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SOCIO-ECONOMIC ANALYSIS OF GENDER PARTICIPATION IN POULTRY PRODUCTION IN KANO METROPOLIS, NIGERIA

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ABSTRACT

Poultry production plays a vital role in the socioeconomic development of Kano Metropolis, Nigeria, providing employment opportunities, enhancing household income, and ensuring food security. Despite the significant contributions of the poultry industry, women's participation in this sector remains constrained by various socioeconomic factors. This study aims to investigate the socio-economic status of gender participation in poultry production in Kano Metropolis, Nigeria. The study employs a quantitative data collection technique. A structured questionnaire was administered to 257 randomly selected poultry producers, including both men and women, to gather quantitative data on their socioeconomic characteristics, production activities, scale size, types of poultry reared, production system, and constraints faced. The study findings revealed only few (30%) of the poultry producers are females. Males (48.0%) and (32.4%) of female poultry producers are married. Also, (30.7%) of males and (13.2%) of female poultry producers had tertiary education. In addition, most of the males (47.5%) and females (57.4%) are within age range of 31-40 years; similarly male (36.9%) and (23.5%) of female poultry producers mainly engaged in trading as their main occupation. However, male (35.2%) and female (35.2%) poultry producers had flock size of 50-500 birds. Moreover, only few males (42.5%) and females (44.1%) poultry producers have contact with veterinary extension agents. Regarding poultry management activities participation, female producers were found to participate mostly in Feeding (43.6%), Sanitation (41.6%), Medication (29.4%) and Water Management (27.9%). On other hand their male counterpart mostly participated in house construction (39.1%), Medication (40.8%) Sanitation (36.3%) and feeding (30.7%). Findings also show majority of males (67.6%) and female (72.1%) poultry producers use intensive system of livestock production in the study area. The result findings also reveals insufficient fund (85.3%) and Domestic and household work (72.1%) as the major constraints posing threats to women/female participation in poultry production. The study concluded that poultry production is dominated by male/men and therefore, recommended that there is need to organize programs that will include more woman in poultry production.

Key words: Gender, Poultry, Participation, and Production, and socioeconomic

INTRODUCTION

The Food and Agricultural Organization (2017) states that gender analysis seeks answers to fundamental questions such as who does or uses what, how, and why. Gender roles refer to behaviors learned by a person as appropriate to their gender, determined by the prevailing cultural norms. (World Health Organization, 2015) defined gender roles as "socially constructed" roles, behaviors, activities, and attributes that a given society considers appropriate for men and women. The debate continues as to what extent gender and gender roles are socially constructed and to what extent "socially constructed" may be considered synonymous with "arbitrary" or "malleable". Ndukwu, Nwaru, and Okoye (2010) noted that gender has often been misunderstood as being about the promotion of women only, but it focuses on the relationship between men and women, their roles, access to and control over resources, division of labor, and needs. According to them, men and women are affected differently in their operations by factors like markets and socio-economic environments.

Agriculture in Nigeria is mainly practiced by all genders. Men and women are highly involved in the production and processing of crops and livestock. Although the Nigerian constitution guarantees equal opportunities to both men and women, in reality, this is not so. Worldwide, women face limited access to resources and are locked into relatively low- productive work (World Bank, 2012). Women in Nigeria contribute immensely to agricultural production as they play a vital role in food production for the household, family labor, post-harvest activities, livestock husbandry, as well as the processing and marketing of farm produce (Muhammed and Yahaya, 2021). The livestock subsector in Nigeria has been described as the most important economic sector in terms of rural employment, food and nutritional security, and the attraction of foreign direct investment (Muhammad *et al.*, 2012). Lack of recognition of gender in agricultural development contributes to low productivity, a higher level of poverty and undernutrition (IFAD, 2003). However, Ogunlela, Mukhtar, and Bag (2009) stated in their study that the role women play and their position

in meeting the challenges of agricultural production and development are quite dominant and prominent. Their relevance and significance, therefore, cannot be overemphasized (Nnadozie & Ibe, 1996; Rahman, 2017).

