

ANALYSIS OF PROSPECTS AND PROBLEMS OF POULTRY REARING IN IJEBU-ODE, OGUN STATE

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CERTIFICATION

I certify that this project work was carried out by **Olayemi Festus Oni** with the Matriculation Number **18012505015** in the Department of Agricultural Education, Tai Solarin College of Education, Omu-Ijebu, under my supervision.

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DEDICATION

This project is dedicated to the almighty God. He who is supreme, unique in his oneness and without whom this project would not have been and to all sincere believers of God throughout the universe, also dedicated to my mum Mrs. Mobolorunduro Omotuyole, may the Lord in his infinitely mercy bless them abundantly (Amen).

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Abstract

This study investigates the prospects and problems of poultry rearing in Ijebu-Ode Township of Ogun State. The study employs descriptive research survey type, to investigate the problems and prospect of rearing poultry in Ijebu-Ode Township of Ogun state. The population of the study comprises all the poultry farmers in Ijebu-Ode, as contained in Agricultural Development Project Unit of Ijebu Division, Ogun State. A list of poultry farmers was collected from the zonal office of Ogun State Agricultural Development Programme to ascertain the number of farmers and from which a certain percentage was selected randomly. The research instrument for this study was a well structured questionnaire. The data for the research work was collected through the use of a well structured questionnaire. The data from the questionnaire was subjected to analysis using simple percentage method. The result is in contrary with the finding by Oladeji (2011) who found that poultry farming was dominated by male producers. This also reveals that the farmers were keeping birds for household consumption and as source of income. The result revealed that the major problems encountered by poultry farmers in the area of study are high cost of feeding, lack of transportation and insufficient fund.

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Chapter One

1.0 Introduction

1.1 Background to the Study

Poultry generally is referred to all domestic birds raised by man for the production of eggs, meat and other benefits for human consumption. The domestic birds include fowl ducks, turkey, guinea fowl and geese, poultry products have been found to have the highest protein concentrate of about 20.5% relative to others success of protein (animals) and has the shortest production cycle of all animals.

Production cycle involves all the activities in the rearing of livestock from day old to maturity. For example, to achieve a ten-fold increase in the body weight in relation to weight at bird, Williamson and Payne (1978) outlined that it takes 25 days in broiler, 48 days in piglets, 250 days in calves and 170 days in sheep.

The rearing of pigs, cattle's and goats however requires extensive kind more than poultry where more units of production can be achieved from a given space compared to the farmer. These advantages are perhaps the cause of a higher turnover in poultry production at reasonably short period of time in this work more emphasis shall be made specifically to the domestic fowl, which are the major birds for commercial and nutritional importance in Ijebu-Ode Township of Ogun State. Poultry rearing have been in practice in Ijebu-Ode Township for a long time. The traditional motive varies from hobby to the use of fowl and eggs as food. Apart from the important roles that the fowl play in the traditional workshop of duties in many parts of the states, some communities use it as gift to their neighbours in appreciation of a good deed and as a mark of solidarity.

The traditional poultry keeping is generally subsistence in outlook without

the use of modern scientific methods. Hence the birds under this system are poorly cared for and they are characterized by slow growth rate, poor feed utilization and low productivity. The birds are also exposed to high mortality rate as a result of diseases, pest and bad weather conditions

However, in spite of the popularity of commercial poultry keeping, the subsistence and the small-scale units are still prevalent all over the place especially in the villages. Although the commercially oriented poultry units are abundant all over the state with varying modern scientific approach to production poultry output continues to be inadequate with prices above the reach of the common man.

This paper will therefore focus attention on the problems and prospect of rearing poultry in Ijebu-Ode Township of Ogun state.

1.2 Statement of the Problem

The ultimate goal of the government or individuals engaged in poultry production today is to achieve a high standard of production with a view of increasing animal products for the ever-increasing populace.

In an attempt to produce enough poultry products {meat and eggs} several problems and constrains have been identified. Some of these problems include finance, quality feeds, disease problems and poor housing condition and storage facility

In Ijebu-Ode Township, there had been retrogression in poultry production due to illiteracy in the maintenance of records. Hence maintenance of record helps the farmer to determine the process of retrogressing nature of the farm. Besides, it helps in making future projection, planning and programming in poultry industry. Most farmers either as a result of illiteracy, lack of training or otherwise are unable to keep records. The result is that most extension officers are unable to help them out of their problems due to lack of information.

1.3 Purpose of the Study

The purpose of this study is to investigate the prospects and problems encountered by poultry farmers in Ijebu-Ode Township and suggest solutions to them.

1.4 Research Question

The following are the questions the study seeks to answer in order to achieve the research objectives;

1. What are the major constraints of poultry farming in Ijebu-Ode Town?
2. What are the major prospects of rearing poultry Ijebu-Ode?

1.5 Significance of the Study

It is hoped that the recommendation based on the findings of the study would be of tremendous benefit to the poultry producers, the consumers of poultry farmers alike and the student's researchers.

It is anticipated that inexperienced poultry farmers can from this study identify as well as provide them with the basic information needed to raise and manage poultry successfully. For the consumers, an increase in poultry products means meeting their eggs and poultry meat needs.

It is believed that the research findings would help students who intend to research in a similar topic to have ideas on what the topic is all about and also aid students in the area of further studies.

1.6 Scope of the Study

This research work will focus attention to cover Ijebu-Ode Township in Ogun state. The information obtained here will only strictly apply to Ijebu-Ode Township but may be generalized to other parts of the state with similar problems and prospects of rearing poultry. Also efforts would be made to cover as much of the local government area as possible.

