

Poultry Farmers Perceived Constraints and Unwholesome Practices among Feed Mill Industries in Ibadan Metropolis

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Abstract— In order to investigate poultry farmers perceived constraints and unwholesome practices among commercial feed mill industries in Ibadan metropolis. Purposive sampling procedure was used for this study and a total of ninety six questionnaires were administered to the farmers out of the one hundred and sixty registered poultry farmers with Oyo State Agricultural Development Project (OSADEP) in Ibadan metropolis.

The socio-economic characteristics of the respondents such as age, marital status, educational level, gender, years of experience, religion were assessed using descriptive statistics, frequency and percentage, while farmer's perceptions on unwholesome practices and types of feed ingredients used and sources were measured using chi-square analytical tool. Other questions like benefits derived and constraints facing self milling in poultry industries were measured using Pearson product method of correlation (PPMC). From the findings it was revealed that majority of the farmers were facing one challenges or the other as a result of some sharp practices by the so called feed mill industries in Ibadan ranging from poor quality of feeds sold to farmers, short changing the customers in terms of measurement, scarcity of feed ingredients, seasonal instability in agricultural grains among others. Also, (61.5%) of the farmers agreed that already spoilt feed ingredients can easily be detected since they are not usually bought in large quantities which is one the benefits farmers derived from self milling.

Keywords— Poultry Farmers, Perceived constraints, feed mill, unwholesome practices.

I. INTRODUCTION

Poultry industries over time have made tremendous adjustments to meet the increasing demand for inexpensive animal protein and safe supply of meat and eggs. Over three decades, the poultry sector has been growing at more than 5 percent per annum (compared to 3 percent for pig meat and 1.5 percent for bovine meat) and its share in world meat production increased from 15 percent three decades ago to 30 percent currently (FAO, 2006).

Livestock production constitutes an important component of the agricultural economy in developing countries and it is an instrument to socio-economic change, improved income and quality of rural life in Nigeria (Okumadewa, 1999). It is an important source of protein presently producing about 36.5% of total intake of Nigerians. In livestock production, poultry occupies a prominent position in providing animal protein as it

accounts for 25% of local meat production in Nigeria (Okunlola and Olofinsawe, 2007).

In Nigeria, commercial feed milling commenced in 1963 by Pfizer, (Now Livestock feed Plc.). The number of feed mills in the country has been increasing since then. The number of feed millers grew to 303 as at 1983 with a combined installed capacity of 1039 tonnes per hour. Feed production rose from 640,000 tonnes in 1980 to 2.4 million tonnes in 1985, this then declined to about 1.0 million tonnes by 2008 (Eruvbetine, 2009).

An efficient feed mill industry is therefore crucial to the sustainability of viable livestock and poultry production enterprises. The poultry feed industry (broiler and layer industry) according to Fagbenro and Adebayo (2005), dominates the animal feed industry, and accounted for approximately two-thirds (68.2 percent) of the national feed production while the remaining 31.8% is for livestock such as pig, rabbits and fish. The industry comprises two sectors: the small-scale and the commercial sectors. The commercial

sector manufactured nearly 1.7 million tonnes or 65.4 percent of the country's poultry feed - this included feeds offered to chickens, guinea fowls, ducks, geese and turkeys (Fagbenro and Adebayo, 2005). The Toll millers and farm mixed feed constitute the remaining 35% of the total poultry feed produced in the country. The ingredient composition used in poultry feeds is derived using least cost formulation techniques.

Livestock feed industries or mills are found all over the country, with the largest concentration in the south-west zone of the country. These range from small, medium to large scale operators. Currently there are only six (6) well established reputable feedmilling companies in Nigeria. The major commercial feed millers include, Top feeds, Vital feeds, Livestock feeds, Boar feeds, Animal care, Amobyng, and Feed Masters producing more than 50% of feed requirement of the country while the remaining is balanced by the medium, small scale, toll millers and on farm/ self-mixed feed that can be found all over the country (Bello, 2008). According to Oyediji (2006), increase in demand for feed has led to the emergence of additional feed mills

whose size and nature of business differentiate them from one another. According to Munkaila *et al.*, (2012), there exist large scale commercial feed mills whose hourly output ranges from 5 tonnes and above, medium scale mills with an output range of 2-4 tonnes and the small scale with an hourly output of 0.5 to 2 tonnes per hour.

