



SOCIO-ECONOMIC CONTRIBUTION AND IMPORTANCE OF SHEA BUTTER (*VITELLARIA PARADOXA* C. F. GAERTN) TO RURAL WOMEN LIVELIHOOD IN ATISBO LOCAL GOVERNMENT AREA, OYO STATE, NIGERIA

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ABSTRACT: Socio-economic contribution of Shea butter was carried out in Atisbo Local Government Area of Oyo state, Nigeria. A total of 120 respondents were randomly sampled and interviewed. Both descriptive statistics and budgetary technique were used to analyze the data obtained. The result showed that 97.5% of the respondents were females, 40-49 age category with the highest percentage (32.5%) which implies that younger respondents are more likely to adopt an innovation than older respondents because of more exposure to new ideas. The majority (59.2%) of the respondents inherited the business from their family members. The study revealed Shea butter is used for different purposes such as cosmetics, medicine, and cooking. Hot weather is the major problem affecting Shea butter marketers. The profitability analysis shows that Alakuko market has the highest RORI (95.76) and thus implies that, every ₦1.00 invested would yield a return of 195.76%. The cost analysis of Shea butter in all the markets visited revealed that Shea butter trading is a worthwhile venture. It implies that the business was a source of livelihood to the marketers in the Study Area. The study recommends that women producing Shea butter in the area should be encouraged by governments by making soft loans accessible to them which will serve as a means of reducing poverty in the area.

Key Words: Socio-economic, Shea butter, Rural, Livelihood, Marketing

1. INTRODUCTION

Shea butter is an off-white or ivory-coloured fat extracted from the nut of African Shea tree (*Vitellaria paradoxa* formerly *Butyrospermum paradoxum*), *B.parkii* and *B. Paradoxa* (Alfred, 2002). Shea tree grows naturally in the wild of the dry savannah belt of West Africa, from Senegal in the West to Sudan in the East and onto the foothills of the Ethiopian mountains (Samuel 2005). According to Agbogidi (2010), world population depends on natural resources in order to meet a large number of their basic necessities. The types of resources and utilization pattern vary with ecological zone and socio-cultural area. Agbogidi and Eshegbeyi (2008), maintained that forest provides a wide range of benefits at both the local, national and global levels. Shea tree is one of the trees mostly exploited by rural women in the Shea butter enterprise. The tree is a characteristic species in Sudano Sahelian Savanna in Africa. The different parts of the tree are usually employed in the various field of everyday life. The wood of Shea tree is used for making tools while the roots and bark have

medicinal and pesticide applications. The sweet pulp of its fruits represents a valuable source of energy during the early part of the rainy season. The butter extracted from the kernels is the most important product of Shea tree. It is frequently used for domestic purposes such as cooking, lighting, in soap manufacture or as a skin moisturizer, as well as in traditional medicine (Hall et al. 1996). The Shea nuts are important non-timber forest products that play a major role in enhancing welfare (Hall *et al.*, 1996). Agbogidi and Okonta (2003) pointed out that a large proportion of the rural population earns their livelihood from the extraction and sales of Shea nuts products thereby improving the quality of life and standard of living of the rural population.

Shea butter tree has a huge economic and ecological potential (Okullo, *et al.* 2010). The English call it Shea while French call it Karate. In Nigeria, the Igbos call it Okwuma; Yorubas call it ‘Ori oyo’ while Hausa call it *mai kade* (Odebisi *et al.* 2004).

The major uses of the plant to local communities and industries include consumption of fleshy pulp, the fruit when very ripe can be eaten raw; trunk, bark, cortex, roots and leaves are used in preparation of herbal remedies; trunk makes excellent charcoal and is also useful as building material (Odebiyi *et al.*, 2004). In addition, butter is extracted from the kernel. The butter is also locally used in traditional medicines and cosmetics, chocolates, candle and pastries as a cocoa butter substitute (Odebiyi *et al.*, 2004). It is also used in pharmaceuticals and cosmetics because it is naturally rich in Vitamins A, E, and F. Furthermore, Shea butter is widely utilized for domestic purposes such as cooking, skin moisturizer, edible products (Alander 2004).

