PERCEPTION OF THE QUALITIES OF LOCAL CHICKEN PRODUCTION AND MARKETING AMONG POULTRY FARMERS IN JIGAWA STATE, NIGERIA

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Abstract

The study examined the perception of the qualities of local chicken production and marketing among poultry farmers in Jigawa state, Nigeria. Data were collected using structured questionnaire administered to 120 local chicken farmers and analysed using both descriptive and inferential statistics. The mean age of respondents was 29years with the majority (77.5%) being female, (90.0%), Muslims and (73.4%) had no formal education. Also, 64.2% were married with the mean farming experience of 16 years and average monthly income of N10,000.00. The major source of stocking was through gift (71.7%), extension service delivery was low (10.8%) and (85.0%) engaged in the cooperative movement. High capital outlay (94.2%), high resistant to diseases and pest (90.0%), adaptability (85.0%) and profitability (76.7%) were among the perceived qualities of the local chicken. Farmers preference for local chicken include; cheap (91.9%), natural (85.8%), acceptable to all (84.2%) with a high content of vitamin A (77.5%). Major constraints were effects of middlemen (93.3%), predators (85.0%) and medication ignorance (85.0%). There was positive relationship between household size, educational level and average monthly income and the production of local chicken. This is thus, a challenge and an important call for effective extension service delivery. There is also the need for the provision of credit facilities for this category of farmers in the study area.

Keywords: Perception, Qualities, Local Chicken, Poultry Farmers, Marketing,

Introduction

Local chicken is a term used to indicate birds that are reared under the free range extensive system without much care, less input requirement, low growth rate but high resistance to diseases and adverse environmental conditions. The local chickens are the commonly known domestic fowls, found scavenging around the vicinities of rural communities in most developing countries. They account for the majority of the poultry products in Nigeria. The local chicken flock usually comprises between 5-20 birds kept by one family. Kperegbeyi *et al.,* (2009) posited that the total poultry population in Nigeria has been estimated at between 133 – 165 million. However, there is a consensus that about 90% of the figure derives from the local poultry stocks which are in turn composed of chickens (91%), guinea fowl (4%), ducks (3%), turkeys and others (2%). Poultry, which is next to ruminants as a source of animal protein in Nigeria, accounts for almost 25% of local meat production. Local chicken production is still important in low- income food deficit in developing and underdeveloped economy of most countries of Africa because it is an appropriate system to support the fast growing human population with high- quality protein. Local/village chickens have been used in small-scale indigenous poultry production in the coastal regions of the world. Chicken production is important due to the divergent roles it plays through the sale of eggs and live birds in urban and rural markets. It serves as the only source of cash earnings available to rural farm families. Chickens are also used in traditional caring rituals; assist in knowing the time, offered as gifts and in cementing marriages and friendship. In communities where food shortages are uncommon, chickens are kept to supplement the meals or to honour a guest (Kperegbeyi *et. al.,* 2009). According to Haftu (2016), shortages of protein availability are a well-known problem in Africa societies and poultry is by far the largest group of livestock species contributing about 30% of all animal protein consumed in the world. The poultry sector is characterized by its industrialization, faster growth in consumption and trade than any other major agricultural sectors in the world. According to FAO (2010), poultry meat represents about 33% of the total global meat production and even one of the richest and safest in terms of its consumption.

Generally, there are three kinds of local chicken production and management systems in Nigeria. They are the free-range low input system,

backyard, and semi-intensive husbandry system. According to (Paul and Islam, 2001) report, about 80% of poultry meat comes from local scavenging chicken. The free ranges are run at almost no cost since birds are left alone to scavenge for their daily needs and shelter. Local chicken production contributes significantly to food security, poverty alleviation and ecologically sound management of natural resources. The scope for utilizing local chicken as a source of poultry meat is high because consumers prefer its hard meat.

There is a growing demand for local chicken in restaurants because of its sizes, low prices and their palatable meat when compared to the exotic breed of poultry. The main problem of indigenous local chickens is that they are a poor producer of egg and meat (Tadelle *et al*., 2000). But even if they have low productivity, they are well adapted to the tropics, resistant to poor management, feed shortages and tolerate some of the most common diseases and parasites.

