

MAJOR CONSTRAINTS FACED BY POULTRY FARMERS DURING CORONAVIRUS (COVID-19) PANDEMIC IN KANO NORTH SENATORIAL DISTRICTS IN 2020

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ABSTRACT

The outbreak of the novel coronavirus (COVID-19) pandemic has been considered a global challenge to sustainability and agricultural production. Due to restrictions on the movement of commodities and people, as well as the cost of poultry products, this study aimed to assess the effect of COVID-19 on poultry farmers in Northern districts of Kano State and to evaluate the constraints encountered by them. A multi-stage and random sampling techniques were used to engage one hundred and twenty (120) respondents for the study. It involved the selection of the Kano North Senatorial zone, followed by the purposive selection of six local governments from the zone. While five wards were randomly selected from each local government and twenty (20) questionnaires were distributed to poultry farmers at random and recovered. Data on socio-economic variables were collected, descriptive statistics were applied using Microsoft Excel (version 2019), and farmers' perception was measured using five-points Likert scale. The results revealed that majority of the respondents were youths, with an average age of 30 years, who were highly enthusiastic about poultry farming. About 51.3% were married. Poultry Farmers (85%) in the study area had been affected by COVID-19. The main challenges faced include high poultry feed costs with mean score of (4.73), transportation restrictions (4.46), logistic disruptions (4.34), lack of access to poultry feed (4.33), labor shortages (4.05) and an increase in poultry feed ingredients (4.01). The most serious constraint was the high cost of feed, while inadequate poultry farming (3.43) appeared not a constraint. It is concluded that COVID-19 pandemic has touched the livelihood of the poultry farmers by causing many problems, losses and making their business to downfall and rendering many of them to become unemployed.

Key words: Coronavirus; Pandemic; Poultry farmers; Restriction; Feed cost.

INTRODUCTION

The Nigerian poultry industry in particular has been rapidly expanding in recent years as the Central Bank of Nigeria in 2019, reported that the poultry industry is the most commercialized of all the Nigeria 's agricultural subsectors with a current worth of about N1.6 trillion (CBN, 2019). The world health organization (WHO) declared COVID-19 as a pandemic on March 11, 2020, having a serious and critical impact on people's lives, families, businesses and communities at large. The COVID-19 pandemic introduced many challenges in all sectors of the economy but the focus of this research will be on the Agricultural livestock sector and specifically the poultry industry. Poultry sectors are relatively normal before the outbreak of the COVID-19 pandemic, but after its commencement more especially during the lockdown, it devastated and changed the direction of everything in the sector by making it difficult for the farmers to sell and import their existing stock of eggs and chickens, which directly affected their inputs and caused many losses. In addition, the prices of grains such as Maize, Sorghum, Millet and Soya beans have been increased which results in the rising of the current prices of our poultry feeds (Abdulazeez, 2020). This research is important to be carried out because, the poultry sector is one of the most important and common sectors in agriculture in which many people depend upon. Therefore, the objectives were to assess the effects of the pandemic on poultry farmers in some parts of Kano North Senatorial Districts and to evaluate the constraints faced by poultry farmers during the outbreak of Covid-19 in the study area.

MATERIALS AND METHODS

Study Area

This study was carried out at six local governments of Kano North Senatorial Districts; these include Bagwai, Bichi, Dambatta, Dawakin-tofa, Gabasawa and Makoda local government. Kano state is located in Northwestern Nigeria and occupies an area of approximately 20,131km². It is located on latitude 11°55'N and longitude 8°36'E with an average altitude of 484m above sea level (KNARDA, 2011). Kano state borders with Katsina state to the North-west and Jigawa to the Northeast. Farming is among the main occupation of the people and it is characterized predominantly by mixed cropping. Kano state features savanna vegetation with a semi-arid climate. It witnesses average precipitation of about 690mm per year, the annual temperature ranges between 19.06°C to 33.19°C. The cultivatable food crops include sorghum, millet, rice, maize and cowpea for local consumption, while groundnut and cotton are produced for industrial and export purposes. The practice in Poultry production is widely (many on a small to medium scale) such as: chicken, ducks, geese, guinea fowls, peacock pigeon and many more (Akure et al., 2021).

Data collection and sampling technique

Primary data were used to achieve the various objectives of the study. A multi-stage and random sampling techniques were used to engage one hundred and twenty (120) respondents for the study. This involved the selection of the Kano North Senatorial zone, followed by the purposive selection of six local governments from that senatorial zone, namely: Bagwai, Bichi, Dambatta, Dawakin-tofa, Gabasawa, and Makoda. While five wards were randomly selected from each local government and twenty (20) questionnaires were distributed at random to target participants at their respective villages. Poultry farmers were purposively selected based on the farming/poultry activities. Data on socioeconomic variables were collected, descriptive statistics were applied using Microsoft Excel (version 2019) and farmers' perception was measured using five-points Likert scale based on Akure et al (2021) with some modifications.

