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A SITUATIONAL ANALYSIS OF THE DAY-OLD CHICKS VALUE CHAIN IN OYO STATE, NIGERIA: AGENDA SETTING FOR POLICY REFORM

Adekoya AE[1], Fadairo OS[2], Adeleke OA[2]*, Ogunbayo I[1], Oyelami BO[1] and E Enya[1]

Adeleke Oluwaseun

*Corresponding author email: arikegirl@gmail.com

[1]Innovation Lab for Policy Leadership in Agriculture (PiLAF), Nigeria

[2]Department of Agricultural Extension and Rural Development, University of Ibadan, Nigeria

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ABSTRACT

Attempts to ensure safety and quality control in the Day-Old Chicks (DOCs) value chain in Nigeria have been perceived to involve some duplicity/multiplicity of roles and/ or responsibilities, putting undue burden on the actors. Therefore, experts' workshop on the DOCs value chain in Oyo State was implemented by the Innovation Lab for Policy Leadership in Agriculture and Food Security (PiLAF) to provide a guide for agenda setting for building a better industry. The workshop had the dual purpose of (i) undertaking a situational analysis of the DOCs value chain in Oyo State, Nigeria, and (ii) strengthening the policy process to effectively respond to the needs of the DOCs value chain in the state through clearly defined, unambiguous regulations and regulatory processes. Twenty-four experts comprising major actors along the DOCs value chain in Oyo State participated in the workshop. Using brainstorming and consensus building process, participants identified infrastructure and markets (strengths), weak regulatory control and high operating cost (weaknesses); supply gap, and good return on investment (opportunities); including adulteration and sharp practices (threats) as the most important Strength, Weakness, Opportunities and Threats (SWOT) factors influencing or capable of affecting the DOCs industry in the state. The DOCs value chain operators identified National Institute of Animal Science (NIAS) followed by the Veterinary Council of Nigeria as the most visible operators in the DOCs value chain. However, the operators perceived the activities of the regulatory bodies as more geared toward revenue generation than actually enforcing compliance to standard practices in the industry. The value chain actors affirm there are overlaps in some aspects of policy guidelines for the DOCs value chain by the Veterinary Council of Nigeria and NIAS leading to what may be described as double taxation to the disadvantage of the actors. Specifically, registration and licensing, prohibition, and import and export domains are some of the aspects of the policy documents that need some minor modifications for clarity and separation of roles.

Key words: Policy, Value chain, Animal Scientist, Chicks, Safety, Poultry industry, Public health, Regulation

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INTRODUCTION

The livestock species play very important economic and socio-cultural roles in the well-being of rural households which include food supply, source of income, asset saving, source of employment, soil fertility, livelihoods, transport, agricultural traction, agricultural diversification, and sustainable agricultural production. The chicken industry of Nigeria is a major livestock sub-sector, playing a pivotal role in economic growth and rural development [1].

The Central Bank of Nigeria (CBN) reported that the poultry sub-sector is the most commercialised of all Nigeria's agricultural sub-sectors with a current net worth of N1.6 trillion. The population of chickens was estimated at about 165 million [2], which produces approximately 650,000 metric tonnes and 300,00MT of eggs and meat altogether [2]. The demand situation is estimated at over 200 million birds, while the demand for eggs and meat is about 790,000MT and 1,500,000MT, leaving a huge demand gap which, unfortunately, is met through smuggling [2]. The sustainability of the chicken industry is largely dependent on the viability of the Day-Old Chicken (DOC) Value Chain. However, poultry represent a threat to human health, especially as a vector of infectious diseases and because of its role in antimicrobial resistance. Furthermore, poultry has a significant impact on the environment and is a large consumer of natural resources [3].

The DOC value chain in Nigeria is relatively simple with only three main actors: Parent Stock farmers (breeders), hatchery farmers, and DOC marketers. Day Old Chicken or often called DOC is a 1-day-old chick. The DOC is crucial to the success of the farm business. A good condition of DOC is the first important asset and needed to be considered. Recognizing this, the various local regulatory bodies have emerged with standards for actors along the various nodes of the DOC value chain. This is done to ensure the DOC in circulation is of quality and free from infectious animal diseases.

