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Challenges of Poultry Farmers at Ejisu Municipality, Ghana

Margaret Aba Sam Hagan^{1*}

¹*Department of Agropreneurship, Faculty of Entrepreneurship and Enterprise Development, Kumasi Technical University, Kumasi, Ghana.*

Author's contribution

The sole author designed, analysed, interpreted and prepared the manuscript.

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ABSTRACT

The objective of the study was to identify the main marketing challenges that confront poultry farmers in Ejisu Municipal in their attempt to sell poultry products. Data collection was by questionnaires and interviews and data collected was analysed by using descriptive statistics. The result showed that marketing strategies employed include sales promotion, branding and personal selling. Marketing channels include local market and retail shops. The main challenges faced by the farmers included high cost of feed and medicine. Based on the result it can be concluded that the farmers used limited market channels and sales promotion strategies. The key challenges faced by the farmers are the high cost of farm inputs. It is therefore recommended that farmers in the study area should intensify the use of the other marketing strategies such as free delivery service and/or door-to-door sales to organisations and institutions. In addition, government should subsidize poultry farm inputs for farmers.

Keywords: Government subsidy; marketing channels; marketing strategies; business size.

1. INTRODUCTION

Poultry farming is the practice of raising domesticated birds such as chicken or fowl,

turkeys, ducks, geese, quails, ostrich and guinea fowl for the purpose of farming meat or eggs for food [1]. According to [2], poultry meat and eggs are among the most common animal food source

^{*}Corresponding author: E-mail: aba_hagan13@yahoo.com;

that is consumed globally by people both old and young, through a diversity of cultures, all religions and traditions making them key to food security and nutrition. Poultry farmers manage farms that raise chicken or other poultry to produce meat (broilers, spent hens) and/or keep hens (layers) to produce table eggs for consumption or fertile eggs for hatching.

Poultry businesses play a vital role in the economic development of a country as it is very profitable with benefits that cannot be over-emphasized [1]. The poultry industry provides quick turn over on capital to investors and foreign exchange, which in turn contributes to the country's Gross Domestic Product (GDP) [3]. It likewise serves as a source of employment, a source of income to many people and a viable avenue for revenue to both the country and citizens of that country as well as providing food security and protein sufficiency for poor countries [4]. These benefits have led to the setting up of many commercial and backyard poultry farms in Kumasi metropolis and Ejisu Municipal in the Ashanti Region, which contributes to the total amount of meat and egg production in the country. The majority of Ghanaian poultry farmers run businesses that are medium and small-scale enterprises and are mostly managed by the owners.

According to [5], more than 50 billion chickens are reared annually throughout the world as a source of food, consisting of both their meat and eggs. In Ghana, livestock and poultry meat contributes 40% of the national animal protein supply with the rest coming from fish [6]. In Ashanti Region, with Kumasi as its capital, poultry production accounted for 28.07% of the total poultry production in Ghana in 2009, second to BrongAhafo Region with 29.62% [7]. The consumption of poultry products continues to rise in Ghana, as meat imported in 2012 accounted for nearly 92% of the total consumption whereas the domestic production of all types, which includes commercial and non-commercial or backyard poultry production, provided about 8% [8]. Dzisam et al. [9] indicated that the estimated per capital consumption of poultry products increased in Ghana, from 3.5 kg meat in 2003 to 7 kg in 2012. A study by [10] revealed that Ghanaians consumed more than 2 million locally produced chickens over last two years, which suggests a vibrant market for the sector. Thus an estimated GHC 53.6 million was generated from the broiler birds sold, which represents 7% of the total gross domestic product of the agricultural

sector in 2015 [10]. Amanor-Boadu, Nti and Ross [10] observed that demand for local birds reaches its peak in the two most celebrated Christian festivities (Easter and Christmas) as well as the Muslim festivals because the Ghanaian consumers prefer the tenderness, freshness and taste of locally produced birds to the imported meat products. These increases in the demand and consumption pattern of the poultry products can be attributed to population growth; increase in income levels of people; reduced poverty; urbanization; increase in numbers of fast food chicken outlets; shift in taste and eating patterns; consumers wanting cheap sources of protein; rise in employment; and people becoming more health conscious and sophisticated [11,12].

The poultry sector is an important component of Ghana's agriculture; however the country's competitive advantage in the industry is experiencing a steep decline. This decline can be attributed to many factors, of which some are government policies to encourage financing of poultry enterprises; lack of research on diversification in the sector; lack of government support; unrestricted importation of frozen chicken products; laws on imported frozen chicken products; transportation issues; products presentation; marketing problems; production problems; flock's mortality due to diseases; supplementary food shortage; poor access to credit and training service; and the inability to use improved breeds [13].

