ANALYSIS OF BROILER MARKETING PERFORMANCE IN ZARIA LOCAL GOVERNMENT AREA OF KADUNA STATE

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ABSTRACT
This study analysed the performance of broiler marketing in Zaria Local Government Area of Kaduna State. The main objective was to analyze the performance of broiler marketing in Zaria Local Government area, while the specific objectives were to examine the performance of broiler marketing in terms of the marketing cost and returns, marketing margin and marketing efficiency, as well as identify factors affecting the income of broiler marketers in the study area. Both primary and secondary data were used for the study, primary data was collected using questionnaire administered to forty-five respondents from each category; producer-marketers and sole marketers which are selected purposively and randomly across major markets and production areas in the study area. The result of the study showed that the business was profitable though with high marketing margin in terms of economic efficiency, the marketing was efficient. The significant variables influencing the income of the producer-marketers were marketing experience, purchase cost, feed cost and other variables such as electricity, depreciation and rent. For the sole marketers, the significant variables influencing their income were marketing experience, age. Experience, feed cost and level of formal education. It is recommended that government should put into consideration the significant variables in policy formulation and provide conducive environment for the private sector to invest in this business in order to address the meat demand of the citizenry.
Keywords: broiler; performance, marketing, analysis, producer.

INTRODUCTION

Poultry is a sub-sector in the livestock industry constituting a major component of the agricultural economy. Poultry are farmed in great numbers with chicken being the most common; more than 50 billion chickens are raised annually as a source of food for both their meat and their eggs (Paula, 2015). Poultry production is unique in that it offers highest turnover rate and quickest returns to investment outlay in the livestock enterprises (Sanni et al., 2005). The industry has been described as the fastest means of solving the problem of protein deficiency in Nigeria (Akpabio et al., 2007). Aside nutritional benefits, broiler production is carried out in all parts of the country and increasingly capturing market share with tremendous growth. FAOSTAT (2017) attribute the growth in poultry meat production to increase in the number of broiler production and as noted by FAO (2019), Nigeria is currently the second largest chicken production in Africa, with about 180 million birds placed annually (30% layers and 70% broilers) and that the poultry has jumped from 158 thousand tons in 2000 to 317 thousand tons in 2015 and expected to reach 544 thousand tons by 20 thousand tons by 2030 (FAO, 2019). Consequently the high demand for broiler products, the availability of exotic breeds and the ease with which farmers master the techniques of broiler production has moved the venture from subsistence to the status of agribusiness (Ebukiba and Luka, 2019). Both government and industry sources indicated that poultry meat (broiler) production fell below 11% of demand (USDA, 2014). This has propelled government at all levels to design policies that will encourage broiler production. Broiler marketing involves all the activates involved in promoting, selling and distributing broiler chickens which are specifically bred for meat production Adedeji *et al*., 2013). It encompasses various aspects, including pricing, branding, distribution channels, market research and consumer targeting. Successful broiler marketing strategies aim to maximize profitability, meet consumer demands and ensure efficient supply chain management. The main objective of the research is to analyse the marketing performance of broilers in Zaria Local Government Area of Kaduna State.

Material and Methods

The study was conducted in Zaria local government area of Kaduna State. It was one of the original seven cities of Hausa city-states formerly known as Zazzau, situated in the central part of Nigeria, Kaduna State. It is located between latitude 11^0N and longitude 7^0E. According to the 2006 population census, Zaria is estimated to have 736,000 people. (NPC, 2006). The wards that made up are Unguwan Fatika, Unguwan, Jua, Wucicciri, Kwarbai 'a', Kwarbai 'b', Dambo, Dutsen abba, Limancin Kona, Tudun Wada, Tukur Tukur, Gyallesu, Kaura, Kufena. Zaria's economy was cultivation of crops such as maize, groundnut, vegetables, soyabean. (NPC, 2006).The population of the study was 90 broiler marketers. Those in the production and marketing and those who market only. The design adopted for this research was descriptive survey, designed to analyse the marketing performance of broilers using Zaria local government area as case study. Sampling is the process of selecting a representative set of cases from a much larger set, most often done because of time and resource constraints (Ragin, 2002). The target population for this study was broiler producers and marketers in Zaria local government. A purpose sampling technique was used to in selecting the respondents. A total of ninety respondents were selected purposively from the study area. Forty (45) respondents from broiler producers and marketers, 45 from broiler marketers only.

