

ECONOMIC ANALYSIS OF SNAIL MARKETING IN ABIA STATE, NIGERIA

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ABSTRACT

The study assessed the economic analysis of snail marketing in Abia state, Nigeria. The study specifically described socio-economic characteristics of the snail marketers, ascertained the cost and returns, and identified the constraints in snail marketing. Purposive and sampling were used to select 50 snail marketers for the study. Primary data were collected by means of a questionnaire. Statistical tools including frequency counts, percentages, means, ranking, cost and return and Likert scale were deployed for data analysis. Majorities (56%) of the marketers were females, 60% were married, and 60% had between 6-10 years marketing experience. The mean net marketing income of ₦5048 and ₦8200 was obtained by wholesalers and retailers respectively, the net return on investment was 0.87 wholesalers and 1.8 for retailers. Most commonly used marketing channel by respondents was producer-retailer-consumer. The most serious constraint on marketing was a high cost of snail, lack of capital and high transport cost. The marketers in the study area should be encouraged by a provision of social amenities improved technologies, financial assistance production, and marketing of snails.

KEYWORDS: Nutrition, Consumers, Marketing Channels, Financial Assistance & Social Amenities

INTRODUCTION

Livestock and livestock products are estimated to make up over half of the total value of agricultural output in the industrialized countries and about a third of the total in the developing countries (Njoku 2005). They provide about 59% of the meat consumed in Nigeria. The major sources of meat protein for the Nigerian populace come mainly from livestock in the form of animal protein (Ramalingam, 2005). Many people perceive snails as a delicious meal, while some even refer to it as their “favorite” meat. But at the same, a good number of persons don’t know how to go about farming or rearing them it is even made more complicated because snails which belong to the family of animals known as molluscs and class gastropods is a hermaphrodite (i.e. It has both the male and female sex organs or characteristics). The creates difficulty for someone really differentiate between the male and female species (Adinya, 2006). As agriculture and society developed, marketing becomes more important. In subsistence agriculture, a farmer will mainly be feeding himself and his neighbors, but as the population of the cities increases, farmers have the added responsibility of feeding not only the rural market but also the growing distant urban markets (Nenna and Okeke 2013). Marketing entails all processes involved with the production of a commodity until it gets to the final consumer (Cramer, Jesen and Southgate, 2000). These processes ensure that the right product from a utility is available at the possession utility for the consumer. Marketing can also summarily be defined as all processes involved in the movement of products that consumers need from the point of production to the points of purchase (Ugwumba and Chukwuji, 2010). In an economic system, marketing ensures that consumers get the product they desire, services which are necessary to make products from the farm available to the consumers, thus

marketing leads to the creation of form, place and time utilities (Okoh and Egbom, 2005). Human consumption of snail is almost as old as man himself and it appears that snails today is now being eaten in significant quantity in areas where they are not eaten at all (Ebenso, 2002). Africa and Western Europe have been identified as the two main areas where snail consumption exists presently. The snail is a micro livestock or micro-livestock term used to refer to those species of animals which are inherently small (Awah, 2004). In Africa, the African giant snail *Achetina marginata*, *Aclatina fulica* and *Achatina architina*, are the most common edible species (Amusan and Omole, 2001). The exotic varieties include *Helix spersa*, *Helix lacteal*, *Helix nemoralis*, *Helix pomatia*, *Archelis puntala*, *Otala vermicuata*, and *Helix adanesis*. (Dan and Beiley, 2001). Snail meat contains the pharmacological principle of values in counteracting high blood pressure anemic and other fat related diseases. A snail is used as raw materials, its shell and meat when dried serve as iron, calcium and potassium and in poultry feeds, fertilizer or in the production of jewelry, button and other ornaments. Also, the bluish liquid from snail is used in traditional medicine for the treatment of bacterial infection and whooping cough. Snail meat is equally recommended in traditional medicine for people with kidney diseases and other related disorders. In Nigeria, the snail has become an important source of income for some farmers who dwell in the rainforest areas. Snails are collected in the wild forest during the raining season but scarce during the dry season. Consequently, the supply is seasonal. The demand for snail meat has been on the high side and the farmers have not been able to meet up with the ever-increasing demands. The introduction of snail farming of agricultural development programme (ADPs) and other research institutes were to encourage farmers to adopt the needed technologies so that they can obtain daily protein, nutrient without spending their hard earned currency sourcing for meat and egg in the market (Andargrachev, 2005). Also, Opara and Okoli, (2006) noted that population increase which gave to the shortage of animal protein and the services search for a little or no cholesterol containing meat in the development countries, people are now interested in the production and consumption of a high nutritive, medically important and efficient product like an edible snail.

