

Comparative Economic Analysis of Poultry Egg Production under Two Feed Management Regimes in Ogun State, Nigeria

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Abstract –In this study, the comparative economic analysis of egg production using two (2) types of feed regimes vis-à-vis farm produced (self-compounded) feed and procured (commercial) feed in Abeokuta South & North LGAs was examined. A multistage sampling procedure was employed in the selection of sixty (60) poultry (egg) farmers: thirty (30) who procured commercial feeds, and thirty (30) who produced their feeds. The data was analyzed through a combination of descriptive statistics, cost and return structure, profitability and efficiency ratios as well as t-statistic test of difference between means. The result of the analyses showed that most of the poultry (egg) farmers for both categories studied, were educated and would make use of any qualitative innovation introduced to them, while most of them have a mean farming experience of below ten (10) years, also, farmers who use farm produced feeds had a higher average stock size of about 1,218 birds while those who use commercial feeds had about 1,050 birds. Feed cost, being the most important and expensive component of variable costs in poultry egg production was 79.6% using farm produced feed, while it was 80.6% using commercial feed. The profitability ratios calculated revealed that poultry (egg) farmers in the area could generate a return on fixed cost of ₦687,798.83 and ₦244,901.93 and a rate of return on investment of 31.4% and 11.9% using farm produced feed and commercial feed respectively. For the efficiency ratios, a bird fed with these two types of feeds, produced an approximate number of five (5) eggs in a week. However, while for every Kg of farm produced feed, six eggs were produced for commercial feeds, five eggs were produced. Moreover, for a dozen of egg to be produced, 1.97Kg and 2.33Kg respectively of feed are expected to be fed. This was further accentuated by the cost of feed (₦/kg) and profit (₦ /bird), which were significant at 1.4% and 1% respectively. The study therefore concluded that although poultry (egg) production is economically profitable and that farm produced feed is highly responsive to less cost and higher profit in Abeokuta metropolis, it is however not left without some limitations. These include: high cost of feed and feed ingredients, lack of capital and occasional power outage. Hence it is recommended that more concerted efforts be directed towards boosting agriculture specifically the production of such crops used in compounding feed so as to reduce the competition between man and poultry. In addition, proper enlightenment programmes can be organized for feed millers coupled with the direction of more labour force to the indigenous production of such equipment mostly grinders which can equally be better utilized in the absence of electricity.

Keywords: Poultry, egg, production, commercial feed, self-compounded feed.

I. INTRODUCTION

The population of Nigeria will rapidly grow and transmute extensively in the next three decades. Specifically, it is projected to double to almost 400 million between 2015 and 2050. Although the agricultural sector before the advent of oil was known as the base of the Nigerian economy, it still remains an important source of livelihoods for a large part of the Nigerian population. Meanwhile, despite being dominated by smallholder farming, agricultural sector contributes about 21.2 percent to GDP, 36.5 percent to employment and 60 percent to non-fuel export value [24]. Therefore, for Nigeria to diversify from oil dependency, agriculture remains a key sector to invest in.

Indeed, the livestock sector –an integral part of agriculture – play a cardinal role in the socio-economic wellbeing of many Nigerians, though its productivity is currently low, as it contributes around 1.7 percent to the national GDP and around 9 percent to the agriculture value added. However, in view of the projected exponential increase in demand for animal source foods, livestock is expected to become the paramount subsector of agriculture. In Nigeria, about 13 million households (42% of population) own livestock. Needful to also say that the National Livestock Transformation Plan (2019-2028) geared towards seeing the livestock sector emerge a stimulus for building the country's prosperity.

Poultry is present in almost all systems in all parts of the world [56] and is raised by approximately 80 percent of households in the agrarian parts of emerging economies, while over 70 percent of Nigerians directly or indirectly derive livelihoods from the poultry industry [25]. Poultry meat and eggs are a vital source of animal protein upon which the world is becoming more and more dependent to feed a snowballing population [19]. Poultry sector –both commercial and smallholder –contribute notably to both the financial stability of the poor and the economy of the nation [61]. The Nigerian poultry industry has emerged as the most commercialized and fastest expanding segment of the agricultural sector [31], [67] with a current net worth of ₦1.6 trillion, thereby making the industry a pivotal component of the Nigerian agricultural sector. Apparently, high population growth rate, high increase in rural-urban migration, and its growing income lead to increasing demand for poultry products. This trend of demand

plausibly continue over the next few years as the poultry population is predicted to increase up to 900 million from its present 180 million.