Shea butter tree (*V. paradoxa*), represents an important socio-economic agro-resource for the producing countries (Schreckenber 2004). Indeed, according to these authors, Shea butter has long been used in sub-Saharan Africa and elsewhere for medicinal, culinary, and other applications. Nowadays, this oleaginous plant serves as a cocoa butter equivalent in the manufacture of chocolate as well as an ingredient in cosmetics and pharmaceutical industries (Nahm, 2011). Shea butter exploitation in these latest industries is worth noting that Shea Butter has shown to be a superb moisturizer, with exceptional healing properties for the skin. In fact, Shea butter is involved in the treatment of skin allergies, insect bites, sunburns, frostbites, and a number of other conditions of the skin. However, Shea butter uses depend on the butter colours' and physicochemical properties which also vary as a function of its processing methods (nut pre-treatment and butter extraction) (Omuja, 2009). According to the FAOSTAT (2012), the highest Shea producers' countries originated from West Africa (701,510 tons). In the producing countries, the Shea butter industry depends mainly on the work of women and their own approach to the process (Nahm 2011).

Lovett (2004) concluded that Shea butter is a high-value export to Europe and the United States, where it is considered a luxury. In the international market, the price per ton for Shea butter packed in 20-pound dark plastic sacks or 50-kilo dark plastic containers or coated steel drums ranges from USD1,800 to 2,800/MT depending on the quality while the local market price ranges from ₦180,000.00 to ₦250,000.00 (that is \$1,125-\$1,562.5/ton) ex Lagos delivery.

Nigeria, the leading producer of Shea butter in the world with a production capacity of about 600,000 metric tons is yet to fully realize her potentials in the processing and export of Shea butter (Lovett 2004). Unlike other agricultural products like ginger, sesame seed, peanuts whose export potential are well known, the export potential of Shea butter is not well

documented by National Bureau of Statistics, Central Bank of Nigeria and National Export Promotion Council.

Although women are acknowledged as mostly involved in processing ventures, they are systematically denied the resources and information they need to fulfill their responsibility (Brandth 2004). Shea butter processing is done by village women and is regarded as an "opportunistic business" for them. They relied on crude methods that were passed down through generations. Moreover, there is no estimate of the overall balance between cost of input and the economic output of Shea butter, as the processing is not only arduous, labour-intensive and time-consuming, it also requires large amounts of water and firewood. Bonkougou (2005) estimated that the traditional processing of 1kg of Shea butter takes one person 20-30 hours, from collection to final product. It is also estimated that 8.5-10.0kg of fuel-wood is needed to produce 1kg of Shea butter. Therefore, evaluation of Shea nut processing to the socio-economic development of the rural populace is very important in Atisbo Local Government Area.

2.0 METHODOLOGY

2.1 Study Area

The study was carried out in Atisbo Local Government Area (LGA) of Oyo state because it is a major Shea butter (*V. paradoxa*) producing area in the state. Atisbo is a rural LGA located in the northwest of Oyo state, Nigeria, about 175km from Ibadan, the state capital. Its headquarters is in the town of Tede. The area is located between latitudes 8°40'00"N, and longitudes 3°22'59"E. The elevation above sea level is 472 m (1548) ft. The name ATISBO is an acronym of eight rural communities that made up the Local Government. Thus, ATISBO stands for Ago-are and Agunrege, Tede, Irawo, Sabe, Baasi, Ofiki and Owo communities. It is predominantly agrarian with some mining fields where precious stones such as tourmaline and tantalite can be found. There are 10 wards in the Local Government Area and The LGA is bounded in the North by Saki East, South by Itesiwaju and Iwajowa, East by Orire and Republic of Benin to the West. It has a population of 110,792 going by the 2006 National Population Census. Among the cash crops widely grown include cashew, Shea butter and mango (Odebiyi *et al.* 2004).

2.2 Sampling Techniques, Sampled Size, and Methods of data collection

Multistage sampling techniques were used for this study. In the first stage, three communities were purposively selected because Shea butter is being produced and marketed in the communities. In the second stage, forty Marketeters respondents were

randomly selected per communities through snowball techniques. This makes a total of 120 respondents selected from the three communities of the local government area. A well-structured questionnaire which was carefully designed with the view for providing information that certifies the study objectives on the Shea butter marketers were administered to the respondents.

Conceptual Framework: The analysis began with a categorization of Shea butter market enterprises as a homogenous group of enterprises usually with one employee. The marketer is in the business for the purpose of earning a living and to do so gross receipt must at least exceed the variable cost. However, such surplus known as gross profit should cover the depreciation (i.e. to provide replacement of the marketer assets like a basket, pots, and calabash used). According to Panayotou, (1995), if the surplus over the variable costs is not large enough to cover the interest on any loan in addition to depreciation, as well as earn a return on the owned capital as high as the entrepreneur can get from some other activity, then the entrepreneur cannot remain for too long in the business. Two Concepts of profit are important: Gross Profit and Net profit.