Despite all the roles played by women in agriculture and other economic activities, their contribution to the country's development still remains largely undocumented and not utilized to eradicate poverty. Although the available literature shows that many studies have been done on poultry production, the attention was more on the economic analysis of poultry farming (e.g., Adebiyi 2000; Ojo 2003; Adeola 2005; Amos, 2006; Bamiro 2008). Some others looked at resource use efficiency in poultry production (Effiong & Onyenweaku, 2006; Oladeebo & Ambi- Lamidi, 2007; and Anwasia 2015). Little or nothing has been done on the gender roles study as a factor in promoting poultry farming, especially in Kano State. Kuye *et al.* (2008) noted that there is a need to design, formulate, and implement agricultural policies and programs that would remove gender disparity in land, capacity building, access to credit, access to technology, and access to relevant research results and extensions. This study therefore provided a basis for government support for women towards training and financial empowerment, to mainstream gender-related issues in

agriculture and rural development, to stabilize their household economies, increase overall profits and expand their poultry business by investigating the socio-economic status of gender participation in poultry production in Kano Metropolis, Nigeria.

METHODOLOGY

Description of the Study Area

This study was conducted in Kano State, Nigeria. Kano State lies approximately between latitude 10°33'N and 12°23'N and longitude 7°45'E and 9°29'E, with a population of 9,401,288 during the 2006 census with a proportion of 4,947,952 males and 4,453,336 females (NPC, 2006). The annual growth rate was 3.34%, and therefore the expected projected population would be 14,111,333 by 2020. It has an estimated land area of 21,276,872 Km², with 1,754,200 hectares of agricultural land and 75,000 hectares of forest vegetation and grazing land (Abaje, Ndabula, & Garba, 2014). The climate of the area is tropical Savannah with a dry winter type, classified by Koppen's as Aw. The movement of the Inter-Tropical Discontinuity (ITD) gives rise to two rising seasons (wet and dry seasons). The wet season lasts from May to mid-October. The annual rainfall is between 800 mm and 900 mm, with variation about the annual mean value up to ±30%. The mean annual temperature is about 26 °C (Abaje *et al.* 2014).

