

PERCEIVED CONSTRAINTS ASSOCIATED WITH POULTRY PRODUCTION AMONG POULTRY FARMERS IN AFIJIO LOCAL GOVERNMENT AREA OF OYO STATE

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Abstract

This study assessed perceived constraints associated with poultry production among poultry farmers in Afijio Local Government Area of Oyo State. A carefully developed structured interview schedule was administered on 120 registered poultry farmers from Poultry Farmers Association (PAN) using a two-stage sampling procedure. Data collected was analyzed using descriptive statistics such as percentages, mean scores and frequency counts while inferential statistics such as Pearson Product Moment Correlation (PPMC) was used to analyze the hypothesis. Mean age of poultry farmers was 38 years, 69.2% were male with mean household size of 6 persons. Majority (86.4%) of the respondents had formal education, 75.8% of the respondents were married with mean monthly income of N58,320,17. Procurement of chicks ($\bar{x}=1.94$), procurement of feeds ($\bar{x}=1.89$), marketing of production ($\bar{x}=1.75$), setting and cleaning of cages ($\bar{x}=1.71$), respectively ranked high as the involvement of farmers in poultry production activities. Benefits derived from poultry production using weighted mean score were more on increased income ($\bar{x}=1.36$), improved household food security ($\bar{x}=1.13$) and meeting daily family needs ($\bar{x}=1.06$). Perceived constraints to poultry production in order of magnitude were high start up cost ($\bar{x}=1.44$), poor credit facilities ($\bar{x}=1.33$) and transportation cost ($\bar{x}=1.31$). A significant relationship existed between benefits and perceived constraints ($r = -0.317$, $p < 0.05$). Poultry farmers' benefits from poultry production would be jeopardized by poor credit facilities and high start up cost. Therefore, the study recommended that there should be increased access to credit facilities to enable the farmers increase their initial capital outlay and there is need for more efforts on road network improvement in relation to how poor road networks affect transportation cost.

Keywords: Poultry production; Perceived benefits; Chicks procurement; High start-up cost.

Introduction

The agricultural sector in Nigeria is the next important economic activity after oil, and the single largest employer of labour force, employing about 70% of the country's workforce (USDA, 2013; NBS, 2014). It contributed about 40.07% in 2010 and 22% in 2014 of Gross Domestic Product (GDP) (pre and post debasing, respectively) (NBS, 2014). Agriculture is made up of sub-sectors, namely: crop production, livestock, forestry, fishing, agricultural processing and agricultural marketing. The proportion of each sub-sector in the agricultural sector are; Crops (87.53%), Livestock (8.89%), Fisheries (2.42%) and Forestry (1.13%) in 2015 (NBS, 2016). The Nigeria's livestock population consists of 16.3 million cattle; 40.8 million goats; 27 million sheep; 3.7 million pigs and 151 million poultry (Nasiru *et al.*, 2012). Going by this figure, poultry alone constitutes more than 60% of the total livestock population, indicating the

dominance of poultry sub-sector in the livestock industry.

Poultry is a term used to describe any type of domesticated birds kept for meat and eggs production such as fowls, ducks, geese, turkey, guinea fowls and pigeons (Oluyemi and Roberts, 2007). Poultry farming in Nigeria contributes to the national economy and supply much needed poultry products for healthy living. Poultry farming in Nigeria has become one of the most important aspects of farming for many reasons: it creates business opportunity for entrepreneurs and provides employment. Onwualu (2011) submitted that the population of Nigeria's poultry is about 150.682 million, out of which 25% are commercially farmed, 15% semi-commercially and 60% in backyards or small scale. Adebayo and Adeola (2005) reported that a lot of poultry entrepreneurs have left the business forcefully as a result of problems like high cost of feeds, veterinary services and drugs as well as poor equipment quality. Also,

lack of foreign exchange in Nigeria to pay for imports is also adversely affecting the importation of feeds and drugs for livestock. All these pose great challenge to the survival and expansion of poultry business in Nigeria towards meeting protein requirements of the populace and assisting the government in the implementation of the ban on poultry products importation. Obidike (2011) stated poultry production challenges as poor extension service, poor road network, lack of money to buy information media like newsletter, lack of processing and storage facilities, finance and unfavourable climatic conditions. The mentioned poultry production problems in Nigeria are comparable with Jamali *et al.*, (2011) for Pakistan that reported inadequate modern poultry equipment, lack of adequate poultry rearing knowledge, absence of marketing knowledge, lack of modern communication facilities, inadequate infrastructure and logistic support, lack of financial credit, lack of private investment, absence of government help and guidance, problem of getting reasonable price, expensive poultry feed and ingredients.