II. METHODOLOGY

This study involved all registered poultry farmers under Oyo State Agricultural Development Project (OSADEP) in Ibadan Metropolis and a purposive sampling procedure was used for the study. Out of about one hundred and sixty registered poultry farmers in Ibadan Metropolis, ninety six of them were randomly selected for questionnaire administration. Data was collected using primary source of data obtained from selected registered poultry farmers in Ibadan Metropolis.

A well-structured questionnaire was used to collect primary data in Ibadan metropolis while secondary data was obtained from research report, literature and other publications.

III. RESULTS

Table 1. Socio- Economic Characteristics of the Respondents in the Study Area

Variable	Frequency	Percentage(%)
Sex		
Male	62	64.6
Female	34	35.4
Total	96	100
Age		
21-30 years	23	24.0
31-40 years	22	22.9
41-50 years	37	38.5
Above 50 years	14	14.6
Total	96	100
Religion		
Christianity	55	57.3
Islam	36	37.5
Traditional	5	5.2
Total	96	100
Marital status		
Single	9	9.4
Married	74	77.1
Divorced	6	6.3
Widow	7	7.3
Total	96	100
Level of education		
No formal education	13	13.5

Adult education	32	33.3
Primary education	32	33.3
Secondary education	3	3.1
Tertiary education	16	16.7
Total	96	100

The result shows that 64.6% were male and 35.4% were females and 24% of the respondents were between the age of 21-30 years, 22.9% between the ages of 31-40 years, 38.5% between the age of 41-50 years and 14.6% are above 50 years of age which shows that majority of the respondents were within the productive year. This also means that respondents involved in poultry farming are at their active age when strength as well as energy to work is readily available that is the younger the farmers, the more productive they are (Gingras *et al.*, 2008). Furthermore, about 26.1% of the respondents have within 501-1000 stocks of birds which make it the highest and majority of the respondents realizes between #50,000-100,000 per year 32.3% and majority of the farmer's mills between 201-300 kg of feeds per month 37.5% that is most of the farmers sampled makes use of feed mills on a regular basis.

Table 2: Farmers Perception on unwholesome practices among feed mill industries

PERCEPTION	SA	A	U	D	SD
1. Some feed millers operators have a mindset of Cheating their customers	51(43.1)	36(37.5)	4(4.2)	5(5.2)	7(9.8)
2. Some of feed millers look for cheap ingredients Not minding their quality	48(50)	35(36.5)	3(3.1)	8(8.3)	2(2.1)
3. Qualities of feed ingredients used in most Feed mill are Substandard	41(42.7)	31(32.3)	8(8.3)	14(14.6)	2(2.1)
4. Most workers employed in feed mills are Dubious and do steal from ingredients bought	45(46.9)	21(21.9)	24(25)	4(4.2)	2(2.1)
5. Some of the feed millers make use of high moisture Ingredients as to increase the weight of the feeds	40(41.7)	28(29.2)	17(17.7)	7(7.3)	4(4.2)
6. Unwholesome practice can lead to low quality feed at the end	50 (50.2)	32(33.3)	7(7.3)	7(7.3)	6(1.9)
7. Some feed millers adulterates their ingredients by mixing sand and other unhygienic materials.	35(36.5)	22(22.9)	18(18.8)	14(14.6)	7(7.3)
8. Some of the feed millers adjust their scales In other to make more profit	53(55.2)	32(33.3)	5(5.2)	4(4.2)	2(2.1)
9. Unwholesome practices in the feed mill can Lead to stunted Growth in chickens	53(55.2)	31(32.3)	4(4.2)	5(5.1)	3(3.1)
10. Unwholesome practices can lead to disease outbreak in Poultry		55(57.3)	33(34.4)	6(6.3)	2(2.1)
11. Unwholesome practices can lead to reduction in egg production in case of layers	56(58.3)	33(34.4)	2(2.1)	1(1.0)	4(4.2)

Source: Field survey, 2017

From the above table (53%) of the respondents strongly believed that unwholesome practices can lead to egg reductions, also, 57.3% of the farmers strongly agree that unwholesome practices can lead to disease outbreak in poultry. Furthermore, 55.2% of farmers also believed that some of the feed millers adjust their scale in other to make more profits and that practice alone can lead to lead stunted growths in chickens. 53.1% of the respondents had strong indications that some of the feed miller operators have a mindset of cutting corners and cheating their customers, also, 52.1% of respondents also strongly agreed that unwholesome practices can lead to low quality chickens and 50.0% of the farmers strongly agree that some feed millers look for cheap ingredients not minding their qualities.

