

UDC 332

ECONOMIC ANALYSIS OF SHEA BUTTER MARKETING IN OYO STATE, NIGERIA

Olugbire O.O.^{1*}, Fakunle A.J.², Opute O.H.¹, Oke D.O.¹, Obafunsho O.A.¹,
Kolade R.I.¹, Oguntoye T.O.¹

¹Forest Economics and Extension Department, Forestry Research Institute of Nigeria,
Jericho, Ibadan, Nigeria

²Department of Agricultural Economics, Obafemi Awolowo University, Ile-Ife, Nigeria

*E-mail: olugbireolutoyin@gmail.com

ABSTRACT

The study carried out an assessment of Shea butter marketing in Southwestern Nigeria. It specifically examined the socio-economic characteristics of the Shea butter marketers in the study area, determined the profitability of Shea butter marketing and also examined the market structure and conduct for the Shea butter in the study area. A multi-stage sampling technique was used to select 80 Shea butter marketers in the study area and structured questionnaires were administered to them. Descriptive statistics, gross margin and Gini-coefficient techniques were used to analyze the data collected. The study showed that 80% of the respondents belong to the active segment of the population while the remaining 20% were older than 50 years. Analysis also revealed that Shea butter market was dominated by the retailers which accounted for 56.6% of the sellers though there were other categories of sellers such as wholesalers (20.0%), wholesaler/retailers (23.4%) but zero percent of the processors. The profitability analysis showed that an average marketer incurred an average total cost of ₦232,090.83 per quarter but earned an average revenue of ₦316,80.00 per quarter which imply that an average Shea butter marketer earned ₦84,709.17 per quarter as gross margin. A Gini-Coefficient of 0.77 obtained in this study indicates high level of concentration in the Shea butter market.

KEY WORDS

Shea butter, market structure, market conduct, wholesalers, retailers.

The Shea tree (*Vitellarian paradoxa*) is the source of Shea butter. It is one of the major components of the agro forestry parkland in the dry zone of sub-Saharan Africa and the main indigenous oil producing plant in this region while its natural range is the semi-arid zones from Gambia to Uganda (Peter, 2005). Research reviewed that trade in Shea butter has well been established before Islam in west Africa and even older if ancient Egyptian artifacts made of Shea wood hieroglyphics showing trade in vegetable oil with the 'land of punt' (potentially northern Uganda) are proving authentic (Peter, 2005). The Shea butter market represent great potential for west African exporters but suppliers must provide a quality product and meet market requirement since disorganized export campaign and concern over quality have been found to hinder sales to import market (USAID, 2005). Three principal end users exist for Shea butter which is the chocolate, cosmetics and natural product industry but cosmetics industry in Europe and United States are the second largest market segment for Shea butter to West African suppliers because of the potential for direct sourcing (USAID, 2016). New market for Shea butter exists in the personal care industry because of the recognition by the cosmetics industries (and its consumer) of the therapeutic benefit of Shea butter (Adeyemo et al. 2015). Peter (2005) reported that Shea butter has ultra violet light protection, anti-inflammatory, moisturizing, regenerative, anti-Eczema and anti-wrinkle properties due to the presence of a significant fraction of unsaponifiables (3-12%) that includes many bio-active chemicals such as triterpene alcohols, phenol, sterols and the polyisoprenic hydrocarbon karitene (Lovett, 2005).

Also the demand for Shea butter keeps increasing due to recent recognition of these beneficial properties by the markets in advanced countries (Karen et. al., 2015). It is estimated that the amount of Shea butter used in the western personal care market is about

10% of the total African export with the demand in the United States considered to be growing at 25% per annum. Most recently it was reported that the dietary aid products have been developed from Shea butter fractions for both human and animals, and US patents have been taken out for products that have lower cholesterol, reduced arthritis symptoms and have anti-diarrheal properties.

With this demand for Shea butter on local, regional and international market, the question arises; what is the state of Shea butter market in Nigeria? Is Shea butter marketing profitable as in other West African countries such as Ghana and Uganda who also grow Shea tree as Nigeria?

Due to poor awareness of profitability and market structure of Shea butter in Nigeria, most prospective investors do not consider Shea butter marketing as an option, while much of the crops were left uncollected, unutilized or totally inaccessible as unemployment plague the nation. Though much research has been carried out on production of Shea butter, yet there is knowledge gap about the state of Shea butter marketing in Nigeria. This study aims at filling this gap. This study will also serve as awareness and guide for investors on the prospect of Shea butter marketing in Nigeria.

Since production is not complete until the product gets to the hands of the final consumers (Adegey and Dittoh, 1985; Adekanye, 1988), this study therefore carry out an assessment of Shea butter marketing. First, it aims at determining the profitability of Shea butter marketing in the study area and finally examine the market structure and conduct for Shea butter in the study area.

METHODS OF RESEARCH

The study was carried out in Oyo state situated in the South- western Nigeria. The state was purposively selected because of the prevalence of Shea trees, Shea butter processors and Shea butter markets. The state has a tropical climate with its characteristic high temperature all the year round, steady rainfall during the raining season which span from April to October and dry winds during the dry season occur from November to march.

