

ECONOMICS OF SNAIL MARKETING IN ONDO-WEST LOCAL GOVERNMENT AREA OF ONDO STATE

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ABSTRACT

The marketing of snails has attracted the attention of scholars to the demand for its consumption as a cheap source of protein by the people. The study examined snail marketing in Ondo-West local government area of Ondo State. A multistage sampling technique was used to select sixty-five respondents for the study. The structured questionnaire was employed to elicit information on socioeconomic characteristics and other variables for the study. Data collected were analysed with descriptive statistics, budgetary technique and regression analyses. The result showed that 69.2% of the respondents were female and the mean age of 42.04 ± 7.40 years and 53.8% were married. The problems of snail marketing included; pests and diseases, inadequate capital, weather condition and the regression analysis revealed that age, access to credit and number of snails positively influenced revenue from snail marketing. It was observed that snail marketing is profitable; hence, youth should be encouraged in the marketing of snails, snail marketers should be given access to credit and organize themselves into cooperative societies.

KEYWORDS: Economics, Snail marketing, micro-livestock, and livelihood

INTRODUCTION

The African giant snail (*Archachatina marginata*) as one of the micro-livestock serves as a steady source of lean meat for a vast majority of the people both rural and urban areas of Nigeria. Snail is one of the important alternative sources of animal protein whose meat is being consumed to meet the protein requirements of an average households. (Cobbinah *et al.* 2008). Hence, snail marketing has attracted the attention of scholar in economic development literature. Snail is considered as a delicacy and good source of animal protein with high biological value in Nigeria and other parts of the West African countries and the world. According to Blay *et al.* (2004) snail is an important source of protein in many parts of West and Central Africa countries. Snails as micro-livestock have good quality protein and they are rich in essential amino-acid, potassium, vitamin C and B complex, phosphorus and low in cholesterol (Aberu and Lameed, 2008). Hassan (1999) in his study reported that the protein content of snail is about 37-51% compared to that of poultry (18.3%), fish (18%), cattle (17.5%) and pig (14.5%). The bulk of snails that are consumed in Nigeria today are from people who gather them from bushes and sell in local markets or along roadsides (Cobbinah, 1988). Despite of the advantages that are embedded in the consumption of snail, snail marketing has not reached its expected level of commercialization. This might be due to dearth of information on appropriate methods of distribution and marketing of snail in the study area and hence the need for the study. This study was conducted based on the following objectives: to describe the socio-economic characteristics of snail marketers, to identify the problems faced by snail marketers, estimate cost and returns and determine factors influencing revenue realized from snail marketing in Ondo-West Local Government Areas of Ondo State, Nigeria.

METHODOLOGY

This study was carried out in Ondo-West Local government Area of Ondo State, Nigeria. The study area consists of 283, 672 people (NPC, 2006). The major occupation in the study area is farming however, petty trading is also practiced. A multi-stage sampling technique was employed in the selection of respondents for the study. Stage one entailed the random selection of five markets in the local government area. At stage two, fifteen snail marketers were randomly selected. A total of sixty-five (65) snail marketers were used for the purpose of analysis for the study. The primary data collected with structured questionnaire were analyzed using descriptive statistics and budgetary

techniques was used to determine the profitability of snail marketing while the linear regression was employed to determine factors influencing the income of snail marketers in the study area. The budgetary technique analysis was used the gross margin thus;

Gross Margin (GM): This is the difference between the total revenue and the total variable cost;

$$GM = TR - TVC \dots\dots\dots 1$$

TR = Total Revenue; TVC = Total Variable Cost and

TR = Price multiplied by Quantity

$$Pr .Qty \dots\dots\dots 2$$

Pr = price; Qty = quantity

The regression analysis is expressed in the equation as;

$$Y_i = \alpha + \beta_1 X_1 + e_i \dots\dots\dots 3$$

Y_i = Total revenue from sales of snails (₦); β_1 = vector of unknown coefficients; X_i = explanatory variables and e_i is the error term. The explanatory variables include: X_1 = age (years); X_2 = gender (male = 1; otherwise = 0); X_3 = marital status (married = 1; otherwise = 0); X_4 = education level (years of completed education); X_5 = household size (number of persons); X_6 = total cost incurred in marketing (₦); X_7 = access to credit (yes = 1; otherwise = 0); X_8 = number of snails (numbers of snails); X_9 = Distance to market (kilometres).

RESULTS AND DISCUSSION

The result of the socio-economic characteristics on Table 1 revealed that 69.2% of the marketers were women while 30.8% were male. This is in agreement with Cobbinah *et al.* (2008) that women are more involved in snail marketing than men. The mean age of snail marketers was 42.04±7.40 years this implies that the marketers are still at the economically active age. Furthermore, 53.8% of the snail marketers were married thus supporting the fact that being married confers more responsibility to engage in economic activities to generate more income to support the family. Moreover, 27.7% and 18.3% of the respondents were single and widowed, respectively. On household size of snail marketers, the mean household size was 8±3 members in a household suggesting that there will be more labour to perform marketing the functions, however, 53.8% of the marketers had between 5 and 8 members. The study revealed further that majority of the snail marketers (50.7%) had no formal education; hence, this will negatively affect their marketing activities in terms of market information gathering and adoption of marketing innovation. This is contrary to findings by Yusuf (2000) on a study on snail production and marketing in Ibadan, that majority of snail producers and marketers were educated which will better their access to market information, adoption of innovation and use of modern technology. On years of marketing experience, the mean years of experience was 10.27±2.50years with the majority (67.7%) having between 9 – 12 years of snail marketing. This is in line with Adeola (2009) that snail marketing is an age long activity in the study area as a source of livelihood.

