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ECONOMIC ANALYSIS OF BROILER CHICKEN VALUE CHAIN IN KADUNA STATE, NIGERIA

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ABSTRACT

This study focused on the economic analysis of broiler chicken value chain in Kaduna State Nigeria, with the objective of determining the value addition and profitability of respective actors along the chain. A combination of purposive and random sampling was used to select 314 broiler chicken value chain actors from a list of active commercial broiler producers, input suppliers, traders, and feed millers and marketers compiled during reconnaissance survey was used as a sample frame for this study. Primary data was obtained through the use of four (4) sets of questionnaires administered using the Open Data Kit collect. A value-share model and Net farm income were used to analyse the data. The results of value addition and profitability per 100 birds per production cycle among the actors revealed that producers add the highest value (₦ 24, 081.3) along the chain. A net income of ₦ 38, 495.79, ₦ 9, 802.03, ₦ 13, 687.16, and ₦ 8, 955.76 was realized by producers, input supplier, traders and processors respectively. Consequently, a return on investment of 1.16, 1.06, 1.14, and 1.11 was realized by the producers, input supplier, traders and processors respectively. It was concluded that broiler chicken producers have a high value gain ₦684/ton which is over 47% of profit share when compared to other actors in the study area. It is therefore recommended that actors at every node, especially broiler producers, focus on improving coordination and collaboration with other actors in the value chain to achieve efficiency, reduce costs, and increase value addition.

Keywords: Economic Analysis; Broiler Chicken Value Chain; Value Addition; Profit Share

INTRODUCTION

The production of commercial chicken began in Nigeria in the late 1950s when poultry farms were established in western Nigeria (Akinwumi, Okike, and Rich, 2010). At the time, broiler meat was not popular, and the market preferred the tougher chicken meat from local varieties and spent layers. The production of chicken in Nigeria has been on the rise; meat production increased from 198,303 metric tons in 2011 to 239,947 metric tons in 2019 at an annual rate of 3.26% (Knoema, 2019).

Broiler chicken is a commonly reared chicken breed for its tender meat in many parts of the world, and its production and consumption have significant economic impacts (Mir, Rafiq, Kumar, Singh, & Shukla, 2017; Kassali, Adetomiwa, & Lasisi, 2022). An economic analysis of broiler chicken would consider factors such as production costs, market demand and prices, and government policies affecting the industry (Chibanda, Wieck, & Sall, 2023). Costs associated with Broiler chicken production include that of feed, labour, housing, and veterinary care (Chibanda *et al.*, 2023). Feed costs is the highest and can account for up to 70% of the total cost of production, depending on the type and quality of feed used (Poultry World, 2022). The cost of labour and housing may vary depending on the level of automation and the size of the flock, while veterinary care costs are essential for maintaining a healthy flock and preventing disease outbreaks (Poultry World, 2022). Market demand for broiler chicken has been

influenced by several factors, such as consumer preferences, income levels, and the availability of alternative meat sources (Mayulu, Rahman, & Yusuf, 2019). The price of broiler chicken is mainly influenced by production costs, market competition, and government regulations (Chibanda *et al.*, 2023). Higher demand for broiler chicken can lead to higher prices, while oversupply can lead to lower prices. The seasonal demand for broiler chicken can also affect prices, with higher prices typically seen during peak demand periods such as holidays, and festivities (Mayulu *et al.*, 2019).

According to a report by the World Initiative for Soy in Human Health (WISHH), an average Nigerian consumes only 5.9 kg of meat each year, compared to 9.3 kg in Ghana, 50 kg in South Africa, and 100 kg in the United States (WISHH 2020). The Food and Agricultural Organization (FAO 2020) recommends a daily protein intake of 53.8 grams per person, with the global average at 64 grams, while Nigerians consume 45.4 grams. According to these statistics, there is an animal protein shortfall of roughly 18.6 grams per person per day among Nigerians, resulting in major nutritional concerns. Therefore, increasing broiler production is one of the surest and fastest solutions to closing the animal protein intake gap between developing and developed countries (Poultry Association of Nigeria, PAN, 2018; FAO, 2018). In order to achieve the goal of closing this gap between supply and demand for poultry especially

broiler meat, a close look at the various actors carrying out activities on all the nodes along the value chain is necessary. An economic analysis of the activities performed by the actors with associated costs and returns, can lead to recommendations on the possible areas that need improvement in their efficiency. This can lead to reduction in costs and increase profitability of actors while supplying quality meat at lower prices to the consumers.

