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THE EFFECT OF COVID-19 LOCKDOWN ON PRODUCTION AND MARKETING OF DAY OLD CHICKS IN IBADAN SOUTH WEST LOCAL GOVERNMENT AREA OF OYO STATE, NIGERIA

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ABSTRACT

The study was undertaken to examine the effect of COVID 19 Lockdown among day Old Chick Producers and Marketers in Ibadan South West Local Government Area (Poultry hub) of Oyo State, through the administration of questionnaire and interpersonal interview to retrieve relevant research information. The socio-economic appraiser of the stakeholders revealed that participants are predominantly male(65%), married(61.0%), most are educated (88.0%) and were Christians (40.0%) and Muslims (60.0%) based on their religious faith. Effect of Lockdown on production (100%), reduction in price, cost of ingredients with consequential reduction in level of employment. The result also reveals that the cost of ingredients, was seriously affected before (80.0%), during (65.0%) and after (98.0%) COVID-19 pandemic respectively. The result shows that the mean of the total variable cost is ₦28325.98, the mean of the gross margin is also positive (₦322307.44), the net income is (₦272380.21) while the mean of the total fixed cost is (₦400428.00). This implies that the level of profitability of poultry production in the study area is profitable. Based on the findings, it has been identified that some factors are hindering the development of poultry farms as regards large production, which will cater for the entire population of the people in the study area and the nation entirely. It therefore recommends that government should improve on the loan credit guarantee schemes available for the public and ensure the availability of well-tested, highly productive machines and reduce cost of feed.

KEY WORDS

Impact, lockdown, marketing, day old chick, COVID 19.

In Nigeria Poultry industry has contributed significantly to enhanced protein intake, job creation, positively affected the livestock drugs production and marketing (Guèye 2000) Poultry contributes significantly to the human economy by providing food while also creating wealth by providing jobs for our growing population (Alders et al, 2019). The industry also serves as a take-up industry for other industries such as animal health industries (Omiti, 2015) It is focused for trial, due to the short generation interval of all classes of poultry, such as broilers, cockerels, breeders, and layers. This has created huge, wealth for the

stakeholders in the industry. It is a common practice in the study area, to produce day old chicks, twice a week (Monday and Thursday). It is worth being studied, due to the status of the local government as the supply hub for day old chicks in Nigeria. A preliminary survey, through interview of the practitioners revealed that the supply coverage of the market in Southern and Northern Nigeria.

The research team thought it fit to evaluate the impact of lockdown on the industry on production, marketing, multiplier effect, incurred, benefits derived and lessons learnt during the period. The experience recorded was negative and positive. Manufacturers reported during the period the period an upsurge in the production of nose cover, disinfectant producers also had improved revenue generation (Clements 2020). In most production sectors, depressed sales were recorded, vehicles movement was restricted, except those on essential duties (Dan-Nwafor et al 2020). Essential duties during this period were classified and periodically announced by the tax force headed by the secretary to the government of Nigeria. At the initial stage, those allowed to move without restriction were medical practitioners and vehicles attached to such duties, Poultry producers at this period were not on the list. Due to the importance of the poultry sector, the Federal Government included the sectors; this was relieved to the practitioners and the industry. There is therefore a need to prevent any shock created by the disease in order to sustain the production and marketing of day old chicks. The experience reported varies from one country to another. However, failure of day old chicks supply in Nigeria, will affect the farmers, hatcheries, marketing of chicks to the farmers (Kehinde et al, 2009, 2019) reported a significant reduction in income for hatcheries, marketers and feed sellers and consequential effect on transporters, veterinary drug marketers and other related operators. This was corroborated by (Evans, 2020; Middendorf et al, 2021) that significant reduction in sales resulted in glut and increased overheads. It is important to consider the effect of the global threats in Nigeria, in order to ascertain the specific effect on the sector and learn from outcomes on the right steps to be taken to ensure a more effective and pragmatic approach to managing such occurrences. Nonetheless, poultry is not affected by COVID-19 (Berkhout, 2020) and does not transmit it to humans, and the animal feed industry has been influenced by the worldwide closure of slaughterhouses, restaurants, and fast-food chains to avoid contamination among workers and consumers. The closure of processing plants could eventually result in the extinction of millions of animals (chickens, pigs, and cattle) (McDougal 2020). The effect of the COVID-19 pandemic and possibly hunger in most developing countries around the world. The COVID-19 pandemic has caused problems for both citizens and the rest of the world. As a result of the COVID-19 pandemic, it became necessary to investigate the impact of the COVID-19 pandemic on day old chick production and marketing. Because of the unexpectedly high cost of feed and field materials, the poultry farmer will make little or no profit during the pandemic.

