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To cite the article: ODOEMELAM L. E and OLOJEDE J. C (2019), Training needs of commercial poultry farmers in Orlu agricultural zone of Imo state, Nigeria, *Journal of Agricultural and Rural Research*, 3(1): 1-9.

Link to this article:

http://aiipub.com/journals/tjarr-190209-010070_fp/

Article QR



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**TRAINING NEEDS OF COMMERCIAL POULTRY FARMERS IN ORLU
AGRICULTURAL ZONE OF IMO STATE, NIGERIA**

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ARTICLE INFO

Article Type: Research

Received: 09, Feb. 2019.

Accepted: 13, Mar. 2018.

Published: 13, Mar. 2018.

Keywords:

*Commercial farming, poultry
Technology and Imo State..*

ABSTRACT

The study investigated the competency level and training needs of commercial poultry farmers in Orlu Agricultural zone, of Imo State, Nigeria. A multi-stage samplings procedure was used to select a sample size of 150 respondents. Data were collected with the use of a structured questionnaire and Focus Group Discussion and later analyzed with descriptive and inferential statistics like Probit regression. The result showed that the commercial poultry farmers were only competent in two operations (formation of poultry ration; $M= 2.03$ and preparation of farm records, ($M= 2.03$). Thus, commercial poultry farmers were incompetent generally. Probit regression result revealed that age, extension contact, level of education, farming experience and household size were significantly related to a competent level of the commercial poultry farmers in the study area. It was therefore strongly recommended that the training workshop on the other main tasks be organized to train the farmers in Imo State to bridge the gaps and improve their performance.

INTRODUCTION

Poultry farming is the practice of raising domesticated birds such as chicken, turkey, duck, geese among others as a subcategory of annual husbandry to produce meat and egg for food and other by-products such as drooping, feathers as raw materials for industries. More than 50 billion chickens are reared annually all over the world as a source of food. This is attributed to the importance of poultry products in terms of its nutritional values such as quality protein, liquids carbohydrates, and a multitude of vitamin, minerals, cholesterols and pigments (Izunobi, 2002).

Historically, the growth of poultry began as a result of the advantage it had over other livestock. These advantages include high protein level in the human diet, sources of income to the owners, sources of nutrients for land improvement and employment generation for the unemployed. The poultry industry is one of the most popular livestock enterprises in the world today.

The Food and Agricultural Organization of the United Nations (FAO) stipulates a daily requirement of 65gm to 75gm of total protein out of which 40% or 36gms should be obtained from animal sources. Currently, the estimated per capita animal protein consumption is about 17gm which indicates a short fall (Ike, 2011).

According to Okeoghene (2013) poultry offers the greatest scope of increasing the quantity and quality of animal protein in Nigeria as poultry meat and egg account for about 30% of total livestock output of which eggs account for over 80%.

In Nigeria where the population is growing at a faster rate, the gap in the production of food especially of animal origin is widening year after (Oluyemi and Rebbort, 2000). Out of the various sources to overcome the annual poultry gaps, poultry meat seems to offer a much better prospect in this respect. It is capable of providing protein in terms of quality and quantity and can be prevented by selecting healthy breeding stock, keeping chicks separate from adult stock. By keeping houses clean, ventilated and maintained at the proper temperature, good brooding practices (care of the chicks, during the first week and providing an adequate diet during such period). Lack of vaccination and veterinary services, scientific training and marketing organizations are some other constraints (Dawn, 2008). The farmers should be aware of the latest farming techniques, biosecurity and principles of the poultry business. Small subsistence farmers should never be engulfed by large commercial units. The government brings subsistence farmers into the main stream of technologically advanced poultry farming by educating them in farm management practices. Therefore, there is an urgent need for training poultry farmers in Nigeria as a whole and Imo state in particular to make up for this discrepancy. Training in simple terms refers to the imparting of skills, ability and knowledge through the appropriate educational methodology to improve performance and efficiency of the trainee. The needs assessment and training for poultry farmers is the base for the extension process and its activities so, determining these needs in different practices of poultry farming such as egg and meat production, management practices and disease management with all its different aspects considers an important step in planning the appropriate intervention that aim at building farmers capacity and consequently achieving the development objectives . Since training is so crucial in developing individuals managerial ability, it may be referred to as the basis of economic development.

Commercial poultry is well established in Nigeria with substantial infrastructure on the ground (Ike, 2011). Thus poultry meat and eggs are capable of providing animal protein in in terms of quantity and quality and can narrow down the animal protein supply gap in a minimum possible time as compared to another source of animal proteins. Despite this potential of the poultry industry, it is bedevilled by numerous problems in areas like rearing, housing, disease management, feeding and medication.

Some challenges are associated with poultry production in Imo State in particular and Nigeria in general. For instance, New castle disease is a major constraint in the production of chickens. According to (Evbuomonean, 2005), insufficiency of clean, fresh water, can seriously retard the growth of chicks, impair egg production and sometimes lead to mortality of young chicks, other challenges include poorly equipped poultry houses, improper way of administering drugs and poor management techniques. Given this scenario the following research questions can be; what are the socio-economic characteristics of commercial poultry farmers? What are the major tasks performed

by the farmers? What level of competency is required of the farmer? Which area are they not competent, thus necessitating training.