The broiler enterprise value chain found in Nigeria, especially Kaduna State, consists of input suppliers, farmers, marketers, and processors. It involves knowing the value-addition activities among the different actors in the value chain. The broad objective of the study was to examine the economic analysis of the broiler chicken value chain in Kaduna State, Nigeria, while the specific objectives were to determine the value addition and profitability of the respective actors in the chain.

Materials and Methods

Description of the Study Area

The study was conducted in Kaduna State Nigeria, located between latitudes 9° 03' and 11° 32' North of the equator and longitudes 6° 05' and 8° 38' East of the Greenwich Meridian (Kaduna State Agricultural Development Agency, KADA, 2007;

Kaduna State Government, KSG, 2015). It has a total land mass of 46,053 square kilometres, which is about 5% of the total land area of Nigeria (KSG, 2015), with a population of 6,113,503 people as of 2006, projected to is 9,476,054 in 2021, at a growth rate of 3.18% per year. The total arable land area of the state is estimated to be about 2,148,700 hectares. The state has two distinct climatic seasons, namely wet and dry. The wet season spans the period between April/May and September/October, while the dry season spans the period between October/November and March/April, with an average annual rainfall of about 1,323 mm (KADA, 2007; Abaje, Sawa, Iguisi, & Ibrahim, 2015). The highest mean temperature occurs between the months of March and May within the range of 35 °C and 36 °C, while the minimum air temperature is usually recorded during the harmattan period and occurs between November and February with a range between 18 °C and 23 °C (KADA, 2007). The people of the state are engaged in broiler production activities ranging from small-scale, peri-urban operators to very large, vertically integrated enterprises. The state is also known to have a large chicken market that is reputed to be the biggest in Northern Nigeria (Sabiu, 2018)