Attempts to ensure safety and quality control in the DOCs value chain in Nigeria have, however, been perceived to involve some duplicity/multiplicity of roles and or responsibilities putting undue burden on the actors who are usually the targets of such regulations. The need to have a clearly defined policy framework for guiding the DOCs value chain actors, therefore, became necessary.

Also, policy formulation is a continually evolving process. This is important to accommodate emerging changes or challenges. Hence, Policy-making is usually described as a cyclical process, from problem identification to program evaluation, which in turn informs the next round of policy design. Policy formulation is how problems identified in the agenda-setting phase transform into government programs [4]. Participatory analysis of the DOCs value chain in Oyo State by

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stakeholders can thus provide a guide for agenda setting for building forward better the industry in the state.

It is against the background of the foregoing that this project was implemented by the Innovation Lab for Policy Leadership in Agriculture and Food Security (PiLAF) of the University of Ibadan. The project addressed two key objectives viz:

1. To undertake a situational analysis of the DOCs value chain in Oyo State, Nigeria.
2. To strengthen the policy process to effectively respond to the needs of the DOCs value chain in the state through clearly defined, unambiguous regulations and regulatory processes.

MATERIALS AND METHODS

A day experts' workshop involving major actors along the DOCs value chain in Oyo State was held at the Abuja Hall of the Ibadan Business School on Wednesday 24th August 2022. Participants were purposively invited for the workshop based on the prominent roles they played in the DOC value chain. Participants included representatives of the Nigeria Veterinary Medical Association (NVMA), National Institute of Animal Science (NIAS), Animal Scientists and Veterinary Doctors specialized in poultry research from the University of Ibadan; College of Animal Health and Nutrition, Ibadan; and Institute of Agricultural Research and Training, Obafemi Awolowo University. Others include representatives of the Poultry Association of Nigeria (PAN); Day Old Chicks Marketers Association of Nigeria (DOCMAN), breeder farms, and hatcheries. In all, 24 experts and six PiLAF staff participated in the workshop. A qualitative research method involving the use of group discussions was used for garnering information from the experts. The participatory strategies/tools used included brainstorming, discussions, presentations, SWOT, and Problem tree analyses. Figure 1 shows the pictures of the participants at the event. Researchers recorded the discussions on audiotape, used a flip chart, and took handwritten notes that were later transcribed. Based on thematic patterns in the participants' responses to the topics brought up in the focus group talks, the primary data collected were coded and analysed. In doing this, special attention was given to some of the responders' significant quotes.

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Figure 1: Participants at the programme and a flip chart of an activity output

RESULTS AND DISCUSSION

Regulations for DOCs Value Chain in Oyo State: Situation and Issues

Legislation regulating the poultry industry are important to guarantee safe production and consumption process. Generally, poultry industry in most climes are regulated by different authorized agencies and issues covered usually include disease control, food health and safety, the environment (odour and noise emissions), chemicals use, waste management and animal welfare [5, 6, 7].

Participants at the expert' workshop identified the following bodies as responsible for regulations guiding the DOCs value chain in Oyo State: (i) Veterinary Council of Nigeria (VCN) - concerned with regulations to prevent infectious diseases and related health hazards; (ii) Nigerian Institute of Animal Science (NIAS) - concerned with regulations on livestock management and husbandry practices; (iii) Ministry of Agriculture – Departments of Veterinary Services and Animal Husbandry. These two departments domiciled in the Oyo State Ministry of Agriculture are responsible for implementing/enforcing the necessary regulatory items specified by the VCN and NIAS among the value chain operators; (iv) Standard Organisation of Nigeria (SON) – concerned with regulations on feeds; (v) National Agency for Food and Drug Administration and Control (NAFDAC); (vi) Nigerian Agricultural Quarantine Services (NAQS) – deals with import and export of livestock products; (vii) National Environmental Standards and Regulations Enforcement Agency (NESREA) –

