

# The Challenges and Prospects of the Commercial Poultry Industry in Ghana: A Synthesis of Literature

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## Abstract<sup>5</sup>

Ghana's poultry sector has been experiencing a steep decline since the year 2000. Many, if not all, the commercial poultry farms that were established in the late 1960s and early 1970s have collapsed and/or are on the verge of collapsing. Parliament passed a law to increase taxes on the importation of frozen chicken but that law has never been implemented due to pressures from the International Monetary Fund (IMF). This paper examined the challenges and prospects of the commercial poultry industry in Ghana. A synthesis of secondary data was sourced to assess the prevailing issues. It was concluded that the Government of Ghana should pass the law to increase taxes on the importation of frozen chicken; adopt policies to encourage SME financing in Ghana; develop proper training institutions for poultry farmers; encourage the consumption of local poultry products while the industry offer relevant training and live demonstration programmes for its members. Entrepreneurs must also address all the financial and managerial issues affecting the poultry industry in Ghana.

**Keywords:** Poultry, Government of Ghana, Prospects, Challenges

## 1. Introduction

Government of Ghana's (GOG) initiative in the 1960s to promote commercial poultry production resulted to the industry supplying about 95 percent of chicken meat and eggs in the country. Growth was initially slow, due to irregular supply of day-old chicks, other inputs and outbreaks of poultry diseases. However, in 1970's, the GOG as part of its support for the development of the poultry industry removed customs duties on poultry inputs - feed, additives, drugs, and vaccines including access to veterinary services. Since 2000, however, Ghana's poultry sector has been experiencing a steep decline. Many, if not all, the commercial poultry farms including Darko Farms, Pomadze Farms, Afariwaa Farms, Midland Farms, Acme Hatchery etc that were established in the late 1960s and early 1970s have collapsed and/or are on the verge of collapsing and/or operating far below full capacity.

According to GOG sources, broiler production has experienced a steep decline from 80 percent of the market supply in 2000 to 10 percent in 2010. In August 2010, Ghanaian poultry farmers urged the government to end the importation of chicken meat since it was undermining local production and

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threatening the local poultry sector. Several reports by industry players have also indicated that it is impossible for producers to manage a farm enterprise the way their parents did 30 years ago (Arzeno, 2004). So what factors have contributed to the ailing commercial poultry industry in Ghana? This study seeks to assess the nature of the poultry industry in Ghana by specifically examining the challenges and prospects and also identifying the best entrepreneurial traits required to transform the ailing poultry industry into a viable one.

### • **Overview of Ghana's Poultry Industry**

Commercial poultry production in Ghana is categorised into large-scale (over 10,000 birds), medium-scale (5,000-10,000 birds) and small-scale (50-5,000) enterprises. Domestic commercial farms are privately owned by individuals or families. The large-scale category forms about 20 percent of the total poultry sector, producing mainly eggs. Most operate their own feed-mills as some maintain a hatchery and parent stock. The level of bio-security practice is high in the large-scale category. The medium-scale and the small-scale categories comprise 80 percent of the poultry sector and rely on hatcheries for their day-old chicks and feed mills for their feed. The medium-scale category also produces primarily eggs whereas the small scale categories are backyard poultry producers who mainly produce broiler birds. The medium and small-scale operators practice minimal bio-security hence allowing free-range and wild birds to gain access to poultry houses, predisposing operations to disease out-breaks such as AI. Some commercial poultry farmers produce broiler birds for sale during festive seasons.

Commercial productions are primarily produced by ten hatcheries that produce up to 60 percent of capacity due to low demand. Only three of these hatchery companies maintain their own parent stocks of layer or broiler birds. The other poultry producers import fertile eggs. The GOG is yet to pass into law a Hatchery bill that will ensure that quality day-old chicks are produced from domestic hatcheries. Broiler and layer birds are kept exclusively indoors on deep litter and/or in battery cages, and fed on well formulated diets. The broiler birds attain 2-2.5 kg live-weight at 6-7 weeks and are ready for the market. Layer birds reach 16 weeks before the pullets start laying eggs. Average industry egg production is 230-250 eggs/layer/year. The main feed ingredients are locally produced corn or imported yellow corn, cotton-seed cake, kernel cake, soybean cake, copra cake, fish meal and soybean meal; vitamin-mineral premixes are imported. The average cost of producing broilers in Ghana (live wt 2-2.5kg/dressed weight of 1.5-1.9kg) is estimated at GHS12.00 (\$6) for large scale producers and higher for the small-scale producers. This figure is far above the price of imported poultry.