Ibadan South West is a local government area in Oyo state, Nigeria. Its headquarters is at Oluyole estate in Ibadan. Notable areas include Ring Road, Oke Ado, Oke Bola, Gege, Born photo, and Isale Osi. It has an Area of 40km and a population of 282,585 at the 2006 census. Ibadan South West local government shares border with Ibadan north and Ibadan south east local government. The estimated population of Ibadan south local government area is hosting member of diver's tribe Chief of which is the Yoruba ethnic group. The Yoruba language in the area with the religious of Christianity and Muslim are commonly practice in the L.GA include banded farm, vital foods Nigeria limited, and the bucket cultural center.

METHODS OF RESEARCH

The population of the study is day old chicks' farmer in Ibadan south west local Government area of Oyo state. A preliminary head count was carried out in the area which comprised of three major hatching which are ZARTECH, AGRITED and FORSIGHT The population was randomly represented by One hundred (100) registered day old chick marketers adopted for this trial for an objective evaluation of situation report. The data was

analyzed by descriptive statistic such as frequency, distribution, and Budgetary Analysis was used to analyze the cost and return of day-old chick in the study Area (Okute, 2014).

Gross margin:

$$GM = GFI - TVC$$

Where: GM = Gross margin, GFI= Gross farm income, TVC= Total variable cost.

This was analyzed by using linear regression:

$$Y = X^1 + X^2 + X^3 + X^4 + X^5 + X^n$$

Where: X^1 = Type of birds, X^2 =Educational level, X^3 = Sex, X^4 = Labour size, X^5 = Labour, X^6 = Fixed cost, X^7 = Cost fed, X^2 = Cost mean.

RESULTS AND DISCUSSION

Age profiling of the respondents revealed in table 1 that day old chick marketing is undertaken by adults, with ages between 20 to 50 years and above, however most of the practitioners (55.0%), were within 31-50 years. It is also dominated by male (65.0%) and most respondents were married (61.0%). Most of the respondents (88.0%) had formal education, which ranged between primary and tertiary educational attainment. Their profiling based on religion shows that they were Muslim (60.0%) and Christian (40%). The outcome also shows that household size ranged from 1 to 9, while most had (4-6) members.

Table 1 – Socio-Economic Characteristic of the respondents, n=100

Variable	Frequency	Percent
Age grouped		
20- 30 years	19	19.0
31-40 years	28	28.0
41-50 years	27	27.0
Above50years	26	2.0
Sex		
Male	65	65.0
Female	35	35.0
Marital status		
Single	34	34.0
Married	61	61.0
Divorced/separated	5	5.0
Educational level		
No formal education	12	12.0
Primary education	42	42.0
Secondary education	18	18.0
Tertiary education	28	28.0
Religion		
Islam	60	60.0
Christian	40	40.0
Household size		
1-3	24	24.0
4-6	73	73.0
7-9	3	3.0
Total	100	100

Source: field survey, 2021

The personal data analysis of the respondents aligned with the findings (Adelore et al, 2006) that poultry production is undertaken by adults and that most participants are educated, due to the requirements for precision of operations, such as vaccination, feeding regime and the need for careful observation (Sofoluwe et al, 2011), also corroborated that there is need for education to improve operations and skill of doing business especially in poultry. The operation family size and marital status assessment revealed that most are married, this view was supported by (Babatunde et al, 2019) that family members are explored for labour in agricultural ventures; since most operations are subsistence.

Table 2 shows the results of the analysis of the impact of COVID-19 on the day-old chick market showed that the price of day-old chick was seriously affected before (75.0%), during (60.0%) and after (96.0%) respectively. On the cost of ingredients, results showed

that cost of ingredients was seriously affected before (80.0%), during (65.0%) and after (98.0%) COVID-19 pandemic respectively.

The results of the analysis of the impact of COVID-19 on the day-old chick showed that majority (95.0%) of the respondent's production were affected by COVID-19 pandemic. None of the respondent (100.0%) employed during the pandemic, about 97.0% did not have other means of survival aside the poultry during the pandemic period. About 99.0% of the respondents experienced cost of materials before/during/after COVID-19 pandemic in the study area.

Table 2 – Impact of COVID 19 Lockdown on Day old chick Market

Impact of COVID-19 pandemic on day old chick	Frequency	Percentage
Price of day-old Chick Before COVID-19		
High	75	75.0
Low	25	25.0
Price of day-old Chick During COVID-19		
High	60	60.0
Low	40	40.0
Cost of ingredients before COVID-19		
High	80	80.0
Low	20	20.0
Cost of Ingredients during COVID-19		
High	65	65.0
Low	35	35.0
Does Pandemic Affect Production		
High	95	95.0
Low	5	5.0
Did you Employed During COVID-19		
High	0	0.0
Low	100	40.0
Total	100	100.0

Source: field survey, 2021.