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concerned with environmental sanitation; and (viii) Consumer Protection Agency. Among the above-listed regulatory bodies, the Nigerian Institute of Animal Science (NIAS) followed by the Veterinary Council of Nigeria were more visible to the major operators (breeder, hatchery, and marketers) in the value chain than others. Further, the major operators in the DOCs value chain, especially the marketers expressed worry about the activities of NIAS as it is perceived to be more geared toward revenue generation than actually providing services in the area of enforcing compliance to standard practices in the industry. The back-and-forth debate on this issue established the existence of a communication gap and synergy in the workings of some regulatory bodies and their clientele in the DOC's value chain. The foregoing stresses the importance of collaborative policy design between upstream and downstream actors and adaptive policy implementation for achieving seamless implementation [8]. In similar vein, effectively communicated (implemented) policies are signals of inclusiveness in the policy development and implementation process [9].

In addition, the value chain actors affirm there are overlaps in some aspects of policy guidelines for the DOCs value chain by the Veterinary Council of Nigeria and NIAS leading to what may be described as double taxation to the disadvantage of the actors. Although the policy documents from these two main regulatory bodies target different endpoints (Veterinary Council of Nigeria targets prevention of infectious diseases and related health hazards, while NIAS targets maintaining standard practices in livestock management and husbandry practices), overlaps tend to exist in terms of operationalization of some of the domains. Specifically, registration and licensing, prohibition, and import and export domains are some of the aspects of the policy documents that provides opportunities for duplicity of efforts and hence, need some minor modifications for clarity and separation of roles. In this vein, the stakeholders identified the various domains of the regulation for the DOCs value chain and through consensus building, reached a compromise on the responsibilities for each of the domains as follows:

	Regulation Domains	Responsibility
	Hygiene/biosecurity	Vet. Council
	Good husbandry practices	NIAS
	Ensuring good parent stock qualities	NIAS
	Ensuring health and good quality DOCs	Vet. Council/NIAS
	Ensuring proper sexing of DOCs	NIAS
	Proper packaging and labelling to ensure traceability	NIAS
	Proper handling and transportation	NIAS

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	Registration of breeder farms, hatchery and DOCs operations plus prohibition of unregistered farms or revocation of certificate of registration	Vet Council to issue a permit. The permit to be included as part of the required documents for licencing by NIAS
	Personnel or human resources in supervisory capacity at Breeder Farms and Hatchery	NIAS & Vet. Council
	Animal health, Pest and disease control	Vet. Council
	Reporting and oversight responsibilities (Inspection)	Vet. Council/NIAS
	Administration of vaccines and combating Anti-Microbial Resistance	Vet. Council
	Control of Public heath	Vet. Council
	Prevention of health-related hazards in animal feed and feed ingredients	Vet. Council
	Notification of suspected disease	Vet. Council
	Food safety assurance and quality control	Vet. Council
	Sanitary mandate for prevention of zoonosis	Vet. Council

SWOT Analysis of the DOCs Value Chain in Oyo State

A SWOT analysis helps understands the internal and external factors that affects a business. In the context of this study, it can be useful in understanding the impact of the current regulatory policies on the DOCs value chain while also contributing to the setting of relevant policies or reform [10, 11]. The outcomes of the SWOT analysis are presented in Figure 2. The strengths represent specific aspects of the DOC value chain that makes it likely to succeed (things that are being done well) while the weaknesses represent areas of the value chain making it difficult to succeed (where improvement can be achieved). Both the strengths and weaknesses relate to internal factors. The opportunities are the factors outside the control of DOCs value chain actors that make their enterprise succeed while the threats are current or future occurrence that may harm the industry.

