive venture are high demand for poultry products, the success of exotic breeds and the ease of mastering the techniques of poultry production among others. The recent cattle rustling, banditry and insecurity situation in Nigeria is another strong factor that makes poultry business a lucrative enterprise.

The growth of poultry industry in Nigeria is very impressive especially in recent years, poultry keeping provides a method by which rapid transformation in animal protein consumption can be achieved and this accounts for the expansion of small scale poultry enterprises in Nigeria. Entrepreneurial skills in poultry production had not reach the development target, because of reasons such as low production productivity, weakness in management, inefficiency of enterprises and practicing of traditional production methods (Mirakzadeh, Ghyasvand, Karami, Papzan, 2010). Based on the fore going, it is essential and paramount to improve the entrepreneurial skills of small scale poultry farmers. This necessitates the practical study of measuring the profitability of small scale Broiler production for entrepreneurial skills development. It is believed that the findings of the study will be of great use to investors in the broiler business by identifying the importance of records keeping of cost and returns on the profitability analysis of the venture.

MATERIALS AND METHODS

Experimental site and system

The study was carried out at the Department of Agricultural Education, Federal College of Education (FCE) Kontagora. Niger state, poultry production unit, about three hundred meters away from the college main gate behind the college clinic. The experiment was carried out in one of the rearing pen of the poultry house that was well ventilated according to the standard of poultry production principles. The hygiene management rules and regulations was strictly adhered to.

Experimental birds

The experimental birds used for carrying out this study were broilers (*Gallus domesticus*). The birds were ordered from market at day old. One hundred broilers were bought and brooded for four weeks and reared for another four weeks then finally sold at week eight of production with some mortality recorded during the experiment. Before the stocking of the experimental birds, the experimental pens for brooding and rearing were washed with detergent, water and disinfectant (Izal) allowed to dry before spreading the litter material (wood shavings). A total of

one hundred (100) day old broiler chicks were stocked and brooded for four (4) weeks. Mortality was recorded during the experiment; a total number of forty three (43) mortality of the birds (chicks) during brooding was recorded. Poultry experts were consulted and appropriate medications, advice were given and was put into practice.

Feed and feeding

A total of Ten (bags) of Commercial poultry feed was recorded used throughout the eight weeks of the experiment, Broiler starter Two (2) bags for four brooding; Six (6) bags of broiler finisher and the these feeds were sourced from the local dealers within the town. Feeding of the experimental birds was done regularly and also fresh drinking water was given regularly.

Data collection

The data for the study was collected through primary source with the use of well- designed farm record, and structured farm dairy was developed where daily activities was recorded and all the costs incurred associated to the production was recorded as well as the revenue realized from the sales of the experimental birds.

Analytical techniques

The costs and returns associated with broiler production were carried out to determine the profitability of broiler production. Net farm income and gross margin were used to determine the costs and returns of broiler production for the study using farm budgetary technique. A farm budget as the detailed physical and financial plan for the operation of a farm for a certain period (Olukosi, & Erhabor, 1988). The farm budgetary analysis helps to determine the total cost and total revenue that accrued to the enterprise within a specific production period. The gross margin analysis involves evaluating the efficiency of an individual enterprise (or farm plan) so that comparison can be made between enterprises or different farm plans.

Gross margin (GM) is the difference between the gross farm income (GI) and the total variable cost (TVC) that is $GM = GI - TVC$ or Gross margin is defined as Gross Return (GR) minus Total variable cost (TVC).

Budgetary Technique $GM = GR - TVC$ (Olukosi, & Erhabor, 1988).

$NFI = GM - TFC$

Where:

GM = Gross Margin

TR = Total Revenue

TVC = Total Variable Cost

TFC = Total Fixed Cost

Other profitability ratio that was determined from the study include return per naira spent in broiler production of the experiment which was calculated by = Net farm Income ÷ Total cost.