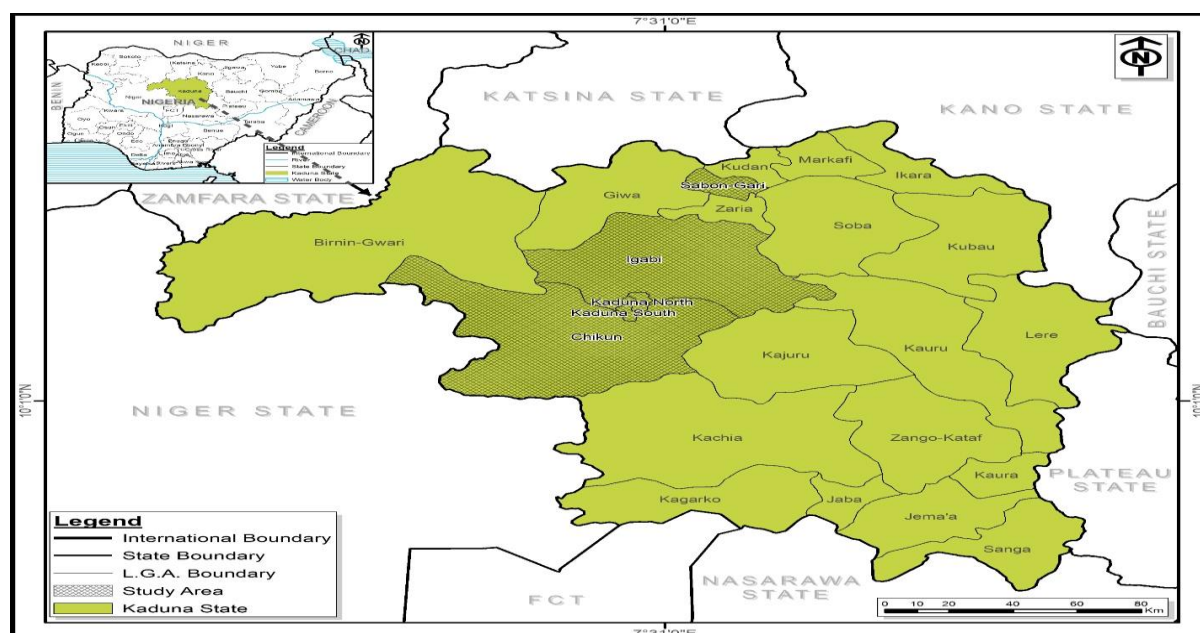


Figure 1: Map of Kaduna State showing the study area

Input suppliers (feed millers and feed marketers), suppliers of day-old chicks (DOCs) and equipment, drugs, and vaccines, commercial broiler producers, broiler traders (wholesalers and retailers), processors, and consumers comprised the sample for this study, from Five (5) local government areas of Kaduna State. These LGAs are Chikun, Igabi,

Kaduna south, Kaduna north, and Sabon Gari, due to their importance in the broiler business. A list of the registered and active commercial broiler producers was obtained from the state's Poultry Association of Nigeria (PAN) in collaboration with the Kaduna State Ministry of Agriculture and KADA. A multistage sampling technique was used

to select the sample for the study. At the first stage, five (5) LGAs (Kaduna South, Kaduna North, Chikun, Igabi and Sabon Gari) were purposively chosen based on the intensity and concentration of commercial broiler chicken producers marketers and processors as well as the integrated facilities available in the areas. At the second stage, all the wards where the commercial broiler producers and other actors are located in each of the five LGAs were also selected. At the third stage, all the one hundred and twenty-six (126) registered and active commercial broiler producers were selected and used for the study

The selection of input suppliers (feed millers and marketers, suppliers of DOC and equipment, drugs, and vaccines) was also done in all the five (5) LGAs, where a total of twenty-three (23) broiler feed millers and marketers were selected. A total of fifty-three (53) other input suppliers such as DOC/equipment, drugs, and vaccines were selected using the snowball sampling method, while a sample of seventy-five (75) broiler traders (wholesalers and retailers) were selected based on the broiler markets available in the areas.

The selection of broiler processors (butchers, chicken suya spots, eateries, joints, hotels or restaurants, and cold stores) was also done using the snowball sampling method. A sample of sixty (60) processors were identified and selected.

This gives total of three-hundred and fourteen (314) broiler value chain actors as the sample size for the study.

The study made use of primary data obtained through the use of digital Open Data Kit collect administered by trained enumerators. Four (4) different sets of the questionnaires were used for input suppliers, producers, traders and processors. The specific information obtained from the study of broiler chicken value chain actors include: sales of inputs, production, processing, and marketing activities of broiler chicken value chain actors.

Analytical Techniques

A value-share model and net income were used to analyze the value addition and profitability of the enterprises respectively.

Value addition and profitability along the broiler value chain

A value-share model was used to achieve the objective of value addition along the broiler value chain, as adopted by Coulibaly, Arinloye, Melle, Fanou, Agbahey, Allomasso, Nouhoeflin, Koumassa, Adetonah, & Hell (2010); and Igwenagu, Ohajianya, Nwaiwu, Gbolagun, & Ehirim (2020). For this study, the value added is the amount of value that each actor in the chain adds. It is the difference between the price the actor charges for the value-added product and the price he pays for the raw materials purchased from the preceding actor per 100 birds per production cycle. It is explicitly expressed for each actor as follows:

Broiler chicken producers:

$$VA_{pd} = SP_{pd} - PP_{pd} \dots \dots \dots$$

Where

VA_{pd} = value added by the broiler chicken producers

SP_{pd} = price producers offered to sell finished broiler

PP_{pd} = price producers purchased DOCs, feeds, vaccines and drugs, equipment

VS_{pd} = value share of broiler chicken producers

VA_{bt} = total value added by actors in the chain

However,

$$VA_{bt} = VA_{pd} +$$

$$VA_{is} + VA_t + VA_{pr} \dots \dots \dots$$

Hence, value share is the percentage share of broiler producers in the total value added in the value chain system given as:

$$VS_{pd} = \frac{VA_{pd}}{\sum_{pd=1}^n VA_{bt}} \times 100\% \dots \dots \dots$$

Input suppliers:

$$VA_{is} = SP_{is} - PP_{is} \dots \dots \dots$$

Where

VA_{is} = value added by the input suppliers

SP_{is} = price input suppliers offered to sell inputs

PP_{is} = price input suppliers purchased inputs.