Worthy of mention is the fact that poultry birds are good converters of feed into useable protein in meat and eggs and more importantly, in bridging the protein gap in Nigeria [54]. Thus, with a per capita consumption of 1.8 kg and 3.5 kg (of poultry meat and egg respectively per year), it contributes to the food security and nutrition of the population. It is also particularly important in that it has generated employment and contributed to GDP and export revenue earnings. Similarly, between 20-51 percent of the income of poultry keeping households is derived from livestock related activities. In view of its relatively low production costs per unit and its corresponding high return on investment, farmers only require a relatively small capital to initiate a poultry farm. Furthermore, poultry meat is very tender and generally acceptable regardless of religious inclinations. Also, the production cycle is quite short, so capital is not tied up over a long period. Interestingly, layer production is considered the most lucrative of all poultry farming basically because income that accrues from layers is in two folds: incomes from sale of eggs and spent layers (Gillespie, et al 2010). In addition, egg, a major product of poultry production, is more affordable for the common person compared to other sources of animal protein [44], [1].

In 2013, Nigerian poultry farmers produced 650,000 metric tons of eggs (the most of any country in Africa) and 169,991 metric tons of chicken meat (fifth most in Africa) [28]. Also worth mentioning is that Nigeria has the highest number of poultry farms as well as the highest participation of people in the poultry industry in Africa. This however remains a far cry from the estimated national demand of about 4 million tonnes of eggs per year. Thus, demand for animal products is rapidly increasing as compared to the overall demand for food and more specifically, the demand for poultry meat and eggs is equally expanding most prominently among animal products. Consumer demands will strongly influence animal protein – and therefore, animal feed production in the coming years.

In another report, if the cost of feed can be lowered, there will be a resultant increase in the profit margin of livestock/poultry farmers. In the same vein, lowered cost of feed can reduce the cost of poultry products like table eggs and meat, which will in turn increase the access of low income earners to poultry products vis-a-vis the per capita consumption of animal protein [9]. However, Nigerian poultry farmers in particular, who use commercial feed, are confronted with a number of issues which include high feed costs [58], [65], poor feed quality, and inconsistency in the weight of bagged feeds [24], [42]. In response to these myriads of problems, many poultry farmers of Lagos State have resulted to the use of self-formulated and compounded feeds [59]. Commercially compounded feeds (CCF) are feeds formulated, compounded, and produced by various feed companies principally for sale to farmers. Self-compounded feeds (SCF) are feeds formulated,

compounded, and produced by poultry farmers for use on their own poultry farm and not for sale.

Sadly, there is a competition between humans and animals for high quality protein and energy ingredients making it hard to use high quantity of good ingredients to produce animal feeds, thus, residues of non- conventional feed ingredients are largely used for animal feed formulation. Meanwhile, feed-milling industries mostly tend to use non- conventional feed ingredients which will reduce the cost of feed in order to make them compete in the market with less attention on the nutrient feed quality –a cardinal reason why the present study was conducted. Therefore, due to the unawareness of the quality of the feeds available in the market, poultry farmers get less value for their money when they purchase commercial feeds [60].

In conclusion, it has been opined that concerted efforts via the extension activities of the Agricultural Development should be geared towards training farmers on poultry feed preparation to substantially reduce the cost of feeding which represents the highest component of the variable cost of poultry egg production [40].

II. PROBLEM STATEMENT

Despite being one of the fastest growing economies in the world [16] Nigeria's economic growth has not reduced poverty nor created much-needed jobs; unemployment is still very high, and more than 60% of the population, live below the poverty line [5]. Similarly, as the country remains a major importer of livestock products, out of her 190 million people, 102 million are estimated to still live under the poverty line yet, poultry egg consumption is expected to increase by 195% between 2015 and 2050 [25]. Thus, the much incongruence in the ever-teeming Nigerian population which has resulted in the ever-growing demand for food and the need to increase food production remains a worrisome problem. It is therefore sufficient to say that of the myriads of challenges that the Nigerian economy is faced with, food insecurity, stemming from the inability to meet domestic food demand, is germane. By extension, inability to adequately feed the ever-increasing population of most developing countries with the right proportion of calories and protein remains a recognized developmental problem [2], [3], [4]. Noteworthy to say that this enforced demand for foods particularly of animal origin could be satisfied especially by the population of poultry therefore, the imminent need to increase national productivity and achieve sustainable diversification.