On the other hand, improved exotic chickens produce a higher number of eggs and more meat than the indigenous chicken breeds, but climate is a great challenge especially in some parts of Nigeria like the north east and west where the temperature seemed to be very harsh. Getu and Birhans (2014) opined that, the preference of production of local chicken as shown from survey might be due to the fact that; they are easy to establish for low-income families, they are more prolific and unproblematic to rear on small plots of land, they are more genetically divers, well adapted, and more resistant to local pest and diseases and finally that they are vital for future food security, leading towards self-employment and self-reliance. Basically, it is on this premise that the study is sought to assess the qualities of local chicken production and marketing among poultry farmers in Jigawa state, Nigeria.

Objectives of the study

The study assessed the qualities of local chicken production and marketing among poultry farmers among poultry farmers in Jigawa state, Nigeria. The specific objectives are to:

(i) Describe the socio-economic characteristics of the local chicken farmers;
(ii) examine the farmers' perceived qualities of local chicken over the improved types;
(iii) determine the farmer's preference/ marketable attributes of the local chicken;
(iv) identify the constraints to local chicken production in the study area.

Hypothesis:

Ho_1: There is no significant relationship between the socio-economic characteristics of the respondents and contribution to their livelihood activities.

Methodology

The study was conducted in Jigawa State, Nigeria. Jigawa State is situated in the north-western part of the country between latitudes 11.0°N to 13.0°N and longitudes 8.0°E to 10.15°E. The state has a total land area of approximately 22,410 square kilometres with twenty-seven (27) Local Government Areas (National Population Commission, 2006). The topography is characterized by high land areas which is almost 750meters. The soil tends to be fertile ranging from sandy-loamy with many pockets of fadama and alluvial plains, suitable for the cultivation of rice, sugar-cane, millet, vegetables and sorghum etc. Jigawa state is predominantly an agrarian state with over 80% of the population involved in Agriculture. The major rain-fed crops grown in the state includes millet, sorghum, cowpea, groundnut, cocoyam, soya beans. Dry crops include sugarcane, Hot pepper, okra, tomatoes, onions, and spinach.

The population for the study comprises of all the local poultry farmers in the State. A multistage sample technique was used for the study. The first stage, involved a random selection of two local government areas from each of the ADP Zones. The second stage involved a random selection of four communities from each of the local government selected. The third stage involved a random selection of fifteen (15) farmers from each of the communities selected to give a total sample size of 120 respondents. The data obtained were described with descriptive statistics such as frequencies, percentages, mean scores, and standard deviation while charts were used to explain the data. The inferential statistics used was chi-square analysis.

Results and Discussion

Socio-economic characteristics of the respondents

The results in Table 1 depicted the mean age of the respondents to be 29 years. This suggests that the keeping of local chicken is peculiar mostly to the teenagers and younger group probably due to the fact that most of the chicken were obtained through gift and commitment as a symbol of societal values and norms. Also, table 1 showed that majority (77.5%) were female, Muslims (90.0%) with no formal education (73.4%). Also, 64.2% of the

respondents were married while 22.5% are either divorced, widowed or separated with the mean household size of 9 persons, and poultry farming experience of 16 years. The mean monthly income was N11, 237.50k. Further results in the Table 1 revealed that majority (85.0%) of the respondents engaged in cooperative movement, 71.7% sourced their stock through gift and 89.2% had no contact with extension services in the study area.

Table 1: Socio-economic Characteristics of the Village Chicken Farmers

Variables		Frequency	Percentage	Mean	SD
Age (Years)	≤ 19	42	35	29	4.51
	20 – 39	49	40.8		
	40 – 59	19	15.8		
	60 – 79	10	8.4		
	≥ 80	0	0		
Gender	Male	27	22.5		
	Female	93	77.5		
Religion	Islam	108	90		
	Christianity	10	8.3		
	Traditional	2	1.7		
Marital Status	Singled	16	13.3		
	Married	77	64.2		
	Divorced	13	10.8		
	Widowed	5	4.2		
	Separated	9	7.5		
Household Size	≤ 5	12	10	9.4	1.64
	6 – 10	66	55		
	11 – 15	38	31.7		
	16 – 20	3	2.5		
	≥ 21	1	0.8		
Educational Level	No formal education	53	44.2		
	Islamic education	35	29.2		
	Primary education	24	20		
	Secondary education	5	4.2		
	Tertiary education	3	2.4		
Average Monthly Income	≤ 10,000	83	69.2	11,23	
	11,000-20,000	16	13.3	7.50	
	21,000-30,000	10	8.3		
	31,000-40,000	8	6.7		
	41,000-50,000	2	1.7		
	≥ 51,000	1	0.8		
Farming Experience	≤ 5	8	6.7	15.6	1.64
	6 – 10	10	8.3		
	11 – 15	23	19.2		
	16 – 20	68	55.7		
	≥ 21	11	9.2		
Membership of Social Group	Cooperative	102	85		
	Islamic Society	17	14.2		
	Christian Society	1	0.8		
Source of stock for the Business	Personal Purchase	22	18.3		
	Cooperative	5	4.2		
	Gift	86	71.7		
	Market Purchase	7	5.8		
Extension Services	Yes	13	10.8		
	No	107	89.2		