The activities of the poultry industry are highly dependent on government agricultural and economic policies of the country. Atarah [14] indicated that the main policies of the government that affect poultry production and marketing are tariffs on imported goods and subsidies to support poultry production. Foreign producers currently pay a 20% tariff on imported poultry. Many, if not all, of the commercial poultry farms that were established in the late 1960s and early 1970s have collapsed and/or are on the verge of collapsing due to the economic downturn; less availability of inputs; reduced veterinary services; trade liberalization; and re-adoption of taxes and duties on imported inputs [15,16]. Big and small poultry farms in Ghana, such as Darko Farms and Afariwa Farms among others, have cut down output and staff considerably due to the problem of high cost in production, which was attributed to high cost and scarcity of raw materials (soybean meal, fishmeal and maize); high energy prices; irregular supply

of energy; low consumption of domestic poultry product; and increasing competition with the cheap poultry imports from European Union, Brazil and United States [17]. Kusi, Agbeblewu and Kwadwo [1] reported that parliament passed a law to increase taxes on the importation of frozen chicken, but that law was never implemented due to pressures from the International Monetary Fund (IMF). Aning [15] indicated that the rising importation of frozen poultry products is the most significant challenge facing Ghana's poultry sector, affirming that the unrestricted importation from Europe and America of heavily subsidized poultry meat, which sells cheaper on the local market, has contributed immensely to the reduction of broiler bird production in Ghana. Currently, imported poultry products tend to be 30-40% cheaper than chicken produced in Ghana [7].

Iddrisu [18] reported that, to a large extent, government policies have had both a positive and negative effect on the industry; and compounding the problem are the side effects of the government's economic policy of trade liberalization, by bringing imported poultry and livestock products to compete against the local products. According to [19], trade liberalization and unfavourable domestic policies have contributed to the down turn in the poultry industry's operations due to the large import flows of frozen poultry and continuous dumping of subsidized poultry products from European Union, America and Brazil, which has had differing effects on poultry markets in West African countries such as Cameroon, Togo, Senegal and Ghana.

Anderson et al. [19] reported that, in Ghana, the poultry sector faces high production costs; safety concerns due to lack of sanitary controls and drugs; and technical constraints in processing and marketing these domestic productions. The interest of people in the poultry industry and the effort of the government are gradually being killed, due to poor marketing strategies and the prevalence and persistence of disease outbreaks, which limits product safety and limits domestic and export production potential [20]. Most often the production costs in Africa are higher due to the lack of an integrated and automated industrial poultry sector, irregular supply of energy and limited knowledge of modern poultry management [19].

The high costs of the inputs such as feed and medicine needed to cater for the birds, coupled

with the inability to secure capital, causes poultry farmers to abandon the industry for other lucrative businesses [21]. This challenge has led to losing many potential poultry farmers and the under-utilization of the available farming lands as farmers only keep a small number of birds that they can take care of.

Poultry production is an expensive business, and for it to succeed it needs a large amount of capital. Money is required to purchase the stock or birds; build housing to keep them; provide feed and efficient management; provide vaccination and medications; and maintain sanitation services for the animals. Lack of access to credit is a major problem for poultry farmers in Ghana and this affects technology choices by limiting the number of alternatives that can be considered [3]. Farmers may use inappropriate technology because it is the only one they can afford.

In Ghana, credit constraints and lack of access to long-term credit forces farmers to rely on self-financing or borrowing from friends or relatives, often on high interest short term finance due to the financial institutions considering poultry farming high risk. Some of the financial challenges that face local poultry farms leading to their collapse include the high cost of credit; high bank charges; lack of credit facilities; and fees [12,22]. Tham-Agyekum and Appiah [23] reported that most banks in the country are unwilling to finance poultry production due to a number of reasons, including the remoteness of clients; the lag between investment needs and expected revenues; lack of usable collateral; and high risks due to environmental factors such as weather, pests, diseases and price. However, some banks are able to provide long-term credit to farmers who have appropriate collateral that guarantees loan repayment while small-scale poultry farmers without land titles or other collateral do not have access to bank loans [23]. A study by [24] showed that the amount of credit received has a positive effect while the cost of credit has a negative effect on the net income of large-scale poultry farmers. The high interests charged on loans have deterred other poultry farmers from expanding their business to meet the current trends in the demand for poultry products.

Osei [25] stated that, due of the greater farmer risk involved in poultry production, one will recommend a low interest rate of 10% to attract farmers and this will make the product affordable

to average Ghanaians. The high interest rate of 28% for the poultry farmer in Ghana, as compared to 15% for Cote D'Ivoire, charged by the banks is putting farmers off their profession [26]. Stringent collateral requirements by the financial institutions when a technically trained youth or farmer apply for financial support to venture in the poultry business or expand, discourages them from taking up the career [25].