1.7 Definition of Terms

Poultry: This is the term used for all domesticated birds such as chicks, ducks, turkey, guinea fowl etc.

Prospect: A prospect is the possibility that something fabulous will happen.

Production: the action of making or manufacturing from components or raw materials, or the process of being so manufactured.

Problem: a matter or situation regarded as unwelcome or harmful and needing to be dealt with and overcome

Rearing: bring up and care for (a child) until they are fully grown

Chapter Two

Literature Review

2.0 Introduction

The history of poultry species has intrigued scholars for years. They have been interested in identifying the wild ancestor of the domestic fowl in the diffusion of a species from one civilization to another and from one territory to another as well as the evolution of poultry species under domestication.

The word "poultry" comes from the Middle English "pultrie", from Old French pouletrie, from pouletier, poultry dealer, from poulet, pullet. The word "pullet" itself comes from Middle English pulet, from Old French polet, both from Latin pullus, a young fowl, young animal or chicken. The word "fowl" is of Germanic origin (cf. Old English Fugol, German Vogel, Danish Fugl).

"Poultry" is a term used for any kind of domesticated bird, captive-raised for its utility, and traditionally the word has been used to refer to wildfowl (Galliformes) and waterfowl (Anseriformes). "Poultry" can be defined as domestic fowls, including chickens, turkeys, geese and ducks, raised for the production of meat or eggs and the word is also used for the flesh of these birds used as food. The Encyclopædia Britannica lists the same bird groups but also includes guinea fowl and squabs (young pigeons). In R. D. Crawford's Poultry breeding and genetics, squabs are omitted but Japanese quail and common pheasant are added to the list, the latter frequently being bred in captivity and released into the wild. In his 1848 classic book on poultry, Ornamental and Domestic Poultry: Their History, and Management, Edmund Dixon included chapters on the pea fowl, guinea fowl, mute swan, turkey, various types of geese, the muscovy duck, other ducks and all types of chickens including bantams. In colloquial speech, the term "fowl" is often used near-synonymously with "domesticated chicken" (*Gallus gallus*), or with "poultry" or even just "bird", and many languages do not distinguish between "poultry" and "fowl". Both words are also used for the flesh of these birds. Poultry can be distinguished from "game", defined as wild birds or mammals hunted for food or sport, a word also used to describe the flesh of these when eaten.

2.1 Poultry Production

Poultry production in tropical countries is based on the traditional scavenging system and chickens are the most important poultry species. The share of family poultry to total poultry population in developing countries in general and in Africa in particular is not well documented but estimated to reach 70 to 80% (Sonaiya 1990; Gueye 1998; Sonaiya et al 1999; Gueye 1998). A critical review of available literature from eight Sub-Saharan African countries showed that village poultry on average accounts for 78%, ranging from 30 to 99%, of the total poultry population. The largest proportion of eggs and poultry meat in Ethiopia is produced by the village system (Tadelle 1996). Despite the fact that village poultry are more numerous than commercial ones, and provide the largest proportion of products in developing countries, little research and development work has been carried out to characterize, understand and develop the system (Cumming 1992).

2.1.1 Poultry Production System

Generally, there are four poultry production systems in developing countries and in Africa. These include the free-range system or traditional village system; the backyard or subsistence system; the semi intensive system and the small-scale intensive system (Gueye, 2000 and Gueye, 2000a). The most common production system found in Africa are the free-range and backyard production systems (Sonaiya, 1990a; Gueye, 2003) and approximately 80% of chicken populations in Africa are reared in these systems (Gueye, 1998). The chicken in this system are a function of natural selection. As a result the performance of chickens under rural conditions remain generally poor as evidenced by highly pronounced broodiness, slow growth rates, small body size and low production of meat and eggs (Sonaiya, 2000).

2.2. Constraints of Poultry Industry

2.2.1 Socio-Cultural Constraints to Development

A sociological appraisal is essential in determining strategies for development. Technical and economic appraisals are also necessary, but are insufficient on their own. Socio-cultural factors contribute to the wide variety of response of livestock keepers even under identical economic conditions. Many socio-cultural factors affect livestock production. For example, some communities ban ducks, as they are presumed dirty and destructive to drinking water supplies. Some communities regard pigeons as a sign of peace and concord. In such communities, the presence of pigeons is regarded as a good omen, and their departure would presage disaster. In other communities, pigeons are regarded as an evil omen, since they are used by native doctors in sinister rituals.

Another socio-cultural constraint to poultry development is the value placed upon poultry for use at ceremonies and festivals or even as a source of income in times of need but not as a source of daily food or as a regular source of income. Some regard chickens as their pets or part of the family, thus it is only the arrival of an important unexpected visitor that could allow their use as food, although they can be sold without regret and the money utilized.

Another major constraint to poultry production is the high value placed upon crop production rather than livestock production. This affects the willingness to put much time, expense and effort into livestock production. Theft is also a great constraint. Villagers who have lost all their poultry to theft may be reluctant to face the expense of starting again.

Another constraint is the social norm that determines ownership of livestock. Typically, where crop farming is the men's main activity, keeping livestock is perceived as a peripheral activity relegated to women and children. However, when the number of livestock increases, men usually take over the activity. It should not be assumed that socio-cultural factors can be changed. However, by incorporating socio-cultural factors into development strategies, the programmes and technologies may encounter less

resistance. Development programmes, which combine local knowledge with western science, yield strategies which are culturally more acceptable. Socio-cultural factors are thus not seen as a problem, but rather as a factor to be considered or used in finding a solution (Olawoye and di Domenico, 1990) (Source: Small-scale poultry production... FAO 2004, E.B. Sonaiya .. et al).

