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## Poultry Farmers Adaptation Strategies to Consequences of COVID-19 Pandemic in Oyo State, Nigeria

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#### Abstract

This study examined the adaptation strategies to the consequence of COVID-19 pandemic on Poultry Farmers in Oyo State. Multistage sampling procedure was employed to select five Key Informants and five Focus Group Discussion from the respondents respectively. Data on effects of lockdown, coping strategies and role of PAN were collected and analysed using constant comparison analysis. The effects of pandemic in severity order include, poor marketing due to collapse of the standard delivery system (85%); glut of the poultry products (80%), laying stock reduction (25%) and folding up of the enterprise (15%) burying of unsold bad eggs (5%). Coping strategies employed were sourcing financial support from cooperative societies (85%), sold produce on credit (75%) and sourcing ICT-based marketing information (70%). The role played by PAN include taking exemption letter from police (Police wireless message) to move poultry products for sale; mediating unfavourable government taxation and relevant information dissemination via WhatsApp group platform. There is the need to develop an emergency's-smart resilience programme for the poultry industry. Measures adopted to manage emergencies such as COVID-19 should not impede the flow of agricultural products and inputs from the onset.

**Key words**: Emergency-smart programme, poultry association of Nigeria, ICT-based marketing information.

### Introduction

COVID-19 Pandemic threatens the survival and growth of industries in the developing nations especially the poultry industry in Nigeria. It has grown to become the most advanced sub-sector of the livestock industry especially in the developing nations (Akpa, 2021). The Nigerian poultry enterprise consists of about 180 millions of fowls which has made the country to be the second largest chicken population in Africa after South Africa. In Nigeria, the importance of the industry cannot be over-emphasised as it provides food (protein source) for man in form of meat and egg; for the industries, it has been one of the sustainable sources of employment as the sub-sector has been able to employ 14 million Nigerian in Agriculture (Netherlands Enterprise Agency, 2020).

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Generally, the industry contributes 25 percent of the Agricultural Gross Domestic Product (AGDP) and the current worth is over **N** 10 trillion (Ibrahim, 2020).

Accordingly, the government of Nigeria adopted a lockdown emergency, people interstate movement restriction, control strategy for several weeks across various states of the country as well as social distancing policies. Having full understanding of the localized effect of this policy relevance in the poultry farming in Nigeria since a minimal cash flow buffer programming could make the poultry industry more resilient by cushioning farmers shock through helping them to meet a sudden increase in operating capital requirements alongside falling revenues at the pandemic period especially in Oyo State (Netherlands Enterprise Agency, 2020).

A recent study puts the estimate at USD 16 billion in aggregate output loss (Andam et al., 2020). The effect of COVID 19 as experienced and the coping strategies poultry farm families are adopting to be resilient in the phase of the pandemic needed to be investigated. There absence of the knowledge of the role played by institutions such as cooperative societies and networks in enhancing or building the coping ability of farmers to reduce the adverse effects of the pandemic and the associated lockdown situations.

The objectives of this study were to investigate the effects of COVID-19 pandemic lockdown on the poultry farmers; to identify the coping strategies employed by the poultry farmers during the pandemic and to identify the roles of institution for the poultry farmers during the COVID 19 pandemic.

#### Methodology

Oyo State is located within South Western geo-political region of Nigeria. It lies within longitude and latitude of 8.1574° N, 3.6147° E with land area of above 28000km<sup>2</sup>. The study population included financial members of poultry farmers registered under the Poultry Association of Nigeria (PAN) in Oyo State with four zones and 10 chapters and all have their secretariat. CEPAN (Commercial Egg producers Association of Nigeria) chapter gave birth to the umbrella body in Oyo Zone (that is the Poultry Association of Nigeria). A multistage sampling procedure was used to draw sample for this study.

- Stage 1:Oyo zone was purposively selected from the four PAN zones in Oyo State because of high concentration of poultry farmers. Oyo zone of PAN covers poultry farmers from 5 Local Government Areas of the state.
- Stage 2: PAN Oyo Zone is further subdivided into ten chapters namely; Commercial Egg producers association of Nigeria (CEPAN), Table eggs producers Association of Nigeria (TEPAN), Awe-Owode, Okediji, Jobele, NPPF, Offa meta, Baba Yaji, Iya Ibeji and Odo Etu chapters. Each chapter is independent with its own leadership. Five chapters (50%) were randomly selected at this

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stage. The selected chapters were CEPAN, Awe-Owode, TEPAN, Jobele and Iya Ibeji.