The development achieved through investing in human capital and raising the productivity capacity of the society, it is therefore of great need that the poultry farmers in Orlu agricultural zone of Imo state and those in Nigeria as a whole are assessed to determine whether they need training in order to increase their competencies for better management of their farms, with the following specific objectives to;

1. ascertain the socio-economic characteristics of the poultry farmers in the study area.
2. determine the competency level of the poultry farmers in various aspect of management
3. identify the training needs of the farmers
4. determine the factors affecting their training needs

Testing of Hypothesis

The study tested the null hypothesis;

There is no significant relationship between socio-economic characteristics of the poultry farmers and their competence level in poultry management.

METHODOLOGY

The study was carried out in Orlu agricultural zone of Imo state, Nigeria. The zone has 11 local government areas, namely: Egbema-Oguta, Oru East, Orlu, Orsu, Isu, Ideato North, Ideato South, Nkwere, Nwangele, Oru West and Njaba. A multi-stage random sampling technique was employed for this research. The first stage involved a purposive selection of 3 (three) local government areas from the 11 local government areas which include Ideato south, Isu and Egbema-Oguta local government areas from the Orlu north, central and south respectively. This selection was because of the dominant commercial poultry farming production in those areas selected. The second stage involved a random selection of 3 communities from each of the selected local government areas. This gave a total of 9 communities for the study. Finally, from the list of commercial poultry farmers with agricultural department of selected local government headquarters, 20 commercial poultry farmers were randomly selected from each community. This gave a total of 87 farmers in Ideato north, 62 farmers in Isu and 51 farmers in Egbema-Oguta local government areas. A total of 200 poultry farmers were selected for the study. A well-structured questionnaire was used to elicit information on the training needs of commercial poultry farmers and their socio-economic characteristics. Only 150 responses were found useful for data analysis. Data were analyzed using both descriptive and inferential statistics. Objective 1 was analyzed using frequency distribution, data for objective 2 and three were generated using a 3-point Likert type scale of 3 points above high and less than 3 points rated low. This was used to categorize the knowledge, skills and competences of the respondents on their training needs. Objective 4 was analyzed using probit regression.

Model Specification

Where relationships are established with a dependent variable that is dichotomous (i.e. with yes or no values) such models are referred to as qualitative or binary choice models. The probit model is a normal cumulative distribution function which has overcome the difficulty arising from the fact that prediction may be outside the (0, 1) interval. The obvious education to the problem is to monotonically transform the original model in such a way that prediction will lie in the (0, 1) interval for all explanatory variables.

The general form of the univariate dichotomous choice model (Pindyck and Rubinfeld, 1998) can be expressed as;

$$P1 = P_i (y_i = 1) = F(W_i, E_i) = \int (w)_{-\alpha}^{1/2\bar{x}} - \frac{1/2}{2} dt \quad (i = 1 \dots 2n)-1$$

The equation means that the probability of a respondent being competent, $P_i (Y_i = 1)$ is a function of the vector of the explanatory variable W_i , and the unknown parameter vector, E_i . P_i is the probability that the i th respondent is competent ($Y = 1$), and $Y = 0$, if otherwise. This is because individual commercial poultry farmers vary over a range of competent levels. Tobin (1958) pointed out that the specifications for the expected values of the dependent variables are violated when ordinary least square regression is used with a limited dependent variables. Probit analysis takes care of the heteroscedasticity of the disturbance term as well as restricting prediction to values between 0 and 1.

RESULTS AND DISCUSSION

Table 1: Socio-economics Characteristics of the Respondents

Variables	Frequency	Percentage
Age		
20 – 25	28	18.7
30 – 35	38	25.3
40 – 45	54	36.0
50 – 55	30	20.0
Total	150	100
Education		
Non-Formal	32	21.3
Primary	48	32.0
Secondary	56	37.3
Tertiary	14	9.3
Total	150	100
Sex		
Male	68	45.3
Female	82	54.7
Total	150	100
Farming Experience		
1-5	45	30.0
6-10	42	28.0
11-15	28	18.7
16-20	35	23.3
Farm size		
Less than 100	24	16.0
101-500	62	41.3
502-1000	35	23.3
1001-1500	20	13.3
>1500	9	6.0

Source: Field survey, 2016.

Table 1 shows the socio-economic characteristics of the respondents. The results in table 1 showed that the respondents (36%) were between the ages of (40-45) years; which indicated that the poultry managers are still in the working population. The result further indicated that about (21%) of the respondents had no formal education while the rest were literate. The fact that most of the respondents are literate is a clear indication that the poultry industry is no longer a section for less literate people. Bashir, Naeem & Niazi (2012) reported that the educational level of an individual has a positive impact on its job performance because those household heads will better understand production techniques.