Gillespie [27] attested that the success of a poultry production business depends on good management practices, which includes knowledge of brooder temperatures; selection of best breed for good performance and good health; the best housing systems for chicks; best litter material to use either for chicks or adults; required spacing for each chick; ventilation requirements; knowledge in sanitation and biosecurity measures; and being able to keep adequate and good records. Most of these above mentioned good management practices are lacking in the poultry farms and this result in poor production, which affects the profit of the farm. According to [25], the climatic conditions in Ghana, especially high temperatures, affect the thermoregulatory mechanisms of chickens and depresses productivity by reducing feed intake and alteration in behaviour.

The marketing of these poultry products has become a problem and, if not resolved, more serious problems might develop in spite of substantial qualitative and quantitative advancement in different sectors of the poultry industry. A study by Bhat [28] showed that the major problems in the marketing of poultry products are monopoly of middlemen; low consumption of poultry meat and eggs; seasonal price fluctuation; lack of pre-grading; and poor market research. Ahima [29] reported that marketing poultry products is a problem in Ghana due to foreign competition because the price of imported subsidized poultry products is low, safety is a concern (bird flu scare) and there is competition from the local trade policy. Few commercial operations have the capacity to process birds into cut parts and this suggests that new processing and storage infrastructure could improve the ability of domestic producers to compete with imported poultry parts.

The consumption patterns of households, and the restaurant, hotel and fast food sector in urban areas in Ghana are heavily weighted towards imported frozen poultry products because they are cheaper than locally produced poultry

products, and already pre-cut, processed and ready-to-use. Kusi, Agbeblewu and Kwadwo [1] stated that about 90% of exported frozen chicken to Ghana is processed into cut portions/parts, mainly chicken leg quarters and wings, and 10% is frozen whole chickens and gizzards. Anderson et al. [19] confirmed this by indicated that most imported meat comes in the form of frozen chicken or turkey legs, wings, and other cut-portion by-products such as frozen chicken backs, necks and wing tips from the European Union and America. The locally produced poultry products lack variety, thus they are either sold as live birds or dressed birds and rarely in cut portions.

The price at which the locally produced poultry products are sold are mostly on a higher side as compared to the imported ones. According to [15], imported poultry products are generally offered at prices 30 to 40% cheaper than domestically produced birds. Hence, the Ghana government maintains that imports are necessary to conform to international trade rules and to give the population access to cheaper sources of protein. On the other hand, the non-availability of processing plants and industries that use poultry products as raw materials, coupled with the perishable nature of products such as eggs, compel farmers to sell products below their cost of production when demand for poultry products goes down. This makes costumers determine how much they pay for the poultry products, which results in farmers selling their products at such low prices or even on a credit basis [30].

Packaging is a very important marketing strategy, which is used to attract the consumer's attention [31]. But in Ghana, packaging of poultry products is a problem. Poultry products are packaged using standardization or grading systems into small, medium and large or weight of products. Proper grading, processing and packaging are needed to maintain high quality of products to attract better prices, achieve good pricing policies and promote export [32]. Eggs are kept in trays or crates, broilers are either packaged as whole or in parts/portions and are kept in transparent plastic bags with no labels as compared to the imported ones that are more attractive, well labelled and in sealed plastic bags. The dressed imported birds are well bled and the feathers are cleanly plucked before packaging. Poor packaging and preservation reduces meat quality in terms of colour or appearance, flavour or odour and taste and this

leaves consumers with no option other than to fall on the imported poultry products.

In Ghana, the marketing process for agricultural commodities may be simple or complex, depending on the type of trade, commodity, extent of processing, types of participants as well as the methods, location of production and sales and all these affects the efficiency and performance of the market. Most commodity transactions require bulking, transportation and storage, which affect the exchange price. Therefore, since losses occur at all levels of the marketing chain, long marketing channels would lead to delays between production and consumption, which will result in high losses of produce.

Some other challenges faced by poultry farmers in Ghana include low capital; poor marketing infrastructure such as bad roads; lack of electricity; cold storage; lack of good quality water; improper marketing outlets; transportation cost; poor storage facilities; security of feed; uncompetitive interest rates; inappropriate housing influencing negatively on production; lack of government subsidies; sanitation conditions; poor veterinary services to farmers and lack of research technology; scarcity of feed ingredients, especially maize and soybean; and quality of day-old chicks. Others includes irregular supply of imported day-old chicks; a lack of veterinary drugs; feed cost; lack of reliable access to inputs including chicks and feed; lack of breeders; high costs of veterinary services; marketing; and processing technology; inadequate supply of ready birds and eggs; seasonal and unreliable supply; non-availability of processing facilities such as slaughter slabs and egg processing units; and lack of business management skills amongst producers [33]. The challenges discussed above, along with how farmers manage them, have impacted farmers' anticipated income and their productivity as well as having a negative effect on their standard of living, and their ability to provide for themselves and their families, build capital and access credit from lenders.