2.2.2 Technical Constraints to Development

The most common FP flock size of between 5 to 20 birds seems to be the limit that can be kept by a family without special inputs in terms of feeding, housing and labor. These small flocks scavenge sufficient feed in the surroundings of the homestead to survive and to reproduce. Any significant increase in flock size often leads to malnutrition if no feed supplement is provided. In addition, larger flock sizes must forage at greater distances, which may involve damage to neighbors' vegetable gardens. Any move to fence in or enclose the poultry then involves the need to provide a balanced ration. Larger flock sizes can easily arise once mortality is reduced through vaccination and improved hygiene. Flock size can rapidly increase to the point where the feed requirement exceeds the available Scavengable. Feed Resource Base (SFRB) in the area around the dwelling. At this stage, either supplementary feeding or a semi-intensive system of management is required. If balanced feed, day-old hybrid chick and vaccine input supplies (and markets) are available and well organized, and then intensive poultry management systems may be a viable option. There have been many attempts to take short cuts to development and to start immediately with the semi-intensive system. Source: Small-scale poultry production... FAO 2004, E.B. Sonaiya .. et al).

2.2.3 Challenges Facing the Global Poultry Industry to 2020.

Consequences of animal welfare regulations, food safety, house environment and a number of issues relating to nutrition and feeding were identified as future challenges to the poultry industry by A.M. Penz Jr and D.G. Bruno of Provimi America

Latina in Brazil in a presentation at this year's Australian Poultry Science Symposium.

Among the challenges for the next decade are to create standardized parameters for poultry welfare assessment and robust systems to monitor those parameters. This is the aim of the Welfare Quality project developed in the European Union, which proposes to assess animal welfare focusing on animals, and not on environmental or management factors, and using objective indicators that can be easily measured in the field, according to four principles: good feeding, good housing, good health status and adequate behavior (Arnould and Butterworth, 2010).

The poultry site identifies some major challenges of Global poultry industry. Such as;

- **Animal Welfare and its Consequences;**

The welfare of animal production can be accessed from two perspectives: through anthropomorphism, where consumers put themselves in the place of livestock and make conclusions about their welfare often based in subjective ideas, or through animal performance. Animals that are reared in poor welfare conditions are not able to express their maximum genetic potential. Consumer concerns relative to poultry welfare are becoming increasingly relevant in the meat market.

There is a positive correlation between the strictness of welfare legislation and income of the citizens of a country and consequently their purchasing power (van Horne and Achterbosch, 2008). These concerns are evident, particularly in the European Union, and examples are Directives 1999/74/EC and 2007/43/EG, which established the ban on conventional cages for commercial egg production after 2012, and maximum broiler density, respectively.

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adequate behaviour (Arnould and Butterworth, 2010).

- **Food Safety;**

Food contamination by pathogens is the main concern of consumers (IFC, 2010). Supplying this demand for safer food requires transparency and commitment by all the parties involved in the process of food production, including governments. Each step of the food supply chain will be increasingly controlled, with emphasis on risk monitoring through preventive and corrective actions (analysis and monitoring critical control points). This requires careful selection of input suppliers, focusing on product quality and not price, which requires evaluation and maintenance plans, understanding the process and the materials used by suppliers, and technical knowledge on physical, chemical, and microbiological risks.

In the feed mills during the next decades, automation will increase, with lower exposure of workers to operational risks, and more emphasis will be placed on critical control points, which will be monitored just in time, and on real-time traceability. Andree and Schwaegele (2010), who participated in the development of a project to analyze existing or potential vulnerable points in food production chains, said the loss of information or of traceability is the main risk factor for the entrance of contaminants into the process of animal feed production. Giving proper attention to these new requirements is of great importance for the poultry industry, particularly considering the exporting countries, which must comply with the increasing demands of the importers.

Health monitoring of the flocks is and will become increasingly important, not only to prevent food borne disease but also to avoid performance losses and to ensure bird welfare. Compliance with health programmers' (cleaning and disinfection, vaccination, pest control, disease monitoring), immediate notification and record of abnormal situations, health monitoring programmes and measures for infection control and eradication must be put in place, particularly in a scenario where the use of antimicrobial compounds is increasingly restricted.

- **Environment;**

Thermal comfort inside poultry facilities is essential, as unfavourable environmental conditions significantly affect production. Both excessive cold and heat may cause production losses and impair bird health and welfare and, in extreme situations, increase bird morbidity and/or mortality. The evolution of technology and of the knowledge on thermoregulation physiology and behaviour will reduce mistakes in poultry house design and in bird management that can cause thermal discomfort. The development of information technology allows new techniques in the study of broiler thermal comfort, such as the use of real-time image analysis using video cameras, image-acquisition hardware, and imageanalysing software programmes to acquire, process and evaluate information (Moura et al., 2010).

Interestingly, inside broiler houses, 80 per cent of the heat is not produced by lamps or brooding systems but by the birds themselves. Proper evaluation of this heat production may allow creating mechanisms for the utilisation of this energy, which could be translated in significant cost savings.

- **Feed Formulation;**

Out of the trends currently observed and that will define how nutritionists are going to formulate diets in the next 10 years is the increasing cost of raw materials and the pressures to reduce feed costs and nutrient environmental excretion will be emphasized. These factors will cause diets to be formulated more accurately, avoiding large safety margins. The biofuel industry will compete for raw materials used for animal feeding, and will require the utilization of its byproducts. In this case, knowledge of the analysis of the nutritional content and digestibility of these materials, which are not yet standardised, as in the case of distillers dried grain solubles (DDGS), for example in the US, should be developed.