In Abia state, the rates of consumption of snail are now on the upsurge for health and economic reasons, many people are now involved in the production and consumption of snail irrespective of the cost of procurement and production (Owolada and Odebode, 2006). The nutritional values of snail meat have increased the demand, snail is high protein (12-80%) and from (45-50mg, low in fat (0.05-0.8%) and contains all the good amino acids needed by human beings. It is capable of producing between 200-400 eggs in one batch at least 2-3 weeks in a year, which eventually hatches into young ones (Amusan and Omole, 2001). In spite of this benefit, the supply of the product has been on the decrease due to primarily to decreasing gatherings from the forest, because of the impact of human activities including deforestation, pesticide use, slash and burn agricultural/spontaneous bushfire (Uche, 2014).

Objectives of the Study

The broad objective of the study was to economically analyse snail marketing and constraints in Ohafia L. G. A, Abia state, Nigeria

The Specific Objectives Included

- To describe the socio- economic characteristics of the snail marketers in the study area.
- To ascertain the marketing channels and the cost and return of snail marketing
- Identify constraints in snail marketing and proper selections and use the result of the study to make recommendations on how to improve snail production and marketing.

METHODOLOGY

The study was conducted in Ohafia North local government area of Abia state, Nigeria. The local government has a population of about 199,147 people, made up of about 106,575 males and 92,572 females, according to 2006 estimated population census (National population commission, NPC, 2006). It is comprised of 26 Autonomous communities and has a land mass of 5,243.75 sq kilometers. It has two major seasons, the rainy and dry seasons. The rainy season starts in March and last till the end of October while the dry season starts in November and ends in March. Annual average rainfall is between 1800mm-2200mm with an average temperature of 30 degrees, making the area suitable for agricultural production. The area has good fertile, humus soil and good topography. The major occupation is farming. Major food crops grown are cassava, melon, yam, cocoyam, maize, local beans, rice and various types of vegetable crops grown, under plantations are cocoa, oil palm, raffia palm, kola nut, oranges, grapes, guava, lemons, banana, and plantain. They also rear animals like sheep, goats, pigs, poultry and micro- livestock like a glasscutter, snail and fish etc. the dominant criterion for selecting ohafia is the prevalence of and high concentration of snail marketers and buyers in the area.

Purposive and random sampling methods were used to select respondents for the study. The five major markets in Ohafia local government area were selected based on the high concentration of snail marketers and buyers. Four wholesalers and six retailers were purposively selected from each of the five markets. This gave a total of 20 wholesalers and 30 retailers, resulting in a sample size of 50 respondents for the study. Data for the study were collected from both primary and secondary sources. Primary data were collected with a set of a pretested questionnaire administered to the respondents and supplemented with personal interview mostly from illiterate respondents. Primary data were collected on socio-economic characteristics such as gender, age, educational level, farming experience household size. Data on the socio-economic characteristics of the marketers in snail marketing were analyzed using frequency count, percentages, and mean ranking while enterprise budgeting analysis was used for determination of cost and returns. The enterprise budgeting was explicitly specified thus,

The constraints to snail marketing was identified through response categories which were weighted as very serious (3 serious), (2) moderately serious (1) and not serious (0) with a mean score of 1.5 shows serious constraint and a low mean score of less than 1.5 shows no serious constraint to snail marketing.