Table 3 – Budgetary Analysis of Poultry Farming Enterprise

Inputs	Minimum	Maximum	Mean
Cost of birds	160.00	220.00	196.6286
Cost of feed	1,210.00	1,500.00	1,413.9286
Transportation	2,000.00	4,500.00	2,926.0000
Cost of labour	4,500.00	7,200.00	5,937.1429
Water cost	2,080.00	2,500.00	2,494.0000
Medicine	2,000.00	42,000.00	4,752.1429
Vaccination	3,400.00	35,100.00	7,155.0000
Veterinary service	1,500.00	3,500.00	3,451.1429
Total variable cost	1,9973.00	70,280.00	28,325.9857
Cost of cages	1,5000.00	37,3500.00	184,321.4286
Feeder	3,850.00	34,150.00	9,268.7143
Drinker	3,850.00	39,000.00	9,307.0000
Water tank	1,100.00	24,000.00	2,096.1429
Lantern	130.00	500.00	494.7143
Cost of poultry pen(s)	1,9500.00	280,000.00	194,940.0000
Total fixed cost	98,600.00	663,650.00	400,428.0000
Total cost	13,0690.00	693,085.00	428,753.9857
Total revenue	51,200.00	1,050,000.00	350,633.4286
Gross margin	19,555.00	1,017,910.00	322,307.4429
Net income	50,640.00	919,310.00	272,380.2143
Total fixed cost	98,600.00	663,650.00	400,428.0000
Total cost	130,690.00	693,085.00	428,753.9857
Total revenue	51,200.00	1,050,000.00	350,633.4286
Gross margin	19,555.00	1,017,910.00	322,307.4429
Net income	50,640.00	919,310.00	272,380.2143

Source: Field Survey, 2021.

The mean of the total variable cost is (N28325.98), the mean of the gross margin is also positive (N322307.44), total cost is (N428753.98), total revenue is (N350633.4286), the net income is also positively signed (N272380.21) while the mean of the total fixed cost is (N400428.00). This implies that the level of profitability of poultry production in the study area is profitable. The coefficient of educational level of the poultry farmers was statically significant and positive in determining the profit of the farmers in the study area. This implies that there is a positive relationship between educational levels of the farmers and their profit in the survey area. This implies that increase in education of the farmers will lead to increase in the profit of poultry farmers in the survey area.

Table 4 – Linear Regression Analysis of Determinants Factor Affecting the Profitability Levels of the Poultry Enterprise Farmers

Variables	Co-efficient	t-value
(Constant)		0.229
Type of birds	0.010	0.800
Level of education	0.000**	2.029
Sex	0.006	0.453
Day old size	-0.014	-0.919
Labour	0.008***	2.535
Fixed cost	0.001	0.106
Cost of feed	-0.019	-1.238
Cost of vaccination	0.007	0.543
F-value		834.609
R Square		0.994
Adjusted R Square		0.992

Source: Field survey 2021; 1% Significance level= ***, 5% Significance level= ** and 10% Significance level= *.

Table 5 – Constraints Faced by Day-Old Chick Farmers

Constraints	Major Freq.	%	Minor Freq.	%
Infrastructural facilities	67	67.0	33	33.0
Insufficient money/stipend	93	93.0	3	3.0
Labour	45	45.0	55	55.0
Government policy	60	60.0	40	40.0
Taxation	25	25.0	75	75.0
Price instability	80	80.0	20	20.0
Cost of tools and equipment	95	95.0	5	5.0
Environmental factor	76	76.0	24	24.0

Source: Field Survey, 2021.

The coefficient of number of labour used by the poultry farmers was statically significant and positive in determining the profit level of the poultry farmers in the study area. This implies that there is a positive relationship between number of labour used by the poultry farmers and their profit. This implies that increase in number of labour used by the farmers will lead to increase the profit of poultry farmers in the survey area.

Table 5 showed that majority of the day-old chick marketers in the study area (67.0%) were being confronted with the problems of Infrastructural facilities, about 93% were being faced with the problem of Insufficient money/stipend, 60.0% with Government policy, 80.0% with price instability, 95.0% with cost of tools and equipment while environmental factor represented 76.0% respectively.

CONCLUSION

This study was carried to assess the impact of COVID 19 Lockdown on day old chicks marketing. The study reveals that majority of the respondents were youth and married and the enterprise was profitable. COVID 19 had a negative impact on all operation of day-old chicks market ranging from high cost of feed, problem of infrastructure facilities are insufficient capital and government policy.