The instrument used for data collection for this study was a questionnaire administered to broiler marketers and producers who were visited in their homes, farms and market.

Both primary and secondary data were used for the study. The primary data were collected using a questionnaire. The information that was collected includes the socio-economic characteristics such as sex, age, education level, etc. The secondary data was collected from books, textbooks, journals and existing projects.

The analytical tool used to achieve the research objective was statistical tool such as net return market margin and economic efficiency. They are stated as follows:

Net Return = Total Return – Total Cost

Market Margin = Selling Prince – Supply Price x 100

Selling Price 1

The formula for marketing efficiency as given by Odii and Obih, (2002), is as follows:

Economic efficiency = Total Revenue (N)/Total Cost (N).

The activities are said to be efficient if the operations in which these ratios are computed are greater than one and inefficient when it is less than one (Odii and Obih, 2002). Factors influencing the income of broiler markets were analysed using multiple regressions. The model specification for the regression is as follows:

Y = f(x1, x2, x3, x4, x5, x6, x7, x8)

Where Y = income from broiler sales in naira, x1 = Age in years, x2 = Marketing Experience in years, x3 = Cost of broiler purchase in naira, x4 = Transportation cost in naira, x5 = Cost of feed in naira, x6 = Incidence of disease (yes=1, 0 = otherwise), x7 = Level of education in years, x8 = Other variables (Electricity costs, sanitation costs, etc.

RESULTS AND DISCUSSION

Table 1:Cost and Returns for both Categories of Respondents

Variables	Producer-marketers	Marketers only
Average supply price (₦)	511.2	3,696.2
Average selling price (₦)	3,656.4	14,463.4
Average total cost (₦)	841,976.1	1,084,286.1
Average income (₦)	1,078,266.6	1,588,440
Marketing margin (₦)	86	17.18
Net returns (₦)	236,290.5	204,153.9
Economic efficiency	1,281.47	1.47

Source: Field Survey, 2023

The table 1 above showed an average income of ₦1,078,266.6 and ₦1,588,440 for producer-marketers and sole marketers respectively implying that the business was profitable. Thus, the sole broiler marketers made more profit than the producer-marketers. Marketing margins were high compared to the acceptable standard. The economic efficiency for this group was 1.28 and 1.47, showing that they were economically efficient in their operations as the ratios were greater than one. Therefore the business is said to be profitable, viable and economically efficient (Salako et al., 2007).

Table 2:Factors Influencing the Income of Broiler Marketers
Multiple Regression Result for Factors Affecting Producer-Marketers

Variables	Linear	Exponential	Double-log	Semi-log
Constant	210.348	11.471	1.605	11.471
	(9.322)****	(47.569)***	(1.809)*	(47.569)***
X_1 (Age)	-990.886	-.004	-174	-.004
	(-.456)	(-.472)	(.840)	(-.472)
X_2 (marketing experience)	4303.743	.031	.075	.031
X_3 (purchase cost)	(1.372)	(2.617)***	(1.205)	(2.617)***
X_4 (trans cost)	.300	4.29E-006	.147	44.29E-006
	(.371)	(1.432)	(1.733)*	(1.432)
X_5 (feed cost)	66.460	-3.34E-005	0.29	-3.34E-005
	(3.227)***	(-.438)***	(.400)	(-.438)
X_6 (incidence of disease)	1.351	2.35E-006	.617	2.35E-006
X_7 (education)	(6.238)***	(2.928)***	(7.163)***	(2.928)***
	-.411	-4.94E-007	-.008	-4.94E-007
X_8 (other cost)	(-1.288)	(-.418)	(-.742)	(-418)
	.005	1.53E-008	-.019	1.53E-008
R^2	(.133)	(.110)	(-1.471)	(-.110)
R^{-2}	3.695	1.53E-005	1.33	1.53E-005
F-ratio	(1.853)*	(2.068)**	(1.846)*	(2.068)**
	.960	.923	.970	.923
	.952	.906	.963	.906
	109.149***	53.729***	143.159***	53.729***

