ANALYSIS OF PROFITABILITY AND DETERMINANTS OF CONSTRAINTS TO SMALL RUMINANTS MARKETING IN KATAGUM LOCAL GOVERNMENT AREA OF BAUCHI STATE, NIGERIA

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ABSTRACT
The study examined the analysis of profitability and determined the constraints to small ruminants in Katagum Local Government Area of Bauchi State. A multi-stage sampling technique was used to select 120 sheep farmers in the study area. Data were collected using structured questionnaires and were analysed using farm budget techniques and simple descriptive statistics. The result revealed that purchasing cost for live animal constituted 93.19% of the total marketing costs. Moreover, the result revealed average net income of ₦85,926.28. The return per naira invested was ₦ 0.2015. The gross margin was found to be 88,628.25. Inadequate capital was critical; which was attributed to inadequate sources of credits. Market facilities such as clean environment and security were also lacking. However, improvement in the existing infrastructural facilities will help promote expansion of the present scale of operations. Governments and other financial institutions should do more to extend funds as soft loans to the marketers to improve efficiency.
Keywords: Constraints, Data, Income, Profitability, Questionnaires

INTRODUCTION
In Nigeria, sheep production and marketing are private owned investments, and had been categorised into three, those that are mainly; collection market that serve the function of transferring slaughter stock and live animals from production regions to consumption regions (Francis, 1990). Sheep and goats also serve as important store of wealth and insurance; a function that is extremely important in the absence of well-developed rural financial markets and gave significant covariate risk due to climate, civil unrest, and epidemiological shocks. Sometimes the animals are consumed directly, but more often, are sold; where the proceeds are used to purchase grains and to settle for other bills (Kogsey e*t al.*, 2003). With regards to important due to the fact that sheep and goats are easily managed, that require a relatively small initial investment and their short generation interval lends itself to a fast return to investment. Moreover, small ruminants have often been found to be superior to saving money in the bank, because their net annual returns are much higher than the interest to be realized from the banks' savings. The demand for sheep and their products is destined to increase by more than 250% in Sub-Saharan Africa, especially the West Africa (Fafchamps e*t al.*, 1997). This was because of the population growth, accelerated urbanization, incomes generation and consequently increased purchasing power of the population. In economic terms, small ruminant rearing plays a major role in household incomes. The ultimate goal of intervention aimed at enhancing productivity of small ruminants, needs to consider the market aspect simultaneously. Therefore, farmers need to be aware of the preferred characteristics of the animals as well as price patterns so that they can adequately plan for breeding and fattening programs consistent with the best seasonal prices and consumers' preference. However, marketing system must provide information flows from the consumer back to the producer through some physical and facilitating functions. The producer responds to the price signals by producing commodities in relative quantities dedicated by prices and costs. An important aspect of production and its response to demand and supply is knowledge of markets and marketing systems. Good marketing system reduces the marketing costs, ensures high returns to the producers, provides good quality of agricultural produce at

affordable price to the consumers and minimises the number of intermediaries (Andargachew, K. 1990). The performance of agricultural markets has long been recognised by economists, planners and policy makers as a critical component in the development process.

A multi-stage sampling technique was used to select 120 sheep marketers from the three districts of major small ruminants' markets in the study area. In stage I, Azare livestock market was purposively selected being the largest livestock market of the State, and also assumed to have contained majority of the target population for the study. In stage II, the study area was delineated into two major sheep market districts; the Chinade and Madara district were purposively selected. In stage III, from each of the 3 districts (Azare, Chinade and Madara districts), forty (40) sheep marketers were purposely selected for interview scheduled with questionnaires making a total of one hundred (120) sheep marketers for this study. The data collected were analysed using farm budget techniques and simple descriptive statistics.

RESULTS AND DISCUSSION

PROFITABILITY ANALYSIS OF SHEEP MARKETING IN BAUCHI STATE

The results from table 1 revealed the average total costs of marketing 20 heads of live animals to be ₦21,319.91. The results further revealed the average variable costs to be ₦21,184.81and accounted for 99.37 % of the average total costs of marketing live animals. In terms of returns; the average gross margin (GM) of ₦4,431.41was realised from the sales of 20 heads of live sheep. The result further revealed that the average income ₦4,296.31 perheadoflive animal. Moreover, sheep marketing in Katagum Local Government Area of Bauchi State was regarded profitable as confirmed by the rate of returns to investment as each ₦1 invested on a live sheep will give additional₦0.2015from every live animal. This confirmed that small ruminants' marketing was a profitable venture in Nigeria. The result also implied that99.37% of the total revenues give to pay for the total variable costs of marketing live animals.

Table 1: Profitability analysis of sheep marketing in Katagum Local Government Area of Bauchi State, Nigeria

Variable costs	Amount (₦)	% of TC
Supply cost of animals	397,344.05	93.19
Variable marketing costs	26,352.26	6.18
Total variable costs	423,696.31	99.37
Fixed costs		
Depreciation on durable items	1,244.64	0.29
Fixed marketing costs	1,457.33	0.34
Total fixed costs	2,701.97	0.63
Total costs	426,398.28	100
Return components		
Sales of animals	512,324.56	-
Gross margin	88,628.25	-
Net return	85,926.28	-
Returns per naira	0.2015	-

