

## **ASSESSING RECORD KEEPING AMONG POULTRY FARMERS IN KOGI WEST, NIGERIA**

**Ibrahim, M.K<sup>1</sup>, Akerele, D<sup>2</sup>. and Ebenehi, O<sup>3</sup>.**

<sup>1,3</sup>Dept. of Agric. Economics & Extension, Kogi State University, Anyigba  
<sup>2</sup>Dept. of Agric. Economics & Farm Mgt., Federal University of Agriculture, Abeokuta

**Corresponding author: email: [ibrahim.mk@ksu.edu.ng](mailto:ibrahim.mk@ksu.edu.ng)**

### **ABSTRACT**

*The study examined factors that influence farm record keeping among poultry farmers in the Western agricultural zone of Kogi State. Specifically, the study described the socio-economic characteristics of poultry farmers, the kinds of records kept by the farmers and determined factors that influence record keeping attitude of the farmers. Data for the study was collected from hundred and twenty poultry farmers randomly selected from three Local Government Areas in the zone. A combination of descriptive statistics and a binary logistic regression were used to analyze the data. Results from the description of the socio-economic characteristics of the respondents show that poultry farmers in the study area had considerable level of education and production experience. Also, majority of the poultry farmers were small-holders and had very minimal contact with extension agents during the farming season. The decision of the farmers to keep various kinds of record on the farm was observed to be significantly influenced by their level of education and experience, flock size and their status of operation. These factors had varying effect on the probability of record keeping by the farmers. It is therefore recommended that farmers need to be educated and trained on the basic techniques of record keeping. In addition, a simple data entry platform should be developed for the farmers to enter their data as the need arises.*

Keywords: Poultry, management, education and records.

### **INTRODUCTION**

The agriculture sector in Nigeria employs approximately two-thirds of the total labour force and provides a livelihood for about 90 percent of the rural population (IFAD, 2014). The sector is characterized by considerable regional and crop diversity. This is evident in a range of tree and food crops, forestry, livestock and fisheries. In the livestock industry, poultry production occupies a prominent position in providing animal protein as it accounts for 25% of local meat production in Nigeria (Okunlola and Olofinsawe, 2007).

The Nigerian poultry industry is estimated at ₦80 billion (\$600 million) and is comprised of approximately 165 million birds, which produced 650,000 MT of

eggs and 290,000 MT of poultry meat in 2013 (WDI, 2014; Sahel, 2015). The sector is extremely fragmented with most of the chicken raised in backyards or on poultry farms with less than 1,000 birds. However, there are a number of large commercial players in the sector especially in the South-Western zone of the country, in close proximity to Lagos and its large market of 17.5 million people (Sahel, 2015). The poultry industry has a significant economic relevance as it provides a ready source of animal protein, income, and employment for the increasing population (Bosnjak and Rodic, 2008; Hodges, 2009).

Record-keeping refers to keeping, filing, categorizing and maintaining farm financial and production information. It can be accomplished through a variety of methods, from a basic hand record-keeping method to an elaborate computerized system (Odunsi et. al., 2005; and Delton, 2015). Essentially, accurate and up-to-date farm records are very useful tool in management and planning. Soludo (2002) stated that a farmer who has a well-kept farm record is in a more favourable position to access credit facility from financial institution than one who has no farm records. Similarly, Johl and Kapur (2001) stated that when farmers keep records, they continuously give the needed information for state and national farm policies such as land and price policies.

In spite of the very important role record keeping play in the growth of a farm business, farmers often consider it as a tedious task and therefore the decisions they make are guided by vague estimates and guesses based on their past experience of farming (Johl & Kapur, 2000; Poggio, 2006). This creates a condition where policy formulation, planning, monitoring and evaluation in the agricultural sector become difficult. This is because data collection from the records of farmers is practically impossible. Therefore this study seeks to assess farm record keeping behavior among poultry farmers. Specifically, the study describes the socio-demographic characteristics of poultry farmers, and identifies factors that influence farm record keeping decisions of poultry farmers.