In this context, enzymes will be increasingly used, as they improve ingredient digestibility and nutrient absorption (Cowan et al., 1996), as well as reduce the detrimental effects of anti-nutritional factors, thereby allowing higher flexibility in the use of feedstuffs as well as reducing feed costs (Ferket, 2009) and pollutant excretion

in animal waste (Penz-Jr and Bruno, 2010).

Higher emphasis will also be placed on anti-nutritional factors that change energy and nutrient availability for broilers, using particle size and diet processing to maximize nutrient supply. Better pelleting, expansion and extrusion processes, among others, will be developed, in terms of physical aspects (temperature, moisture, and pressure, time) and their effects on nutrient utilization (Ferket, 2009).

Skinner-Noblet et al. (2005) observed that pelleting improves effective dietary energy value by changing the behaviour of broilers, which includes higher feed intake of birds fed pelleted feed. Methodologies to evaluate the impact of heat stress during corn (Métayer et al., 2009) and soybean meal drying (Helmbrecht et al., 2010) on their nutritional quality are currently available. Corn particle size and density may also result in different nutrient digestibility, and should be better evaluated. Hetland et al. (2002) observed higher starch digestibility in broilers fed whole wheat grain as compared to those fed ground wheat. Parsons et al. (2006) concluded that higher particle sizes promote a linear increase in the feed efficiency of broilers. Figueiredo et al. (2009) observed that corn density is directly related to its metabolisable energy content.

As to protein nutrition, new synthetic amino acids, produced at competitive prices, will become commercially available. In addition to lowering feed costs, this will also reduce nitrogen excretion in the environment (Nahm, 2002). Research on the next limiting amino acids after threonine will be extremely important, and their requirements will have to be evaluated not only relative to lysine, but also as to minimum intake and impact of their use under practical broiler production conditions (Kidd, 2009). For instance, the use of valine for broilers, whose beneficial effects were demonstrated by Corzo et al. (2009), is becoming a reality.

Energy is usually the most expensive nutritional component of poultry diets. Therefore, a higher efficiency in its utilization will result in lower feed cost. One of the strategies to be considered is formulating diets not only takes into account a feedstuff's metabolisable energy but also its net energy defined as metabolisable energy minus

energy loss due to heat increment, that is, the energy that is effectively used for production. This strategy may allow reducing feed cost and nutrient excretion (Mohen et al., 2005) and it is currently being discussed in Australia by the Poultry Cooperative Research Centre (Clements, 2010).

The utilization of trace minerals will be determined by a better understanding of their interaction with the immune system, as well as on the quality of their sources, preventing final product contamination with residues. In addition, further research on the differences between organic and inorganic sources is also needed.

2.2.4 Constraints of Poultry Production in Nigeria

2.3 Prospects of Poultry Production

Since the 1960s, the global production of poultry meat has been growing faster than that of any other meat in both developed and developing countries. This growth pattern can be expected to continue because of the inherent efficiency in feed conversion¹ and the lower production costs associated with intensive poultry production. Such production efficiency is particularly beneficial to developing countries, which tend to have limited agricultural resources but burgeoning, and often poor, populations. Declining poultry prices and increasing incomes have been attributed to increases in per capita poultry consumption, which is sensitive to both price and income changes (Taha 2003). The significant growth in poultry (especially broiler chicken) production and consumption in the developing countries has important implications for the global trading of all meat products, as well as feeds and related inputs (Landes et al. 2004; Taha 2003).

In spite of its many advantages and the positive market outlook, the world broiler sector faces increasing challenges (Shane 2004). One of these is the increasing consumer concerns over food safety, animal welfare, product quality, and environmental issues associated with industrialized poultry production systems. In addition, there is global competition, intensified by increasing trade liberalization and growing consumer

choices.

The increasing global competition is of particular concern for many small broiler producers in the developing countries, such as the Philippines, because their production and marketing systems are not yet developed or not as efficient. (Hui-Shung Chang, 2015).

2.3.1 Poultry Farming-Status and Prospects in Nigeria

Poultry represents an important sub-sector in the Nigeria agriculture. Poultry as industry is also of high economic value for the country. Poultry products including eggs and meat constitute a significant share in the global food industry. Crumbled eggs with bread is common eaten for breakfast in various parts of Nigeria. Poultry products are also known for having high nutritional content. In Nigeria, poultry is an integrated part of the smallholder production systems and plays a significant role in poverty alleviation.

Globally poultry is known to have a significant potential to generate income for households. Poultry can be both an income earner for households for household farmers and a source of foreign exchange.

Many developing and developed countries have integrated poultry in their economy. Evidences show that in 2007 nearly 145,615 farms were producing poultry and poultry products in United States of America. According to the United Nations estimation chicken population in world has reached sixteen billion. The figures from the Global Livestock Production and Health Atlas for 2004 show that China has the highest poultry population of 3,860,000,000, United States is second with 1,970,000,000, while Indonesia, Brazil and India have 1,200,000,000, 1,100,000,000, and 648,830,000 chickens respectively. Mexico, Russia and Japan also follow the list. Poultry production has high socio-economic value and vital especially for those who are landless and who do not own cattle, sheep, or goats.

In Sub-Saharan African countries household level poultry constituted 78 per cent of the overall poultry production in 1996. In Nigeria much of the eggs and chicken meat is produced by household farmers. The high increase in consumers' demand for poultry

products mainly in urban areas will have major implications on the prices of the products which obviously is important for those engaged in the sector. Chicken can be raised in situations with limited feed and housing resources. Chickens are 'waste converters': they 'convert' a scavenged feed resource base into animal protein. They are therefore by far the most important species for generating income for rural families.