Based on the above findings, it has been identified that some factors are hindering the development of poultry farms as regards large production, which will cater for the entire population of the people in the study area and the nation entirely. The following are recommended for high production and improved profitability level in the study area:

- Government should improve on the credit guarantee schemes which they have made available to the public. It is in recognition of the strategic role of the poultry farmers and entrepreneurs in national development, that the federal, states, local governments, and even some corporate institutions are continuously creating the enabling environment to enhance entrepreneurship;
- Government should also ensure the availability of well-tested and highly productive machines and reduced cost of feeds;
- Availability and adequate supply of Animal Drugs to the study area will also enhance the production of poultry eggs.

REFERENCES

1. Alders S. Akanbi, Francis (2019). Nigeria's lockdown is hurting logistics businesses. Supply chain.
2. Charkraborty (2018). Theoretical And Conceptual Framework: u7Mandatory Ingredients Of a Quality Research. *International Journal of Scientific Research*, 7(1). 438-444.
3. Babatunde, T.O, Kehinde, A.S and Babatunde, O.O (2019). Marketing analysis of snail in selected market in Ibadan metropolis, Oyo State, Nigeria. *Journal of Research in Forestry, Wildlife and Environment* 11(3):106-113.
4. Dan-Nwafor, C.; Ochu, C.L.; Elimian, K.; Oladejo, J.; Ilori, E.; Umeokonkwo, C.; Steinhardt, L.; Igumbor, E.; Wagai, J.; Okwor, T. Nigeria's public health response to the COVID-19 pandemic: January to May 2020. *J. Glob. Health* 2020, 10, 020399.
5. Dilger, Schroeder, Moseley (2016). Sampling Techniques and Determination of Sample Size in Applied Statistics Research: An Overview. *International Journal of Economics, Commerce and Management*, 2(11): 1-22.
6. Evans, K. Survey of 9000 Smallholders Finds COVID-19 Pandemic Is Causing Hunger. 2021. Available online: <https://livestock.cgiar.org/news/survey-9000-smallholders-finds-covid-19-pandemic-causing-hunger> (accessed on 3 August 2021).
7. FAO (2018). Chicken Genetic Resources Used in Smallholder Production Systems and Opportunities for Their Development; Sørensen, P., Ed.; Smallholder Poultry Production Paper No. 5.
8. FAO: Rome, Italy, (2010). Available online: <http://www.fao.org/3/al675e/al675e00.pdf> (accessed on 20 May 2021).
9. Guèye, E.F. The role of family poultry in poverty alleviation, food security and the promotion of gender equality in rural Africa. *Outlook Agric.* 2000, 29, 129–136.
10. Heise, crisán and theuvsen (2015). The impact of COVID-19 on small business outcomes and expectations. *PNAS*, 117(30). 17656–17666
11. Kehinde, A.S.(2009) Utilization of cassava by products by African land snail (*Archachatina marginata*, Swainson) PhD Thesis Submitted at the department of Animal Science, University of Ibadan, pp. 1-8.
12. Kehinde, AS, Babatunde, T.O and Kehinde, O.J (2019); Lifecycle Evaluation of the Nutritional Benefits and Biosafety of Snail (*Archachatina marginata*). *Journal of Experimental Agriculture International* 40(5), pp 1-7.
13. Khoury (2020). Essay Sauce, Poultry Industry in Nigeria. Available from: <https://www.essaysauce.com/economics-essays/poultry-industry-in-nigeria/> Accessed 1.
14. Middendorf, B.J.; Faye, A.; Middendorf, G.; Stewart, Z.P.; Jha, P.K.; Prasad, P.V.V. Smallholder farmer perceptions about the impact of COVID-19 on agriculture and livelihoods in Senegal. *Agric. Syst.* 2021, 190, 103108.
15. Okute, (2014) and Preke 2017. The impact of COVID-19 on small business outcomes and expectations. *PNAS*, 117(30), 17656-17666.
16. Omititi (2015). Impacts of COVID 19 on supply chain operations in Nigeria. *International Journal of Business and Management Invention (IJBMI)*, 9(4). 43-52.
17. Onwualu (2011). Effects of COVID-19 pandemic on hospitality industry: review of the current situations and a research agenda, *Journal of Hospitality Marketing and Management*, 29(5). 527-529.
18. Stiles (2017). Impacts of COVID-19 on Small- and Medium-Sized Enterprises in the Food System: Results of an Online Survey. Geneva: Global Alliance for Improved Nutrition.
19. Winarsih and Khourul (2020). Prospect Theory in Times of a Pandemic: The Effects of Gain versus Loss Framing on Policy Preferences and Emotional Responses during the 2020 Coronavirus Outbreak. [10.31235/osf.io/7pykj](https://doi.org/10.31235/osf.io/7pykj).