VS_{is} = value share of input suppliers

VA_{bt} = total value added by actors in the chain

Hence, value share is the percentage share of broiler producers in the total value added in the value chain system given as:

$$VS_{is} = \frac{VA_{is}}{\sum_{is=1}^n VA_{bt}} \times 100\% \dots \dots \dots$$

Broiler chicken trader:

$$VA_t = SP_t - PP_t \dots \dots \dots$$

Where

VA_t = value added by broiler chicken traders

SP_t = price traders offered to sell finished broilers

PP_t = price traders purchased finished broilers

VS_t = value share of traders

VA_{bt} = total value added by actors in the chain

Hence, value share is the percentage share of broiler chicken traders in the total value added in the value chain system given as:

$$VS_t = \frac{VA_t}{\sum_{t=1}^n VA_{bt}} \times 100\% \dots \dots \dots$$

Broiler chicken processors:

$$VA_{pr} = SP_{pr} - PP_{pr} \dots \dots \dots$$

Where

VA_{pr} = value added by broiler chicken processors

SP_{pr} = price processors offered to sell products

PP_{pr} = price processors purchased products

VS_{pr} = value share of processors

VA_{bt} = total value added by actors in the chain

Hence, value share is the percentage share of broiler chicken processors in the total value added in the value chain system given as:

$$VS_{pr} = \frac{VA_{pr}}{\sum_{pr=1}^n VA_{bt}} \times 100\% \dots \dots \dots$$

All products that passed through processing along the value chain were measured in Naira to allow for easy comparison of the activity of the chain actors. Then value gain (₦/ton) by actors along the chain as adopted by (Oladimeji, Michael, Ibrahim, Hakeem, Chris & Agathe, 2021).

Net Income was used to achieve the objective on profitability of respective actors in the chain. The model for estimating net income is given as:

$$NFI_i = \sum_{i=1}^n P_{yi} Y_i - \sum_{j=1}^m P_{xj} X_j - \sum_{k=1}^k f_k \dots \dots \dots$$

Where

Y_i = output

P_{yi} = unit price of outputs (₦)

X_j = quantity of variable input

P_{xj} = price per unit of variable inputs (where j = 1, 2, 3..... m)

f_k = cost of fixed input (where k= 1,2,3.....k fixed input) and

Σ = summation sign.

The model is expressed explicitly as follows:

Boiler chicken producers:

$$NFI_{pd} = TR_{pd} -$$

$$TVC_{pd} - TFC_{pd} \dots \dots \dots$$

Where,

NFI_{pd} = Net farm income of broiler chicken producers

TR_{pd} = Total revenue of broiler chicken producers (per 100 birds)

TVC_{pd} = Total variables costs of broiler chicken producers (per 100 birds)

TFC_{pd} = Total fixed costs of broiler chicken producers (per 100 birds)

Variable costs for broiler producers were the cost of DOCs, feed, medication, and vaccination; a bulb; a feeding trough; a drinking trough; energy costs; fuel; labour; water; transport; consignment; and commission. Fixed costs for broiler producers included the broiler house, pens, coops, and battery cages; vehicles; rakes, shovels, and weighing scales; generators; vehicle maintenance and repairs; and taxes.

Input suppliers:

$$NFI_{is} = TR_{is} -$$

$$TVC_{is} - TFC_{is} \dots \dots \dots$$

Where,

NFI_{is} = Net income of input suppliers

TR_{is} = Total revenue of input suppliers

TVC_{is} = Total variables costs of input suppliers

TFC_{is} = Total fixed costs of input suppliers

Variables cost for input suppliers includes the cost of purchase of DOC, cost of purchase of vaccines and drugs, labour, transport, water, electricity, fuel, bags, consignment and commission. Fixed cost for input suppliers includes: shop hire, vehicles, shovel, weighing scale and generators.