## **METHODOLOGY**

The study was carried out in Zone A area of Kogi State Agricultural Development Project (KGADP). KGADP is originally divided into four Zones - A, B, C and D. Zone A where this study was carried out comprise of five Local Government Areas (LGA); Yagba-East, Yagba-West, Kabba-Bunu, Ijumu, and Mopamuro. In addition, the zone is made up of six extension blocks and 35 cells.

Random sampling technique was employed at various stages in data collection. In the first stage, three LGAs were selected from the Zone (Ijumu, Yagba-west and Kabba/Bunu). Then, two villages were randomly selected from each L.G.A making a total of six villages. Finally, twenty poultry farmers were randomly selected from each village. A total of 120 respondents were sampled. Data was obtained via

questionnaire directly administered to the respondents. A combination of descriptive statistics and logistic regression were employed in data analysis.

## **RESULTS AND DISCUSSION**

### **Socio- Economic Characteristics of the Respondents**

Descriptive results of the socio-economic characteristics of the poultry farmers are presented in Table 1. A selection of these characteristics is discussed below.

#### **Age**

It is observed from the Table that the average age of the poultry farmers in the study area is 44 years. This result is an indication that poultry farmers in the study area are in their active and productive age. This finding is in contrast to the current situation where there is an upsurge of labour migration from agriculture especially among the youths. Age is expected to influence the probability of record keeping by the farmers.

#### **Education**

Educational level is measured here as the number of years spent in formal education. It is evident from Table 1.0 that the mean number of years spent in education among the poultry farmers is seven years. This is equivalent to having some level of secondary education. This considerable level of education among poultry farmers is expected to positively influence proper record keeping.

#### **Farming experience**

The average farming experience among poultry farmers is 13.5 years. This is an indication that poultry farmers in the study area have considerable years of experience in the business. It is hypothesized that more experienced farmers are more likely to keep records of their farm operations than the less experience group. This position is supported by the findings of Enoch et. al (2010).

#### **Flock size**

Flock size as used here refers to the amount of birds the farmers had on the farm at the point of conducting the survey for this study. On average, farmers in the study area had about 276 birds.

The implication is that majority of the poultry farmers sampled are small holders. The size of holding of the farmers is expected to have an impact on the probability of keeping records as confirmed by Johl and Kapur (2001). They observed that subsistence nature of farming does not produce any incentive for keeping farm records and farmers cannot engage separately trained accountants to help them in farm accounting.

#### **Extension contact**

This is measured as the number of times farmers are visited by extension agents

within the farming season. It is expected that higher frequency of such visits would translate to higher probability of adopting improved and efficient farm management techniques such as record keeping. From our result, it is evident that farmers reported an average of only 1 visit for the farming season. Such irregular visit by extension agents is expected to influence the probability of record keeping by farm households negatively.

### **Kinds of Farm Records Kept by Poultry Farmers**

Results obtained from analyzing the kinds of records kept by the poultry farmers are presented in Table 2. It is evident from the results that based on the ranking of the common farm records, purchases and sales record ranked first (81%) as the most kept record among poultry farmers in the study area. This was followed closely by records on profit and loss (73.4%). This finding agrees with that of Okanta et. al. (2003) who reported that that majority of poultry farmers kept financial records. The predominance of purchases, sales, profit and loss records among the poultry farmers is an indication that most of the poultry farmers were more concerned about the productivity, profit or otherwise of the farm business.

### **Determinants of Record Keeping by Poultry Farmers**

Table 2 shows the results of the binary logistic regression model of the factors that factors that influence the decision of farmers to keep records of farm operations. The variables included in the model are hypothesized to influence record keeping decisions of poultry farmers. The choice of the variables was based on theoretical and empirical literature of relevant studies. It is evident from the results that the educational level, operation status, flock size, experience and marital status of farmers significantly influenced their decision to keep records of farm operations.

The significant relationship between farmer's level of education and the probability of record keeping was as expected. It is expected that education would play a significant role in the willingness and art of record keeping by the farmers. The direct relationship based on the sign of the marginal effect implies that the more educated a poultry farmer is, the higher his probability of keeping records of his farm operations. Studies such as Devonish et. al. (2000); Chapman (2008) have also emphasized the significant role education play in farm record keeping.