Despite the challenges confronting the poultry business and its marketing, some improvement can be made in the marketing of the poultry products if poultry farmers can: focus on developing better production systems to cut down their production cost; obtain knowledge in modern poultry management; conduct market research; employ good marketing strategies; and have good marketing channels. Cheap credit

should be provided to poultry farmers and farmers should join co-operatives so that their resources can be pooled together for meaningful development of their farms and the poultry industry in general. Finally, production and consumption of poultry products can increase if the Government of Ghana (GoG) removed customs duties on poultry inputs such as feed, additives, drugs and vaccines and improved access to veterinary services, as well as putting effective marketing strategies in place with respect to production and sales. If these issues are addressed, the poultry industry will attract a lot more investment [33].

Based on the above mentioned challenges facing the poultry industry generally in Ghana, this study seeks to identify the main marketing challenges peculiar to poultry farmers in Ejisu Municipality in Ashanti Region with respect to selling their poultry products in the Ejisu Municipal.

2. METHODOLOGY

The study was carried out in Ejisu Municipality, which is located in the central part of the Ashanti Region and shares boundaries with six other districts in the region, namely Kumasi, Kwabre, Afigya, Sekyere, Asante Akim South and Bosomtwi Kwanwoma Districts. The population for this study constitutes poultry farmers in Ejisu Municipality who produce and market poultry products including eggs and both live and dressed chickens.

The study employed a descriptive survey design. Descriptive research design is a scientific method, which involves observing and describing the natural behaviour of a subject without influencing it in any way [34]. This study utilized various data collection methods, which include interviews, archives, questionnaires, and observations: These methods are often combined. This study was a field study using a qualitative procedure to examine the challenges of marketing products in Ejisu Municipality, using 20 selected farms as a case study. Primary data was the main data sourced and used in the study. Primary data was obtained mainly from interviews and administration of a questionnaire. The data collection took place in May 2019. In planning the questionnaire, both open and closed ended questions were used depending on the situation. This was to ensure that information obtained was accurate and could be relied upon. A total of 20 questionnaires were administered face-to-face to poultry farmers at the Ejisu

Municipality. In this study, Microsoft Excel and Statistical Package for Software Systems (SPSS) were used in analyzing the data. This includes frequency distribution tables, percentages, bar charts, and descriptive statistics.

3. RESULTS AND DISCUSSION

3.1 Respondent Socio-demographic Characteristics

With respect to socio-demographic data, key information that the study sought included age, gender, marital status, level of education, business ownership, farm size and number of birds, sources of funds and number of employees on the farm.

3.2 Age of Respondents

The result as presented in Table 1 shows that 20% of the respondents were aged between 20-30, 40% were aged between 30-40, 20% were aged between 40-50, 10% were aged between 50-60 and 10% of respondents were aged 60 and above.

Table 1. Age distribution of respondents

Age of respondent	Frequency	Percentage
20-30	4	20
30-40	8	40
40-50	6	20
50-60	2	10
60-Above	2	10
Total	20	100

Source: Field work 2019

This shows that the majority of the farmers are young with 83% between the ages of 30 and 40 years, which means that most of them were youthful and very energetic (Table 1). This energy level is very important for all businesses, particularly the poultry industry, which needs people in the middle age to set a brisk pace. Most of the respondents were within the age group of 30-40 because most of people complete their education early but due to lack of white coloured jobs find themselves in Agribusiness sector of which poultry is one of them.

3.3 Gender of Respondents

Fig. 1 shows the gender of 20 respondents with a majority of 85% being males while the remaining

15% were females. This result implies that males tend to be more interested in the poultry business than the females. The result obtained may be due to the fact that the activities in the poultry business tend to be vigorous and physical and involves a lot of lifting heavy loads such as feedstock, mixing feed and equipments.

3.4 Educational Background of Respondents

Fig. 2 showed that respondents were moderately educated because 50% of the respondents completed Polytechnic, 15% completed senior/technical/vocational, 15% attended Agricultural colleges and 20% of respondents have Basic/junior/MSLC education.

This indicates that more than half of the respondents are moderately educated to run their farms effectively. One needs to be abreast with the present day economic and competitive environment to run a business. The poultry business involves modern and innovative ways of acquiring information from different sources such as the media, courses outside school, trainings, workshops, Internet among other sources to enhance their knowledge about current medication, outbreak of diseases and good sources of obtaining day old chickens, quality feeds or rations and cheap sources of feed ingredients, which are the main components of poultry production.

It is interesting to note that poultry farming involves different types of book keeping systems for keeping farm records, which may either be manual or computerized. Hence, this requires people or farmers to get a little formal training in poultry production in order to achieve success in their poultry business.