Aromolaran *et al.*, (2013) reported poultry problems as disease and pest attack, difficulty in credit and loan procurement processes, high cost of drugs and vaccination, market and price fluctuations, lack of technical-know-how in poultry handling, feed quality availability, high mortality of the birds, unsatisfactory healthy breeds availability, accessibility of feed, high cost of feeds and poor infrastructure like water and electricity supply. Roys Farm (2016) reported poultry problems as lack of productive breeds, poor housing, poor feeds and feeding, lack of access to drugs, poor management/care, poor training, poor record of expenses and income as well as poor transportation of poultry products. It is worthy to note that each of these problems falls under biological, institutional, socio-economical or technical category which, according to Sonaiya (2020), contributes to non-sustainable poultry production in Africa. It is against this backdrop that this study assessed the perceived constraints associated with poultry production among poultry farmers in Afijio Local Government Area of Oyo State. Specifically, the study addressed some research questions by considering the following objectives: identify socioeconomic characteristics of respondents in the study area; ascertain the respondent's level of involvement in poultry production; examine the benefits derived by respondents' involvement in poultry production; identify perceived constraints to poultry production in the study area.

Methodology

The study was carried out in Afijio Local Government Area of Oyo State, Nigeria. It's administrative headquarters is located in Jobele. The area comprises of the districts and villages of Awe, Akinmoorin, Alapadi, Anfelerin, Bali, Basi, Fiditi, Ilora, Imini, Jobele, Iware, Iluaje, Oluwatedo and Ojutaye among others. It has subdivision of ten (10) political wards. Out of the major towns that constitute the local government, Awe, Akinmorin and Ilora are known for poultry production. The population of the study were all registered poultry farmers in Afijio Local Government Area of Oyo State. Two-stage sampling procedure was adopted for this study. The first stage involved purposive sampling of six (6) wards where poultry production is predominantly practiced in which are Ilora I, Ilora II, Ilora III, Awe I, Awe II, Akimorin/Jobele. Second stage involved selection of 20 respondents from each ward among the registered members of Poultry Farmers Association (PAN) using simple random selection to make a total of 120 respondents. Data was collected through the use of carefully developed structured interview schedule. Variables assessed include respondents' socioeconomic characteristics: involvement in poultry production activities which was operationalized as always involved, sometimes involved and never involved with scores of 2, 1 and 0, benefits derived by respondents involvement in poultry production using a three-point rating scale of not a benefit, low benefit and high benefit with scores of 0, 1 and 2, perceived constraints to poultry production by farmers using a three-point rating scale of not a constraint, mild constraint to severe constraints with scores of 0, 1 and 2 respectively. Data collected was analyzed using descriptive statistics such as percentages, mean scores and frequency counts while inferential statistics such as Pearson Product Moment Correlation (PPMC) was used to analyze the hypothesis.

Results and discussion

Socioeconomic characteristics

Result on Table 1 shows the age of respondents. Different age groups were involved in poultry farming with mean age of 37.8 years. The result on sex shows that majority (69.2%) were male while 30.8% were female. This implies male dominance over female in poultry farming. The result on marital status revealed that 75.8 % of the respondents were married while 15.8% of the respondents were single. This could be so because, it is expected that married individual should have more responsibilities than unmarried person. The distribution of respondents based on their

education shows that 18.3% of the respondents were degree holders, while 13.3%, 30.8% and 37.3% of the respondents had no formal education, had primary education and had secondary education, respectively. This implies that majority of the respondents were fairly educated and this is expected to give them edge in poultry farming for better result. The result on household size shows that most(53.5%) of the respondents have between the family size of less than 5 persons. 36.6 % of them have a family size of between 6- 10, while 9.9 % have the family size of 11

persons upward. This simply shows that the respondents have small family size. The lower household could be as a result of the level of education of farmers. Result also shows that 12.5% of the respondents had their income in a month to be less than N 20000. 42.5% of them had between 20,001-60000, 35.0% had between 60001-100000 while 10.0 % had their income above 100000 with mean monthly income of N58,320,17. This shows that the respondents have a moderate monthly income level in the study area.