### **Feed Production**

The poultry feed industry has shifted to producing layer feed due to a drop in domestic broiler production. About 90 percent of feed produced by commercial feed millers is layer feed as broiler feed is primarily purchased by small scale backyard poultry producers. However, there is a seasonal feed demand from the larger producers who raise birds for festive seasons. Poultry feed accounts for about 70 percent of the total feed produced in Ghana. Feed manufacturers in Ghana can be categorised into commercial feed millers and on-farm self-millers. Ghana has about ten commercial feed mills with a total installed operating capacity of 1000 MT per day. However, most feed millers are only producing at about 40-50 percent of their capacity due to the low demand from the local poultry industry. The average amount of compound feed produced in Ghana is about 10,000 MT annually. Commercial feed millers supply poultry feed mostly to medium and small-scale poultry producers because large scale poultry producers mostly make their own feed. These commercial feed millers produce mainly mash feed, a few produce high feed concentrates, and one feed mill pelletizes feed. Most small and medium-scale poultry producers prefer feed concentrates because it is cheap, convenient, and less bulky for transportation.

The main ingredients for compound feed are locally produced corn or imported yellow corn and wheat bran. Corn typically forms about 50-60 percent of the total feed formulation and industry consumes nearly 30 percent of all corn produced in Ghana. Feed prices in Ghana have been climbing primarily due to the rising

cost of corn. The price of a 50kg bag of white corn as at July 2013 is GHS 60.00 (\$32) as compared to GHS45.00 (\$23) in June 2011 and GHS25 (\$13) in the same period in 2010. The GOG has not encouraged nor granted permits for the importation of yellow corn as done in previous years because approximately 10,000 MT have been stored by the GOG to serve as a buffer stock for release during scarcity periods. Soybean meal inclusion in poultry feed is low due to its high cost - 10 to 18 percent of the feed ration for layers and 15 to 25 percent for broilers. Controlling animal feed costs is critical since it represents approximately 82 percent of the variable production cost resulting to feed manufacturers switching to low cost substitutes such as palm-kernel cake, groundnut cake and fish meal, and some by-products of agro-processing.

### **Consumption**

Poultry consumption in Ghana continues to rise as meat imports in 2012 accounted for nearly 92 percent of consumption while the domestic production of all types including commercial and non-commercial or backyard poultry production provided about 8 percent. Ghanaians consume mostly chicken, goat meat, cow meat, guinea fowl, duck, quails, pigeon, turkey and ostrich. The estimated per capita consumption of poultry products in Ghana is increasing, from 3.5kg meat in 2003 to 7kg in 2012. In Ghana, livestock and poultry meat contributes 40 percent of the national animal protein supply with the rest coming from fish (FAO report 2009). Consumption patterns of households, restaurant, hotel and fast food sector in urban areas in Ghana are heavily weighted towards imported frozen poultry products as they are cheaper, already pre-cut, processed and ready-to-use, than locally produced products. Consumption of chicken and eggs continues to increase, despite significantly higher prices. The wholesale price of a crate of eggs in 2014 is GHS10.00-GHS16.00, up from GHS4.00-5.50 in 2010.

### **Trade**

Poultry imports to Ghana have increased due to increasing demand and the decline in domestic commercial poultry meat production. Ghana poultry imports are supplied mainly from the United States, Brazil and the EU. About 90 percent of exported frozen chicken to Ghana is processed into cut portions/parts, mainly chicken leg quarters and wings, and 10 percent is frozen whole chickens and gizzards. Ghana's official statistics indicate that poultry imports have more than quadrupled in recent years, from 20,000 MT in May 2002 to over 98,000 MT in May 2010 as shown in Table 1.

**Table 1: Poultry Imports From 2002 – 2010**

Years	Total Poultry Export to Ghana (MT)	US Poultry Export to Ghana (MT)	US Percentage Share of The Market
2002	20,752	10,068	48 percent
2003	34,107	17,377	50 percent
2004	40,357	15,999	39 percent
2005	42,288	13,075	31 percent
2006	47,794	12,049	25 percent
2007	66,899	16,120	24 percent
2008	93,258	19,401	24 percent
2009	89,000	22,858	25 percent
2010	98,000	21,927	22 percent

(Source: Ministry of Agriculture, Poultry Industry, USAPEEC, 2010)

In the last five years US poultry exports to Ghana have increased to reach between 22-25 percent of the market demand despite increased competition from Brazil and European Union (EU). U.S. poultry enjoys price advantages compared to others but has lost market share to Brazil, due to the poor labelling and packaging. Ghana continues to be a destination for U.S. poultry due to strong relationships between importers and exporters, loyalty to U.S. poultry products, and accessibility.

## **Government Policy**

The level of tariffs on imported poultry is 20 percent. Other taxes and levies are Value Added Tax (VAT) 12.5%; National Health Insurance Levy (NHIL) 2.5% to be collected by the VAT Secretariat; Export Development and Investment Fund Levy (EDIF) 0.5%; Inspection fee of 1%; ECOWAS Levy 0.5%; and Ghana Customs Network (GCNET) of 0.4%. The Ghana National Poultry Farmers Association (GNPFA) mounted pressure on the GOG to increase poultry tariffs to protect the industry. In January, 2006 GOG passed a regulation to increase import tariffs from 20 percent to 40 percent to protect the sector but was officially overturned two months later. GNPFA took the GOG to court to enforce the implementation of the law but the case was suspended to enable the GOG to address their concerns leading to the establishment of a Poultry Council to help the industry thrive.