Although various reports have sufficiently established the profitability of poultry (egg) production [8], [15], [17], [11], [47], [35], [48], a number of studies have equally shown that the industry is continually characterized by low production levels [29] and that unbearable cost of feed constitute one the highest variable cost in the poultry production process [53], [22], [40], [43], [66]. Not forgetting the fact that inputs such as feed have significant relationship with poultry egg output.

Suffice it to say that the subject of economic analysis of poultry production in Nigeria has received considerable attention in the literature [45], [12], [13], [47]. However, in depth study on feed management has received less emphasis particularly in such a period of economic recession in Nigeria. For instance, there have been very few recently published reports on poultry farmers' perceptions, preferences, and use of commercial and self-compounded poultry feeds, especially from an economic and/or extension point of view. Of specific mention is that rapid increase in the price of feed has been a constraint, which has made it difficult for farmers to procure the requisite feed quantity for efficient poultry production. Up until now, no solution has been found for this challenge, which remains a recurring constraint to growth and productivity in poultry production.

This study is therefore conceptualized to proffer solution to this age-long problem of feed in poultry production.

III. RESEARCH METHODOLOGY

Area of Study

This study was conducted in Ogun State, Nigeria. Amongst the Twenty Local Government Areas in the state are Abeokuta South, Abeokuta North and Odeda Local Government Areas. The State (as at 2010) has a per capita income of \$2,740 and a GDP of \$10.47 billion.

As at 2006, Abeokuta metropolis has a population of 449,088 of the 3,751,140 population of the state. It is also a key export area for cocoa, palm products, fruit, and kola nuts [64], and covers approximately 1.9% (16,981 sq. km) of Nigeria's total landmass.

The State (otherwise called the Gateway State), besides having a high concentration of industrial estates and being a major manufacturing hub in Nigeria with about five industrial communities in Ibese, Ewekoro, Sagamu, Arepo and Agbara, also deals in traditional arts, smithery, and poultry keeping amongst others. The State equally has a spatial distribution of poultry farmers majorly of small-scale and few of large scale production.

Furthermore, within the area of study, two categories of poultry egg farmers abound viz. those who produce their feeds and those who procure their feeds. The self-formulated (otherwise called compounded) feeds simply involves the self-mixing of feed using cereals, by-products such as wheat offals/maize offals or spent grains and custom mixed concentrates that are rich in protein and containing essential minerals and vitamins supplements. The commercial (otherwise called procured) feed however, results from the reliance upon poultry feed manufacturers to supply nutritionally balanced feed for all classes of poultry viz. layers mash, broiler starter and finisher mashes etc. Moreover, while the former involves a conscious participation of poultry farmers in its production, the latter only involves the purchase of the finished product -feed.

i.

Data Types, Sources and Sampling Techniques:

For the purpose of this study, primary sources of data (using well-structured questionnaire on poultry farmers), and sourcing for information from livestock feed enterprises, poultry feed sales depot operators, and feed millers was also employed.

Two-stage random sampling technique was used to select poultry farmers from whom data was generated for this study. The first stage involved the random selection of Abeokuta North and Abeokuta South Local Government Areas. The second stage involved a random selection of Thirty (30) farmers who compound their feed and thirty (30) other who procure their feeds on the basis of the fact that prospective respondents who fall within the sample frame are not many.

Analytical Techniques

Consequently, the data was analyzed using relevant analytical tools such as descriptive statistics, Net Income Analysis, the profitability and efficiency ratios, as well as the t-statistic test of difference between means.

1. The Net Income Analysis is expressed as:

$$N.I (\pi) = TR - TC$$

Where N.I. (π) = Net Income/Profit made per year in Naira (₦)

TR = Total Revenue made per year in Naira (₦)

TC = Total Cost of feed per year (₦)

TC – TVC = TFC was depreciated to take into account wear and tear of the fixed inputs of depreciation using the straight line method.

2. Profitability Ratios

These are indices used to show the performance of a business i.e. whether a business is performing well or otherwise.

The ratios as stated by [41] and [49] and used in [21] are as follows:

Returns on Fixed costs of production or Gross Margin
 $RFC \text{ or } GM = \frac{\text{Total Revenue (TR)} - \text{Total Variable Cost (TVC)}}{\text{Total Cost}}$

NB: the higher the value, the higher the fixed assets generated to the business.

Rate of Return to Investment (RRTI)

$$RRTI = \frac{\text{Net Income}}{\text{Total Cost}} \times 100$$

Where TC = Total Cost made per year in Naira (₦)

NB: The higher the percentage, the higher the profit generated.