Poultry down and feathers have also found multiple household uses and importantly numerous trade opportunities, while poultry manure is used as soil and farm pond fertilizer, hence contributing to increased crop and fish yields, and commercialization. Poultry manure is especially important to small scale farmers who have difficulty of accessing and affording fertilizers, as well as those small scale farmers who wish to make the best possible use of all the natural resources found and available on their farms.

2.4 Importance of Poultry and Poultry Products

Poultry plays significant role in human economy through provision of food while also creating wealth through job provision for our teeming population (Alders, *et al.*, 2019). The industry also provides raw materials to some industries as well as serve as a take up industry for other industries such as animal health industries (Omiti and Okuthe, n. d.). Furthermore, according to Darre (n.d.), the poultry industry also provides economic support and development effect on the tourism sector as well as the fashion industries. Specifically, however, the poultry industry is relevant to human lives and human living as follows: food provision in the form of the supply of protein, vitamins, minerals, and oils; industrial uses such as in the production of vaccines, fertilizers and animal feeds; pharmaceutical importance including as preservatives during semen storage; in paint and adhesive production companies as varnishes, adhesives, and printers ink; in leather producing companies as leather tanners and in textile industries during the production of different types of cloth dyes. Furthermore, the hospitality industry relies on it for the supply of feathers for display and comfortable luxury mattresses, pillows and cushions as well as in the agricultural industry in the production

of organic fertilisers. Lastly, it provides affordable meat for the nation's populace especially those in urban areas (Wahyono and Utami, 2018).

2.5 Socio-economic Role of Poultry Production

Poultry production is one of the important components of the livestock subsector in the Nigerian economy, which can be embarked upon by the people with small or no land capital (Conroy, 2005). Nigeria's poultry industry is composed of local unimproved breeds and the high performing commercial breeds. Over the last 50 years, the exotic breed has made an aggressive incursion into the production economy of the country, while the local chicken is driven by traditional system management, the exotic breeds have stimulated an industrial advancement of then poultry industry through specialization as egg or meat type strains to satisfy the increasing demand for poultry commodity in the food market (Rekwot *et al.*, 2015). provides direct employment for a large number of rural and urban people and indirect employment to suppliers of products and services such as grain farmers, feed mill operators as well as those producing various goods and services used to support poultry production and marketing activities (Adeyemo and Onikoyi, 2012). Poultry is considered to be a means of livelihood and a way of achieving a certain level of economic independence in Nigeria.

The primary purpose for keeping poultry in all parts of the country is for both dietary and economic reasons (Ogundipe and Sanni, 2002). Poultry as an aspect of livestock production is important to the biological needs, economic and social development of the people in any nation (Oladeebo and Ambe-Lamidi, 2007). However, the contribution of poultry production (meat and eggs) to total livestock output increased from 26% in 1995 to 27% in 1999 with an increase in egg production alone accounting for about 13% during the period (Ojo, 2003). The development of the poultry industry has also been described as the fastest means of bridging the protein deficiency gap prevailing in most of the developing countries. The poultry industry, if properly harnessed can also serve as a source of foreign earnings complementing crude oil which at present constitutes the main source of foreign earnings in Nigeria (The - poultry site news 2009).

In poultry production, small scale poultry production represents one of the few opportunities for saving, investment and security against risks. It accounts for approximately 90% of total poultry production (Branckaert, 1999). Poultry production in rural parts of the country is more important because of the divergent roles it plays (Nwagu, 2002). Poultry meat and eggs offers considerable potential for meeting human needs for dietary animal supply (Folorunsho and Onibi, 2005). This single reason among others has made the enterprise attractive and popular among small medium, as well as large scale poultry farmers

2.6 Challenges of Poultry Production in Nigeria

Despite the leading role of poultry production in the livestock industry, it's not without challenges. The challenges of poultry production in Nigeria cannot be over emphasized. These challenges have slowed down the rate of production in the industry. High rate of disease and pest attack as a major challenge in poultry production was reported by Ajala *et al.* (2007) and Aromolaran *et al.* (2013). Lack of access to Loan and credit procurement was also identified in different research carried out (Agbato, 1997; Akeeb 1997; Adebayo and Adeola, 2005; Aromolaran, 2013). Lack of technical knowledge was also reported by Olaniyi *et al.* (2008), and Aromolaran *et al.* (2013) as another challenge facing the industry, this they say, that most people go into poultry farming simply because of the huge profit they see others getting, but fail to enquire the necessary knowledge involved in poultry production.

High rate of mortality was also identified by Chilate and Guta (2001); Aromolaran (2013); Anosike *et al.* (2015), as major challenges facing the industry, this they say was due to supply of poor quality chicks as reported by Ajala *et al.* (2007); Adeyemo and Onikoyi (2012); Anosike *et al.* (2015). Anosike *et al.* (2015), also reported that most farmers do not have an idea of the farms that hatch the chicks they buy, as they buy from road side hawker. Ajala *et al.* (2007), also reported that mortality mostly occur at brooding stage.

High cost of poultry feeds was identified by Agro-Ind (2002); Sonaiya and Swan (2004); Adeyemo and Adeyemo (2009). Adeyemo and Onikoyi (2012) reported that

inadequate poultry extension services are one of the major challenges faced by the poultry industry. Inadequate access to and high cost of Veterinary services was reported by Adeyemo and Onikoyi (2012); Anosike *et al.* (2015) as another major challenge posing a threat to the industry.

