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FARMER'S PERCEPTION ON THE BENEFITS OF POULTRY PRODUCTION IN ABUJA MUNICIPAL AREA COUNCIL, FEDERAL CAPITAL TERRITORY, NIGERIA

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Abstract
This study is a descriptive survey on the perceived benefits of poultry production and constraints faced in Abuja Municipal Area Council (AMAC), Federal Capital territory, Nigeria. A total of 133 poultry farmers were randomly selected and interviewed using structured questionnaires. A mean score of ≥ 2.5 on a four-point Likert-type scale was considered an important factor on benefits of poultry production. Results indicated that poultry keeping fosters poverty alleviation, improves standard of living and increase income as evidenced by mean scores of 3.86, 4.02 and 3.99 respectively. Respondents with a high mean score attests that poultry keeping assist in ensuring food security (4.12), reduce unemployment rate and boost the country's gross domestic products (4.42). In descending order of importance, perceived constraints to poultry production were; disease outbreak (35.55%), high cost of feed (24.8%), insufficient finance (20.7%), lack of market (13.2%), pilfering of farm produce (5.8%) and low manpower (10.7%). Since poultry production is perceived to play beneficial roles in the study area, close attention must be placed on developing strategies that will reduce or remove identified constraints which can impede the growth of the industry.

Keywords: Poultry keeping, Perceived constraints, Key benefits, Abuja Municipal

Introduction

The poultry industry plays a key role in economic development in sub-Saharan Africa; especially Nigeria (Van der Sluis, 2007; Mengesha, 2011). Poultry is special because it has the highest feed conversion rates and produces the least expensive and best sources of animal protein. It has been described as the fastest means of solving the problem of protein deficiency in Nigeria (Chukwu, 2007). Poultry products (meat and eggs) supply man with high quality nourishment such as proteins, minerals, and vitamins (USDA, 1999). These nutrients aid growth, development and tissue replacement, thus impacting the health status of the labor force and by consequence, the advancement of a country and its economy (Amos, 2006). Poultry meat is the fastest growing component of global meat production, consumption, and trade, with developing and transition economies playing a leading role in and the quickest returns to investment outlay in the livestock enterprise (Sanni and Ogundipe, 2005). In addition to providing opportunities to increase poultry exports, rising poultry production spurs growth in global import demand for feeds and other inputs and generates up and downstream in investment opportunities (Rao, 2015).

Despite the seeming potential of chicken production to become the fastest growing agribusiness sector in sub-Saharan Africa, and the nutritive value of its product, its production in the nation is insufficient. This is reflected in the wide gap between demand and supply of the product, and this could be due to various issues encountered by poultry farmers in the course of production. The main problem of poultry production in Nigeria is that of low productivity which is ascribed to technical inefficiency, high cost of production, inadequate extension services and training facilities (Ezeh *et al*., 2012). Other problems which affect productivity include; low capital base, inefficient management, economic inefficiency, diseases and parasites and poor housing (Alabi and Aruna, 2006), high cost of feeds, poor quality of day-old chicks, poor transportation network, medications and labor (Mgbakor and Nzeadachie, 2013). Feed-food competition and dependency on the import of improved

breeds (Mengesha, 2012) are also amongst the constraints faced boosting poultry production in sub-Saharan Africa.

In order to meet up with the increasing demand for poultry products, the production capacity of the farms must be increased. For this to be achieved, prospect problem and potential areas of improvement in the industry must be identified and solutions to mitigate their effects proffered. The study therefore attempts to examine the impact of poultry farming on economic development and to identify major constraints militating against the poultry value chain in Nigeria with the Abuja Municipal Area Council as case study

Methodology

This study was carried out in Abuja Municipal Area Council (AMAC), one of the 5 area councils in FCT Abuja. The research design for this study is a descriptive survey design. A pre-tested semi-structured questionnaire was used by 2 pre-trained research assistants to elicit the necessary data from identified poultry farmers in the study area. A stratified random sampling technique was adopted to administer a total of 133 close-ended questionnaires to farmers in the study area. Cronbach's alpha was used to test the reliability of the instrument. The co-efficient alpha values that exceed 0.7 indicate adequate reliability. To test the reliability for the Multi-Likert Questionnaire (MLQ) instrument, we considered determining the Chronbach Alpha coefficient for the variables under consideration. Data collected were analysed using the SPSS 16.0 software. Descriptive statistics was employed (frequencies and percentages), while the perception of farmers on the benefits of poultry production and key factors affecting productivity was measured on 3-scale of very important, important and not important with a mean score (M) of $\geq$ 2.5 considered accepted as an important factor. Mean score was calculated on the scale rather than individual responses. The importance of poultry to farmers and economic development was measured on a 5-point scale of strongly agree, agree, strongly disagree, disagree and indifferent.