3. Efficiency Ratio

These are ratios used to determine how efficient a business is. The following ratios were employed to estimate the efficiency of poultry farmers in the study area.

Feed Efficiency Ratio (FER)

$$FER = \frac{\text{Total Number of eggs per week}}{\text{Total Kg of feed per week}}$$

The higher the value (egg per Kg of feed), the better the feed of the business in terms of egg output.

ii. Egg Production Efficiency Ratio (PER)

$$PER = \frac{\text{Total Number of eggs per week}}{\text{Total number of birds}}$$

The higher the value (i.e. egg per bird per week), the better the production level of bird.

4. Differences of Means

This was used to determine the differences that exists between feed and the parameters (cost of feed, egg output level and profit) to be tested. The formula used as shown by [63] is given below:

Where X_1 = mean for each variables of compounded feed (₦)

X_2 = mean for each variables of commercial feed (₦)

μ_1 = means of compounded feed

μ_2 = means of commercial feed

σ_1 = standard deviation of compounded feed

σ_2 = standard deviation of commercial feed

n_1 = sample size of compounded feed

n_2 = sample size of commercial feed

The use of this formula is based on the hypothesis that:

$$H_0: \mu_1 = \mu_2$$

$$H_1: \mu_1 \neq \mu_2$$

For Cost of feed

H_0 = The cost of compounded feed is equal to the cost of commercial feed

H_1 = The cost of compounded feed is not equal to the cost of commercial feed

When the cost of feed for farm produced feed is equal to that of the commercial feed, then accept H_0 but if not, reject.

For Profit

H_0 = The profit from the use of compounded feed is equal to the profit from the use of commercial feed

H_1 = The profit from the use of compounded feed is not equal to the profit from the use of commercial feed

When the profit for farm produced feed is equal to that of the commercial feed, then accept H_0 but if not, reject.

For Output

H_0 = The output level of eggs for compounded feed is equal to the output level of eggs for commercial feed

H_1 = The output level of eggs for compounded feed is not equal to the output level of eggs for commercial feed

When the output level of eggs for farm produced feed is equal to that of the commercial feed, then accept H_0 but if not, reject it.

IV. RESULTS

Table 2: Socio-Economics Characteristics of the Poultry Egg Respondents

Details	Farm Produced Feed		Commercial Feed		All Farms		
	Frequency	%	Frequency	%	Frequency	%	
Gender	Male	24	80.0	29	96.7	53	88.4
	Female	6	20.0	1	3.3	7	11.6
	Total	30	100	30	100	60	100
Age (Years)	<30 years	4	13.3	1	3.3	5	8.3
	30-40 years	13	43.3	13	43.3	26	43.3
	41-50 years	8	26.7	9	30.0	17	28.4
	51-60 years	3	10.0	6	20.0	9	15.0
	>60 years	2	6.7	1	3.3	3	5.0
	Total	30	100	30	100	60	100
	Average Age	43.93		41.13			
Education level	No formal Education	1	3.3	1	3.3	2	3.3
	Primary only	3	10.0	5	16.7	8	13.3
	Secondary only	7	23.3	3	10.0	10	16.7
	Post-Secondary	19	63.3	21	70.0	40	66.7
	Total	30	100	30	100	60	100
Farming experience (years)	<5	14	46.7	13	43.3	27	45.0
	5-10	8	26.7	9	30.0	17	28.3
	11-15	5	16.7	5	16.7	10	16.7
	>15	3	10.0	3	10.0	6	10.0
	Total	30	100	30	100	60	100
	Average years of experience	8.20		7.59			
Household size (Number)	<3 persons	6	20.0	6	20.0	12	20.0
	3 – 5 persons	13	43.3	20	66.7	33	55.0
	6 – 10 persons	11	36.7	4	13.3	15	25.0
	Total	30	100	30	100	60	100

Poultry size (Number)	< 200 birds	-	-	6	20.0	6	10.0
	200 – 500 birds	-	-	8	26.7	8	13.4
	501 – 1000 birds	2	6.7	6	20.0	8	13.3
	1001 – 2000	12	40.0	6	20.0	18	30.0
	> 200 birds	16	53.3	4	13.3	20	33.3
	Total	30	100	30	100	60	100
Average		1217.7		1050.4			
Marital Status	Single	5	16.7	6	20.0	11	18.3
	Married	25	83.3	24	80.0	49	81.7
	Total	30	100	30	100	60	100