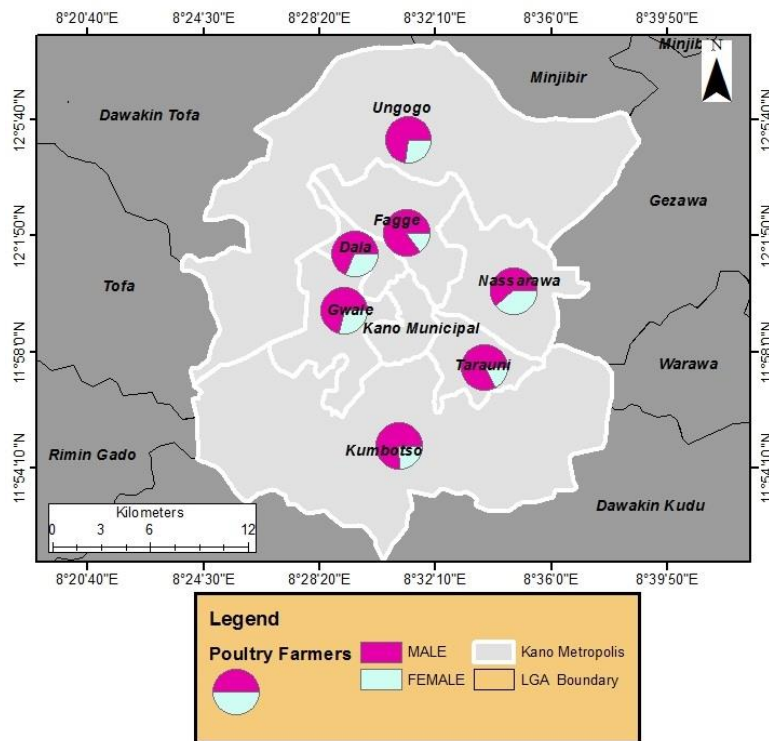


Figure 1: Map of Kano State Metropolis Showing the Study Location

Kano State shares border to the West and North-west by Katsina state, to the East and North-East by Jigawa State to the South by Bauchi and to the South-west by Kaduna, (State Kano State Government, KNSG, 2006). Farming is the main occupations of its people, who are predominantly Hausa/Fulani who are mostly Muslims. Other tribes such as Yoruba and Ibos have also settled largely in the metropolis. They are engaged in the production of crops like millet, sorghum maize, rice, cowpea, groundnut, pepper, onions and rearing animal such as cattle, sheep, goat and poultry (Kano Agricultural and Rural Development Authority, KNARDA 2010).

Procedure for Data Collection

A reconnaissance survey was conducted at the Ministry of Agriculture and Natural Resources in Kano State, the Federal Ministry of Agriculture, and the Kano State Headquarters of the Poultry Producers Association of Nigeria, the only bodies saddled with the responsibilities of registering producers. The survey revealed that poultry producers are widely spread and

largely concentrated in the metropolitan local Government areas of the state. Only registered Metropolitan LGA poultry active producers as of 2019 were identified and recorded. The first stage involved the purposive selection of the entire active poultry producers in the Kano Metropolitan Area, namely Kano Municipal, Dala, Fagge, Nasarawa, Gwale, Tarauni, Kumbotso, and Ungogo Local Government Areas of Kano State. The study followed the production scale classification of Ajibefun and Daramola (1999), which classified poultry farms with 50–500 birds as small poultry farms, 501-100 birds as medium poultry farms, and those farms that have 1001 to above birds as large farms. This submission helps in measuring the production size of the poultry producers. The second stage involved consideration of the total number of poultry producers from the eight (8) Metropolitan Local Government Areas, which generated a total of 272 classified into 194 males and 78 females, but only 257 were reached during data collection (179 males and 78 females) and were used as the population of the study.

Table 1: Summary of selected Registered Poultry Producers in the Study Area

Metropolitan LGAs	*Number of Poultry Producers	
	Male	Female
Dala	15	7
Fagge	22	8
Gwale	33	13
Kumbotso	59	19
Municipal	5	7
Nasarawa	16	10
Tarauni	15	3
Ungogo	29	11
Total	194	78

*Source: SMANR/Poultry Producers Association, 2019

Data for this study was collected mainly from primary sources. Primary data was collected with the aid of a structured questionnaire that was administered to the sampled poultry producers by the researcher, which included socio-economic characteristics such as gender, age, level of education, marital status, household size, years of farming experience, access to extension services, level of gender participation, and gender role in poultry production, as well as the type of poultry extension services received by the poultry producers famers and constraints militating against poultry production.

Analytical Techniques

The collected data were analyzed using descriptive statistics (frequency and percentages).

RESULT AND DISCUSSION

Socio-economic characteristics of poultry producers in the study area

The major occupation results of the producers was presented in Table 1. The results show that about 36.9% and 23.5% of male and female poultry producers take trading as their major occupation, while 20.1% of male and 20.6% of female poultry producers mostly engage in poultry farming as their main occupation, respectively. This implies that many of the male and female poultry producers have other businesses such as crop farming, civil services, and handcraft as their main occupation. Regarding their contact with extension agent, Table 2 indicated that 42.5% and 44.1% of male and female poultry producers have contacts with extension agents, respectively, while 57.5% and 55.9% of male and female poultry producers indicated that they have no contact with extension agents. This

indicated that the extension agents were not playing their role in promoting gender participation in poultry production in the study area. Poultry Producers access to credit in Table 1 also indicated that the majority (84.9%) of male poultry producers have access to credit, while 15.1% of them have no access to credit. It also indicated that most (85.3%) of the female poultry producers have access to credit, while 16.7% of them have no access to credit, implying limited access to credit by the poultry producers. The results in Table 1 for the marital status of poultry producers further indicated that 48.0% of male poultry producers were married, while only 32.4% of the female poultry producers were married. This portrays the fact that male married people dominate the poultry production in Kano Metropolis, which makes it necessary for them to participate in economic activities as a means of catering to the needs of their families. This corresponds with the findings of Auwal *et al.* (2017) and Anarah *et al.* (2017) in their gender participation study, which showed that