Table 1: Distribution of respondents by socioeconomic characteristics

Variables	Frequency	Percentage	Mean
Age (years)			
<30	28	23.3	37.8
31-40	31	25.8	
41-50	23	19.2	
51-60	21	17.4	
Above 60	17	14.2	
Sex			
Male	83	69.2	
Female	37	30.8	
Marital status			
Single	19	15.8	
Married	91	75.8	
Divorced	2	1.7	
Widowed	8	6.7	
Years of formal education			
No formal education	16	13.3	7.3
1 to 6 years	37	30.8	
7 to 12 years	45	37.3	
>12 years	22	18.3	
Household size			
1-5	64	53.5	5.6
6-10	44	36.6	
Above 10	12	9.9	
Monthly income (Naira)			
Below 20,000	15	12.5	58, 320.17
20,001 – 60,000	51	42.5	
60,001 – 100,000	42	35.0	
Above 100,000	12	10.1	

Source: Field survey, 2020

Involvement in poultry production activities

Table 2 presents findings on respondents' involvement in poultry farming. It shows that procurement of chicks ($\bar{x}=1.94$), procurement of feeds ranks high in the involvement of farmers in poultry production activities. Others are debeaking of birds ($\bar{x}= 0.88$), vaccination of bird ($\bar{x}=0.87$), administration of drugs ($\bar{x}=0.85$), provision of water ($\bar{x}=0.72$), feeding

($\bar{x}=1.89$), marketing of production ($\bar{x}=1.75$), setting and cleaning of cages ($\bar{x}=1.71$), purchase of input ($\bar{x}=1.69$), sorting of eggs ($\bar{x}=1.69$), keeping of records ($\bar{x}=1.58$), culling of sick birds ($\bar{x}=1.55$) respectively of birds ($\bar{x}=0.59$), cleaning of the pen ($\bar{x}=0.52$). The findings however agree with Clauer (2010) that caring for the birds and tending to their basic needs is a constant responsibility- 24 hours a day, 7 days a week.

Table 2: Distribution of respondents based on their involvement in poultry farming activities

Involvement	Always involved %	Sometimes involved %	Never involved %	Weighted mean score	Rank
Purchase of input	70.0	28.4	1.60	1.69	5 th
Setting and cleaning of cages	71.7	27.6	0.79	1.71	4 th
Procurement of chicks	94.5	5.50	-	1.94	1 st
Procurement of feeds	90.6	5.50	2.36	1.89	2 nd
Feeding of birds	16.5	26.8	56.7	0.59	13 th
Provision of water	18.9	33.9	47.2	0.72	12 th
Administration of drugs	22.0	41.0	37.0	0.85	11 th
Vaccination of birds	14.2	59.1	26.8	0.87	10 th
Cleaning of the pen	8.66	34.6	56.7	0.52	14 th
Debeaking of birds	18.0	52.0	30.0	0.88	9 th
Sorting of eggs	76.4	16.5	11.4	1.69	5 th
Culling of sick birds	60.6	33.9	5.51	1.55	8 th
Marketing of production	80.3	14.2	5.51	1.75	3 rd
Keeping of records	63.0	32.3	4.72	1.58	7 th

Source: Field survey, 2020

Benefits derived from poultry production

Result in Table 3 shows the benefits derived from poultry farming by respondents in the study area. Using weighted mean score to assess the magnitude, the benefit derived by most of the respondents were increased income ($\bar{x}=1.36$), improved household food security ($\bar{x}=1.13$), meeting daily family needs ($\bar{x}=1.06$). Other benefits derived by respondents were self dependency or freedom ($\bar{x}=1.02$), improved savings ($\bar{x}= 0.90$), improved housing condition ($\bar{x}= 0.83$), improved social participation in the community ($\bar{x}=0.73$), improved skills ($\bar{x}= 0.68$), access to health

care ($\bar{x}= 0.64$), access to market association ($\bar{x}=0.47$). This implied that increased income, improved household food security, meeting daily family needs, self dependency, improved savings, improved housing condition were the major benefits derived by poultry farmers in the study area. This is in line with the submission of Aromolaran *et al.*, (2013) who submitted that poultry production boosted income generation of farmers in the study area.