2.7 Possible Solutions to the Challenges of Poultry Production in Nigeria

Despite the challenges of poultry production in Nigeria, it has not stopped the industry from functioning, though these challenges might have slowed down its production rate. Solutions to curb these challenges are not farfetched. The incidence of diseases outbreak is one of the pressing challenges of poultry production in Nigeria. There is need for veterinary intervention in order to curb losses due to disease as suggested by (Ajala *et al.*, 2007).

Also educations on feeding of brood and simple disease control programmes are possible short-term methods to improve poultry production in Nigeria. Technical know-how for improving poultry production should be made available to poultry keepers through extension service. Thus the extension workers have a major role to play in improving rural poultry production as suggested by (Ajala *et al.*, 2007).

Aromolaran *et al.* (2013), in their research carried out in Ibadan, Oyo State on small poultry farms did recommend, that small scale layer poultry farmers should be encouraged to form cooperative societies or join the existing one to be able to access loan for their business and government could also make fund available to assist the poultry farmers. They also recommended capacity training of poultry farmers to enable them cope with the challenges of modern poultry farming and commercialization of small scale layer poultry production should be carried out. This is also in line with the recommendation of Adeyemo and Onikoyi (2012) who recommended that Government should provide financial assistance to subsistence and small-scale poultry farmers in form of soft loans. This they say will help to prevent the decline of the sectors as a result of unprofitable operation or increase in the price of its products. Anosike, *et al.* (2015) did recommend that to reduce the rate mortality to a barest minimum, hatchery industry should be inspected by relevant agencies to ensure that healthy day old chicks

are produced under good hygiene condition.

2.8 Summary of Literature

The challenges of poultry production in Nigeria are multifaceted. These challenges might not have stopped the industry from functioning because there has been a steady increase in the demand for poultry products in Nigeria due to several factors such as increase in population, new poultry farms the expansion of existing ones and the resuscitation of some others which had stopped production but might have slowed down rate of production in the industry. This paper reviews these challenges to include; disease and pest attack, lack of loan and credit procurement, lack of technical knowledge, high rate of mortality, high cost of poultry feed, supply of poor quality chicks, inadequate extension services, and inadequate access to and high cost of veterinary service. Possible solutions to these challenges include; intervention of veterinary in order to curb losses due to diseases, technical know-how for improving production should be made available to poultry keepers through extension service, poultry farmers should be encouraged to form cooperative societies or join existing one to be able to access loan for their business and

Government could also make funds available to assist the poultry farmers through soft loans, capacity training of poultry farmers to enable them cope with challenges of modern poultry farming etc. If the solutions stated above are set in place to tackle the challenges facing the industry, poultry industry is and will still remain one of the fastest growing livestock industries of the agricultural sector in the country.

Chapter Three

Research Methodology

3.0 Methodology

Methodology is the specification of procedure of collecting, analyzing the data necessary for the purpose of research work. This chapter includes the identification of population, determination of the sample size and techniques used description of research instrument, method of data collection and its analysis.

3.1 Research Design

The study employs descriptive research of survey type, to investigate the problems and prospect of rearing poultry in Ijebu-Ode Township of Ogun state. The intent of the descriptive research is to describe the problems and prospect of rearing poultry of a given population and area of interest concerning the problem under investigation.

3.2 Population of Study

The population of the study comprises all the poultry farmers in Ijebu-Ode, as contained in Agricultural Development of Project Unit of Ijebu Division, Ogun State.

3.3 Sample and Sampling Technique

A list of poultry farmer was collected from the department of agriculture in Ijebu-Ode Local Government Area or the zonal office of Ogun State Agricultural Development Programme to ascertain the number of farmers and from which a certain percentage was selected randomly.

3.4 Research Instrument

The research instrument for this study was a well structured questionnaire. The questionnaire was designed to elicit information on the topic. It is divided into two sections A and B. section A consist of personal data while section B contains questions poultry farming, constraints and prospects. The questionnaire was designed in Yes and No format to enable respondents indicate the extent of the answers given on the items or information supplied.

3.5 Validation of Instrument

Validity is the ability of a test to measure the investigation purported to measure. The questionnaire was examined and scrutinized by the supervisor to ensure that the items are related to the research questions and that they measure what they are designed to measure.

3.6 Reliability of the Instrument

To test for the reliability of the instrument, pilot test was adopted in which pre-survey was carried out in order to have consistent, stable, and accurate information prior to the major sample survey.

3.7 Administration of the Instrument

The instrument was personally administered by the researcher to the respondent and was collected by the researcher after it has been filled by the respondents. The questionnaire was distributed to both the male and female livestock farmer.

3.8 Method of Data Collection

The data for the research work was collected through the use of a well structured questionnaire.

3.9 Method of Data Analysis

The data from the questionnaire was subjected to analysis using simple percentage method and inferential statistics.

Chapter Four

Results and Discussion

This section presents the analysis of collated data and presentation of the results and discussion.

4.1 Results

Table 1: Distribution of respondents by Origin

Origin	Frequency	Percentage
Indigene	40	40
Settlers	60	60
Total	100	100

Source: field survey, 2021

Table 1 above shows that majority (60%) were settlers while 40% were indigene. This implies that most of the poultry farmers are settlers.

Table 2- Distribution of respondents by Ethnicity

Ethnicity	Frequency	Percentage
Yoruba	84	84
Hausa	2	2
Igbo	14	14
Total	100	100

Source: field survey, 2021

Table 2 shows that majority (84%) of the respondents were Yoruba, 2% and 14% were Hausa and Igbo respectively.