***=Significant at 1%, **=Significant at 5%, *=Significant at 10%, +=lead equation. The figures in parenthesis are t-ratios.

From table 2 above, based on the number of significant variables, the semi-log regression model was chosen as the lead equation. The F-ratio was significant which indicated the overall significance of the study result. The value of R2 was 0.923, which implies that about 92% of the explanatory variable in the income of broiler marketing was a result of the explanatory variable, while only 0.08 or 8% was attributed to error or variables not included in the model. The result further showed that marketing experience, purchase cost, feed cost and other variable cost such as electricity, depreciation of equipment, rent were the significant variable that influenced the income of broiler marketers in the study area. The number of years spent in the business had a direct relationship on the income of the marketers, meaning that greater experience brings about greater marketing income. The cost of purchase of broiler chicks or broiler for resale and feed cost had a direct negative relationship on marketing income as the higher the cost of purchase of broiler chicks and feed, the lower the income of marketers. This confirms a priority expectation as a higher cost of inputs brings about reduced income of marketers. The marketing experience and cost of feed were significant at 1%, which other cost were significant at 5%. Other variables like incidence of disease, education and age were not significant determinants of marketers income.

The result in the table above showed that the variables of significance were age of the marketers, purchase cost, feed cost and level of formal education acquired by the marketers. These entire significant at 1% which showed the overall significant of the result. The marketing experience, age, cost of feed and level of education attained by marketers were all significant at 1%. The value of R^2 was 0.97, meaning that 97% the variation in the income earned by the respondents who engage in marketing of broiler only was attributed to the explanatory variables, while other remaining 3% was due to the error term. The result also showed that education was a necessity for improved marketing.

Conclusion

In conclusion, this work was able to identify that the marketing of broilers in the study area is efficient to a good extent, yet is necessary to solve the problems facing the marketing of this commodity based on the findings.

Table 3:Multiple Regression Result for Factors Affecting Marketers Only

Variables	Linear	Exponential	Double-log	Semi-log
Constant	-41421.802	11.569	-.116	4933857.3
	(-.605)	(48.763)***	(-.147)	(6.319)***
X_1 (Age)	743.777	-.012	.106	-99907.870
	(.370)	(1.761)*	(.766)	(-3.728)
X_2 (marketing	55.366	.005	.031	1012.255
experience)	(.020)	(-.491)	(-.786)	(.26)
X_3 (purchase cost)	1.205	4.29E-006	.976	426783.97
X_4 (trans cost)	(23.065)***	(1.432)	(27.928)**	(12.308)***
	16.281	2.13E-005	-.6.43E-006	13.237
X_5 (feed cost)	(.758)	(-.286)	(-.183)	(.381)
	.180	2.93E-006	.029	-304.441
X_6 (incidence of disease)	(.180)	(-774)	(.753)	(-2.580)***
X_7 (education)	2031.784	.003	-.036	24174.380
	(1.920)*	(.897)	(1.213)	(-816)
X_8 (other cost)	.675	3.32E-006	-.002	4020.631
	(.206)	(.292)	(-.182)	(2.739)***
R^2	-2.857	1.73E-005	-.003	32163.832
R^{-2}	(-.800)	(1.395)	(-.053)	(.537)
F-ratio	.954	.884	.970	.853
	.944	.854	.963	.827
	93.923***	34.277***	143.458***	27.258***

***=Significant at 1%, **=Significant at 5%, *=Significant at 10%, +=lead equation. The figures in parenthesis are t-ratios.

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