The operation status of farmers whether they operate the poultry business on a full-time or part-time basis was observed to significantly influences their decision to keep records of farm operations. It is expected that poultry farmers who operate their farms on a full-time basis are more likely to keep farm records than part-time farmers. This position is corroborated by findings from previous studies (see for example, Enoch et. al., 2010; Onyeyinka et al., 2011).

As expected the number of birds owned by the farmer which indicates the scale of production significantly influenced the probability of keeping farm records.

The implication of the positive sign of the marginal effect is that poultry farms that operate on a larger scale are more likely to keep records of their farm operations than the small-holder farms. This finding is however at variance with that of studies such as Mariene (1995) and Devonish et al., (2000).

The level of experience of farmers in years was observed to be statistically significant at the 10 percent level. The implication of the significance and sign of the marginal effect is that the more experienced poultry farmers are more likely to keep records of farm operations than the less experienced ones. This is premised on the fact that the number of years spent in a particular enterprise may encourage the adoption of an innovation by farmers. This position has been supported by a number of studies (see for example, Agbamu, 2006 and Idrisa et al., 2012).

## **CONCLUSION AND RECOMMENDATION**

### **Conclusion**

The study examined the factors that influence record keeping decisions of poultry farmers. It was observed from the study that on average poultry farmers in the study area had considerable level of education and farming experience. They operated mainly on a small-scale and had minimal interactions with extension agents. In terms of the decisions they make on keeping records of farm operations, the study revealed that factors related to their level of experience, status and scale of operation influenced such decisions.

### **Recommendations**

The role of well-kept farm records in farm management cannot be emphasized enough. Records are employed in facilitating acquisition of credit, comparing level of performance with similar farms, guiding future management decisions on the farm and so on. This study therefore stresses the need for farmers to keep up-to-date records on their various farm operations. These will serve as a tool for planning for both the farmer and government alike. To achieve this following recommendation are proposed:

Farmers should be trained irrespective of their educational status in basic techniques of record keeping. Such training should expose the farmers to the various kinds of farm records and their importance.

Farmers should be encouraged to keep up-to-date records by introducing an incentive where only farmers with such records can be beneficiaries.

This could come in the form of grant or an interest-free loan available to only farmers well kept records.

A simple data entry platform should be developed for the use of the farmers as the need arises. This should be done in collaboration with the farmers to ensure familiarity and ease of use. This will further encourage record keeping among them.

**Table 1: Selected Socio-economic Characteristics of Poultry Farmers**

<b>Characteristics</b>	<b>Maximum</b>	<b>Minimum</b>	<b>Mean</b>
Age (in years)	63	25	44
Education (in years)	19	0	9
Farming experience (in years)	16	1	13.5
Flock size (number)	502	50	276
Extension contact (number)	2	0	1

Field survey, 2015

**Table 1: Selected Socio-economic Characteristics of Poultry Farmers**

<b>Characteristics</b>	<b>Maximum</b>	<b>Minimum</b>	<b>Mean</b>
Age (in years)	63	25	44
Education (in years)	19	0	9
Farming experience (in years)	16	1	13.5
Flock size (number)	502	50	276
Extension contact (number)	2	0	1

Field survey, 2015

**Table 2: Farm Record Types Kept by Poultry Farmers**

<b>Kind of Record</b>	<b>Frequency*</b>	<b>Percent</b>	<b>Rank</b>
Purchases	64	81.0	1 <sup>st</sup>
Sales	64	81.0	1 <sup>st</sup>
Profit & Loss	58	73.4	2 <sup>nd</sup>
Cash Book	21	27.6	3 <sup>rd</sup>
Farm Assets	15	18.9	4 <sup>th</sup>
Inventory	14	17.7	5 <sup>th</sup>
Inputs	13	16.5	6 <sup>th</sup>
Credit	11	13.9	7 <sup>th</sup>