Table 3: Distribution of respondents by gender

Gender	Frequency	Percentage
Male	44	44
Female	56	56
Total	100	100

Source: field survey, 2021

Table 3 above shows that majority (56%) of the respondents were females while 44% were males

Table 4: Distribution of respondents by religion

Religion	Frequency	Percentage
Islam	18	18
Christianity	54	54
Traditional	28	28
Total	100	100

Source: field survey, 2021

Table 4 shows that majority (54%) of the respondents were Christians, 18% were Muslims while 28% were traditional.

Table 5: Distribution of respondents by education

Educational Level	Frequency	Percentage
Primary	14	14
Secondary	42	42
Tertiary	42	42
Others	2	2
Total	100	100

Source: Field survey, 2021

Table 5 shows that 42% of the respondents were secondary and tertiary students, 14% and 2% had primary and others respectively. This means that with their levels of education they will be able to apply the innovative techniques required to improve their poultry production and also solve the problems encountered.

Table 6: Distribution of respondents by marital status

Marital Status	Frequency	Percentage
Single	32	32
Married	60	60
Widowed/Widower	8	8
Total	100	100

Source: Field survey, 2021

Table 6 above shows that 32% were single, majority of respondents were married (60%), and 8% widowed/widower. This indicates that most of the poultry farmers were married, which means they are likely to engage their family members in poultry production thereby saving the cost of hired labour.

Table 7: Distribution of respondents by occupation

Occupation	Frequency	Percentage
Civil Servant	28	28
Unemployed	48	48
Others	22	22
Total	100	100

Source: Field survey, 2021

Table 7 shows that majority (48%) of the respondents were unemployed, 28% and 22% were civil servant and others respectively. This means that majority of the respondents practiced poultry farming.

Table 8: Distribution of respondents by Poultry Type

Poultry Type	Frequency	Percentage
Family Purpose	16	16
General Purpose	80	80
Other Purpose	4	4
Total	100	100

Source: Filed survey, 2021

Table 8 shows that majority of farmers keep poultry mainly general purpose.

Table 9: Distribution of respondents by Experience

Years of Experience	Frequency	Percentage
<5	20	20
6-10	20	20
11-15	18	18
16-20	30	30
>20	12	12
Total	100	100

Source: Field survey, 2021

Table 9 shows that majority 30% of the respondents had between 16-20 years of experience, 20% of the respondents have had below 5 and between 6-10 years of experience in each, while 18% and 12% had 11-15 years and above 20 years of experience respectively. It implies that majority of the respondents are well experienced in poultry keeping.

Table 10: Distribution of respondents by source of knowledge

Source of Knowledge	Frequency	Percentage
Friend	38	38
Parents	32	32
Mass Media	4	4
Neighbours	6	6
Personal Reading	16	16
Others	4	4
Total	100	100

Source: Field survey, 2021

Table 10 shows that 38% of the respondents learnt poultry farming from their friends, 32% through parents, while 4% had the knowledge from mass media and others respectively, 16% had the knowledge through personal reading while 6 had the experience through neighbours. This implies that majority of the poultry farmers gained their knowledge from friends.

Table 11: Distribution of respondents by poultry bird

Birds size	Frequency	Percentage
Less than 20	28	28
21-30	26	26
31-40	22	22
41-50	18	18
Greater than 50	6	6
Total	100	100

Source: Field survey, 2021

Table 11 shows that majority of the respondents were small to medium to scale poultry

farmers

Table 12: Distribution of respondents by labour use

Source of Labour	Frequency	Percentage
Family Member	64	64
Hired labour	36	36
Total	100	100

Source: Field survey, 2021

Table 12 shows that majority of farmers use family member (64%) as labour and few hired labourer (36%)

Table 13: Distribution of respondents by provision of Extension Services

Extension Services	Frequency	Percentage
Yes	68	68
No	32	32
Total	100	100

Source: Field survey, 2021

Table 13 shows that majority 68% of the farmers have access to extension services, 32% had no access which may affect their poultry farming operations.

Table 14: Distribution of respondents by lecture on Covid-19

Lecture on Covid-19	Frequency	Percentage
Yes	38	76
No	12	24
Total	50	100

Source: Field survey, 2021

Table 14 shows that 76% of the farmers do receive lecture on Covid-19 from extension

agents while 24% do not.

Table 15: Distribution of respondents by problem(s)

Constraints	Frequency	Percentage
High cost of feeding	34	34
Lack of transportation	34	34
Insufficient fund	20	20
Inadequate Equipment	4	4
Access to the market	8	8
Total	100	100

Source: Field survey, 2021

Table 15 shows that 34% of the farmers encounter high and lack of transportation each, insufficient fund (20%), inadequate equipment (4%) and access to the market (8%). This implies that high cost of feeding, lack of transportation and insufficient fund are the problems encountered by the farmers

4.2 Discussion

From the above result, it is revealed that most of the poultry farmers are settlers and also most of the birds' keepers were Yoruba. The result also shows that majority of the respondents were females. The result is in contrary with the finding by Oladeji (2011) who found that poultry farming was dominated by male producers. It shows that majority of the respondents were secondary and tertiary students. Education makes people well-disposed to knowledge seeking, critical thinking, better decision making and adoption of new ideas. This result is in agreement with Babalola (2014) who found that most commercial poultry farmers were educated. The result is supported by the findings of Ayanda (2013) who implied that people who engaged in poultry farming were not only graduates of agriculture. This means that with their levels of education, they will be able to apply the innovative techniques required to improve their bird's