Source: Field survey, 2016

Perception of farmers on the qualities of the Local Chicken over the exotic types

From Figure 1, it is shown that respondents believed that the local chicken has better qualities over the exotic one like; easy to establish with low capital (94.2%), food security of the household (92.5%), hardy and highly resistant to pest and diseases (90.0%), adaptability (85.0%), profitability (76.7%) and finally to a moderate level an agent of communal union and coexistence. Other qualities like; egg and carcass nutritional content (49.2%), prolific nature (48.3%), help in self-employment (47.5%) and agent of traditional activities are relative to the exotic chicken.

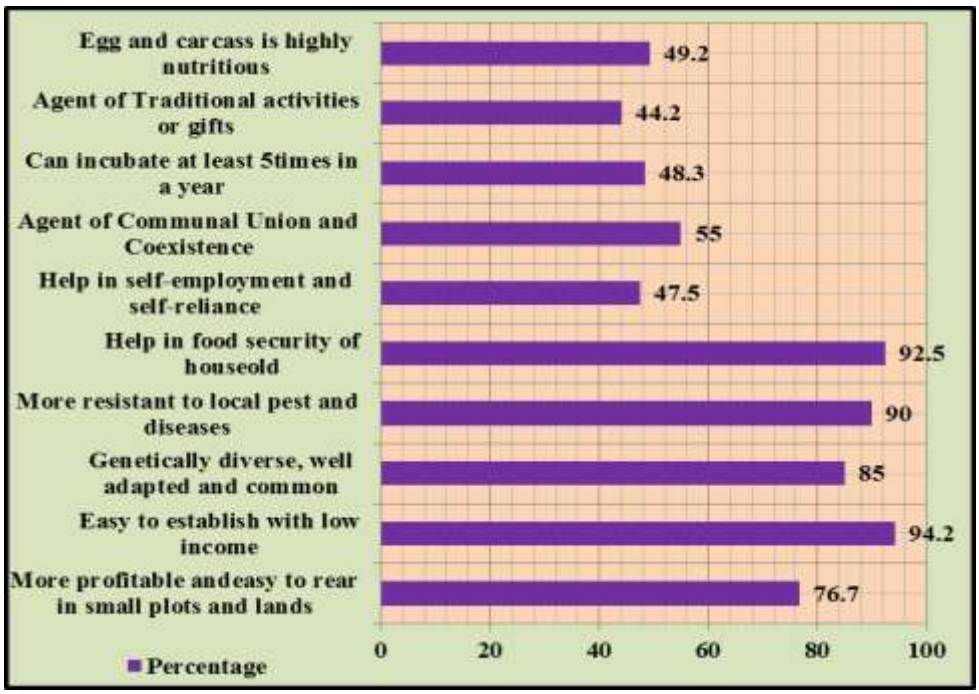

Figure 1: Distribution of respondents according to their perception of the qualities of the Local Chicken over the exotic types

Source: Field survey, 2016

Farmer's preference/marketable attributes of the local chicken

Figure 2 show that farmers prefer the local chicken because; it is cheap (91.7%), free of artificial feed additives and condiments (85.8%), and generally acceptable to diverse culture and religion (84.2%). Also, they have high content of vitamin A (77.5%). The eggs and meat are of high quality (75.0%), palatable (74.2%), having longer shelf life (71.7%). The consumers disagreed with the fact that they can be kept for extra days before slaughtering (43.3%) and bird-flu free (35.8%) as the same with the exotic chicken.