3.5 Marital Status of Respondents

Table 2 presents the result for marital status of respondents in the Ejisu Municipality. The result shows that about 80% of poultry farmers are married and 20% are single.

Table 2. Marital status of poultry farmers in Ejisu Municipality

Variables	Frequency	Percentage
Single	4	20
Married	16	80
Total	20	100

Source: Field work 2019

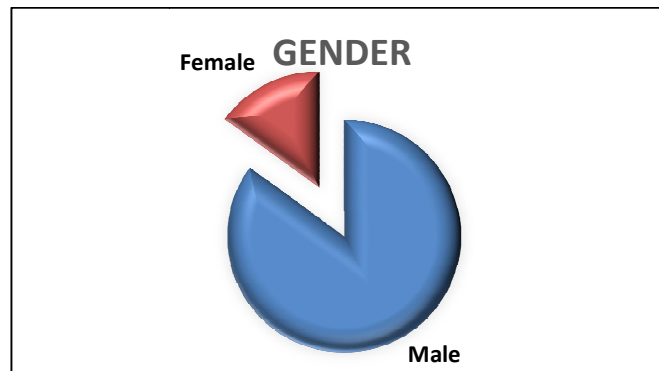


Fig. 1. Gender of the respondents
Source: Field work 2019

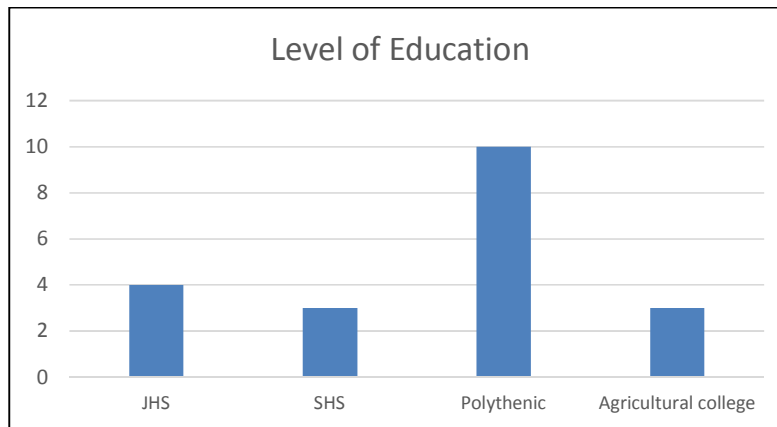


Fig. 2. Educational levels of the respondents
Source: Field work 2019

3.6 Poultry Business Size

Table 3 shows the distribution of business size in Ejisu Municipality. The business is measured by the number of birds owned by the poultry farmers can be categorised into three groups, namely small (below 5000), medium (between 5000 and 10000) and large (10000 and above) [7,15]. Overall, medium business owners are in the high range with 65% because these farmers have acquired some experience with time as compared with small scale farmers (10%), who are battling with challenges in order to compete effectively with the medium and large scale farms (25%).

The study's result showed that the small-scale farmers have difficulty of acquiring bank loans due to lack of collateral security. The banks have identified the poultry business as being a risk venture and therefore refuse to grant them credit at the start up stages. Medium poultry businesses can focus their efforts on a few key

customers or on a precisely defined market niche, which is a specific group of customers. Many large poultry businesses must compete in the mass market or for a larger market. Smaller poultry businesses can develop products (eggs) for groups of customers or to satisfy a need that other companies have not addressed.

Table 3. Distribution of poultry business size

Poultry size	Frequency	Percentage
Small	2	10
Medium	13	65
Large	5	25
Total	20	100

Source Field work 2019

3.7 Marketing Strategies of Poultry Farmers in Ejisu Municipality

The Table 4 shows the marketing strategies employed by poultry farmers in Ejisu Municipality. About 37% of respondents market

their products through their customers and 35% of respondents sell and market their products through the farm gate; 18% of respondents sell their products by reducing the price in order to fetch them more clients; 4% of respondents market their products through sale promotion and personal selling; and 2% of respondents market their products through branding.

A good poultry marketing strategy can be developed if it is well understood and listed according to the characteristics of the product [35]. Some of the marketing strategies that farmers can use include contract farming, which involves big companies and organizations linking up with producers and market to offer them pre-fixed prices and quality assurance; and farm gate marketing, which involves the aggregation of farm products by farmers and traders in order not to cover long distances to sell or pick up the products. Prices of the products are reasonable because there is no transportation cost, thus the transaction cost is low because farmers and traders rely on regular buying and trust. This strategy accounts for the majority of the poultry products sold.