Infrastructure in terms of production facilities such as well-established breeder and hatchery farms with huge capacity for production, availability of market, favourable weather for hatchery operations, availability of improved breeds, and well-trained manpower with the requisite knowledge and technical capacity for smooth operations were identified as most important strengths of the DOCs industry in the state. However, improvements are required in the areas of regulatory control to ensure compliance to standard procedures, reducing operating costs through improvisation and more efficient use of resources, including farm record keeping. Furthermore, opportunities to leverage for more success in the industry included a huge supply gap as demand for DOCs was reported to be higher than supply

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capacity in the state. This is because Oyo state is a major DOCs hub in Nigeria [12]. Marketers and farmers from most parts of the country patronize the hatcheries in Oyo State. In addition, the current policy which placed a ban on the importation of frozen foods has further enhanced the local market causing an appreciable return on investments for many farmers involved in the DOCs value chain. Factors identified as having the possibility of harming the industries are sharp practices and adulteration. Adulteration occurs in terms of the use of substandard feed ingredients and vaccines. Also, seasonal variation in terms of demand and supply causing a glut of products at certain periods of the year was identified as a threat to the sustainability of the DOCs industry in the state.

Strengths	Weaknesses
1. Infrastructure 2. Market 3. Weather (hatchery) 4. Availability of good breeds 5. Training and empowerment 6. Technical manpower	1. Unskilled labour 2. Weather 3. Poor record keeping 4. High cost of feed 5. Weak regulatory control 6. High operating cost
Opportunities	**Threats**
1. Supply gap 2. Good return on investment 3. Ban on importation of poultry birds 4. Agric. loans and grants	1.Seasonality 2. Sharp practices 3. Adulteration 4. Inadequate use of technical manpower 5. Insecurity

Figure 2: SWOT matrix for DOCs value chain

Problem Tree Analysis of the DOCs Value Chain in Oyo State

During a brainstorming session, the poor use of technical manpower was prioritized as the major problem faced in the DOCs industry. The problem tree analysis in Figure 3 shows the root causes of this problem and its attendant results (consequences) on the performance of the DOCs sector in Oyo State. The group discussion revealed that the high cost of hiring professionals such as registered animal scientists (RAS) or veterinary doctors was the leading cause of the use of quarks in the industry. Also, the pervasiveness of cheap labour or quarks who have little to low expertise as a result of accumulated experience and who are most times willing to render services at highly reduced costs was another underlining cause. Other causes include ignorance on the part of affected operators on the cost/benefits of using or not using professionals, deliberate disregard for disciplinary boundaries which makes a specialist take up the job of others, and the falling standard of education leading to half-baked professionals. In

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addition, DOCs value chain operators producing at trim scale level oftentimes find it difficult to afford the hiring of professionals in their operation due to low-profit margins. The consequences of the low use of technical manpower are however severe for the industry and the general public. These include poor quality of services or products leading to poor production, disease outbreak, and reduced revenue. Where professionals are not used appropriately in the DOCs industry, public health and food safety is put at serious risk due to the high possibility of compromising critical standards. Also, the inability to export products arising from the DOCs industry is blamed on the inefficient use of technical manpower.