Results and Discussion

The socio economic and demographic characteristics of the poultry farmers surveyed in this study are shown on Table 1. Majority of the respondents were male (77.7%) and this observation is similar to the findings of Mbuza *et al*. (2016) who found that the male population dominated the broiler industry in Rwanda. Majority (89.8%) of the population were older than 25 years, married (56.2%), had formal education ranging from primary to tertiary (77.7%) and were self-employed (43.8%). A high level of literacy observed amongst poultry farmers in this study could majorly impact the management and profitability of the business (Rahman *et al*., 2008). Majority (88.5%) of the respondents had more than 5years of experience in poultry production and most reared a mixture of broilers, cockerels and layer. Many (33.9%) of the farmers kept more than 1000 birds and this observation could suggest that despite the constraints of minimal space availability in AMAC, farmers were still able to manoeuvre the business towards profitability. However, this result is contrary to those reported by Emaikwu *et al*. (2011) in similar geographical location. The author reported that 4% of the respondents kept a flock size in the range of 1001 to 1500 broilers. These differences in observations may be because the present study included farmers keeping a mixture of poultry species as against broilers considered in the former study. Birds were raised mostly for sale (44.6%), and majority (57.0%) made a weekly income of ₦20,000 – ₦40,000 through poultry farming. Different types of management system ranging from deep litter (10.7%) to battery cage, (35.5%) and free range (41.3%) were used to raise or rearing their chickens in the study area. Feed made from farm mill (43.8%), local feed mill (33.1%), and 12.4% of the famers used commercial feed. Majority (78.5%) fed their chickens more than once a day.

Table 1: Socio-economic and Demographic characteristics of poultry farmers in the study area

Gender	Frequency	Percentage (%)
Male	94	77.7
Female	27	22.3
Age (years)		
<25	13	10.7
25 – 40	28	23.1
41 – 55	53	43.8
>55	27	22.3
Marital status		
Married	68	56.2
Single	40	33.1
Divorced	13	10.7
Widowed	0	0
Educational		
Non-formal	27	22.3
Primary	14	11.6
Secondary	26	21.5
Tertiary	54	44.6
Major occupation		
Unemployed	42	34.7
Self-employed	53	43.8
Civil servant	26	21.5
Years of farming experience		
<5years	26	21.5
5 – 11	39	32.2
12 – 15	28	23.1
>15	28	23.1
Farm size		
<200 birds	26	21.5
200 – 1000 birds	54	44.6
>1000 birds	41	33.9
Purpose of farming		
Sales	13	10.7
Consumption	41	33.9
Sales & Consumption	54	44.6
Cultural reasons	13	10.7
Breed of birds		
Cockerels	13	10.7
Broilers	28	23.1
Layers	27	22.3
All of the above	53	43.8
System of management		
Deep litter	13	10.7
Battery cage	43	35.5
Free range	15	12.5
All of the above	50	41.3
Source of feed		
Farm feed mill	53	43.8
Local feed mill	40	33.1
Commercial feed	15	12.4
Others	13	10.7
Average weekly income from poultry farming		
< ₦ 20,000	14	11.6
₦ 20,000 – 40,000	69	57.0
> ₦40,000	38	31.4

Table 2 shows the perception of famers on factors affecting the productivity of the poultry farming in Abuja Metropolis. The respondents did not consider breed and source of day-old chicks as an important factor in poultry farming as evidenced by the mean score of 1.76. The respondents however accepted that source and quality of feed (2.62), system of management (2.48), proper farm hygiene and litter management (2.68), regular vaccination and proper medication of birds (2.57), isolation of sick birds (2.84), lighting condition(2.55) and floor spacing of poultry house(2.74) were important for the successful management of poultry farming in Abuja metropolis. These findings are in tandem with the observations of Alabi *et al*. (2000) who reported that Poultry production in general is constrained by low capital base, inefficient management, diseases and parasites, inadequate housing and marketing.