## **Diseases**

In May 2007, Ghana became the eighth African country to confirm H5N1 avian influenza (AI) outbreak. The disease was first reported in Nigeria in February 2006 and was quickly contained by quarantining and destroying all the birds in the affected farms to prevent the spread of the virus, and affected farmers duly compensated. In addition, public awareness programmes and workshops on the mode of spread of AI, its detection and control were undertaken nationwide. A surveillance system has been established by the GOG to monitor and assess the AI threat at all the entry points along the borders of Ghana, at market places and resting places of wild birds, including areas near water bodies. In 2010, the USDA Cochran Fellowship Programme trained four Ghanaian veterinary staff in the US on AI and food safety to support the control and prevention of AI in Ghana. Government has also established Avian Influenza Working Group (AIWG) as recommended by the Food and Agriculture Organisation (FAO) and World Health Organisation (WHO).

### **• Output of Poultry Farming**

Poultry farms can be classified into two main types: egg production farms and meat production farms.

In egg-producing farms, day-old chicks are purchased from specialised hatcheries that produce egg-producing pullets. They are either raised by the egg producer or a pullet grower until they are ready to start laying eggs, which is usually at 19 weeks of age (Beutler, 2007). The egg production cycle lasts for about a year in environmentally controlled poultry houses in cage systems. Not in all farms, but to make the maintenance process easier, automated feeding, watering, and egg collection systems are developed, with feed and water moved on rotating belts that pass by the cages. Another rotating belt collects the eggs and sends them to the sorting chamber to be tested for fertility, graded, and sorted according to size, making them ready for delivery to the market (Farran, 2009). Laying hens in egg producing farms are usually of small body frame and weights compared to broilers, and are classified into two groups: egg producing chickens and dual purpose chickens. Egg producing chicken are bred and raised for maximum egg production rather than high meat yield. Dual purpose chickens are smaller in size than commercial meat breeds, and are used for meat as well as egg production. Several developments to increase the marketing value of eggs - omega3 eggs, folate and lutein enriched eggs, free run and organic eggs have caused a noticeable change in the market.

On meat production farms, broiler breeders are raised mainly in environmentally controlled poultry houses. Fertile eggs are collected and transported to the hatchery, where they are placed in hatcheries for 18 days and then transferred to incubators in the last 3 days (Beutler, 2007). After hatching, broiler chicks are distributed to producers who grow out the birds, and send them for slaughtering and processing after 42 days. These broilers are chickens that are raised for the purpose of meat production and have a larger body frame and weight than layers.

- **Construction of Poultry Farms**

Initial approvals (relating to visual views, noise, odour, and wastes) must be obtained prior to the construction of a poultry farm. Construction planning should include plans for an isolated area to dispose the waste material without causing any health or environmental risks, including risks to water resources, until some specialised company for compost production collects the wastes. Poultry litter is considered a by-product with economic potential - used as fertilizers for crop production; sold to commercial processors for composting operations or nursery preparations; and composted on the farm in a confined area, and then applied to farm lands. Due to the type of business and growth potential, poultry farms should be constructed in a manner that allows for future expansion. This should include plans for expansion of feed storage areas, drainage, and effluent. All poultry farms share common facilities and equipment such as feeders and drinkers, but others have slaughter house facilities to minimise cost and increase profits through vertical integration. Hatcheries are equipped with incubators that maintain the eggs for 18 days and hatchers that keep the eggs for 3 days, both maintained at the right temperature and humidity required for hatching (Wood et al., 1998).

- **Management of Poultry Farms**

Feed costs (energy and protein contents) have a major impact on the profitability of poultry farm operations as chickens have different nutrient (feed) requirements depending on their type, age, and sex. Rations formulated to meet nutrient requirements produce faster growing, and healthier chickens, and thus better products and more profits (Farran, 2009). Excess dietary nutrients are often excreted in the feces. The excess nitrogen and phosphorus in feces could cause a threat to the environment. For this reason, managing feed formulas for accuracy is an important step in the poultry farm management to safeguard the environment, and reduce operating costs.

Diseases can be transmitted via humans, other birds, newly introduced chicks, or contaminated equipment. Controlling diseases from the beginning is important for the success of the operation. Viruses can cause several diseases -Marek's disease, Newcastle disease, infectious bronchitis, laryngotracheitis, fowl pox, fowl cholera, and avian encephalomyelitis (Jacob et al., 1998). Vaccination is mainly done to prevent Marek's disease, which can infect laying hens and hence, a whole flock if the eggs are infected. For the operation to be profitable, a good disease prevention programme should be available for the newly introduced chicks to avoid any future losses.