Table 3: Distribution of respondents based on benefits derived by poultry farmers

Benefits	High benefit %	Moderate benefit %	Low benefit %	Weighted mean score	Rank
Increased income	75.8	21.7	2.5	1.36	1 st
Self dependency and freedom	35.8	58.3	5.8	1.02	4 th
Meeting daily family needs	40.0	54.2	5.8	1.06	3 rd
Improved savings	38.3	37.5	24.2	0.90	5 th
Improved housing condition	19.2	66.7	14.2	0.83	6 th
Improved social participation in the community	12.5	68.3	19.2	0.73	7 th
Improved household food security	50.8	41.7	7.5	1.13	2 nd
Improved skills	9.2	67.5	23.3	0.68	8 th
Access to health care	15.0	51.7	33.3	0.64	9 th
Access to market Association	14.2	31.7	54.2	0.47	10 th

Source: Field survey, 2020

Perceived constraints to poultry production by poultry farmers

The perceived constraints to poultry production by farmers were investigated. The major perceived constraints reported by the respondents (Table 4) were high start up cost, poor credit facilities and transportation cost. These rank first, second and third ($\bar{x}=1.44$, $\bar{x}=1.33$ and $\bar{x}=1.31$ respectively). These constraints can be a serious barrier to poultry production with majority not having access to credit facilities. Financial capital is a major requirement for establishing and growing agricultural enterprises and the sustainable development of the sector. Its inadequacy and lack, in some places, is one of the institutional and socio-economic causes of non-sustainable poultry production in Africa (Sonaiya, 2020). Transportation is a major problem in the rural area as a result of the poor state of feeder roads especially during the raining season. Other constraints were high cost of feed ($\bar{x}=0.98$), poor access to market ($\bar{x}=0.87$), shortage of labour ($\bar{x}=0.85$). Farm labour is declining globally due to increasing level of education which makes some labour to shift their services from the farm. Labour supply is one of the major problems of poultry production (Arnab, 2017) and significant contributors to poultry cost of production (Aladejebi *et al.*, 2014) and high cost of medication ($\bar{x}=0.72$). Bad road ($\bar{x}=0.50$), Good transportation infrastructure promotes mobility of resources for employment, income generation and production (Uma *et al.*, 2014) inadequate access to information on poultry production ($\bar{x}=0.18$) and disease prevalence ($\bar{x}=0.08$). These hamper expansion because of its discouraging effect on the farmers.

Table 4: Distribution of respondents based on perceived constraints to poultry production

Constraints	Severe constraints %	Minor constraints %	Not a constraint %	Weighted mean score	Rank
High start up cost	85.0	13.3	1.7	1.44	1 st
Shortage of labour	12.5	83.3	4.2	0.85	6 th
Poor credit facilities	69.2	30.0	0.8	1.33	2 nd
Poor access to market	15.8	78.3	5.8	0.87	5 th
High cost of feed	25.8	73.3	0.8	0.98	4 th
Bad road	25.0	13.3	61.7	0.50	8 th
Transportation cost	70.0	26.7	3.3	1.31	3 rd
High cost of medication	5.8	80.0	14.2	0.72	7 th
Disease prevalence	2.5	5.0	92.5	0.08	10 th
Inadequate access to information on poultry production through extension agents	8.3	6.7	85.0	0.18	9 th

Source: Field survey, 2020

Respondents' perceived benefit and constraints to poultry production

Result in Table 5 shows a significant relationship between benefits and perceived constraints ($r= -0.317$, $p < 0.05$). This relationship is negative and this implies that the higher the constraints the lower the benefits derived from poultry production by poultry farmers.

Table 5: Correlation analysis of benefits and perceived constraints to poultry production

Variables	r-value	p-value	Decision
Benefits * perceived constraints	-0.317	0.002	Significant

Source: Data analysis, 2020

Conclusions and Recommendation

Poultry farmers in the study area were involved in almost all the poultry production activities. Benefits derived from poultry farming in the study area in order of magnitude were increased income, improved household food security, meeting daily family needs and self dependency or freedom. The major perceived

constraints reported by the respondents were high start up cost, poor credit facilities and transportation cost. The higher the constraints the lower the benefits derived from poultry production, the lower the constraints the higher the benefits derived from poultry production by poultry farmers. The study recommended that there should be increased access to

credit facilities to enable the poultry farmers increase their initial capital outlay. Government should collaborate with commercial banks in providing loan to assist the farmers that registered with poultry farmers association, where registered farmers can access funds at very low interest rate. There is need for more efforts on road network improvement in relation to how poor road networks affect transportation cost.

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