production. It indicates that most of the birds farmers were married, which means they are likely to engage their family members in birds production thereby saving the cost of hired labour. The result also shows that majority of the respondents were unemployed, this means that majority of the respondents practiced birds farming. The result is supported by the findings of Ayanda (2013) who implied that people who engaged in commercial poultry farming were not only graduates of agriculture. Table 9 shows that majority 30% of the respondents had between 16-20 years of experience, 20% of the respondents have had below 5 and between 6-10 years of experience in each, while 18% and 12% had 11-15 years and above 20 years of experience respectively. It implies that majority of the respondents are well experienced in sheep keeping. This result is supported by Owoade (2016) who reported that poultry farmers were young active producers. Table 10 shows that 38% of the respondents learnt poultry farming from their friends, 32% through parents, while 4% had the knowledge from mass media and others respectively, 16% had the knowledge through personal reading while 6 had the experience through neighbours. This implies that majority of the poultry farmers gained their knowledge from friends. Table 11 shows that majority of the respondents were small to medium to scale poultry farmers. This finding is supported by Maikasuwa, Tanko and Nabil (2014) who reported that small scale commercial poultry farmers dominated the Nigerian landscape. Table 12 shows that majority of farmers use family member (64%) as labour and few hired labourer (36%). Table 13 shows that majority 56% of farmers keep birds mainly as household consumption, 38% as source of income and 6% for festivities. This implies that the farmers were keeping birds for household consumption and as source of income. Table 14 shows that majority 45% of the farmers have access to extension services, 32% had no access which may affect their poultry farming operations. These results further explain the result of Polson and Spencer (1991) that such contacts plays important roles on diffusion of innovations. Table 14 shows that majority of the farmers do receive lecture on Covid-19 from extension agents. Table 15 shows that 34% of the farmers encounter high and lack of transportation each, insufficient fund (20%), inadequate equipment (4%) and access to

the market (8%). This implies that high cost of feeding, lack of transportation and insufficient fund are the problems encountered by the farmers

Chapter Five

Summary, Conclusion and Recommendation

5.1 Summary

This study was conducted to investigate the problems encountered by poultry farmers in Ijebu-Ode Township and suggest solutions to them. The study employs descriptive research survey. The population of the study comprises all the poultry farmers in Ijebu-Ode, Ogun-State. A list of poultry farmers was collected from Ogun State Agricultural Development Project, Ijebu-Ode zonal office and from which respondents were randomly selected. The data from the questionnaire was subjected to analysis using descriptive statistics involving percentage and tables. It shows that majority of the poultry farmers gained their knowledge from friends. It also reveals that the farmers were keeping birds for household consumption and as source of income. It also shows that majority of the farmers do receive lecture on Covid-19 from extension agents. The result is supported by the findings of Ayanda (2013) who implied that people who engaged in poultry farming were not only graduates of agriculture. This means that with their levels of education, they will be able to apply the innovative techniques required to improve their bird's production. It indicates that most of the birds farmers were married, which means they are likely to engage their family members in birds production thereby saving the cost of hired labour.

5.2 Conclusion

From the outcomes of this study, it can be concluded that majority of poultry farmers in the study area shows that majority of encountered problems are high cost of feeding, lack of transportation and insufficient fund. The result also shows that majority of the respondents were females. The result is in contrary with the finding by Oladeji (2011) who found that poultry farming was dominated by male producers. This also reveals that the farmers were keeping birds for household consumption and as source of income.

5.3 Recommendation

In providing solutions to the problems of poultry farmers in Ijebu-Ode government in all arms and private bodies should intervene in provision of good credit facilities to the poultry farmers, subsidize the cost of feeds and feed ingredients and create access to ready markets.

Concerted and sustainable efforts should be made by extension agency to organize training programmes on improved poultry technologies at cooperative levels. Credit facilities should also be made available in cash and kind.

Public-funded extension agency should also plan and facilitate workshops/seminars to bring farmers and input providers together regularly to create a forum whereby knowledge exchange can occur.

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Appendix

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Department of Agricultural Education

Poultry Farmers Questionnaire

Dear Respondents,

The questionnaire below seeks your opinion on the problems encountered by poultry farmers in Ijebu-Ode Local Government Area of Ogun State. The importance of this questionnaire is in partial requirement for the fulfillment of Nigeria certificate (N.C.E). It is designed for the purpose of research only; and all information supplied shall be treated in strict confidence.

Thanks for your anticipated co-operation.

Kindly tick () in the appropriate column key:

SECTION A: RESPONDENT'S BACKGROUND

1. Origin: - Indigene [] settler []
2. Ethnicity: - Yoruba [] Hausa [] Igbo []
3. Gender: - Male [] Female []
4. Religion: Islam [] Christianity [] Traditional []
5. Educational: (a) primary [] (b) secondary [] (c) tertiary [] (d) Others (specify):
.....
6. Marital Status: Single [] Married [] Window/widower []
7. Main Occupation: Farming [] Civil Servant [] Unemployed [] Others
(Specify)_____

8. Poultry Type: Family Purpose [] General Purpose [] Other purpose []

SECTION B: POULTRY FARMING AND PROBLEM ENCOUNTERED

9. Poultry farming Experience: <5yrs. [] 6-10yrs. [] 11-15yrs. [] 16-20 yrs. []
>20yrs. []

10. What is your source of knowledge regarding poultry farming? Friend []
Parents []

Mass Media [] Neighbours [] Personal reading [] Others (Specify)

11. What is your bird's size? <20 [] 21-30 [] 31-40 [] 41-50 [] > 50 []
Others _____

12. What labour do you use for poultry keeping? Family member [] Hired labour []

13. Do you have access to extension services? Yes [] No []

14. Have you been lectured on Covid-19 control measure by extension agent Yes
[] No []

15. What major problem(s) are you facing during Covid-19 pandemic regarding
poultry birds keeping?