$$GM = TR - TVC$$

Where: GM=gross margin

TRM=total return

TVC = total variable cost= cost of produce + marketing cost

(Transportation /handling cost)

$$NR = TR - FC$$

Where

NR = net returns

TR = total returns

TC =total cost = TFC+TVC

RESULTS AND DISCUSSIONS

Findings on the socio-economic characteristics of the snail marketers (table 1) showed that a majority (56%) of the marketers were females while 44% were males. This implied that females engaged more in Agric business, especially in marketing in the area to support their family. This corroborates Akimnagbe, Agwu, and Igbokwe, (2008), and Adisa and Okonade (2011), however, it is at variance with Ugwumba, (2011), who reported greater male involvement in catfish production in Anambra state, Nigeria. Further findings on socio-economic factors showed that most of the marketers (88%) fell within the active age range 20-50 years, the majority (60%) were married, (92%) were literate, and 60% had 6-10 years marketing experience. This implied that high level of marketing experience positively Influence marketing efficiency. Further Findings showed that the gross margin for wholesalers and retailers are N380, 000 and N 440,090, respectively mean net marketing income of N 5,084 and N8, 200 respectively. While the variable cost by both wholesalers and retailers were N258, 800 and N215, 110 respectively, the net return on investment were 0.87 and 1.8 wholesalers and retailers respectively. This implied that the retailers turn over 1.8 kobo per naira invested in the enterprise and the wholesalers get 0.87 kobo. The implications of these findings are that greater investment in snail will ensure a brighter future in terms of income generation and ready market for wholesalers and retailers. This is necessary especially this era of high demand for consumption of white meat. Therefore, provision of credit achievement of enterprise diversifications. This will result in increased income earning capacity of the marketers in the area.

Constraints to Snail Marketing

The snail marketers in the study area encountered some problems. These problems included 'high cost of snail, lack of capital, and high transport of marketers, labor intensive and bad roads. Among these problems as shown in table 3 of 3.8 was implicated as the most serious constraint to snail marketing. A similar report of the high cost of snail was given by Owolada and Odebode, (2006) to have constrained marketing of snails in Oyo state, Nigeria. This was closely followed by Lack of capital, 3.4, high transportation cost 3.0, poor storage facilities 2.4, large number of marketers 2.3, labor intensive 2.3 and bad roads 2.2.

CONCLUSIONS

Snail marketing was a profitable enterprise. The recorded high -profit margin enabled by low cost 'of production evidenced by high net return on investment of 0.87 and 1.80 for wholesalers and retailers respectively is an indication of more opportunities for prospective entries into the business enterprise.

RECOMMENDATION

Based on the findings the following recommendations were made

- The government should provide social amenities and other improved technologies to enable marketers to operate freely.
- The marketers should form cooperatives to enable them to access financial services from government
- Rearing of snails should be encouraged to increase supply and reduce the cost of snails.

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Table 1: Distribution of Respondents According to Socio-Economic Characteristics

Variable	Frequency	Percentage	Mean
Gender			
Male	22	44	
Female	28	56	
Age			
20-30	8	16	
31-40	10	20	40.6
41-50	26	52	
Above 50	6	12	
Marital Status			
Single	10	20	
Married	30	60	
Widowed	10	20	
Educational Qualification			
No formal education	4	8	
Primary	12	24	
Secondary	20	40	
Tertiary	14	28	
Years of Experience			
0-5	12	24	
6-10	30	60	7.5
Above 11 years	8	16	
Marketing channels			
	Score	Percentage	
Producer/supplier-consumer	18	36	
Producer –W-consumer	18	16	
P-W-R-C	5	10	
P-R-C	9	38	

Source: Field survey, 2015.

Table 2: Estimated Profitability of Snail Marketing (1 Year)

Variables	Wholesalers	Retailers
Total revenue (TR)	1,214,800	467,200
Variable cost	wholesaler	retailer
Purchase	249,060	200,040
Transportation	4,800	6070
Loading/offloading	2040	4100
Security	2900	4900
Total variable cost (TVC)	258,800	215,110
Fixed Cost		
Wheel barrow	29,400	14,900
Plastic bowl	7,200	14,140
Knife/spoke	4,910	7,900
Total fixed cost (TFC)	41,510	36,980
Gross margin (TR-TVC)	300,310	252,090
Net marketing income (TR-TC)	300,800	440,090
Mean net marketing income (NMI/N)	5048	8200
Net return on investment (NM/TC)	0.87	1.8

Source: Field survey, 2015,