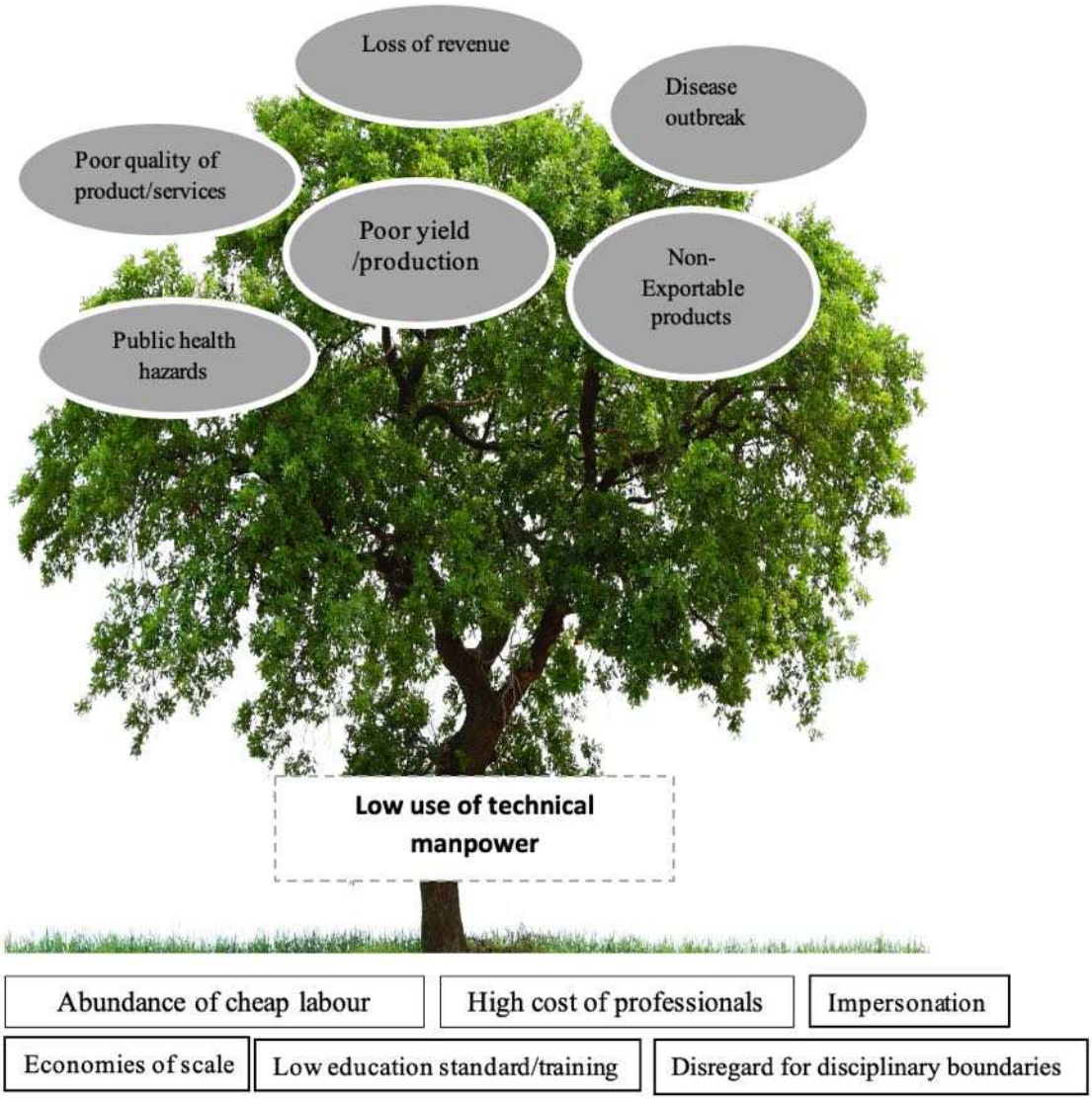

Figure 3: Problem Tree Analysis of the DOCs value chain in Oyo State

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CONCLUSION AND RECOMMENDATIONS FOR DEVELOPMENT

The Nigerian Institute of Animal Science (NIAS) followed by the Veterinary Council of Nigeria are more visible to the major operators in the value chain. However, the activities of these regulatory bodies are perceived to be more geared toward revenue generation than actually enforcing compliance to standard practices in the industry. There is, therefore, a need for these regulatory bodies and their enforcement agents to tone down on the drive towards revenue collection while emphasising more on enlightenment campaigns and training for the operators. In addition, these regulatory bodies should reform their policies while involving actors from both the upstream and the downstream nodes of the value chain. This should develop the mindset of partnership between the regulators and other actors in the industry. Also, the areas of overlap that exist in terms of operationalization of some of the regulatory domains and responsibilities between NIAS and Veterinary Council should be carefully addressed following the compromise reached by the experts as presented in this paper. Specifically, the Veterinary Council of Nigeria should solely focuses on prevention of infectious diseases and related health hazards while NIAS on maintaining standard practices in livestock management and husbandry practices. Registration and licensing would be better handled by the relevant departments in the Oyo State Ministry of Agriculture. Operators seeking to be registered may be issued clearance by NIAS and the Veterinary Council which should form part of the documents to be tendered at the Oyo State Ministry of Agriculture for issuance of licence/permit. Furthermore, the professional fees for services rendered to the DOCs value chain operators should be revised by the concerned associations to encourage more patronage and assure food safety and public health.

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