the majority of the poultry producers were married. Moreover, Table 1 results for the educational level of poultry producers showed that 16.8% of male poultry producers had tertiary education as compared to 13.2% of female poultry producer who had tertiary education, and 13.2% and 55% of males had primary and secondary education, respectively, while 23.5% and 29.4% of females had primary and secondary education, respectively. It is indicated that 22.3% of males and 28.0% of females have informal or Islamic school education only, while 5.6% of males and 5.9% of female poultry Producers have never been to school. Also, substantial numbers of male poultry producers attended tertiary institutions. This result clearly revealed that male poultry producers were more opportune to source and access written and formal innovation for the betterment of their poultry enterprises. There will be more improvements in their production compared to 13.2% of the female gender that attended tertiary institutions.

Table 2: Socio-economic characteristics of poultry producer in the study area

Variables	Male [n= 179] (%)	Female [n= 68] (%)
Marital status		
Single	52(29.1)	12(17.6)
Married	86(48)	22(32.4)
Widow/Widower	18(13.1)	14(23.6)
Divorced	23(12.8)	20(29.4)
Educational level		
Primary	55(30.7)	20(29.4)
Secondary	44(24.6)	16(23.5)
Tertiary	30(16.8)	9(13.2)
Informal education	40(22.3)	19(28.0)
Never been in school	10(5.6)	4(4.5)
Major occupation		
Crop farming	32(17.9)	13(19.1)
Poultry production	36(20.1)	14(20.6)
Trading	66(36.9)	16(23.5)
Handcraft	20(11.2)	10(14.2)
Civil servant	25(14.0)	15(22.1)
Contact with Extension Agent		
Yes	76(42.5)	30(44.1)
No	103(57.5)	38(55.9)
Frequency of contact		
Weekly	30(16.8)	13(19.1)
Monthly	37(20.7)	11(16.2)
Quarterly	23(12.8)	8(11.8)
Annually	13(7.3)	7(10.3)
None	76(42.5)	29(42.6)
Access to credit		
Access	152(84.9)	58(85.3)
No access	27(15.1)	10(14.7)
Total	179(100)	68(100)

The results in Table 2 show that almost half (47.5%) of the male poultry producers fall within the age bracket of 32-40 years, while more than half (57.5%) of the female poultry producers fall within the age brackets of 31- 40 years. Those who belong to the age group of 51 years and above are few for both male and female poultry producers; this indicates that more youth are into poultry production than any other category of people. Table 6 showed that 33.5% of males and 29.4% of females' poultry producers had 17-21 persons as their household sizes, while 26.3% and 26.4% had 7-11 households. It is also indicated that 20.1% of male and 20.6% of female had 12-16 persons as their household size, while 16.2% of both male and female poultry producers had 2-6 persons in their household. This finding showed that both male and female poultry producers had a large, dependable number of household sizes that may serve as a source of labor in their production activities. This is in line with Vihi, Kwembeb and Jesse (2017), who reported that the majority (46%) of male and female producers had household size of 6-10 persons. Table 6 further indicated that (35.2%) of male and (35.3%) of female

poultry producers had production experience of 11-20 years, while (26.8%) of male and (26.5%) of female poultry producers had production experience of 21-30 years. And 25.7% of male poultry producers had 2-10 years of experience in production, compared to female poultry producers, who also had 2-10 years of experience in production. It also showed that 12.3% of males and 11.7% of females had 31 years or more of experience in production. The indication is that the majority of the poultry producers had 11–20 years of experience. It suggests that most of the poultry producers have accumulated enough skills and knowledge in poultry production that can help them boost their production as well as adapt to good management practices. This result agreed with the findings of Oni, Nkonya, Pender, Phillips, and Kato (2004), who reported in their study that most experienced producers tend to invest their resources and incomes towards increasing their level of participation in arable crop production. Experience can be seen to improve poultry productivity as a result of skills, knowledge, and practice acquired over the years (Vihi *et al.* 2017).