Table 2: Factors affecting productivity of poultry birds in Abuja metropolis

S/N	Factors	Very Important (3)	Important (2)	Not Important (1)	Mean (2.00)	Remarks
1	Breed and source of day old chick	29(23.9%)	35(28.9%)	57(47.2%)	1.76	Rejected
2	Source and quality of feed (commercial or locally produced)	75(61.9%)	46(38.1%)	0(0)	2.62	Accepted
3	System of management (intensive or extensive)	65(53.71)	50(41.33)	6(4.96)	2.48	Accepted
4	Proper farm hygiene and litter management system	84(69.42)	35(28.92)	2(1.66)	2.68	Accepted
5	Regular vaccination and proper medication of birds	72(59.50)	46(38,02)	3(2.48)	2.57	Accepted
6	Isolation of sick birds	102(84.29)	19(15.71)	0(0.0)	2.84	Accepted
7	Lighting condition of poultry house	76(62.80)	36(29.75)	9(7.45)	2.55	Accepted
8	Chicken floor spacing	89(73.55)	32(26.45)	0(0)	2.74	Accepted

Table 3 shows the perceived constraints associated with poultry production. Many of the respondents (35.55%) indicated disease outbreak and high cost of medications/vaccines as the major constraint, followed by cost of feed (24.8%), insufficient finance and credit facilities (20.7%). About 13.2% of the respondents noted that the markets for sales of matured birds are mostly inaccessible to them. Pilfering is also considered a constraint as 5.8% of the farmers noted it lowers their productivity. These observations are similar to the findings of Anang *et al.* (2013) in Ghana and Yemane *et al*. (2016) in Ethiopia. The authors identified inadequate finance and low manpower as serious constraints encountered by Poultry farmers in the other Africa countries.

Table 3: Perceived constraints to poultry production in Abuja metropolis

	Frequency	**Percentage (%)**	**Rank**
Disease Outbreak and High cost of vaccines and medications	43	35.5	1
High Cost of Feed and Scarcity	30	24.8	2
Inadequate finance and lack of credit facilities	25	20.7	3
Lack of Market	16	13.2	4
Pilfering	7	5.8	5
Total	121	100	

Table 4 shows that the respondents noted that poultry keeping has assisted in reduction of poverty status in the country (M=3.86). They also agreed through the keeping and rearing of poultry birds as either a side business and/or main business that their standard of living and income level has been greatly improved (M= 4.02 and 3.99 respectively). More so, respondents with measurable high score (M=4.12, 3.79 and 4.42) attests that poultry farming has significantly assisted in ensuring sufficient food and food security, boost the market size for poultry and poultry products and efficiently reduced unemployment ratio in the metropolis respectively. Furthermore, the table indicated that respondents examined fully accepted that poultry keeping has effectively helped in boosting the country's gross domestic products (GDP).

Table 4: Importance of Poultry to the Farmers and Economic Development

S/N		Strongly Agree	Agree	Strongly Disagree	Disagree	Indifferent	Total	Mean Cut-off=3.00	Remarks
1.	Poultry contributes significantly to poverty alleviation	40 (33.1%)	38 (31.4%)	30 (24.8%)	13 (10.7%)	0	121	3.86	Accepted
2.	Poultry faming improves the standard of living of the farmers	41 (33.9%)	54 (44.6%)	13 (10.7%)	13 (10.7%)	0	121	4.02	Accepted
3.	Poultry farm products improve the level of income of the farmers	53 (43.8%)	27 (22.3%)	28 (23.2%)	13 (10.6%)	0	121	3.99	Accepted
4.	Poultry farm products improves the supply of food and food security in the community	53 (43.8%)	42 (34.7%)	13 (10.7%)	13 (10.7%)	0	121	4.12	Accepted
5.	Poultry farming helps to reduce the rate of unemployment in the society	65 (53.7%)	43 (35.54)	13 (10.74)	0 (0.0)	0 (0.0)	121	4.42	Accepted
6.	Poultry farming helps in boosting the country's Gross Domestic Product	65 (53.71)	30 24.79	13 (10.75)	13 (10.75)	0 (0.0)	121	4.21	Accepted
7.	Poultry production boosts the market size of the product	41 (33.88)	39 (32.23)	15 (12.40)	26 21.49	0 (0.0)	121	3.79	Accepted

Conclusion

The findings of the current study suggested that despite numerous constraints affecting the poultry farming in AMAC, poultry production is perceived to play significant beneficial roles. The survey also revealed that the productivity of birds (chickens) is harped upon many factors such as proper farm hygiene and litter management, regular vaccination and proper medication of birds, isolation or quarantining of sick birds among others factors. Thus, when these factors are properly handled, it invariably leads to productivity of birds which consequently lead to increased profitability of poultry farming.Since poultry production is perceived to play beneficial roles in the study area, close attention must be placed on developing strategies that will reduce or remove identified constraints which can impede the growth of the industry. There is need therefore that extension workers increase information dissemination on the benefits of the poultry industry and identified constraints militating against productivity of farmers in the study area. Farmers and government should work hand in hand to put appropriate measures, programmes and policies which will help curb or remove the constraints identified in this study.

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