A multi stage sampling techniques was used to select 80 Shea butter marketers. The first stage involved a purposive selection of Ibadan North L.G.A, Akinyele L.G.A and Saki West LGA based on a priori expectation that the three LGA has good markets for Shea butter and both men and women are actively involving in Shea butter marketing. The second stage involved a random selection of a market from each LGA namely- Bodija market from Ibadan North LGA, Shasha market from Akinyele LGA and Sango market from Saki West LGA. The last stage involved random selection of equal number of 10 wholesalers and 20 retailers from each market making a total of 80 marketers in all.

Descriptive statistics such as frequency count percentage and mean was used to analyse some socio- economic characteristics of the respondents. Gini coefficient was used to examine the market concentration for shea butter in the study area. Mathematically, Gini coefficient is represented by:

$$G.C = 1 - \sum XY$$

Where: G.C = Gini coefficient; X = proportion of sellers; Y = cumulative proportion of total sales.

Gross margin analysis was used to determine the profitability of Shea butter marketing in the study area.

The gross margin is given as follows:

$$G.M = G.I - TVC$$

Where: G.M = Gross margin; G.I = Gross sales or income; TVC = total variable cost.

RESULTS AND DISCUSSION

Socio-economic Characteristics of Shea butter Marketers. Table 1 reveals that 6.7% of the respondents were between the age of 20 and 30 years while 66.7% of them were between 31 and 40 years of age and the remaining 20% were more than 50 years of age. The result analysis thus shows that 80% of the respondents belong to the active segment of the marketers' population while the 20% left were in the aged group. This age distribution can have positive impact on the business aggressiveness and risk taking ability of the respondent. Table 1 also shows that both males and females are engaged in Shea butter in the study area but the business is heavily dominated by the female. Females accounted for 96.7% while the male gender was 3.3% of the respondents. The dominance of the females in the Shea butter marketing activities may be due to nature of the final consumers which are basically females, because it is mostly used as cosmetics by women. Analysis also revealed that 96.7% of the respondents were married while 3.3% were single. This may have a positive effect on the availability of family labour. The table also showed that 80.0% of the respondents were literates while 20.0% had no formal education at all. The high literacy level of the respondents can have positive effect on the business acumen of the respondents. The analysis also revealed that 100% of the respondents were of Yoruba tribe which may be due to the presence of Shea butter trees in south western Nigeria which is found to be the seat of Yoruba race in Nigeria. It could thus be suggested from the findings of Aremu, (2011) that the source of a product and its stage of entrance in the market determine its marketers.

Table 1 – Socio-economic Characteristics of Shea butter Marketers

Variables	Frequency	Percentage
Age (Years)		
20-30	2	
31-40	20	
41-50	2	
>50	6	
Gender		
Male	1	3.3
Female	29	96.7
Marital status		
Married	29	96.7
Single	1	3.3
Educational background		
Non-formal	6	20
Primary	6	20
Secondary	18	60
Tertiary	-	-
Tribe		
Yoruba	30	100
Hausa	-	-
Igbo	-	-
Categories of sellers		
Wholesalers	6	20.0
Retailers	7	23.4
Wholesalers/Retailers	17	56.6
Processors	-	-

Source: Calculations from field survey.

Profitability Analysis of Shea Butter. The results in table 2 revealed that acquisition cost accounted for 71.6% of the total sales revenue while cost of transportation accounted for 0.85% of the sales revenue. The cost of storage gulped 0.47% while cost of labour accounted for 0.33% of the total sales revenue. The table also showed that acquisition cost accounted for 97.74% of the total variable cost while cost of transportation accounted for 1.15% of the total variable cost. The cost of labour gulped 0.46% while storage cost was 0.65% of the total variable cost. The low transportation cost among the respondents may be due to the fact that most of the marketers especially the wholesalers and the retailers sourced for

the Shea butter in the nearby villages and states unlike other agricultural commodities such as tomatoes, Onions, Watermelon and so on which are mostly source from Northern parts of the country. The low storage cost observed in the study area may be due to the fact that most wholesalers quickly dispose their goods to the stand-by buyers (Retailers) who had already booked for the Shea butter before the processing is completed by the processors and retailers also sell theirs in the open space along the road where stalls are allocated to other sellers or they may also pay for a section of another person's shop. This confirms the findings of (Afolayan, 2009) who reported that gari processors and retailers sell their products in open space along roadside in Southwestern Nigeria. Table 2 also revealed that an average marketer incurred a total variable cost of ₦232,090.83 per quarter and earned average revenue of ₦316,800.00 per quarter. This implies that an average marketer earned ₦84,709.17 as gross margin per quarter which suggest that Shea butter marketing is profitable in the study area.