Result in Table 1 also revealed that majority of the poultry farmers were female (55%). This result is in line with Owolade, Oyesola, Yekini & Popoola (2013) who stated that most of the livestock enterprise including poultry is engaged by women. Also, Oluwalayo and Oluwalayo (2012) reported that in south-east Nigeria, women are more engaged in livestock enterprise than men. These findings also confirm IFAD (2012) which asserted that the female share in agriculture exceeds those of male as 72.8% are engaged in agricultural activities compared to 48.9% of men.

From table 1, as well it was obvious that about (30%) of the poultry farmers had less than six years of experience in the poultry business. On the flock size, it could be observed that most of the poultry farmers had less than 1001 birds to the rear. This is an indication that they operate small/medium sized farm hence the need for the training.

Table 2: Distribution of respondents according to their competency level of production

Variables	Mean	SD	Remarks
Ability to care for the poultry equipment	1.84	0.627	Not competent
Identification of poultry breed	1.65	0.670	Not competent
Sexing of chicks	1.67	0.638	Not competent
De-beaking	1.68	0.638	Not competent
Procedure for room preparation before the arrival of chicks	1.80	0.513	Not competent
Identification of sick bird for culling	1.84	0.525	Not competent
Identification of diseases symptoms	1.88	0.579	Not competent
Vaccination of birds	1.88	0.654	Not competent
Optimal feeding of birds	1.90	0.675	Not competent
Formation of poultry rations	2.03	0.567	Competent
Preparation of farm records	2.03	0.667	Competent

Source: Field Data, 2016.

The training needs of commercial poultry farmers are presented in table 2. The result showed that the farmers were competent in only two out of the eleven tasks examined. The farmers were competent in these tasks. Formation of poultry ration ($M = 2.03$) and preparation of farm records the result deduced that the commercial poultry farmers were not competent in most of the tasks; their competency level

was therefore low. This finding is line with Ajayi, Frainde & Laogun (2003) in their study of women farmers training needs and their correlates for effective extension programme and poverty reduction in Oyo State of Nigeria found that women farmers had low knowledge and skills in performing certain farm operations for the farmers to be successful, there is a need for training them on those identified gasps to increase their performance.

Table 3: Probit Regression Results of the Determinant of the Competency of the Commercial Poultry Farmers in the Study.

Variables	Coefficient	STD. Error	Z-statistics	Probability
Gender (X ₁)	0.03431	0.02152	2.86482	0.0076*
Age (X ₂)	0.044352	0.35572	1.96	0.072*
Extension Service (X ₃)	0.05311	0.00426	0.0732	0.0732*
Education (X ₄)	0.05312	0.00437	4.15739	0.0273*
Farming Experience (X ₅)	2.48533	0.57572	3.72312	0.0334*
Household size (X ₆)	2.88655	0.76543	3.46734	0.0145*

Source: Field data, 2016.

S. E of Regression = 0.677854

Avg-Log Livelihood = 0.642531.

The relationship between socio-economic characteristics of the respondent

The coefficient for age was positive and significant at 5% level of probability. This implies that an increase in the year also increases their exposures to information concerning poultry business and a corresponding increase in training needs so as to keep pace with new technologies in poultry industry. This result is in conformity with the findings of (Ogunleye, Olayini & Adedeyi, 2012) where he found age influencing cassava processors training needs in Oyo State, Nigeria. The co-efficient for extension contact was also positively signed and highly significant at 1% level. The importance of information cannot be overemphasized. This is because those in need of training need to be informed through a source. Flow of information helps to create awareness in farmers, and also exposes the need of the farmers. This implies that any increase in extension contact will lead to increase in training need among the respondents. This result is in line with (Aphunu & Agwu 2013) who cited that information from extension increased clustered fish farmers training needs in Delta state, Nigeria. The farming experience was positive and significantly related to training

The relationship between the competency level of the respondents and their socio-economic characteristics is presented in Table 3. The result in table 3 shows that apart from gender, all the other variables, namely age, educational level, farming experience and farm size and extension contact,

were positively and significantly related to the competency level of the respondents. Education frees the farmer from ignorance and improves his knowledge and experience. Njoku (1996), observed that formal education has a positive influence on the adoption of innovation. Omoregbee (1996) and Van den Ban and Hawkins (1996) had a similar observation. Adoption of innovation is likely to improve the competency levels of commercial poultry farmers. Raham, Ogungbile and Tabo (2002) indicated that length of time of farming business could be linked to the age of farmers, access to capital and experience in farming may explain the tendency to adopt innovations and new technology. Thus, longer years of the respondents in the poultry business is likely to improve their competency.

The larger the size of the household of commercial poultry farmers the need for being more competent in their production activities. This may be due to the need to increase their income from training/poultry, and that additional training would provide the knowledge to remove deficiencies in the technical and managerial skill required for efficient use of scarce resources and earn the desired increase in income.

CONCLUSIONS

The results of this study show that commercial poultry farmers need training in the area of housing, disease prevention control and management. It also revealed that age, credit, education and extension contact were factors that influence training needs of the farmers. The study recommended that; Extension package for poultry production to farmers should be intensified by extension agents. This will facilitate adoption of these technologies among farmers. Since pest/disease infestation is a major problem identified by commercial poultry farmers, training and re-training of poultry farmers in disease prevention and control should be intensified.

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