Table 2 Socio-economic characteristics of poultry producers (Continuation)

Variables	Male [frequency=179] (%)	Female [frequency=68] (%)
Age (years) of the producers		
20 – 30	31 (17.3)	18 (26.5)
31 – 40	85 (47.5)	39 (57.4)
41 – 50	44 (24.6)	20 (29.4)
51 – above	19 (10.6)	9 (13.2)
Household Size		
1 – 6	29 (16.2)	11 (16.2)
7 – 11	47 (26.3)	18 (26.4)
12 – 16	36 (20.1)	14 (20.6)
17 – 21	60 (33.5)	20 (29.4)
22 and above	7 (3.9)	5 (7.4)
Years of experience in poultry production		
2 – 10	46 (25.7)	18 (26.5)
11 – 20	63 (35.2)	24 (35.3)
21 – 30	48(26.8)	18 (26.5)
31 and above	22 (12.3)	8 (11.7)
Total		

Gender Participation in Poultry Production Activities

Table 3 presents gender participation in poultry production activities. The result shows that female poultry producers participated in all the poultry management activities; however, they participated mostly in feeding (43.6%), sanitation (41.6%), medication (29.4%), and water management (27.9%). On the other hand, their male counterparts similarly participate in all the activities, but most of them

engage in house construction (39.1%), medication (40.8%), sanitation (36.3%), and feeding (30.7%). Meanwhile, the least participating activities were marketing and brooding among male poultry brooders, while debeaking and Marketing are the least of the poultry management activities participated by females in the study area. The result implies that both genders participated in the poultry management activities in the studied location.

Table 3: Gender participation in poultry production activities

Poultry management activities	Male [frequency 179] (%)	Female [frequency 68] (%)
House construction	70 (39.1)	15 (22.1)
Feeding	55 (30.7)	78 (43.6)
Water management	49 (27.4)	19(27.9%)
Medication	73 (40.8)	20(29.4%)
Marketing	20(11.1%)	11(6.1%)
Brooding	24(13.4%)	15(22.1%)
Sanitation	65(36.3%)	33(41.6%)
Debeaking	40(22.3%)	7(11.2%)

Source: field survey, 2019.

Production scale of poultry producers

Table 4 presents the flock size of the poultry producers. The result shows that 27.4% of male and 27.9% of female producers have between 1 and 500 birds, while 27.9% of male and female producers have between 501 and 1000 birds. Table 4 also indicated that 25.1% of males and 25.0% of females have between 1001 and 1500 birds, while 19.6% of males and 19.1% of females have 1500 birds and above. The mean flock size for men is 1023, while that of women is 980. This indicates that there is no gender dichotomy in terms of the production scale of poultry in the study area. This finding contradicts what was opined by Mitchell (2012): that men participate in livestock production more than women due to access to capital.

Table 4: Distribution of gender production scale size

Production scale	Male [n =179] (%)	Female [n = 68] (%)
1 – 500	49 (27.4)	19 (27.9)
501 – 1000	50(27.9)	19(27.9)
1001 – 1500	45(25.1)	17 (25.0)
1500 and above	35(19.6)	13 (19.1)

Source: field survey, 2019.

Types of Poultry Reared

Table 5 reveals that almost and third (29.1%) of male producers and (29.4%) female producers, respectively, rear layers, while both 27.9% of males and 28.0% of females rear cockerel. It also shows that (25.1%) of male poultry producers rear local compared to their female counterparts (25.0%) who also rear local. Table 5 also depicts that 17.9% of male poultry producers and 17.6% of female poultry producers rear broilers. This finding revealed no difference in terms of the type of poultry reared by both genders.