Table 2 – Quarterly Costs and Returns of Shea butter marketing

Items	Amount (₦)	% of Total Variable Cost (TVC)	% of Total sales
Acquisition cost	6,805,500	97.74	71.61
Transport cost	80,130	1.15	0.85
Storage cost	41,125	0.65	0.47
Cost of labour	31,700	0.46	0.33
Miscellaneous	1000	0.001	0.001
Total Variable Cost	6,962,725		
Gross income (Total Revenue)	9,504,000		
Gross margin	2,541,275		
TVC/Seller	232,091		
Gross income/Seller	316,800		
Gross margin/Seller	84,709		

Source: Calculations from field survey.

Market Structure for Shea butter. The Gini coefficient of 0.77 for Shea butter marketers in the study area as shown in Table 3 indicate a very high level of concentration and consequently high inefficiency in the market structure. This reveals that sheabutter marketing is an imperfect market.

Market Conduct for Shea butter. All respondents claimed that Shea butter price was determined by some factors such as the force of demand and supply and cost of acquisition from the processors. The inability of the buyers to bargain in price determination is an indication that there is no price discrimination. There was a low degree of product differentiation in the Shea butter market and Shea butter marketers association does not exists at both wholesale and retail level. This indicates that there was no barrier to entry in Shea butter marketing business. Shea butter market was not organized at all level which may be because the marketers were transients. All the respondents reported that they used only the open display method to draw customer attention to themselves. This therefore confirms Afolabi (2004) who reported that marketers of most processed agricultural products such as Gari, Oil Palm, Shea butter and so on mostly used open display and persuasive methods to draw customers attention.

Table 3 – Market structure analysis for Shea butter

Income (₦)	Number of sellers	Proportion of sellers (X)	Cumulative proportion of sellers	Total sales (₦)	cumulative total sales (Y) (₦)	Proportion of total sales (Y)	XY
<200,000	21	0.70	0.70	1,614,000	0.17	0.12	0.12
201,000-800,000	6	0.20	0.90	2,690,000	0.28	0.07	0.07
>800,000	3	0.10	1.00	5,200,000	0.55	0.06	0.06
Mea value of sales = ₦316,800							
Gini coefficient = 0.77							

Calculations from field survey data.

CONCLUSION

The study revealed that 80% of the respondents belong to the active segment of the population while only 20% were aged. Analysis also showed that 96.7% of the respondents were females, 3.3% were male while 80% of the respondents were literates. The study revealed that Shea butter market in the study area was dominated by the retailers which accounted for 56.6% of the sellers though there were other categories of sellers such as wholesalers (20.0%) and wholesaler/ retailer which were 23.4% of the respondents.

The profitability analysis showed that an average marketer incurred an average total variable cost of ₦232,090.83 per quarter and earned an average of ₦316,800.00 per quarter as revenue. This therefore indicates that an average Shea butter marketer earned ₦84,709.17 as gross margin per quarter. A Gini-Coefficient of 0.77 obtained in this study indicates a high level of market concentration in Shea butter market and hence, tends towards an imperfect market structure whereby sellers can individually influence the price they sell their products. This can serve as an incentive for potential Shea butter marketer to enter the business. Analysis of Shea butter market conduct revealed that forces of demand and cost of acquisition determine the price of Shea butter and open display method is adopted by the marketers to attract customers. It can thus be recommended that Shea butter marketing can serve as an important veritable venture to alleviate poverty in the study area and also has unexplored employment opportunities.

REFERENCES

1. Adegeye A.J and Dittoh J.S (1985). Essentials of Agricultural Economics, Impacts Publishers Nigeria Ltd. Ibadan pp. 113-119.
2. Adekanye T. O (1988). A Rice Grading Scheme for Nigeria in Adekanye T.O (ed), Readings in Agricultural Marketing, Longman, Lagos.
3. Adeyemo, R., Oke, J.T, Owombo, P.T, Lanlokun, O. (2015). Economic Efficiency of Shea butter Production in Oyo State, Nigeria. International Journal of Agriculture and Rural Development. Volume 18 (1). Pp. 17-23.
4. Afolabi J. A (2004). An Evaluation of Beef Marketing in Osun State, Nigeria. Journal of Agriculture, Forestry and Fisheries, 5 (2): 29-32.
5. Afolayan, J .A (2009). An Assessment of Gari Marketing in South-Western Nigeria. Journal of Social Sciences, 21 (1): 33-38.
6. Koutsoyiannis, A (1977). Theory of Econometrics. London: The Macmillan Press Ltd.
7. Lovett, P.N. (2005). Shea butter Industry expanding in West Africa. West Africa Trade Hub/USAID, Technical Report. Vol. 15. Issue 5. Pp. 1-3.
8. Peter N. Lovett (2005). Shea butter Industry expanding in West Africa. Information. 16 (5). 273-275.
9. United States Agency for International Development (USAID) (2005). Buying and Selling Shea butter, a Marketing Manual for West Africa. Fintac Inc.
10. United State Agency for International Development (USAID) (2016) Shea: Nigeria Loses 350 billion naira to Shea Smuggling Annually. www.nigerianextt.org. Retrieved on 22nd August, 2016.