Stage 3: Each chapter is made up of between 25 and 30 registered financial members. Hence, the chairman of the selected chapters were purposively selected for the five in-depth interview (IDI) conducted with five respondents while eight non- executive members including male and female were randomly selected from each of the chapters making a total of 40 participants for the five Focus group discussion (FGD) conducted giving 45 respondents for this study

Qualitative method of data collection through IDI and FGD using corresponding guides in line with study objectives was used to extract primary data for the study. Qualitative data were analysed using constant comparison analysis in order to group the collected information to relevant items to answer adequately the research questions

### **Results and Discussion**

### COVID-19 Pandemic and the Channels of Poultry Farmers' Vulnerability.

Unlike most of the economic sectors, the impact of COVID-19 pandemic on the poultry sector in Nigeria was rather more pronounced. The CEPAN chapter key informants assert that "before COVID 19, there were challenges in the industry notably glut but with the lockdown, the poultry industry suffered devastating losses. A number of our members died and a number had stroke".

There are numerous channels by which poultry farmers were vulnerable to the Pandemic include:

**Output Price Shock Due to Output Shortages/Surplus:** As the changes in output price were observed though with different pattern and hence was not homogenous across the value chain. For example, low supplies in faraway markets or urban market resulted in high prices while farm gate prices dropped given surpluses on the farm because of the market shutdowns, and reduced movements, especially interstate, by traders. Farmers reported serious difficulties selling and transporting their products, with transport costs rising. They also found it difficult to sell their existing stock of eggs and market-ready broilers. "We produced no body to pick the eggs hence farmers had to source other markets to sell. Selling of eggs at low price from NGN1, 200 to NGN600/crate of egg" (IDI002, Awe-Owode Chapter). This was corroborated, by the key informant at CEPAN who asserts that "During the pandemic crisis, price to sell the poultry product was not an issue to the poultry farmer, but how to sell our eggs to bring in something even to feed the birds which makes customers to dictate the price knowing fully that we have no choice during crisis such as COVID-19 and hence rendered us vulnerable"

**Reduction in the profit margin:** Output price being low affected the profit margin of the average poultry farmers to about 80%; though after the initial first wave COVID-19

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experience and its consequent losses, the tides changed; key informant (IDI001, CEPAN) stressed that they experienced a drop in supply of eggs and being unable to meet the demand, for the first time were selling above N1, 000 yet the profit margin was low due to increase in the price of the input used.

**Glut of eggs and chicks:** Due to the lockdown policy that brings about the restriction of movement many poultry marketers and off-takers, were unable to visit farms in rural area as the brooding stock continued to laid daily leading to glut of eggs at the farms for about 80% of the poultry farmers. The few that were able to pick the eggs from the farmers were unable to get to urban markets as they experienced drop in patronage depending on the level of movement restriction enforced at those locations. Hatcheries also suffered chicks marketing issues and even with drop in price were still unable to sell due to movement restrictions.

**Burying of unsold bad/spoilt eggs**.: This was the experience of commercial farmers that produced up to 60 trays and above per day. The unsold bad eggs were buried by about 5% of the egg producers in the region due to the perishability of the egg, as the holding period of the egg is just two weeks. This becomes a loss of revenue to the affected farmers, but as a farm health hygiene measure bad eggs were buried rather to be left to decay and create a stench in the farms.

**High cost and scarcity of Poultry inputs:** When economic activities were shutdown at lockdown, the flow of feeds, vaccines, day old chicks, extension services, and credit flow were generally unavailable. Restrictions on movements makes it very difficult for the farmers to collect their day old chicks while hatcheries were unable to deliver dayold-chicks to farmers. According to one of the key informants, *"the buying of chicks was expensive because hatcheries could not sell. At the same time prices of inputs fell because of the restriction on movement. Veterinary medications price went up"* (IDI003, TEPAN).