A Shea butter marketer is expected to continue operating as long as positive Gross Profit is earned, i.e. as long as operating costs are covered and some surplus is left. These surpluses should cover some of the fixed costs.

Returns from marketing of Shea butter will be captured via;

- (i) **Gross Profit (GP)**, It is defined as the difference between total revenue (TR) and total variable cost (VC), $Gross\ Profit\ (GP) = TR - VC$ ----- (1)
Where: GP = Gross Profit, TR = Total Revenue (Retail price in Naira x Number of the basket of Shea butter Sales) and TVC = Total Variable Cost (Naira) which include packaging cost and any other cost incurred in the course of trading.
- (ii) A situation in which all fixed costs are not covered is not tenable in the long run. Operations will be terminated when the economic life of the current assets expires, thus necessitating the use of the concept of net profit in this study. It is defined as the difference between Gross Profit (GP) and Total Fixed Cost (FC).

$$Net\ Profit\ (NP) = GP - TFC \quad \text{-----} \quad (2)$$

Fixed cost is defined as those costs that do not change with the scale of the production (Fixed Cost are cost which must be paid for whether the marketer operates or not). They include, in this study, the value of fixed assets, rent on business premises and cost of capital. Net profit must be positive for long-term viability of the enterprises.

(iii) In addition to the absolute magnitudes of gross and net profit, profitability was expressed in terms of the rate of return on investment (RORI) which was defined by Adegeye and Ditto (1985), as the ratio of Net Profit (NP) to the Total Cost (TC).

$$Rate\ of\ Return\ on\ Investment\ (RORI, \%) = \frac{NP}{TC} \times 100 \text{-----} (3)$$

Total Cost (TC) is the sum of the total variable cost (TVC) and total fixed cost (TFC) of making Shea butter available. Total cost is given as: $TC = TVC + TFC$

2.3 Data analysis

Descriptive statistical tools such as frequency, means, mode and percentage were used to analyze the socio-economic variables of interest such as age, sex, educational level and marital status. Cost and return analysis was used to determine the economic contributions of *Vitellaria paradoxa* oil to the livelihood of women in the area.

3. RESULTS AND DISCUSSION

Table 1: Demographic characteristics of Shea butter marketers (n= 120)

Variables	Freq.	%	Mode
Gender			
Male	3	2.5	
Female	117	97.5	Female
Age(Years)			
30-39years	18	15.0	
40-49years	39	32.5	40-49years
50-59years	31	25.8	
60-69years	25	20.8	
70 years and above	7	5.8	
Marital Status			
Married	102	85.0	Married
Single	2	1.7	
Widow	16	13.3	
Level of Education			
primary school	56	46.6	Primary school
secondary school	11	9.2	
No formal Education	53	44.2	
Ethnicity			
Fulani	33	27.5	
Yoruba	87	72.5	Yoruba
Mode of involvement			
Full-time	47	39.2	
Part-time	73	60.8	part time
Mode of Entry			
Inheritance	71	59.2	Inheritance`
Apprenticeship	49	40.8	
Household size			
1-5	13	10.8	
5-8	77	64.2	5-8members
More than 8	30	25.0	
Religion			
Christian	46	38.4	
Islam	55	45.8	Islam
Traditional	19	15.8	

Source: Field Survey, 2015

The study reveals that Shea butter significantly contributes to the livelihood of rural women in Atisbo LGA of Oyo State. In Table 1, the result showed that women dominate the business (97.5%) supporting the report by Cocoa Research Institute of Ghana, 2007. It also showed that majority (32.5%) of the respondents, denoting those in the age bracket 40-49 is the major producer of Shea butter in the Area. This is in line with the study carried out by Ogungbile *et al.* (2002), who asserted that younger respondents are more likely to adopt an innovation than older respondents because of more exposure to new ideas. The majority (85%) were married, which may indicate that married individuals are more committed to their responsibility and work hard to earn a living which agrees with Olarinde *et.al.*, 2008 who reported that one of the most important factors that determine the efficiency of a business is the marital status of an individual. The majority (46.6%) of the respondents have primary school education. The implication of this is that it would be difficult for the marketers to adopt modern techniques, innovation or new idea in the business. Farinde *et al.* (2005), explained that education

influences the adoption of new innovations, ideas or techniques in business operations.