Table 3: Availability of materials for commercial feedmill industry materials

	Not available	Sometimes available	Always available
1. Maize	0(0)	13(13.5)	83(86.5)
2. Fishmeal	0(0)	20(20.8)	76(79.2)
3. Soybeans	0(0)	19(19.8)	77(80.2)
4. Sorghum	6(6.3)	28(29.2)	62(64.6)
5. Millet	8(8.3)	30(31.3)	58(60.4)
6. GNC	1(1.0)	26(27.1)	69(71.9)
7. Rice bran	4(4.2)	36(37.5)	56(58.3)
8. Amino acid	8(8.3)	47(49)	41(42.7)
9. Wheat bran	6(6.3)	32(33.3)	58(60.4)
10. Molasses	24(25)	42(43.8)	30(31.3)
11. Linseed meal	25(26.0)	36(37.5)	35(36.5)
12. Cotton seed meal	14(14.6)	46(47.9)	36(37.5)
13. Salt	1(1)	12(12.5)	83(86.5)
14. Vitamin C	1(1)	12(12.5)	83(86.5)
15. Minerals	1(1)	24(25)	71(74)
16. Copper	10(10.4)	39(40.6)	47(49)

Table 3 continuation: Availability of materials for commercial feedmill industry materials

MATERIAL	Always available	Sometimes available	Not available
23. Methionine	15(15.6)	26(27.1)	55(57.3)
24. Selenium	29(30.2)	22(22.9)	45(46.9)
25. Palm kernel	6(6.3)	30(31.3)	60(62.5)
26. Cotton seed	13(13.5)	26(27.1)	57(59.4)
27. Peanut cake	6(6.3)	25(26)	65(67.7)
28. Pellets	9(9.4)	23(24)	56(58.3)
29. Brewer Dried Grain	9(9.4)	23(24)	64(66.7)
30. Lysine	3(3.1)	30(31.3)	63(65.6)
31. Di calcium phosphate	8(8.3)	40(41.7)	48(50)
32. Premix	3(3.1)	25(26)	68(70.8)
33. Nutritive additives	5(5.2)	35(36.5)	56(58.3)
34. Limestone	5(5.2)	23(24)	68(70.8)
35. Oyster shell	4(4.2)	23(24)	69(71.9)
36. Bone meal	9(9.4)	16(16.7)	71(74)

Source: Field survey, 2017

From the table above, Availability of maize as one of the sources of feed ingredients in feed mill industries had 86.5% which supports Iken and Amusa, 2004, that says 'maize has now risen to a commercial crop on which many Agro-based industries depends on it as raw materials for production. According to IITA 2001, 'maize is highly yielding, easy to process, readily digested and cost less than other cereals. 86.5% of the respondents also said that salt and vitamin C is always available, 80.2% also said that soybeans is always available, 79.2% of respondents supported that fishmeal is always available, 77.1% of farmers also said that palm-oil is always available, 74.0% of respondents also agreed that minerals and bone meal materials is always available.

Table 4: Sources of feed in feed mill industry

Sources	Regularly	Occasionally	Never
1. Open markets	79(82.3)	17(17.7)	0(0)
2. Directly from farmers	44(45.8)	44(45.8)	8(8.3)
3. Friends and family	17(17.7)	46(47.9)	33(34.4)
4. Industrial waste	36(37.5)	45(46.9)	15(15.6)
5. House hold waste	28(29.2)	43(44.8)	24(25.0)
6. Extension agent	20(20.8)	56(58.3)	20(20.8)
7. Feed mill industries	67(69.8)	25(26.0)	4(4.2)
8. Personal farm	50(52.1)	36(37.5)	10(10.4)

Source; Field survey, 2017

Majority (82.3%) of the farmers regularly get their ingredients from open markets. Close to half (45.8%) of the respondents get their own directly from farmers regularly and occasionally.