Majority (80% and 97%) of the poultry egg farmers who produced their feeds and who procured commercial feeds respectively are male. The likely implication of this could be traced to the fact that poultry farming is more attractive to males than females. Also, the average age of both categories of respondents, which is 41 – 50 years, is the economically active age grade of the poultry egg farmers. This however implies that most of the youth have their attention shifted from farming to other sources of livelihood. Furthermore, the high (63% and 70%) educational level of farmers who produce and procure their feeds respectively may not be unconnected with the technicalities of the business. In addition, since poultry egg farmers who produce their feeds have more years of experience (8.20 averagely) than their counterparts (7.59 averagely), they may be better justified by the type of feed management they adopted. Finally, poultry egg farmers who sourced for farm produced feeds have on the average more birds (1,218) than those who procured their feed (1,050). This may not be unrelated with the fact that the awareness of the quality of each ingredient that make up the feed and its proportion, results in a better output vis-à-vis egg quantity and profit. Basically, the average farm sizes of farmers who compound their feed (1,217.7) and procure commercial feed (1,050.4) are in consonance with [27] used by [50] that most poultry farm operations in Ogun State are in the Backyard commercial category. However, this is not without the constraint of time.

Table 3: Profitability Analysis of Egg Production with Farm Produced Feed in Abeokuta Metropolis

#	Items	Farm Produced Feed		Commercial Feed	
		Value (₦)	%age of Total Cost	Value (₦)	%age of Total Cost
1	Revenue: Egg sold	2,590,510:00		2,224,118:00	
	Culled birds	273,971:43		72,182:61	
	Total Revenue	2,864,481:43		2,296,300:61	

2	Variable Costs				
	Feed	1,736,380.80	79.64	1,653,750:00	80.62
	Labour	42,270:00	1.94	39,473:33	1.92
	Stock	365,400:00	16.75	315,000:00	15.35
	Day old/Point of Lay	29,445:13	1.35	36,124:20	1.76
	Drugs & Vaccines	3,186:67	0.15	2,400:00	0.12
Energy					
Total Variable Cost		2,176,682:60		2,046,747:53	
3	Fixed Cost				
	Depreciated Fixed Cost	3,644:29	0.17	4,651:15	0.23
TOTAL COSTS		2,180,326:89		2,051,398:68	
Net Farm Income		684,154:54		244,901:93	

Table 4: Profitability And Efficiency Ratios

#	Parameters	Computational Procedure	Value
Farm Produced Feed			
1	Return on Fixed Cost/Gross Margin (RFC) N	2,864,481:43-2,176,682:60	687,798:83
2	Rate of Return To Investment (RRTI) %	[684,154:54/2,180,326:89] x 100	31.38
3	Egg Production Efficiency Ratio (PER) eggs per bird per week	154.20/30.00	5.14
4	Feed Efficiency Ratio (FER) egg per Kg of feed	154.20/25.27	6.10
5	Feed Efficiency Index (Kg of feed per dozen egg)	12.00/6.10	1.97
COMMERCIAL FEED			
1	Return on Fixed Cost/Gross Margin (RFC) N	2,296,300:61-2,046,747:53	249,553:08
2	Rate of Return To Investment (RRTI) %	[244,901:93/2,051,398:68] x 100	11.94
3	Egg Production Efficiency Ratio (PER) eggs per bird per week	144.82/30.00	4.83
4	Feed Efficiency Ratio (FER) egg per Kg of feed	144.82/28.17	5.14
5	Feed Efficiency Index (Kg of feed per dozen egg)	12.00/5.14	2.33

Table 3 shows that the Net Farm Income of farmers who used compounded feed and those who used commercial feed are ₦684,154:54 and ₦244,901:93 respectively. This gives a rate of return to Investment of 31.38% and 11.94% respectively. This implies that, for every ₦1 spent, an average farmer who used farm produced feed was able to reap 31Kobo as profit while for the average farmer who used commercial feed reaped 12Kobo as profit. This corroborates the findings that an appreciable number of large scale commercial farms are responsible for high production [50].

Moreover, the Table 3 shows that both farm produced and commercial feeds are efficient in terms of egg produced per bird. However, in terms of feed efficiency, a bird fed 1 Kg of

farm produced feed produced more eggs than the commercial feed. Sequel to this, a higher output is generated in general from birds fed with the former than the latter under the same condition, with a resultant effect on the profit being generated. Thus, since higher output in egg was realized from farm produced feed, more eggs will be sold with more profit. Suffice it to say that for a dozen egg to be produced, 1.97Kg of feed and 2.33Kg of feed respectively will be needed for farm produced feed and commercial feed. Therefore, this then places the farm produced and commercial feeds on a feed efficiency scale of 10 points and 6 points respectively.