Vaccination is an effective way to reduce the negative effects of diseases that cause loss (es) in poultry operation. Viruses are the number one cause of poultry disease and the largest threat to poultry farms and can be reduced by proper sanitation on the farm, bio-security measures, and vaccination of the chicks and chickens (Farran 2009). Vaccination methods are administered via drinking water, injections and spraying, whereby the spray enters the nostril or the eye to form antibodies. Chicks are usually vaccinated between 2 to 16 weeks of age, depending on the type of vaccine and disease. Some vaccines are marketed as mixtures to prevent more than one disease. More vaccination methods have been developed in the United States. For example in-ovo vaccination has made the process more labour efficient. This method vaccinates the embryo in the egg at the hatchery; after that there is not any need to vaccinate again on the farm (Aning, 2006; Williams, 2007).

Older hens are either sold to another farm or, more commonly slaughtered. At the slaughtering facility, all poultry must be brought to a holding area where a good shelter with sufficient time for rest and water are provided before slaughtering. Slaughtering is done as humane as possible, allowing blood to drain for about 90 seconds after killing. The U.S. poultry industry was faced with opposition in 2009 when animal rights activists questioned the slaughtering techniques used at some plants. Hot water at 82°C eases the removal of feathers, the birds are eviscerated, washed, and their carcasses cut into pieces. The knives are sanitised frequently to avoid disease transmission. After cutting and chilling of the chicken carcass, packaging takes place at an area close to the slaughter house. Packaged chicken meat is then stored in refrigerators before

going to the market. Advanced slaughter machines operate at a rate of 6,000 broilers an hour. Even with this high number, the world still needs more chicken for consumption.

After poultry are removed from the poultry house, it is cleaned and sanitised. The sanitation process differs depending on the floor type and type of poultry house. Several disinfectants are used to clean and sanitise the poultry house. However, the disinfectant must be chosen carefully to avoid problems with newly introduced flocks (Smith, 1999).

Starting a poultry farm requires start-up capital (that varies with the size, design, location, equipment and the facilities) and an operational budget. Usually farmers get loans from banks or other lenders for start-up costs. The budget represents the income, fixed and variable costs, profits, and investment amounts for the poultry farm, depending on its size. Determining these values and using an enterprise budgeting sheet will give the broiler producer a clear view of the operation and whether or not it is feasible. Start-up costs represent a substantial investment that include construction of poultry houses, equipment within the houses, tractors and other implements, wells and water systems, and site preparation (Rhodes et al., 2008). Usually farmers get loans to cover these initial costs and generate income from the sales of litter or other by-products of the operation.

## **2. Related Literature Review**

### **• Global Perspective**

Agriculture is typically a capital-intensive industry with investments in farmland, building, machinery, equipment, and breeding livestock dominating the asset structure of most types of farms. In developing economies, agriculture is the livelihood of many but starved of the much needed investment. IMF's role is to oversee the global financial system and improve support to countries needing financial assistance – through loans, debt relief and aid. But there are strings attached – IMF's right to interfere in the recipient's economic policy, thus recipient countries must open their markets to international trade, recognise the private sector as the market's driving force and limit state intervention in the economy. Ghana is heavily dependent on aid, and has agreed to all of these conditions, hence the low tariffs and inadequate subsidies for farmers. These conditions also contradict the sovereignty of a nation - to provide opportunity for its people first and the rest of the world. Despite all the treaties signed, and international commitments to free and fair trade, many first-world countries have not lived up to the spirit of their pledges. Their farmers enjoy subsidise and their markets protected.

The Agreement on Agriculture, which came into force in 1995, in theory requires all member countries to reduce subsidies that hinder trade. But numerous loopholes and rules weighed in favour of the more dominant members of the WTO, and have not only allowed industrial countries to avoid reducing agricultural subsidies, but to continue raising them in some cases. Interest rates in Ghana far exceed the international norm. A farmer in the U.S. borrows at 4 percent, while his Ghanaian counterpart pays anything up to 28 percent. And loans are not easy to come by because banks see agriculture as high-risk.

In 2011, the EU, USA and Brazil together exported over 200,000 tonnes of frozen chicken to Ghana, valued at about US\$200 million. In 2002, more than 26,000 tonnes of chicken was imported into the country, mostly from the EU where farmers receive generous subsidies for production. In 2005, the figure was estimated to be as high as 50,000 tonnes. Ghana imports almost one-third of the EU's total frozen chicken that goes to Africa. Several Central and West African nations are victims of injustice by the US and EU. These countries subsidise their agricultural producers, ignoring the rules of the World Trade Organisation (WTO). The U.S. and the EU are the 'subsidy superpowers', accounting for over 60 percent of rich- country agricultural support spending. Europe spends more in absolute terms—and its subsidies represent a larger share of the value of farm output. However, the U.S. spends more per farmer. It also concentrates subsidies on a narrower range of commodities. EU and U.S. subsidies matter to the rest of the world because of their dominant position in global markets. On the surface, the argument against subsidies is quite revealing. But the debate over agricultural subsidies is often clouded by legal language and technical jargon. US officials

insist their country is in compliance because its subsidies (those that fall under WTO rules) do not distort international trade. Contrary, US officials have accused developing countries of lumping all US subsidies in a single basket, even though WTO rules lay out different schedules for different types of support. But leaders and activists in developing countries insist the US is not playing fair as a subsidy in the downstream of a product's food-chain is effectively a subsidy for everything above.