Also, 47.9% of respondents occasionally get their ingredients from friends and family who own one farm or the other, 46.9% of the respondents occasionally get their ingredients from industrial waste. Furthermore, 44.8% occasionally get their ingredients from household waste, 58.3% occasionally source theirs from extension agents.

Table 5: Benefits derived from self milling

Benefits	NB	LB	MB	HB
1.It is more nutritive than conventional feeds	16(16.7)	7(7.3)	18(18.8)	55(57.3)
2.Self- milled feed saves a lot of money on the Overall cost of production	12(12.5)	6(6.3)	25(26)	53(55.2)
3.The nutrient content of the feed is retained Through self-mill	15(15.6)	9(9.4)	19(19.8)	53(55.2)
4.It is not time consuming	6(6.3)	16(16.7)	27(28.1)	47(49)
5.Feeds are prepared in right proportions needed By the available birds	7(7.3)	12(12.5)	26(27.1)	51(53.1)
6.It is usually milled when needed per time	12(12.5)	13(13.5)	25(26)	46(47.9)
7.Preventive measures are usually taken	7(7.3)	14(14.6)	22(22.9)	53(55.2)
8.There is reduced risk attached to self-milling Compared to commercial feed millers	7(7.3)	18(18.8)	21(21.9)	50(52.1)
9.There is no scarcity of feed for birds	2(2.1)	18(18.1)	27(28.1)	49(51.0)
10.Already spoilt feed ingredients are easily Detected	2(2.1)	13(13.5)	22(22.9)	59(61.5)
11.Farmers can be sure of the nutritive values	6(6.3)	15(15.6)	21(21.9)	54(56.3)

Quality of the feed at the end

Source: Field survey, 2017

The table above shows the benefits derived by farmers in self-milling. Majorly, (57.3%) of the respondents agreed to the fact that it is usually more nutritive than that of feed mill industries, also, 55.2% of respondents agree that self-milling saves a lot of money on the overall cost of production and the nutrient content of the feed is retained through self-milling, 61.5% of the respondents supported that already spoilt feed ingredients can't be used when doing self-milling. Furthermore, 56.3% agreed that farmers can be sure of the nutritive values of the ingredients to be used. 54.2% of the respondents agreed that in self-milling, contamination by rodents and other micro-organism is reduced in self-milling.

Table 5: Constraints Facing Farmers in Commercial Feed Mill Industry.

Constraints	N.C	Min. C.	Maj.C.
1. The feeds are not always in the Right proportion	16(16.7)	37(38.5)	43(44.8)
2. It is time consuming	14(14.6)	42(43.8)	40(41.7)
3. Contaminated feeds can lead to Health hazard	8(8.3)	11(11.5)	77(80.2)
4. Small scale farmers are not usually Attended to on time	9(9.4)	38(39.6)	49(51)
5. Feeds meant for one animal can be Mistaken for another	17(17.7)	39(40.6)	40(41.7)
6. Epileptics supply of light can lead to feed scarcity	13(16.3)	35(41.8)	48 (41.9)
7. Shortage of feed ingredients will lead to unavailability of feeds	6(6.3)	30(31.3)	60(62.5)
8. Increase in prices of feed materials Often leads to increase in feed price	5(5.2)	22(22.9)	69(71.9)
9. Feeds bought from feed millers are Often lesser than acclaimed quantity	5(5.2)	41(42.7)	50(52.1)
10. Seasonal instability in agricultural Crops do affect ingredients	5(5.2)	26(27.1)	65(67.7)
11. Instability in Government policies do Affect certain crops	12(12.5)	25(26)	59(61.5)

NOTE** .NC- Not a constraints, Min. C- Minor Constraints, Maj. C- Major Constraints

Source: Field survey, 2017

The above table shows the constraints facing the farmers in feed mill industries. One of the major constraints facing the farmers is the way animals fed such adulterated ingredients are susceptible to diseases attacks 80.2% of the respondents affirmed this, also feed price increases 71.9% indiscriminately. Other challenges' facing the farmers ranges from inadequate power supply to instability in Government policies 65.6% and 67.7% respectively. In addition there are other constraints like unavailability of feed ingredients and shortage in feed supply due to one reason or the other.

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