Table 5: Gender distribution according to the types of poultry reared

Types of	Male [n=179]		Female [n= 68]	
	Frequency	Percentage	Frequency	Percentage
Broiler	32	17.9%	12	17.6%
Layers	52	29.1%	20	29.4%
cockerel	50	27.9%	19	28.0%
local	45	25.1%	17	25.0%
total	179	100.0%	68	100.0%

Source: field survey, 2019.

System of Poultry Production

Table 6 indicates the results for the system of poultry production in the study area. Results show that the majority of male (67.6%) and female (72.1%) producers use the intensive system of livestock production, while 32.4% of male and 27.9% of female Poultry Producers use the extensive system in their poultry production. The reasons for the extensive method, as revealed by the farms, were due to fact that the cost of feed and the rearing of local poultry significantly contribute to higher participation in the extensive method of poultry production, while the layer production conducted by the respondent prompts the intensive method of poultry production.

Table 6: Distribution of gender based on the poultry production system

System of Production	Males [n =179]		Females [n = 68]	
	Frequency	Percentages	Frequency	Percentages
Intensive System	121	67.6%	49	72.1%
Extensive	58	32.45	19	27.9%
Total	179	100.0%	68	100.0%

Source: Field survey, 2019.

Constraints Faced by Gender in Poultry Production

The result in Table 8 indicated the problems that hinder women's participation in poultry farming. Table 8 indicates that insufficient funds or inadequate capital is the major constraints that mitigates the loss of poultry production for women producers. The result also indicated that 72% of the female producers are held up by domestic and household chores, which reduces their participation in poultry production. The result also depicts that cultural and religious beliefs are the third constraint that limit women's

participation in poultry production. It is shown in the table above that cultural beliefs say that women are not supposed to participate in any economic activities, but rather that they are the primary caretakers of children. Table 8 also shows that poor management of poultry birds due to house chores and other responsibilities, as well as a high cost of feed, are faced by 52.9% of poultry producers as a contributing constraint to lower participation in poultry production. The result also indicated that inadequate veterinary services faced by the women limit their participation in the enterprise.

Table 8: Constraints faced by gender in poultry production in the study area

Constraints	Frequency (%)	Ranking
Insufficient fund	58 (85.3%)	1 st
Domestic and household work	49 (72.1%)	2 nd
Cultural/ traditional belief	48 (70.6%)	3 rd
Poor management	36 (52.9%)	4 th
High cost of feed	36 (52.9%)	4 th
Inadequate access to veterinary services	28 (41.2%)	6 th

Source: Field survey, 2019.

CONCLUSION AND RECOMMENDATION

Poultry production is dominated by male poultry producers, and the producers mostly practice intensive systems of poultry production in the study area. Both genders actively engage in the feeding, sanitation, and medication of their poultry birds in the study area. However, findings revealed female poultry producers to have inadequate access to credit facilities and veterinary and extension services, thereby limiting farming participation in the study area. Insufficient funds, household chaos, socio-cultural and traditional beliefs, and the high cost of feed are also among the constraints posing a threat to female participation in poultry production in the study area.

The following recommendations were made based on the findings of this study:

- i. There is a general low level of female participation in poultry production in the study area. Therefore, the government should design, formulate, and implement gender- unbiased agricultural policies and programs that would remove gender disparity in land, capacity building, technology, extension, and guarantee equal opportunities to both men and women, particularly in decision-making, access to and control over resources, political position, and other socio-economic opportunities.
- ii. The study also found that more than half of both male and female producers had no

contact with veterinary extension agents and only a few producers received veterinary services. This indicated inadequate extension and veterinary services, which limits promoting gender participation in the study area. Therefore, there is a need for more extension agents in the study area.

- iii. The study also established that insufficient funds, domestic and household chores, and cultural and religious beliefs are the main constraints that limit gender participation, especially for female producers in the study area. Therefore, the government needs to provide funds and create religious awareness through religious leaders to encourage woman to participate in poultry production.

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