The excess supply of poultry products is also creating challenges. While consumer demand for poultry has slipped, production increased in 2011. The glut of poultry meat in the market is suppressing retail prices, making it difficult for processors to cover rising production costs. As the poultry industry becomes more concentrated, grocers and restaurants are forced to accept new shorter contracts. This flexibility has allowed processors to adjust to volatile corn and soybean prices. Strong foreign demand for poultry and access to new overseas markets also offered some relief in 2012. However, the key to industry growth is lower feed prices and higher domestic demand. Corn prices remained high in 2012, but then grain price swings are common. Record high feed prices, typically the largest expense for processors, are eating into poultry profits margins. Corn prices hit all-time highs in summer 2011 and expected to remain high into 2013.

#### • **Government of Ghana's Perspective**

In Ghana, livestock poultry contributes 40% of the national animal protein supply and is able to produce enough poultry for self-sufficiency (FASDEP, 2002). The need for credit can, therefore, not be overemphasised. This need gave rise to the establishment of the Agricultural Development Bank (ADB) [ADB Act 286] in 1965 to promote the development and modernisation of agriculture and allied industries. As the largest provider of credit to farmers in Ghana ADB faces difficulty in recovering agricultural loans compared with loans for personal and non-agric purposes. Some farmers feel loans made available to them are from government sources and therefore are not under any compulsion to pay back. Other reasons given for this include: inadequate logistics to monitor farmers; unreliable locations and other risks associated with the enterprise with regards to production and marketing; and difficulty when evaluating the credit worthiness of agricultural borrowers. Also, lenders cannot distinguish between borrowers of different degrees of risk as loan contracts are subject to limited liability whereby borrowers are not responsible for repaying loans out of their pockets if the projects returns are less than the debt obligation.

Subsequently, in June 2011, GOG disclosed the establishment of an Agriculture Development Fund (Export Development Investment Fund [EDIF]) to help provide affordable financial and credit facilities to farmers and revamp the poultry industry with favourable interventions such as create more jobs for the citizens, especially the youth; sustain the poultry industry; make the domestic poultry attractive to consumers; and make poultry products cheaper; and push for the patronage of made-in-Ghana goods. The failure of successive governments to draw up coherent policies to curtail the importation of poultry products into the country has been a challenge. Meanwhile, Government has ruled out the use of high tariffs to ensure growth of local industries, indicating that the experience in most developing countries showed that, such protection mechanisms did not engender the growth envisaged for the sector. However, plans are underway to review the laws on importation of poultry products and that before one would be given the licence to import frozen poultry products, one must show evidence that the quantity to be imported could not be obtained in Ghana at that particular moment. Again, an importer of frozen poultry products must procure 40 per cent of the quantity to be imported locally before given the licence to import.

In 2012, GOG indicated that various legislative, administrative and budgetary actions were put in place to protect Ghanaian products from imports and also assist the export of Ghanaian products to other countries, especially those in the West Africa sub-region. Besides, the Customs Excise and Preventive Service and other security agencies have improved efforts to stem smuggling of goods into the country. The Ministry of Food and Agriculture and ADB have established a Broiler Project with the view to increase poultry production by 1.2 million birds by the end of 2013. The project is yet to achieve its target. Additionally a poultry board is soon to be established to oversee the implementation of poultry programmes - cropping and

processing into oil and cake; 10,000 hectares of soya bean and sunflower as feed for the birds to reduce feeding cost; and improve the competitiveness of the poultry sector.

A Chief Dietician at the Ministry of Health, Mrs Margaret Hanson, had cautioned Ghanaians against the increasing consumption of foreign frozen poultry products as such products had been frozen for longer periods and had the propensity to cause serious cardiovascular diseases, gout, obesity, among other health related complications, due to the high content of salt. Birds are fed with growth hormones that increased their growth rate making them exceptionally bigger with more fat and different taste as compared to the local ones. Ghanaians are forced to use a lot of seasoning, which also contains monosodium, an additive full of salt; hence supporting the eating of fresh and locally produced poultry. In March 2013, the Food and Drugs Board (FDB) destroyed about 1,000 cartons of frozen imported poultry products because they had become poisonous for human consumption as against those that were not identified, hence posing serious threat to the local market.

#### • **Ghana Poultry Industry's Perspective**

Ghana once had a very vibrant poultry industry, with big names such as Pomadze, Darko Farms, Afariwaa Farms, and Akate Farms setting the pace and creating jobs for thousands of Ghanaians. Afariwaa Farms in its peak days had a feed mill with a production capacity of four metric tonnes of animal feed per hour and a hatchery capable of producing six million day old chicks per year for the local poultry industry as well as for the ECOWAS market. It also had a chicken slaughter and processing plant, capable of processing 400 birds per hour, and a breeding farm with 30,000 parent stock breeders, producing hatching eggs for the hatchery. Unfortunately, inadequate financial support and incentive packages for players in the industry had, over the years, led to the gradual collapse of the industry and the retrenchment of a large number of employees. Due to the high-risk nature of poultry farming, many commercial banks hesitated giving loans to operators in the industry, while the high cost of poultry feed also made the business too expensive to operate. Ghana has now transformed from a major producer to importer of chicken and chicken products, including eggs.