Broiler chicken traders:

$$NFI_t = TR_t -$$

$$TVC_t - TFC_t \dots \dots \dots$$

Where,

NFI_t = Net income of broiler chicken traders

TR_t = Total revenue of broiler chicken traders (per 100 birds)

TVC_t = Total variables costs of broiler chicken traders (per 100 birds)

TFC_t = Total fixed costs of broiler chicken traders (per 100 birds)

Variable costs for broiler traders include cost of DOCs, feed cost, vaccine cost, drug cost, cost of drinking and feeding troughs, energy costs, fuel, transport, labour, water, consignment, commission, loading, and offloading of broiler chicken, while fixed costs are shop hire, vehicles, cost of wicker cages, coops, and pens, tax, maintenance, and repairs of vehicles.

Broiler chicken processors:

$$NFI_{pr} = TR_{pr} -$$

$$TVC_{pr} - TFC_{pr} \dots \dots \dots$$

Where,

NFI_{pr} = Net income of broiler chicken processors

TR_{pr} = Total revenue of broiler chicken processors (per 100 birds)

TVC_{pr} = Total variables costs of broiler chicken processors (per 100 birds)

TFC_{pr} = Total fixed costs of broiler chicken processors (per 100 birds)

The total variable costs associated with the butchers were firewood, packaging materials, water cost, labour, and kerosene, while fixed costs were shop hire, vehicles, a cutting table, and tax. The costs related to the chicken *suya* processors were the cost of finished broilers, firewood, labour, packing materials, and cutting tables, while the fixed costs

were shop hire, vehicles, tax, maintenance, and repairs of vehicles. The costs incurred by cold stores were the cost of finished broilers, labour, fuel, electricity charges, and water, while fixed costs include shop hire, cold storage, freezers, packing materials, weighing scales, generators, maintenance, and repairs of vehicles. The variable costs for hotels, restaurants, or joint ventures were electricity, labour, water, fuel, and packaging materials, while the fixed costs were shop hire, stoves and cylinders, tax, vehicles, generators, maintenance, and repairs of vehicles.

The depreciation on fixed costs was calculated using the straight line method of depreciation:

$$D = \frac{C - S}{N}$$

Where;

D = Depreciated amount, C = Initial cost of the assets, S = Salvage value

N = Expected Number of useful life span.

Return per naira invested (RNI) was obtained by dividing the gross income (GI) over the total cost (TC).

RESULTS AND DISCUSSION

Value addition of the actors in the value chain

The result in Table 1 showed that, each of the chain actors adds value to the product as the product passes from one actor to another along the broiler value chain. Value was added in various ways, including change of form, time and place of sale of local chickens and the products. Actors change the form of the product by improving the level by sorting and time utility. The total value addition per 100 birds per production cycle along the chain was ₦ 51,972.2.

The producers earn ₦ 24,081.3 per 100 birds per production cycle, with a value gain of ₦ 684/ton, which is approximately 47% of the final retail price. Value addition along the broiler value chain demonstrates that producers add the most value, which could be attributed to activities such as feeding, medication, vaccination, and transportation. Also, input suppliers realized a value added of ₦ 4,094.3 per 100 birds per production cycle with a value gain of ₦ 174/ton, which is 8% of the final retail price. However, input suppliers generate place, time, and possession utilities; they satisfy (provide utility to) what, where, when, and how customers buy; and they obtain information on purchasing behavior and purchase decisions from final consumers; all of which contribute to value addition in the chain. Likewise, the broiler traders obtained the sum of ₦ 15, 593.2 which is 31% of the final retail price per 100 birds with a value gain of ₦ 234/ton. Traders only hand-pick the birds from the producers in their raw state and sell them in the same condition. However, value was added in a variety of ways, including changing the time and location of broiler chicken sales. This was done through transportation to the market, and there were also risks associated with value-added that required payment, such as those associated with transporting broiler chickens to markets.

Finally, the broiler chicken processors earn the sum of ₦ 7, 428.4, which is 15% of the final retail price per 100 birds with a value gain of ₦ 159/ton. Processors also add value to the chicken by boiling or frying it, which involves adding other ingredients to the meat. Consequently, value was added in a variety of ways, including changing the form of broiler chickens. This was accomplished by frying, peppering, and roasting the chicken.