The Likert scale and Perception measurement

The constraints come across by the poultry farmers during the COVID-19 pandemic were measured by a given set of perception questions to respondents. Their response was recorded using the five-point Likert scale of SA–Strongly agree (5points), A–Agree (4points), N–Neutral (3points), D–Disagree (2 points), SD–Strongly disagree (1 point). In order to rate the perception of respondent's constraints, the total row score of the respondents using five-points Likert scale was represented as:

$$5(N)+4(N)+3(N)+2(N)+1(N) / S$$

Where N is the number of respondents in respect to their identified level of constraints, S is total sample size of sampled households. The decision rule: the mean score above 4.0 (>4.0) was consider positive.

RESULT AND DISCUSSION

The total number of one hundred and twenty (120) structured questionnaires were distributed and recovered in six local government of north senatorial districts as presented in table 1.

Table 1. Questionnaires distribution and recovered

S/N	Local Governments	Questionnaires Distributed	Questionnaires Recovered
1	Bagwai	20	20
2	Bichi	20	20
3	Dambatta	20	20
4	Dawakintofa	20	20
5	Gabasawa	20	20
6	Makoda	20	20
	Total	120	120

Source: Field survey, 2020

The socio-economic variables considered in this study were presented in Table 2. The results revealed that majority of respondents were youth aged between 31–45 years (66.7%). Most of the respondents 70.8% were males while 29.2% were females, this shows that more male participated in poultry farming whom acquired secondary education (62.5%). The marital status of the respondents showed that 68.3% of

the respondents were married; 16.7% were single and 15.0% were widows. About 85.0% of the respondents were on poultry farming full time. Others include 8.3% artesian/traders, 4.2% civil servants and 2.5% were middle merchants. Thus, the present research is similar with the research conducted by Akure et al., 2021 at Fagge local government in which 32.5% were male and 67% were females, that is more females were engaged in poultry farming than males, in contrast with the present research indicated that more males were engaged in poultry farming than females. Again, most of the respondents were educated with tertiary education in their work, while in the present research it records majority with secondary education. Most of them were married with 74.0% and they are poultry farmers. In another research conducted by Bamidele and Amole, 2021 at Kebbi, Nasarawa, Kwara, Imo and Rivers states of Nigeria, revealed that, 66% of the respondents were female and 34% were male. There were more female respondents than male in all the states except Imo state. The majority of the respondents 70.1% were aged between 40 and 69 years old.

Table 2. Socio-economic variables of the respondents

Categories	Variable	Frequency	Percentage (%)
Sex	Male	85	70.8
	Female	35	29.2
Age (years)	15 – 30	20	16.7
	31 – 45	80	66.7
	46 – 60	15	12.5
	Above 61	5	4.1
Marital status	Single	20	16.7
	Married	82	68.3
	Widow	18	15
Level of Education	Primary	20	16.7
	Secondary	75	62.5
	Tertiary	10	8.3
	Quranic	15	12.5
Occupation	Artisan/Trader	10	8.3
	Poultry Farmer	102	85
	Civil Servant	5	4.2
	Middle Marchant	3	2.5

Source: Field survey, 2020

The major constraints faced by poultry farmers during Covid-19 in the study area were presented in table 3 which illustrated the ranking of the constraints during the pandemic. The most serious constraints to poultry production in the study area were ranked in the order of the high cost of poultry feed with a mean score of (4.73); Movement restriction (4.46); Logistic interruption (4.34); Lack of access to poultry feed (4.33); Labor shortage (4.05) and increase in poultry feed ingredients (4.01). The only variable that was not a constraint was inadequate poultry farming with a mean score of (3.43). This finding is similar with the work of Akure, et al. 2021 similarity on the expensive of feed, logistic interruption and movement restriction. However, our present finding differs only on the response on death of staff which was not constraint with a mean score of 3.20. In addition, these research findings are similar with the work of Sattar et al. (2021) conducted at Bangladesh and their result revealed that, movement restriction, shortage of laborers and difficulties in accessing feed as a result of Covid-19 pandemic had consequences on farmers. In the report of (CNN, 2020), most of the workers lost adequate health care, and because of the low wages they have limited reserves to enable them to leave steady employment. These were among the reasons that causes shortage of laborers due to COVID-19 pandemic (Hafez et al., 2021).

Table 3 Ranking of major constraints faced by poultry farmers during COVID-19

Variables	SA	A	N	D	SD	Total score	Mean score	Ranking	Remarks
High cost of poultry feed	100	13	3	3	1	568	4.73	1st	Constraint
Movement restriction	80	20	15	5	0	535	4.46	2nd	Constraint
Logistic interruption	78	24	2	13	3	521	4.34	3rd	Constraint
Lack of access to poultry feed	72	30	7	7	4	519	4.33	4th	Constraint
Labor shortage	73	18	4	12	13	486	4.05	5th	Constraint
Increase in poultry feed ingredient	61	20	25	7	7	481	4.01	6th	Constraint
In adequate poultry farming	27	38	25	20	10	412	3.43	7th	Not constraint

Source: Field survey, 2020

SA= Strongly agree, A= Agree, N= Neutral, D= Disagree, SD= Strongly disagree

CONCLUSION

From the result of this study, COVID–19 has touched the livelihood of the poultry farmers by causing many problems and losses during its outbreak making their business to downfall and rendering many of them to became jobless. It is recommended that, the government, Farmer's cooperatives and the various stakeholders should be involved in helping farmers and give expanded income to affected farms and should continue to be coordinated to ensure that supply value chains are enhanced.

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