The industry is urging GOG to provide incentive packages for poultry farmers - support for poultry feed and other inputs importers; enforce appropriate tariff on imported poultry products to protect the local producers; provide or urge commercial banks to offer financial and credit facilities; establish poultry projects to create jobs towards reducing unemployment rate; among others. The Dormaa area is among the major producers of poultry products in the country, but lacks a well-equipped veterinary-laboratory for diagnosis and treatment of diseases that affect poultry.

Maize is a major staple crop and by far, the most important cereal crop in the country, exceeding total output and acreage planted for rice, millet and sorghum, however, farm holdings are small, between 1-2 hectares with only about 15% of maize farmers cultivating more than 2 hectares. Maize production is concentrated in the forest-savanna transition zone comprising the Ashanti, Brong Ahafo and Eastern Regions, which in 2006 accounted for more than 60% of the 1,188,836 tonnes produced. Maize is an important component of poultry and livestock feed, with about 13% of total annual maize output going into poultry and livestock feed. Ghana's poultry farmers prefer yellow corn, but the country produces mainly white corn and farmers currently have to pigment the feed in order for the egg yolk to produce a yellowish colour. Feeding the birds with yellow corn makes the egg yolk naturally yellowish, thereby saving them significant input costs. Experts say estimating maize consumption by the poultry industry is problematic because of unreliable data. Ghanaian poultry farmers are not offered any tax incentives and have to import maize due to insufficient local supply. Despite improvement in mechanisation and availability of fertile lands, the average Ghanaian farm yields 10 bags of maize per acre, while the same land in Brazil, for example, yields 36 bags.

Some studies have estimated demand for maize in the commercial sector at about 54,000 tonnes per annum and calculate that this demand could rise if broiler production increased substantially to satisfy

demand currently met by imports of poultry products, which rose from 7,939 tonnes in 1997 to over 13,000 tonnes in the early 2000s. Another study by WBS Consulting indicated that to produce the latter quantity of poultry products would require approximately 37,000 tonnes of feed of which about 20,000 tonnes would be maize. On the average, the volume of maize produced in Ghana has increased annually by 3.1% from 1997 to 2006. The national average maize yield is estimated at 1.6 tonnes per hectare. Using improved technologies, yields of 4-5 tonnes per hectare have been recorded in on farm demonstration fields. Lower yields have been attributed to traditional farming practices, the use of low-yielding varieties, poor soil fertility and limited use of fertilizers, low plant population, and inappropriate weed control. Whereas the price of a local bird is already very expensive, their feed is imported. GOG has banned the importation of yellow corn, so humans and the poultry compete for the white corn sending prices very high. Currently, a 3 kilo broiler sells at GHS 30 on the market, which many household cannot afford, unlike the imported one of the same kilo going for GHS 16, a price which includes about 40% of import duties.

#### • **Entrepreneurial Perspective**

Previous studies have shown that a number of factors hamper the growth of small businesses, including insufficient financial resources, however, the degree to which limited financial resources alone are a major obstacle to business development is still controversial. For example, findings show that additional capital is often not required to carry out a successful business activity and that lack of capital can be compensated through creativity and initiative. Kallon (1990) found that the amount of capital needed to start a business is significantly negative when related to the rate of growth for the business. He also found that access to commercial credit did not contribute to entrepreneurial success in any significant way, and if it did, the relationship would be negative. Contrary, some researchers have argued that small businesses are under-capitalised. Many entrepreneurs tend to depend upon their own or their family's savings to start and operate a business; this means of capitalisation is limited. Thus, access to capital remains a challenge.

Kallon (1990) further found that 65.6 percent of the firms studied depended upon personal savings as their sole source of capital, 10.9 percent had access to family savings, 9.4 percent used commercial banks, and 7.8 percent drew resources from partners and shareholders and other sources. Keyser et al. (2000) found that in Zambia, a lack of starting capital was a common problem for entrepreneurs, as only 24 percent of entrepreneurs received a loan to start their business. Ghandi (1984) noted that despite the increasing amounts of formal loans and advances granted to the agricultural sector by banks and other formal institutions, there has been no corresponding impact on the agricultural sector. However, Hartmut et al. (1989) held a different view by reporting from their study that it is only when credit is used by farmers that are in a position to take advantage of the production, without which it is impossible for them to change their methods of farming.