In the poultry industry feeding of birds is a timely activity and when not done appropriately can result in secondary effects or death of the flock and a short fall in profit. Furthermore, the grain supply situation also worsened as the prices of maize went up from N95, 000 per tonne to N165, 000 per tonne in June 2020. The lockdown resulted in astronomical rise in the price of poultry feed caused by the rise in the price of maize and soya beans which are major ingredients in poultry feed (Ibrahim, 2020). This increase is a result of the ban on importation of some agricultural produce by the Nigerian government in a bid to boost local production. In July 2020, the Central Bank of Nigeria announced that all maize farmers should discontinue the processing of Form M, a mandatory document used in the importation of materials, for the importation of maize to boost local production of the crop (Andam *et al*, 2020). Hence, the high cost

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and scarcity of poultry feed that followed led the government to relax its ban in another announcement that 262,000 tons of maize would be allowed to be imported. However, this was barely enough to address the crisis. Prices of food items have been skyrocketing since the government closed the borders. Inflation rate is at 14.23%, the highest since March 2018 and Nigeria has been plunged into another recession barely three years after recovering from one (lonescu-Somers and Tarnawa, 2020). The high price of feeds is attributed to the high price of maize a key input in the production of poultry feeds. High price of maize could as well be attributed to small area cultivation of maize due to labour shortage and violent conflict, banditry and terrorism among others. Other reasons include insecurity in the country, climate change and activities of traders buying and hoarding of the grains.

**Insufficient credit availability from Financial Institutions:** The pandemic has led to the closure of credit and cash flow from Banks and Credit unions. This was as a result of the reduced working hours in the banks which has drastically reduced the number of customers attended to per day, and selective branch closures by banks negatively impacted credit accessibility. Exceptionally long queues also limited credit access during the period as few farmers were able to access credit unlike what operates before the pandemic period. This was corroborated by assertion of one of the respondent who was able to borrow a loan of NGN1,000,000 to service 1,000 chicks for a period of nine weeks, the amount borrowed was not able to raise the chicks for 14 weeks as of the time past, due to the rise in the price of feeds and drugs. Hence, extra money was sourced elsewhere with a lot of stress and this eventually increased the cost of production for about 40%. (IDI005, Iya Ibeji Chapter)

**Shut down and downscaling of farm enterprises:** According to the Jobele chapter Key Informant, "the price of feedstuff that went up as we have never experienced made many farmers sold their cages and some sold their entire farm (up to 15% of poultry farmers). Consequently, many feed millers had to either shut down their operations or are operating below capacity". A lot of poultry farmers (25%) in the study area relieved and retrenched their workers while some farm were down scaled by selling part of the poultry birds to feed the retained birds as some cages and pens were sold off. Key informants from CEPAN and Awe-Owode chapters explained how many of the poultry farmers had to sell off their businesses which includes birds, cages and even the land on which their farms were sited because the enterprise was no longer profitable. This further harms the sub-sector by reducing the already inadequate population of poultry producers; hence, further aggravating the already existing problem of inability to meet up with the Nigerian poultry product demand.

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**High operation cost arising from roadblocks, travel restrictions and curfew:** Farmers' effort to produce poultry products was frustrated by the inability to distribute the products to the potential buyers due to the limited transportation activities. According to one of the key informants at Awe-Owode chapters who asserts that despite the pass gotten by poultry farmers and that they were exempted from restricted movement; poultry farmers experienced various extortions as they try to move their eggs across states. As a result of roadblocks, curfew and movement restrictions poultry products like eggs were affected the most. The rise in transportation costs had also put upward pressures on input prices as well as the insecurity and fear of harassment on transport routes drastically reduced transportation activities despite the pass was later given to poultry farmers and marketers of Agricultural produce. Hence, transportation was limited to essential trips for food or medicines or to seek medical treatment. Though at the onset of the covid-19 lockdown and restrictions poultry products and inputs were not recognised as essential.

### **Coping Strategies of Poultry Farmers**

These include;

**Marketing and economic related strategies:** The mode of sales of poultry products changed from the normal way of customer coming to their farms for the purchase of the product but now poultry farmers employed the strategies of looking out for the customers. Strategies employed were;

a. direct sales of eggs to consumer unlike when it was sold to the middlemen and hence, looking out for petty traders across streets

b. credit sales were made by about 75% of the poultry farmers to the petty trader with an agreement to be paid after sales of their product unlike before that the sales were for those that have backed up their booking with payment

c. moving around confectionary stores with a bid to sell their product especially the egg with a standard holding period

d. Selling to fish farmers at unreasonable price for the feeding of fish. The fish farmers do boiled such egg and mixed it with Gaari paste (Eba) for feeding fish

e. Downscaling of flock size, retrenchment of workers and payment of half salary for the retained workers were employed as the adaptation strategies by many poultry workers for their enterprise to be sustained.