Marketing of poultry products is subject to the laws of demand and supply. Thus, an oversupply will lead to a fall in price and profitability, while an undersupply will lead to a high price and high profit to the disadvantage of valued customers. In a situation of competition, the consumer or customer may purchase other products rather than the traditional product unless quality standards of that product are maintained. The quality standards of the product includes how wholesome (hygienic) the product is; the presentation (design, packaging, attractiveness); price; the environment in which the product is being sold; and the product's characteristics and quality attributes (appearance, colour, texture and flavour) [36]. These quality attributes greatly

influence the meat purchase decisions and acceptance by consumers as it determines the handling characteristics, juiciness, yield and cost of meat and meat products.

North [37] reported that whether or not a poultry product meets the consumer's expectations depends upon the conditions surrounding various stages in the bird's development from the fertilized egg through production and processing to consumption. Poultry meat colour is affected by certain factors, which include the bird's age, sex, strain, diet, intramuscular fat, meat moisture content, pre-slaughter conditions like stress due to live handling, transport and processing variables [36]. Tenderness of meat depends on the rate and extent of the chemical and physical changes that occurs in the muscle as it becomes meat and this is influenced by the time post-mortem of the deboning. Some factors affect poultry meat flavour during production, processing and storage such as age of the bird at slaughter, bird strain, diet, environmental conditions (litter, ventilation), scalding temperatures, chilling, product packaging, and storage.

Processing is a marketing technique that provides an added value and extends the shelf life of the poultry product, which leads to higher sales. Processing is done by cutting up broilers and packing them individually in parts/portions (such as chicken breast, wings, thighs, drumsticks) and deboned products (boneless meat), then mincing them into other products (minced chicken meat, chicken burger and chicken sausage) to give consumers quality and variety of products [36].

Johnson [32] observed that storage is another challenge that widens the gap between farm price and the market price of produce. Storage and preservation of poultry products is a problem

Table 4. Marketing strategies adopted by the respondents

Marketing strategies	Most effective	More effective	Percentage (%) N=20 most effective	Percentage (%) N=20 more effective	Total respondent	Rank
Customers	17	3	37	4	20	1 st
Farm Gate	16	4	35	6	20	2 nd
Pricing	8	12	18	10	20	3 rd
Sale Promotion	2	18	4	20	20	4 th
Personal Selling	2	18	4	20	20	5 th
Branding	1	19	2	40	20	6 th

Source: Field work 2019

since they are highly perishable. All raw products must be chilled and kept chilled at 2°C or below to reduce the deterioration rate by lipid oxidation and growth of pathogenic microorganism unless they move directly from the slaughter line to heat processing or cooking, which destroys the pathogens. They must be packaged and handled properly so that it will be safe and wholesome for consumers to buy. Most poultry farmers in Ghana have cold rooms for storage of the poultry products but unexpected, frequent power interruption is a major threat to the farmers and cold store operators.

3.8 Marketing Channels

The results presented on the Table 5 show the marketing channels used by the poultry farmers in Ejisu Municipality. The result indicated that farm gate marketing (from the producer to the consumer) accounted for 100% of the marketing channels. Farm gate marketing channel was the most effective and the main marketing channel used by the poultry farmers to sell off their products. Farm gate marketing, which involves the aggregation of farm products by farmers in order not to cover long distances to sell or pick the products, account for the majority of the poultry product sold in this study. A gross percentage of 55% of respondents distribute their products (eggs) to the local markets and retailers. About 45% of respondents distribute their products to the wholesalers and 25% of respondents distribute their products to the consumers directly. A study by [38] five marketing channels that can be used to sell broilers and other poultry products, namely: producer-consumer; producer-wholesaler-retailer-consumer; producer-agent-wholesaler-retailer-consumer; producer-retailer-consumer; and producer-chainstores-consumer. The marketing agents, wholesalers and other kinds of sales distributors are very effective and useful channels for selling to one's ultimate customers (buys for sale) and consumers (buys for consumption). There is no need to build your own sales presence because an established sales agent or distributor or wholesaler allows immediate access to one's target market and they can be useful when a production firm wants to break into a new market.

Winter and Funk [39] stated that problems in marketing poultry products arise from the location of these products with respect to consumption centres, their seasonal distribution relative to the time of consumption, and the

maintenance of quality through the marketing channels while they are held or transported. Maintaining the quality of eggs and poultry is a major set-back in the poultry business because it means that they have to be preserved as most of the production and consumption centres are widely separated; hence considerable time is required to transport these products to the retail market.

For the cash outflow (Expenses) on feeding, all (100%) of respondents stated that they spend a lot of money when it comes to the feeding of the poultry birds (Table 6). The prices of poultry feed constantly increases due to recent global changes in the price structure of the cereal grains and other feed stuffs. The cost of feed constitutes up to 60-70% of the total cost of poultry production. This problem is as a result of the high cost of maize, which forms the largest proportion of about 75 percent of the mixed feed. The government of Ghana has made no effort to put up systems such as subsidizing feed costs and other farm inputs that can lead to the smooth flow of products from the farmers to the consumers. Hence, with such a high cost of feed, the profit margin remains low, which continues to be a big impediment to poultry farmers in the Ejisu Municipality.