### **3. Challenges Faced by the Poultry Industry**

Constraints have been identified in the areas of husbandry, feeding and health, availability of inputs, information and credit. Small-scale poultry farmers also encountered problems in marketing produce (Okantah *et al.*, 2003). The negative effects of the hot climatic conditions of the sub-region have also been a challenge. Adverse effects of excessive exposure to high temperatures include excessive panting, poor growth and development of birds and reduced egg production and size, and lower egg shell quality. The market for layer birds is stagnating while that for broiler birds has severely regressed. It is very disappointing that the poultry industry has been plagued by large imports of day old chickens, eggs and feed despite the availability of local birds which are more sumptuous, nutritious and healthy. Domestic industries are failing due to poor infrastructure; inadequate access to affordable credit; poor managerial acumen; inadequate technological advancement necessary to create the required growth; unfair competition from subsidised poultry producers from advanced countries, unfavourable and indifferent government policy direction, escalating costs of production, inefficient methods of production, socio-cultural factors, lack of information

needs on the part of small-scale poultry farmers, inadequate access to market, poor processing facilities, and high rates of perishability (Asem-Bansah et al, 2009).

Statistics are needed to develop policies but for the Ghana poultry industry, the last time any survey was carried out was in 1995 and there is no available statistics to readily show the gap, deficit, production and consumption levels. When statistics are flawed or not available, they affect policies for development. Despite the unavailability of statistics to give a reflection of consumption rate, it can be deduced from the consistent increase in imports over the last 8 years that consumption per capita now is about 200,000 tons per annum even though Ghana does not produce 1 percent of broilers. The cost of production is pushing up the high cost of poultry in the country. The poultry industry arrived at its current appalling state, when in 1992 there was massive dumping of beef in Ghana as a result of the large beef stocks in Europe which unfortunately was then cheaper than chicken. The resultant effect has been poultry farmers' inability to sell their produce at sustained periods. Meanwhile government says the inability of local producers to meet the domestic consumption of rice and poultry was making it difficult to place a ban on their importation.

According to Sakyi (2008) financial intermediaries are continually faced with challenges in providing financial services to agricultural sectors. Others included a high interrelated covariant risk which is often due to variable rainfall; pest and disease; price fluctuations; constrained smallholder access to inputs; advice and market; dispersed demand for financial services due to low densities and small size of individual transactions; high information/transaction costs of individual transactions due to remoteness of clients and heterogeneity among communities; lengthy biologically based production; contractual relationships with other parties; changes in asset values and other related income-generating activities. The financial problems especially, difficulty in getting bank loans still remains a big challenge to the poultry industry. Taha and Faran (2009) asserted that a major barrier of rapid development of the SME sector in the country is the shortage of both debt and equity financing. Small scale poultry farming is prevalent. Small-scale poultry farmers also encountered problems in marketing produce (Okantah *et al.*, 2003).

In the face of all these difficulties, it is very encouraging to know that there are some local entrepreneurs who are still engaged in the poultry business with the view to rescuing it from total collapse. The Venture Capital Trust Fund (VCTF) is currently working to replicate its bespoke financing of sorghum and soya bean farming, in yellow maize production across the maize growing belt of the country. The Trust's venture into yellow maize production may prove to be the lifeline to a beleaguered local poultry industry.

Despite the importance of farm records to the growth of a farm business, farmers often consider it as a difficult task (Poggio, 2006) and therefore the decisions they make are guided by vague estimates and guesses based on their past experience of farming (Johl and Kapur, 2001). Contrary to this report is the finding by MAR/IICA Draft Report (1999) which stated that "the rapid ageing of the farm work force is a reflection of disdain among youths for agricultural work". This state of affairs warrants a situation where policy formulation, planning agricultural programmes, monitoring and evaluation becomes difficult because data collection from the records of farmers is practically impossible.

Management problems, including accounting, finance, personnel, and management issues, have been cited as a major cause of business failure for small businesses. The findings of a study by Kazooba (2006) revealed that poor recordkeeping and inadequate basic business management skills are major contributors to small business failure in Africa. Insufficient management experience often makes it difficult for business owners to succeed. Researchers have also identified other factors hindering the success of small businesses as poor bookkeeping, inexperience in the field of business and poor technical knowledge, poor managerial skills, lack of planning, and lack of market research (Lussier, 1996; Murphy, 1996). The high cost of production, resulting from the cost of drugs and feed, inefficient production methods, as well as the unbridled trade liberalisation, which allows the importation of cheap poultry products, have contributed to the dire situation of the poultry industry.

Conclusively, the managerial challenges identified include difficulty in serving target market; inadequate employee training and development; inadequate management experience; poor training in business management; poor training in financial management and planning; inadequate training in basic

marketing concepts; inadequate training in human resource management; inadequate training in basic book keeping practice; inadequate training in proper stock management; inadequate training in basic marketing concepts; high employee labour turnover; and inability to attract and retain suitable employees. The financial challenges include inadequate financial control; insufficient financial resources; difficulty in sources for funds; and poor credit facility support.