Source: Field survey data, 2019

CONSTRAINTS TO SHEEP MARKETING IN BAUCHI STATE

Table 2 reveals that 98.33 of sheep marketers in Katagum L.G.A. had complained seriously of non-remunerative prices on sales. This corroborates with high marketing costs especially the commission fees, transportation costs as a result of far distance from the source of supply and as well as high purchasing prices of the animals. Inadequate capital (93.33%) was also critical as far as sheep marketing in Katagum L.G.A is concern; this was attributed to inadequate sources of credits; and had stated that if they had enough money, they would be able to increase the number of animals per supply, thereby making more profit and expand market size. Moreover, inadequate finance hinders marketers from getting the necessary resources and technologies which could assist them achieve higher marketing efficiency. Brokers also create price instability so as to benefit themselves by misinforming traders about the prevailing market prices. This indicated that of the marketers faced difficulties in forecasting their gross returns, leading to poor planning. Also, too much seasonal variation in price especially during religious festivities, such that low price did not offer sufficient incentive for sufficient supply. This necessitated the fact that frequents price variations of farm produce is a major concern to producers, marketers and consumers. Commodity prices may reflect seasonal production patterns by being at the lowest at the peak of production and highest at lean period. In addition, 85.00% of the marketers had complained of transport related problems, which had much dispersion. Most of the marketers depended on commercial vehicle as their means of transportation. In some cases, there were no or the roads were seasonal. This probably increased the transport fares. During the rainy season many of the villages and rural markets were not accessible with the town markets. Increased cost of transportation due to the increased in oil price is also another problem mentioned. However, high transportation costs accounted for high proportion of the total marketing costs in most parts of the country. The result also revealed that, armed robbers used the opportunity of having bad roads; attacked and sometimes even killed marketers. The implication here is that, transportation problems are largely responsible for the slow increase in marketing efficiency and lead to continuous subsistence level of production in many parts of the supply sources. This also made both producers and marketers to resort sales at the nearby markets thereby losing greater proportion of their supposedly income to exploitatively dubious middlemen in the area. Moreover, any of the available modes of transportation in Dambam Local Government Bauchi State had its own inherent problem which results to emaciation, loss and death of the animals in transit. Also, the activities of unregulated livestock produce checking points and theft cases along these routes compound the marketing problems. This drastically reduces the profit of sheep marketers in the study area. Table 2 further revealed that 95.00% of the respondents had problems of low access to formal loan to boost their marketing activities. Lack of credit access associated with the volume of loan, cumbersome procedures, interest rates, lack of collaterals and several trips to the bank before loan was granted were identified as the major marketing problems. Small-scale agribusiness firms faced a number of barriers in obtaining credits because most of them operate within a vicious cycle of poverty that prevent them access to such formal loans. Moreover, the marketers had problems of; scarcity of animals during festivals, diseases and pests, risks of buying unhealthy animals, theft insecurity and as well as low educational level. Other market facilities such as clean environment, good sheds, veterinary services, fire services, banks, security, water supply, and good toilets etc. which contribute to efficient marketing were also lacking.

Table 2: Constraints to sheep marketing in Katagum Local Government Area of Bauchi State

	Constraints	*Frequency	Percentage	Ranking
1.	Non-remunerative prices	118	98.33	1st
2.	Lack of credit access	114	95.00	2nd
3.	Inadequate capital	112	93.33	3rd
4.	Poor market infrastructures	110	91.67	4th
5.	Scarcity of animals during festivals	109	90.83	5th
6.	Diseases and pests	106	88.33	6th
7.	Transportation problems	102	85.00	7th
8.	Risk of buying unhealthy animal	96	80.00	8th
9.	Price fluctuations	90	75.00	9th
10	High marketing costs	85	70.83	10th
11.	Poor market intelligence	80	66.67	11th
12.	Low educational level	75	62.50	12th
13.	Theft/insecurity	70	58.33	13th

*** Multiple responses**
Source: Field survey, 2019

CONCLUSION

The results obtained from this study concluded that the marketing of sheep enterprise is profitable. The total returns recorded by the study implied that all the participants were able to cover the total costs incurred in sheep marketing in the study area. This is a clear indication that the business is efficient and has the potentials of increasing the marketers' income; which can induce and attracts new entrants into the market.

RECOMMENDATIONS

However, based on the findings of the study, the following recommendations were made for improving the performance of sheep marketing in Katagum Local Government Area of Bauchi State, Nigeria;

a) Individuals and government should focus in this sector of sheep enterprise so that production and marketing of sheep will become a focal and highly commercial business away from its present subsistence status.

b) Governments and other stakeholders should provide favourable and functional market regulating framework that can eliminate illegal fees or taxes charged along marketing channels for small ruminants.

c) Governments should improve policies on security measures; to help reduce the rate of insecurities like armed robbery on the highways.

REFERENCES

Andargachew, K. (1990). Sheep Marketing in the Central Highlands of Ethiopia, Unpublished M.Sc. Thesis; Ale Maya University of Agriculture, School of Graduate Studies, Dire Dawa, Ethiopia, 168pp.

Francis, P. A. (1990) Small Ruminant Marketing in Southwest Nigeria. *Journal of Agric. Econs.* 5 (20): 71–90.

Fafchamps, D., Marcel, H. A. & Sarah, G. (1997). The Determinants of Livestock in Niger. *Journal of African Economics*, 6 (2):255–295.

Kogsey, I. S., VanArendonk, J. A. M. & Barker, R. (2003). Economic Value for Traits of Meat Sheep in Medium to High Production Potential Areas of the Tropics. *Small Ruminants Research*. 50 (9): 187–202.