RESULTS AND DISCUSSION

The data generated and analyzed from the research are presented below:

Costs, Returns and Profitability of small scale Broiler Production

Costs can be defined as the value of inputs used in production or expenses incurred in producing an amount of the product, while return is the profit made at the end of production. The net farm income is defined as the gross farm income less gross farm costs and serves as a factor for measuring profitability (Tijjani, Tijani., Tijjani. & Sadiq 2012). The costs, returns and profitability of small scale broiler production are presented in table 1. It was found that ₦162,000.00 total cost of production.

Straight line method of depreciation was used to determine the annual cost of fixed asset (building and equipment) used and the average fixed cost incurred during the experiment by the researcher amounted to the sum of ₦2,100.00 while the total revenue obtained from the sales of fifty seven (57) broilers that survived to table size was ₦162,000.00, The estimated net farm income (NFI) was ₦64,600.00, and the gross margin was calculated as ₦159,900, this implies that small scale broiler production has positive net returns on investment as 0.40 kobo indicating that for every naira invested in broiler production 0.40 kobo was realized despite the mortality of forty three (43) birds recorded during the experiment.

Table 1: Costs and returns analysis of small scale broiler production

Variables	Quantity	Unit price(₦)	Amount(₦)
(a) Revenue sales of birds			
Birds	28	2,800	78,400
Birds	21	3,000	63,000
Birds	3	2,700	8,100
Birds	5	2,500	12,500
Gross Return (GR)			162,000.00

(b) Variable Cost (VC)			
Day old chicks	100	280	28,000
Feed(starter)	2bags	7,000	14,000
Feed(Finisher)	6bags	6,500	39,000
Labour			10,000
Keprocerl	500mls	1,700	1,700
Gumboro	1000 birds doze	1,000	1,000
Lasota	1000 birds doze	1,000	1,000
Charcoal		500	500
Amphiclus		500	500
Sawdust		400	400
Kerosine		500	500
Izal		200	200
Broom		200	200
Varousine		200	200
Glucose		150	150
Detergent		50	50
Total (VC)			97,400
(c) Fixed Cost (FC)			
Housing (depreciated)			1000
Feeder (depreciated)			500
Drinker (depreciated)			600
Total (VC)			2,100
Gross Return (GR)			162,000.00
Gross Margin (GM)			159,900

Net farm income (NFI)	64,600
Return per naira spent	0.40

Source: 2021 Experiment

The result obtained was close to that of Emokaro & Eweka (2015) that reported broiler a profitable venture their study on Comparative Analysis of Profitability of Broiler Production Systems in Urban Areas of Edo State, Nigeria with Return Per Naira Invested (RNI) of ₦0.91 for the battery cage system RNI (₦0.71) for the deep litter system. This shows that both systems were profitable and viable in the study area. The findings of this study also agreed with the views of Mohammad, Mohammad, Fatholah, (2011) that listed accounting and skills on management of finance which include ability to record conducted production in poultry production enterprise, ability to record consumed inputs in poultry production enterprise, ability to record and calculation of profit and loss in poultry production enterprise, fallow up continuing education to improve financial management skills, ability to effectively use of financial and credit from various sources, ability to purchase needed inputs, ability to create a good and effective financial accounting system, ability to record and calculate the amount of initial capital in poultry production enterprise (NwariejI, Bridget, & Ejiofor, 2017).

CONCLUSION

Entrepreneurship has the ability to make farmers more functional with necessary skills required in poultry production. Findings from the study indicated that broiler farming is profitable; requires little degree of skill and knowledge in management as well as medium capital investment in fixed inputs. Therefore, to improve on profit level of the poultry investments; Farmers should be encourage to compound their own feed as this will help to reduce the cost of feeds which accounted for the highest total cost of raising broiler from day old to point of sale. Awareness should be made to farmers on the profitability of going into production as it will also help in alleviating poverty and creating job opportunities especially to jobseekers and youth. And Broiler farmers should be advice to increase their flock size, develop the skills of record keeping so as understanding the business stand of their production.

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