#### 4. Prospects

Agricultural credit plays a very important role in the development of the agricultural sector. It can meet a range of needs and can be critical to the success of agriculture. In fact, circumstantial evidence shows that where agriculture has grown more rapidly, institutional credit has expanded more rapidly. Credit does not only serve as a valuable source of liquidity in responding to risk, but also readily available credit has facilitated many of the significant, long-term challenges in the farm sector increasing commercialisation, larger farm sizes, fewer farms, greater capital intensity, adoption of new technology, stronger market coordination and others.

Many entrepreneurs fail to sustain their new ventures due to failure to acquire essential information before the start up. They are often tempted to work solely with people whose background, training, and experience are highly similar to their own, hence losing the rich foundation of human resources the new venture needs. It is generally agreed that personality is an organised, active, physically based, causal, regular aspect of human makeup that is manifest in mood, emotion and behaviour. However, around this core of agreement, there are several quite different interpretations as to what personality is and how it relates to human experience and behaviour. Many entrepreneurs are often unaware of at least some of the factors that affect their behaviour and do not gain knowledge of their major traits, abilities, or attitudes directly, through reflection. They gradually gain insight into themselves through their relations with other persons Lussier (1996).

Is entrepreneurial inclination/motivation/success as a result of some specific personality factor? That entrepreneurs have (or are of) a specific personality (type) is widely held. The relationship was tested in a study by Oswald and Blanchflower (2000), as they examined a data base detailing life history, experience and psychometric testing of 50,000 individuals. Correlated measures personality / life experience with tendency to start own Business. The results revealed that there was no correlation found with any life experience or personality leading indicator. The *only indicator statistically significant*: Being left money in a will!

Research has indicated that these entrepreneurial traits are required to transform the ailing poultry industry in Ghana into a viable one - burning desire to succeed; readiness to take initiative and be innovative; awareness of industry and business dynamics; good communication skills; ability to work with less support; results-oriented; and lastly risks managers.

The absence of these entrepreneurial traits and poor interventions by the government and other stakeholders make the industry not very encouraging.

#### 5. Conclusions

The study looked at the challenges and prospects of the commercial poultry industry in Ghana. The influx of imported poultry products threatens both jobs and national food security. 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). Poultry production is a very important source of livelihood; provides ready cash for emergency needs; supplies the fast-growing human population with high quality protein; contributes significantly to food security, poverty alleviation and ecologically sound management of natural resources (Guëye, 2007). Opportunities exist in Ghana to expand poultry production to meet the growing demand for poultry products. Other feeding

alternatives can be adopted to reduce the high production and feeding costs. Good road infrastructure means that farmers can have access to a wider market hence expanding poultry production, creating jobs, providing new livelihood opportunities and increased access to animal protein and other poultry products. Conclusively, indigenous poultry breeds are preferred for certain culinary and religious purposes over exotic birds, offering another opportunity for domestic producers to supply the market instead of imports. The Ghana Standard Board (GSB) and the Food and Drugs Board (FDB) must also ensure that poultry feed on the market meet protein contents and standards.

## **6. Recommendations and Policy Implications**

With the state spending US \$270 million on the importation of poultry products, Ghana will be better off if part of that money is used to support the local poultry. Financial and non-financial institutions must be urged to support via overdraft facilities, flexible payment plans, hire purchase, lease etc. Various agricultural development projects undertaken with World Bank loans including National Livestock Services Project (NLSP) (1996 -2000) had an objective of increasing meat, egg and milk production by 50% by the year 2020. This target can only be achieved if loans and other facilities with lower interest rates are made available to farmers.

Public-Private Partnership initiatives should be instituted to assist poultry farmers in meeting the future demand for poultry products through co-ordination of the various agencies.

Professional trainers should be hired from domestic or foreign sources to arrange workshop, seminar, and live demonstration regarding the latest knowledge of poultry and marketing. This supports the view of Jones et al. (1999) that net incomes of small-scale farmers were influenced by the number of years of education, training and livestock holdings. This would help government to gather the required statistics required to develop a holistic plan for the industry.

A low cost intensive or semi-intensive poultry technology should be adopted for the sake of developing technical capacity and skilled human resources for the industry. Government should mandate the National Agriculture Fund to accelerate agriculture modernisation to enable the industry flourish and compete.

Appropriate authorities should implement mechanisms to protect local industries and also offer assistance to increase local production. GOG must assume stringent stands as Nigeria did despite punitive threats from the IMF and World Bank, and today are enjoying a thriving industry, with big plans for regional expansion. Bans are not the only option. Provision is made to protect developing nations. If a specific domestic industry is threatened by increased imports, that member country may legally raise its tariff and restrict imports.

The high cost of poultry products during festive occasions provides opportunities for huge stakeholders' investments. Besides, a vibrant poultry sector will help improve the protein needs of the people. Interventions to attract more investments should be initiated.

Without farm records, inventory and stock controls cannot be obtained. This is because a farmer who maintains an adequate set of records can usually handle problems better than the one who does not (Hansen *et al.*, 1991; Poggio, 2006), hence improving data collection. Punitive measures must be initiated against failure to keep farm records.

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