Table 5: T-Test of Significant Difference

#	Paired Variables	t-value	Significance	Decision	Mean
1	Cost of feed (N) per bird farm produced feeds – cost of feeds per bird commercial feeds	-2.621	0.014	Reject H ₀	83.9463 168.7215
2	Profit (Naira/bird) farm produced feeds – commercial feeds	25.274	.005	Reject H ₀	237.8724 164.7262
3	Output (eggs per birds) farm produced feeds – commercial feeds	.734	.469	Accept H ₀	89.0236 76.8759

H₀: X₁ = X₂

H₁: X₁ ≠ X₂

Where X₁ = Farm produced feed for each of the variables

X₂ = Commercial feed for each of the variables

The decision criteria upon which each of the variables are based is as follows:

For Cost of feed

When the cost of feed for farm produced feed is equal to that of the commercial feed, then accept H₀ but if not, reject.

For Profit

When the profit for farm produced feed is equal to that of the commercial feed, then accept H₀ but if not, reject.

For Output

When the output level of eggs for farm produced feed is equal to that of the commercial feed, then accept H₀ but if not, reject it.

It is evident from Table 5 that, at 5 percent probability level, the T-values for both cost of feed and profit is 1.4% and 1% while that of the output level remained insignificant.

This however may not be unconnected with the fact that although both categories vis-à-vis farm produced and commercial feeds have advantage(s) over each other in terms of quality of feed, it still has no significance on the number of eggs produced (per bird) but on the cost of feed and the consequent profit generated.

Thus, both categories of feed are good and meet the nutritional requirement for egg produced. However, its significance on the cost of feed and the profit generated accentuates previously obtained results [66], [30] in which farm produced feed generated a higher profit, and also, a lower feed cost (resulting from a lower quantity of feed (Kg) per dozen of eggs) than commercial feed. This also further corroborates the most important challenge faced by poultry farms is providing adequate feed at a reasonable cost [18].

Table 6: Distribution of Farmers According To Their Most Pressing Problems

#	Problems	Frequency	Percentage
1	Feed and Feed Ingredients	15	51.3
2	Capital	6	20.5
3	Poor Transport	5	15.4
4	Power Supply	4	12.8

Problems Militating Against Layer Production

In the course of the investigation, it was discovered that the poultry egg farmers were confronted with four (4) major problems: the problem of feed and feed ingredients, lack of capital, problem of transportation and power supply.

However, 31.7% of the 51.3% of feed and feed ingredients are considered to be problems of high cost of feeds amongst others which are seasonality of some feed ingredients (11.4%). This is in consonance with [6], [52] that an increase in the cost of raw materials will lead to increase in the cost of finished feeds. Moreover, 20.5% said it was lack of capital.

15.4% identified their most pressing problem as transportation while 12.8% said occasional power outage at feed mills was their most pressing problem.

Thus, most of the farmers considered the problem of feed and feed ingredients vis-à-vis high cost of feed as the primary limiting factor to layer production in the study area (see Table 6). These findings are in agreement with the finding of [57] that feed represents the major cost of producing poultry meat and eggs, and [65] that high cost of feed is due mainly to the scarcity of feed ingredients.

V. CONCLUSION AND RECOMMENDATION

This study dwelt on the comparative economic analysis of egg production under two categories of feed regime/management viz. farm produced feed and commercial feed.

The outcome of the study indicates that more eggs are produced and thus more are being sold for an additional higher profit for every one Kilogram of self-formulated (compounded) feed than commercial feed. Therefore, although both categories of feed regimes are profitable, compounded feed is of higher profit. Also, it is more effective to use compounded feed than commercial feed. This is because while a dozen of eggs can be produced from a less quantity of compounded feed, more of commercial feed will be needed to produce the same quantity of eggs. Thus, with more feed, more cost is incurred. However, both the cost of feed and profit are mainly at the detriment of time. Also, time is a major constraint to the use of compounded feed since higher flock size is realized from the use of commercial feed due to its ready availability. Therefore, when time is not a constraint, it is more advisable for a poultry egg farmer to produce his feed than to procure commercial feed.

It is in the realization of the aforementioned facts that the following recommendations are generated:

1. Animal nutritionist and/or extension agents can also train Poultry farmers on how to formulate low-cost feeds with a resultant increase in their profit margin.
2. Sound knowledge about poultry farming must be acquired about the business and good management practices that will be suitable to the business environment should be encouraged.

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