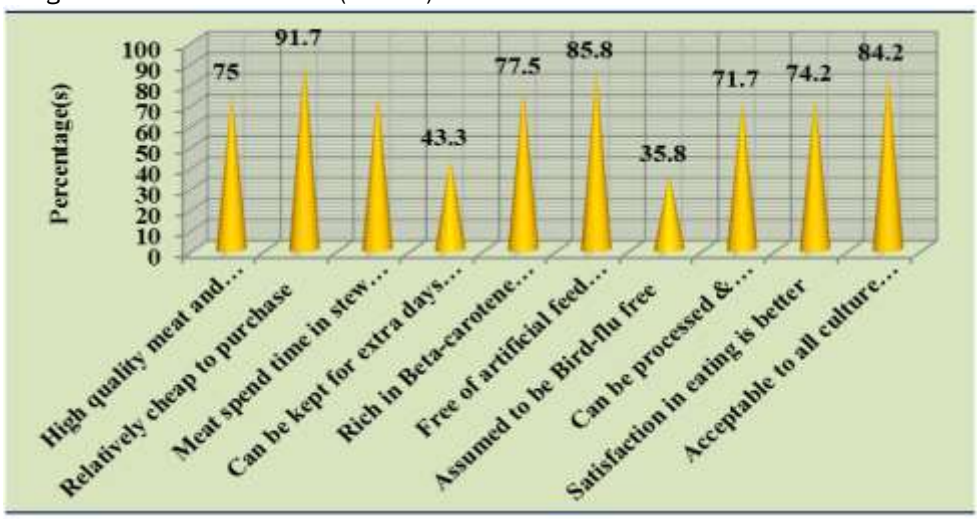

Figure 2: Distribution of respondents according to farmer's preference/marketable attributes of the local chicken

Source: Field survey, 2016

Constraints to Enterprise Formation of the Local Chicken in the study area

Results in Table 2 showed that the most burning constraint to local chicken production of the respondents in the study area was the effect of the middle men during market sales (93.3%) as this will reduce the expected profit of the respondents, followed by attack by predators (90.0%), ignorance of effective medication during outbreaks and poor growth rate (85% respectively), and coupled with ecto-parasites infestations (82.5%), poor feeding (67.5%). Slightly above half (51.7%) of the respondents agreed poor growth rate as a factor under poor feeding while long brooding period (49.2%), theft (45.8%), climatic and environmental factors (40.8%) and initial starting capital (29.2%) were not seen as too serious issues by the respondents.

Table 2: Constraints to Enterprise Formation of the Local Chicken in the study area

Constraints	Frequency	Percentage	Ranking
Attack by predators (Eagle, Cat, Snakes etc)	108	90	2nd
Ecto-parasites infestations	99	82.5	5th
Poor Growth Rate	102	85.0	3rd
Theft and other Human factors	55	45.8	10th
Inbreeding Inheritance	76	63.3	7th
Inadequate/ poor Feeding	81	67.5	6th
New Castle Disease Outbreak (Fowl Plaque)	62	51.7	8th
Effect of Middle-men during market Sales	112	93.3	1st
Long Brooding period	59	49.2	9th
Initial Capital to start the Business	47	39.2	12th
Climate and other environmental factors	49	40.8	11th
Ignorance of effective medication during outbreaks	102	85.0	3rd

Source: Field survey, 2016

Correlation between selected socioeconomic characteristics and respondents perception on local chicken production

Table 3 shows that there were positive and significant relationship between the household size, educational level, average monthly income and the perception of rural households on the qualities of local chicken production and marketing at $p \leq 0.05$ level. This implies that the higher the educational level, household size and average monthly income the higher the perception of the respondents as they will have enough money, acquire necessary techniques and enough manpower to handle and improve their venture.

Table 3: Relationship between the socio-economic characteristics of the respondents and their perception on the qualities of local chicken production and marketing

Socio-economic characteristics	X^2- value	Df	P- value	Remarks
Household size	0.217*	2	0.05	Significant
Educational Level	0.119*	2	0.05	Significant
Average Monthly Income	0.223*	2	0.05	Significant
Farming Experience	-0.191	2	0.05	Not Significant
Sex	-0.111	2	0.05	Not Significant
Age	-0.165	2	0.05	Not Significant
Marital Status	-0.212	2	0.05	Not Significant

Source: Field survey, 2016

$p \leq 0.05$

Conclusion and Recommendations:

The findings of the study revealed that local chicken production was perceived by rural households as having some qualities over the exotic breeds which makes them easier to rear and maintain. Also, they were well accepted and preferred by some farmers due to some innate qualities such as high resistance to diseases, hardness of meat and high level of adaptability to the local climate. This is therefore a challenge for re-positioning in extension services to cover local production and as such the extension services should be strengthened particularly in medication and ecto-parasites control, credit sourcing to the farmers and information on marketing outlets.

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