Table 1: Distribution of value added by actors and their shares along the broiler chicken value chain

Actors	Sale price (₦)	Purchase price (₦)	Value added (₦)	Value gain (₦/ton)	Value share (%)
Producers	45,729.0	21, 647.7	24, 081.3	684.0	47.0
Input suppliers	32, 909.1	28, 814.8	4094.3	174.0	8.0
Traders	34, 363.5	18, 770.3	15, 593.2	243.0	30.5
Processors	37, 216.7	29, 788.3	7428.4	159.0	14.5
Total			51197.2		

The profitability of the actors in the broiler chicken value chain

The Return on investment (ROI) of the key actors in broiler chicken value chain are presented in Table 2. The total cost of production incurred by producers was ₦ 235, 653.71 per 100 birds per production cycle. According to the percentage contribution of variable costs to the total cost of production incurred, the cost of feed (61.78%) was the highest percentage contribution incurred by producers. A total revenue and net farm income of ₦ 274 149.50 and ₦ 38 495.79 were realized by

producers, indicating the existence of lucrative production-related investment opportunities. Consequently, a return on investment (ROI) of ₦ 1.16 was obtained by the producers, signifying that for every ₦ 1 spent on the production of chicken, 16 kobo was realized as profit, indicating that the broiler producers earn more than the other actors in the chain. This finding is similar to the findings of Hassan, Ahmadu, Oseni, Dawang, Rahman, and Abdulsalam (2016), who, in their study of the economic analysis of poultry egg enterprise in Kaduna State, Nigeria, discovered that the total

cost of production and net farm income per 100 layers were ₦ 206, 610.44, and ₦ 208, 079.75,

respectively, with a return per Naira invested of ₦ 1.01.

Table 2: The profitability of actors along the broiler chicken value chain

Variables	Producers	%	Input suppliers	%	Traders	%	Processors	%
Revenue								
Sales of birds	264860.66		60566.04		113009.08			
Sales of DOC			23120.00					
Sales of Equipment/Items			28686.79					
Sales of feeds			57026.60					
Sales of chicken droppings	8332.39		1113.26		1873.33			
Sales of empty feed bags	956.45							
Sales of chicken parts							38250.00	
Sales of whole chicken							25100.00	
Sales per day							24842.83	
Total Revenue	274, 149.50		170, 512.70		114, 882.41		88, 192.83	
Variable cost								
Cost of birds							14203.44	17.93
Cost of DOC	21667.61	9.19	36407.55	22.65	1380.00	1.36		
Cost of Feed	145590.37	61.78			8310.67	8.21		
Drugs and Vaccine	6126.09	2.60			1046.67	1.03		
Equipment/Items purchased			7535.85	4.69				
Feeding trough	669.23	0.28	112.50	0.07	1776.19	1.76		
Fire Wood							4653.33	5.87
Packaging Materials							2100.53	2.65
Kerosene							1166.67	1.47
Drinkers trough	498.10	0.21	150.33	0.09	2563.55	2.53		
lamp/bulb/charcoal	1907.84	0.81	1250.00	0.78	2733.33	2.70		
cost of electricity	2803.95	1.19	8216.98	5.11	2589.32	2.56	4798.27	6.06
Water cost	2468.95	1.05	2857.74	1.78	1258.65	1.24	2687.42	3.39
Fuel cost	784.85	0.33	18830.19	11.72	6411.97	6.34	618.23	0.78
Labour	10572.14	4.49	21132.08	13.15	9536.80	9.42	8293.00	10.47
Transport cost	1996.03	0.85	24396.23	15.18	9316.13	9.21	5097.48	6.43
Consignment	1066.63	0.45	3018.87	1.88	5365.47	5.30	4011.75	5.06
Commission	338.01	0.14	137.74	0.09	353.29	0.35	364.88	0.46
Loading and Uploading					3000.63	2.97		
Total variable costs	196, 489.80		124, 046.04		55, 642.67		47, 995.01	