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**Group membership related strategies**: The social group that the poultry farmers' belonged before emergencies helped the poultry farmers out during COVID-19 period. The assistance rendered that help them to cope include

**a.** Taking of loan from the Poultry Association (Cooperative group) belonged in order to cope with the feeding of the laying stock." *I belongs to a cooperative association that is able to give her members a huge loan of N50,000,000 during the pandemic; and about 85% of the financial members enjoyed this oppurtunity" (IDI001, CEPAN)* 

**b.** Sourcing relevant information needed through the use of online platform especially WhatsApp group. Those that were not in the group before COVID-19 joined because of timely and relevant marketing information that could easily be accessed through the platform. According to IDI005, Iya Ibeji Chapter and IDI001, CEPAN chapter a lot of non-active online group members were active on the platform during the lockdown, asking questions and solutions were given to the problems of about 70% of the members of the group via ICTs use.

**c.** The five IDI's conducted confirmed that there was an increased phones calls from members of their chapters and questions were answered accordingly while questions not answered were channeled to others chapters through their leader.

### The Roles of Poultry Association of Nigeria, Oyo Branch

The role played during the pandemic for their members include:

### Liaison with government to allow movement of poultry products during

**pandemic:** The association facilitated the process to acquire or obtain a written document from relevant authorities to allow movement of poultry products as an essential commodity during the lockdown. Government Institutions who played a key role to open the roads to poultry goods movement include Federal Ministry of Agriculture, Federal ministry of trade and commerce and Inspector of police. The exemption letter allowed members to pass and transport their poultry products conveniently during the lockdown as this solved their teething problem. A strong communication existed between the industry and government to keep policymakers informed of the industry concerns and requirements.

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Advocating and mediating to resolve conflicts on excessive taxation by local government: During the pandemic the local government authorities also raised new tax regimes for the poultry farmers within her locality. *"The local government area council came with a policy that each poultry farmers should pay up to N100, 000 as poultry farm tax. The LGA employed staff to be going round poultry farms to collect the tax. However, there was an understanding later with the LGA and we agreed to pay N2, 000 per farmer instead of the former N100, 000 stipulated fee" (IDI001, CEPAN). The association acted as a voice to bargain with the authorities on the insensitivity of such decisions at such a time of emergency and dire straits in the poultry industry. A concession was reached reducing the taxes and agreement on an acceptable mode of collection.* 

**Relying on existing social media platform for timely information dissemination:** Social media group communication platform activities increased during the period. Key informant of CEPAN reported a marked increase members' participation on the WhatsApp group chat. Also platforms became where members could gather support to solve emergency problem and answer major questions as it occurred during the pandemic. It also works to ensure that relevant governments' and the association's regulations for the industry are adhered to by all.

**Giving out of loans:** Loans were given to the regular, law abiding and credit worthy members who qualify for loan as ratified by the executives of the cooperative societies.

#### Liaising with other farmers and carried out collaborative effort

To resolve the marketing challenges and the price dictating powers of the marketers or the middlemen; some chapters in the zone floated a marketing company to act as selling hub for poultry products which was frustrated by the middlemen as they increased the bargaining power of some farmer from the agreed price and hence do not bring their product to the hub for sale any longer. Also exploring innovative options of adding value to their produce through egg powdering in order to solve the problem of reoccurring glut.

#### **Conclusions and Recommendations**

The effects of COVID-19 pandemic on poultry farmers in severity order include, poor marketing; glut of the poultry products, burying of unsold eggs, laying stock reduction and folding up of the enterprise Coping strategies employed were sourcing financial support from cooperative societies, sold produce on credit and sourcing ICT-based marketing information. The role played by PAN include taking exemption letter to move poultry products for sale; mediating unfavourable government taxation and relevant information dissemination via WhatsApp group platform. Emergency smart-

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resilience agricultural programme should be made available for the poultry industry while farmers' institution should be supported for greater impact for their members. Government should implement agricultural related policies, taxation and programs that will assist poultry farmers in case of emergencies like COVID-19. Agricultural insurance institution should invest on more enlightened campaign to increase knowledge and patronage among farmers.

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