About 90% of respondents indicated that the management of day old chicks was the second biggest expense after feeding. About 60% of poultry farmers established that the cost of medicines and vaccines incurred for the birds was third when it comes to expenses. Poultry production is an expensive business and for it to succeed it needs a large amount of capital. Money is required to purchase the stock or birds; build housing to keep them; provide feed and efficient management; provide vaccination and medications; and maintain sanitation services for the animals.

About 50% of respondents attested that the cost of labour was the fourth when it comes to expenses. Since most of the clients come to their farms to purchase their products (farm gates), they do not spend a lot when it comes to transportation which was 10%. Johnson [32] established that all produce needs some transportation to the market place, which was provided by either the farmer or the middlemen. Doodoo [40] affirmed this by stating that inadequate transportation facilities lead to inefficient allocation of resources at the farm gate and low farm income. About 3% of poultry

farmers indicated that the cost of electricity was the smallest expenses. According to them, the poultry business does not require much electricity to operate. Table 6 shows the cash outflow (Expenses) of poultry farmers in the Ejisu Municipality.

3.9 Challenges Poultry Farmers Faces in Ejisu Municipality

Table 7 shows clearly the challenges the poultry farmers face in the Ejisu Municipality and its corresponding ranking. From the interview, 95% of respondents mentioned that high cost of feed was the major challenge faced by poultry farmers in Ejisu Municipality. This was followed by 80% being the cost of production; 65% due to diseases; 55% due to high cost of medicine; 50% was scarcity of feed; 30% was high cost of chicks; 25% high cost of transportation; 20% absence of modernisation; 15% absence of innovative technology; 10% of the farmers indicated that poor quality chicks was the tenth; 5% unavailability of egg facility; and scarcity of chicks was the least (twelve) when it comes to the challenges faced by poultry farmers in the Ejisu Municipality.

The results presented below denote that poultry farmers in Ejisu Municipal are confronted with many challenges that affect their performance and diminish their ability to contribute effectively

to sustainable development. The quality and price of poultry feed is the major factor in determining the cost of poultry products (eggs and broilers meat) and profitability of the poultry farm. Osei [25] reported that the reason for this high feed cost was inadequate production of the main feed ingredients (i.e., maize, soyabean and fishmeal) to meet the demands of both the Ghanaian population and the poultry industry.

According to [26] the high cost of poultry production can be attributed to the cost of feed because the feed ingredients (fishmeal, soyabean and maize) are expensive and sometimes scarce as well as the cost of maintenance, management, high electricity and water tariffs. The overall cost of poultry production affects the marketing of the poultry products, thus it is necessary to control the cost of production to properly market the products for profit.

With the problem of scarcity of feed because human and animals compete for most of feed ingredient like maize, soybean and fishmeal, cheaper alternative sources of feed ingredients (such as replacing soybean with other legume plant) should be explored. There should be more storage facilities such as warehouses where some of the maize, when in abundance, can be stored for the lean season.

Table 5. Marketing channels used by the respondents

Marketing channels	Yes	No	Percentage (%) N=20 Yes	Percentage (%) N=20 No	Total Respondent	Rank
Farm gate	20	0	100	100	20	1 st
Local market	11	9	55	45	20	2 nd
Retailer	11	9	55	45	20	3 rd
Wholesale	9	11	45	55	20	4 th
Consumers	5	15	25	60	20	5 th

Source: Field work, 2019

Table 6. Cash outflow (Expenses)

Expenses	Yes	No	Percentage (%) N=20 Yes	Percentage (%) N=20 No	Total respondents
Feeding	20	0	100	0	20
Medicine/vaccines	14	6	60	40	20
Labour cost	10	10	50	50	20
Day old chicks	15	5	90	10	20
Electricity	3	17	3	97	20
Transport	5	15	10	90	20

Source: Field work 2019

Table 7. Challenges poultry farmers faces in Ejisu municipality

Constraints	Most faced problem	More faced problem	Less faced problem	Not faced problem	Total respondents	Percentage (%)	Rank
High cost of feed	18	2	0	0	20	95	1 st
High cost of production	12	8	2	0	20	80	2 nd
Diseases	5	10	5	0	20	60	3 rd
High cost of medicine	9	7	1	3	20	55	4 th
Scarcity of feed	8	3	3	6	20	50	5 th
High cost of chicks	1	2	15	2	20	30	6 th
High cost of transportation	0	2	3	15	20	25	7 th
Absence of modernisation	4	2	10	4	20	20	8 th
Absence of innovative technology	3	2	11	4	20	15	9 th
Poor quality chicks	1	0	2	17	20	10	10 th
Unavailability of egg facility	0	0	1	19	20	5	11 th
Scarcity of chicks	0	0	0	20	20	0	12 th