The result on Table 3 showed that Input suppliers incurred a sum of ₦ 160, 710.67 as a total cost per 100 birds. The cost of DOC (22.65%) constituted the largest percentage contribution of the variable cost to the total cost of production. A total revenue and net income of ₦ 170, 512.70 and ₦ 9, 802.03, respectively, were realized by input suppliers. This suggests the existence of investment opportunities at the input supply node of the chain. Input suppliers realized a ROI of ₦ 1.06, indicating that for every ₦ 1 spent on the supply of inputs for chicken, 6 kobo was realized as profit. This demonstrates the high potential for an increase in the income of input suppliers in the study area. This finding is consistent with the findings of Adebayo, Abdullahi, Ndanista, and Tsowa (2019), which studied profitability efficiency among cattle value chain actors in Niger State, Nigeria, and

found a return on investment of ₦ 1.19 for input dealers.

The result also found that the broiler traders expended the sum of ₦ 101, 195.25 as the total cost of production per 100 birds. The result further shows a revenue of ₦ 114, 882.41 was obtained by the broiler traders, while a net income of ₦ 13, 687.16 was obtained, illustrating the existence of lucrative marketing-related investment opportunities in the broiler chicken value chain. Broiler traders earn a ROI of 1.14, implying that for every ₦ 1 spent on the marketing of chicken, 14 Kobo was obtained as profit. This finding is in tandem with the findings of Adebayo *et al.* (2019), who found that traders earned ₦ 1.07 returns on Naira investment. The total cost of production expended by processors was ₦ 79, 237.07 with a Revenue of ₦ 88,192.83 and a net farm income of ₦ 8,955.76 realized by processors. This signifies

the existence of lucrative processing-related investment opportunities in the broiler chicken value chain, with the broiler processors realizing a ROI of ₦ 1.11, indicating that for every ₦ 1 spent

on the processing of chicken, 11 kobo was made. This demonstrates that the income of broiler chicken processors in the study area has a high potential for growth.

Table 3: The profitability of actors along the broiler chicken value chain in Kaduna State per 100 birds Contd.

Fixed cost	Producers	%	Input suppliers	%	Traders	%	Processors	%
Broiler housing	3860.44	1.64						
Shop rent			17527.03	10.91	27400.00	27.08	2466.67	3.11
Vehicles	7190.38	3.05	10512.60	6.54	8161.27	8.06	4116.82	5.20
Cage/Pen/coops	1210.32	0.51			4400.00	4.35		
Cold Store							2588.24	3.27
Freezers							5941.18	7.50
Packing Machine							2352.94	2.97
Cutting table							1176.47	1.48
Stove/Cylinder							1585.71	2.00
Water heaters							920.00	1.16
Rake	1553.03	0.66						
Shovel	1285.19	0.55	375.00	0.23				
Weighing Scale	3944.44	1.67	5000.00	3.11			2500.00	3.16
Generator	16250.00	6.90	3250.00	2.02			3785.71	4.78
Maintenances and repairs of vehicle	3844.41	1.63			5129.33	5.07	2908.33	3.67
Tax	25.69	0.01			461.99	0.46	900.00	1.14
Insurance								
Total fixed cost	39, 163.91		36, 664.63		45, 552.59		31, 242.07	
Total cost of production	235, 653.71	100.00	160, 710.67	100.00	101, 195.25	100.00	79, 237.07	100.00
Net Farm Income	38, 495.79		9, 802.03		13, 687.16		8, 955.76	
Return on investment (ROI)	1.16		1.06		1.14		1.11	

CONCLUSION AND RECOMMENDATION

Actors along the broiler value chain have performed different functions toward making broiler meat reach the final consumer in the form, place and time needed. These functions that added value has resulted in the actors making returns and profits based on the contribution made to the chain. The broiler chicken producers have the highest value gain ₦ 684/ton which is over 47% of profit share when compared to other actors, making broiler chicken producers more profitable along the chain. However, each actor has achieved a certain

level of profitability which can be improved on with more efficient use of their resources and through vertical integration.

It is therefore recommended that actors at every node, especially broiler producers, focus on improving coordination and collaboration with other actors in the value chain, as it will help to ensure that all actors are working together to achieve common goals, such as improving efficiency, reducing costs, and increasing value addition.

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