Field survey, 2015

\*Multiple response

## References

- Adekoya, A. E. (2005). Training needs of small scale poultry farmers on improved production techniques, *African Journal of Livestock Extension*, Vol. 4.
- Agbamu J.U, (2006): Development communication in rural development communication. *Asian Institute for Development Communication* Kuala Lumpur, Malaysia. 11(1) 35-49
- Assassie, L.K. (2008). *Effectiveness of teaching and learning in the agricultural colleges as perceived by stakeholders in the Ashanti Region of Ghana*, Kwame Nkrumah University of Science and Technology, KNUST, Kumasi (Unpublished thesis).
- Bosnjak D., Rodic V. (2008): Regional Livestock Dispersion and Density in Serbia. *Contemporary Agriculture* 57 (3-4): 164-170
- Chapman, M.E.N (2008). "Keeping Farm Records in Sudan". *Historical Document*, Kansas Agricultural Experiment Station. Retrieved May, 2016 from [www.oznet.com](http://www.oznet.com)
- Delton C.G (2015). Establishing and Using a Farm Financial Record-Keeping System. *Agricultural Extension Service*. The University of Tennessee.
- Devonish, E., Pemberton, C. A., Ragbir, S. (2000). "Record keeping among small farmers in Barbados". *Department of Agricultural Economics and Extension*, University of the West Indies, St Augustine, Trinidad and Tobago.
- Enoch, K.T, Patrick, A. and Fred, N. (2010). "Assessing Farm Record Keeping Behaviour among Small-Scale Poultry Farmers in the Ga East Municipality". *Journal of Agricultural Science* Vol. 2, No. 4.
- Hodges, J. (2009). Emerging boundaries for poultry production: challenges, dangers and opportunities. *World's Poultry Science Journal* 65:5-22.
- IFAD (2014). *Enabling poor rural people to overcome poverty obtained from Retrieved May, 2016 from: <http://www.ruralpovertyportal.org>*.
- Idrisa, Y.I, Ogunbameru, B.O. and Madukwe, M.C.(2012) "Logit and tobit analyses of the determinants of likelihood of adoption and extent of adoption of improved soybean seed in Borno State, Nigeria". *Greener Journal of Agricultural Sciences*. 2: 37-45

- Johl, S.S., and Kapur, T.R. (2001). *Fundamentals of Farm Business Management*, Kalyani Publishers, pp 253-259.
- Mariene, C. (1995). "An exploratory study on smallholders' perceptions of farm records in the Embu district of Kenya: A repertory grid technique". Retrieved April, 2016 from: [www.muresk.curtin.edu](http://www.muresk.curtin.edu).
- National Bureau of Statistics (2012). Review of the Nigerian economy in 2011 and economic outlook 2012-2015. [www.nigerianstat.gov.ng/-cached](http://www.nigerianstat.gov.ng/-cached)
- Odunsi AA, V.A Togun and I.O Oladunjoye (2005). *Introduction to Animal Products and Processing*. First Published 2005, Pp: 35
- Okunlola, J.O and Olofinsawe, A. (2000). Effects of extension activities on Poultry Production in Ondo State, South Western Nigeria. *Agricultural Journal*, 2: 559-563
- Onyeyinka, R. A., and Raheem, W. K.(2011). Small scale commercial poultry farmers training needs in Oyo zone. *Proceedings of the 25<sup>th</sup> Farm Management Association of Nigeria (FAMAN) Conference*, 5 – 8 September. 2011, Pp. 22-30
- Poggio, M. (2006). "Farm Management Records". Retrieved April, 2016 from: [www.srdc.gov.au](http://www.srdc.gov.au)
- Singh, I.J. (2001). *Farm Management in Agricultural Extension in India*, CSS Haryana Agricultural University, Hisar-125004, India (unpublished).
- Sahel (2015). An Assessment of the Nigerian Poultry Sector. *Sahel*, Volume 11 June 2015.
- Sanginga, P.C. (1998). Adoption and social impact assessment of improved agricultural technologies: the case of soybean in Benue State Nigeria. Unpublished Ph.D. thesis, University of Ibadan
- Soludo, C.C. (2002). Small and Medium Enterprise in Nigeria. *Central Bank of Nigeria bulletin* Vol. 9, No. 4, May, 2002.
- World Bank (2014). World Development Indicator. Retrieved April, 2016 from [www.worldbank.org](http://www.worldbank.org).