Source: Field work 2019

Government subsidy is another important factor that affects poultry production. The removal of subsidies on inputs like feed, premixes, drugs and vaccines used in production is another governmental policy that is detrimental to the poultry sector. Atarah [41] stated that farmers are no longer able to farm because of high prices of agricultural inputs, which need to be subsidized by the government to enable poultry farmers to produce. The high cost of inputs leads many farmers to either choose to reduce the size of the business or close the business down altogether, which results in decreased output. Therefore, it is advisable for farmers to join cooperative societies or associations. This would enable them to reduce their cost of production as cooperative farmers can obtain inputs at cheaper rates and get advice and guidance from the extension services organized by the government.

The disease risk was another major challenge facing the poultry sector in Ejisu Municipality. The outbreak of poultry diseases have a negative effect on the poultry products resulting in massive reduction in the sales of poultry products, as most consumers will not patronize or shift to other animal products, thereby collapsing the poultry farms. Government should subsidise the necessary drugs and vaccines as well as provide free extension services to the farmers.

Agricultural research by investigations and providing solutions to the nation's agricultural problems is the driving force of increased production, but it is a major problem in Ghana because there is a lack of coordination and cooperation among researchers in the same institutions, different organizations and between researchers, extension officers and farmers. Most extension technologies and information to farmers are biased towards crop production rather than animal production. Research scientists should be tasked to produce new breeds of poultry birds that are less susceptible to most of the diseases in Ghana as well as breed birds that have good quality and productivity.

Transportation of the products was another challenge as it tends to increase farmers' cost of marketing due to location and distance of the farms and their proximity to the customer or to the delivery or market centre. Most poultry farms do not have appropriate facilities for transporting poultry products and distributing live birds to customers. Dadoo [40] affirm this by stating that

inadequate transportation facilities lead to inefficient allocation of resources at the farm gate and low farm income. To overcome these constraints, government intervention is required to build infrastructure such as roads and road networks, which need to be improved to allow heavy feed trucks and chicken transporters to move around easily.

4. CONCLUSION AND RECOMMENDATIONS

It can be concluded from this study that the youth dominated in the poultry business because they are more energetic as the poultry business needs a lot of strength. Therefore, more of the unemployed youth should be encouraged and trained to take up this trade because it is profitable. The poultry industry is male dominated, which denotes that males tend to be more interested in the poultry business than their female counterparts. Most females do not engage in this business due to the fact that most of the activities in the poultry business tend to be vigorous and physical. Therefore, females should be introduced and encouraged through workshops and training to take up this business. Government should subsidise most of the equipment, feed mixing machines, feeders, drinkers and others so that most of these activities will be mechanised to make it less stressful.

Graduates from the tertiary institutions, Universities and other higher education levels should be trained and educated on the prospects of this business. Trainings, short courses and workshops should be organised for those farmers in the industry with low educational levels to improve their skills, especially in management practices, feed cost reduction and packaging of products; know the current trend in rearing poultry; and be abreast with the present day economic and competitive environment to run their business. Medium scale farms should be given the necessary help by government and other institutions such as the banks to expand their business and increase their market share in order to increase the number of large scale farms to reduce unemployment, lower prices of the poultry products and improve the economy of the country.

Farmers in the study area should intensify the use of the other marketing strategies such as free delivery service to customers and organisations, door to door sales to organisations

and institutions. Other marketing channels such as producer-wholesaler-retailer-consumer and producer-retailer-consumer should be used by farmers in the Ejisu Municipality rather than using only the producer-consumer channel to enable them to sell more of their products. Proper standardization or grading of eggs into small, medium and large and good packaging maintains the high quality of the product to attract better prices, promote sales and generate more revenue.

Challenges confronting the poultry farmers in the Ejisu Municipality were numerous: they include high cost of farm inputs (feed, medicines, vaccines and day old chicks), diseases, transportation and absence of innovative technology. Cost of feed accounted for the majority of the cost of production so farmers should seek cheaper alternatives of feed ingredients for their birds. Thus, when the costs of inputs are high, many farmers will either choose to reduce the size of the business or close the business altogether, which will result to decreased output. Government should subsidize the farm inputs to improve performance of the poultry industry in Ejisu Municipality; and farmers should join cooperative societies or associations so as to incur less cost because the cooperative farmers obtain inputs at cheaper rates and get advice and guidance from the extension services organized by the government. Government should build the basic infrastructure such as road networks for easy transportation and marketing of the poultry products in the Ejisu Municipality.

CONSENT

As per international standard respondents, written consent has been collected and preserved by the author(s).

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COMPETING INTERESTS

Author has declared that no competing interests exist.

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