Table 1: Socio-economic characteristics of snail marketers N = 65

Variables	Frequency	Percentage (%)	Mean[SD]
Gender			
Female	45	69.2	
Male	20	30.8	
Age			
< 31	9	13.8	
31 – 40	16	24.6	
41 – 50	32	49.2	42.04±7.40
> 51	8	12.3	
Minimum		23	
Maximum		62	
Marital Status			
Single	18	27.7	
Married	35	53.8	
Widowed	12	18.5	
Household Size			
< 5	6	9.2	
5 – 8	35	53.8	
9 – 12	19	29.2	7.61±2.58
> 12	5	7.7	
Minimum		2	
Maximum		13	
Education Level			
No formal education	33	50.7	
Primary education	15	23.1	
Secondary education	10	15.4	
Tertiary education	7	10.8	
Experience			
< 5	2	3.1	
5 – 8	11	16.9	
9 – 12	44	67.7	10.27±2.50
> 12	8	12.3	
Minimum		4	
Maximum		16	

Source: Field Survey, 2020

On challenges facing snail marketing, inadequate capital, pests and diseases and price fluctuation are the major problems facing marketers of snails in the study area. This is in agreement with Afolabi (2013) who reported that, price instability/fluctuations, cost of transportation, high cost of transportation, diseases /pests, among others are some of the problems facing snail marketing.

Table 2: Challenges facing snail marketing N = 65

Challenges of snail marketing	Frequency**	Percentage (%)
Inadequate capital	55	84.6
Pests and Diseases	60	92.3
Price fluctuations	40	61.5
High cost of transportation	37	56.9
Climate/Weather	28	47.1

Source: Field Survey, 2020 ** multiple responses

Budgetary Analysis

The budgetary analysis is used to determine the profitability of snail marketing through the use of gross margin (GM) and other profitability ratios (Benefit-Cost ratio). The Gross Margin (GM) showed that snail marketing is profitable in the study area. Table 3 showed the GM of ₦167014.99 and the

Benefit Cost Ratio was 1.2982. The value implies that, for every one naira invested in snail marketing, ₦1.2982 was realized.

Table 3: Budgetary analysis for snail marketing

Variables	Amount (₦)
Total Revenue (TR) (Pr .Qty)	356721.79
Variable Cost (VC)	
Transportation	119530.28
Drugs/Feeds	30221.54
Labour	39954.98
Total Variable Cost (TVC)	189706.80
Fixed Cost (FC)	
Rent of Land	48787.47
Security	36268.82
Fixed Cost (TFC)	85056.29
Total Cost (TVC + TFC)	274763.09
Gross Margin (GM) (TR – TVC)	167014.99
Benefit-Cost Ratio (B/C) (TR/TC)	1.2982

Source: Author’s Computation, 2020

Regression analysis on factors influencing revenue in snail marketing

The regression analysis on factors influencing the income realized from snail marketing revealed that the analysis of variance (ANOVA) was significant at 1% (F = 6.072; p < 0.005) indicating that the variables hypothesized were joint predictors of the dependent variable. Moreover, age, credit access, number of snails positively and significantly influenced total income realized while total cost incurred and distance negatively and significantly influenced total income realized from snail marketing (Table 4) in the study area.

Table 4: Regression analysis on factors influencing revenue in snail marketing

Variables	Coefficient	Std. Error	t-stats	Prob. Level
Age	1.010	0.342	2.594	0.013**
Gender	-813.629	1728.31	-0.471	0.639
Marital Status	-1.065	0.976	-1.092	0.298
Education	-0.155	0.369	-0.420	0.683
Household Size	2.907E-5	0.000	0.189	0.853
Total cost incurred	-0.070	0.033	-2.140	0.056*
Credit access	0.081	0.745	0.108	0.000***
Number of Snails	0.079	0.291	0.271	0.006**
Distance	-7.27	3.564	-0.204	0.004**
Constant	54.732	10.110	5.414	0.000***
R ²		0.771		
Adjusted R ²		0.594		

Source: Field Survey, 2020

CONCLUSION AND RECOMMENDATION

Snail marketing has attracted the attention of due to the importance in the diet of average households and is considered as a delicacy and good source of animal protein with high biological value in Nigeria The study revealed that snail marketing is profitable in the study area.

Based on the findings of the study, it was recommended that the youth should be encouraged in the marketing of snails. Furthermore snail marketers should be given access to credit and organize cooperative societies thus enabling them to increase access to credit. Also, more snails should be procured to increase income of marketers. Marketers should source for alternative feeds to reduce cost incurred during marketing.

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