In Table 2, response from the marketers revealed that Shea butter is very effective (93.3%) in contributing to household usage one way or the other, this agrees with Lovett and Haq, 2000, that Shea butter is important in the livelihoods of the rural population as it has been for centuries.

In Table 3, average weekly costs and returns of Shea butter in all the markets revealed that Alakuko market had the highest net returns (₦3,954.95) followed by Kaara (₦2,123.96) because the marketers were mainly wholesalers. The other two markets; Irawo (₦465.06) and Owode (₦558.00) had low net returns respectively because they were mainly retailers and the returns were not as high as those in the other two markets. The average Rate of Return on investment (RORI) was 49.70. The management implication was that for every one naira invested in any of the markets, a return of 49.70% was achieved. It follows that the enterprise is profitable.

Table 2: Importance of Shea butter to the Respondents in the Communities (n = 120)

Variable	Frequency	Percentage	Mode
Utilization of <i>Vitellaria paradoxa</i> oil			
Yes	120	100.00	
If yes, The uses of <i>Vitellaria paradoxa</i> oil			
Cooking	120	100.00	Cooking
Uses apart from household purpose			
Medicinal purposes	42	35.0	
As cosmetic	78	65.0	Cosmetic
Effectiveness of <i>Vitellaria paradoxa</i> oil			
very effective	112	93.3	very effective
Effective	8	6.7	
Economic importance of <i>Vitellaria paradoxa</i> oil			
Economic purpose	93	78.2	economic purpose
Medicinal purpose	27	21.8	

Source: Field Survey, 2015

Table 3: Average Weekly Costs and Returns of Shea butter in all the markets

Markets	VC (₦)					TVC (₦)	FC (₦)			TFC (₦)	TC (₦)	TR (₦)	GP (₦)	NP (₦)	RORI (%)
	1	2	3	4	5		6	7	8						
Obada	246.5	705.34	243.91	205.0	225.35	1,626.1	272.0	306.54	196.70	775.59	2,401.34	4,050	2,423.90	1,648.66	68.70
Kaara	345.55	609.20	307.84	300.0	375.41	1,938.0	240.0	500.56	203.23	943.20	2,881.79	5,005.75	3,067.75	2,123.96	73.70
Oba	465.0	1,090.0	504.70	690.0	735.0	3,484.70	302.4	1,035.5	354.90	1,692.40	5,177.10	7,055	3,570.30	1,877.50	36.26
Alakuko	405.0	807.0	305.50	505.25	479.2	2,501.95	300.0	1,025.35	302.75	1,628.10	4,130.05	8,085	5,583.05	3,954.95	95.76
Ajibandele	375.0	631.50	442.0	432.0	300.0	2,180.50	300.0	650.0	320.0	1,270	3,450.50	4,254.50	2,074.0	804.00	23.30
Irawo	305.0	700.0	302.55	460.0	402.75	2,170.30	280.7	686.44	305.5	1,272.64	3,442.94	3,908	1,737.70	465.06	13.51
Owode	220.0	450.0	325.00	235.0	300.0	1,485.0	302.0	505.0	200.0	1,007.00	2,492.00	3,050	1,565.0	558.00	22.39
Nitanre	305.0	705.0	205.00	300.0	400.0	1,915.0	270.0	525.0	324.0	1,119.00	3,034.00	5,025	3,110.0	1,991	65.62

Source: Field Survey, 2015

Keys: 1- Transportation, 2- Labour, 3- Fuel Wood, 4 -Packages, 5- Rent, 6 -Basket, 7- Pots, 8- Calabash, VC- Variable Cost, TVC - Total Variable Cost, FC - Fixed Cost, TFC - Total Fixed Cost, TC - Total Cost, TR – Total Revenue, GP - Gross Profit, NP – Net Profit, RORI - Rate of Returns on Investment (Average Rate of Returns on Investment = 49.70%).

4. CONCLUSION

1. Shea butter plays a vital role in contributing to the socio-economic development of people, especially rural women in the Study Area.
2. It has made a positive impact on the income as well as the diet of the people, thereby contributing to the standard of living of not only the rural dwellers but also the entire populace.
3. Women in the rural should be encouraged by the local, state and federal government by given them incentives in the form of the soft loan to boost the business.
4. Reforestation and afforestation are also advocated to sustain our indigenous species.

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