

# Socioeconomic Dynamics Analysis of Women Entrepreneurship: Case of Shea Nuts Processors in North Benin

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**Abstract** – The autonomy of rural women gets through initiation and enterprise of income generating activities. Although widespread in northern Benin, the processing business of shea nut to shea butter is exercised by the majority of women. Classified in the informal sector, women entrepreneurs in rural areas is an opportunity for women to contribute to the improvement of household living conditions without being dependent on her husband. So it goes beyond the pursuit of profit. Therefore, the study on the processing of shea nuts to shea butter at N'Dali in North Benin consisted of a random survey of 81 women from three women groups of shea nut processing in shea butter with which semi-structured interviews were also conducted. The results of this study show that, 48% of women surveyed are undertaking for money reasons. The profit margin is 3240 CFA per 10 liters of shea butter.

**Keywords** – Women Association, Entrepreneurship, Dynamic Socio Economic, Shea Butter, Benin.

## I. INTRODUCTION

Shea is a source of wealth in most sub-Saharan countries in importance. It is one of the resources processed and/ or marketed in the various local markets and plays a socio-economic role for the population of northern Benin [1]. Shea is the third export product after cotton and cashew in the sense that the annual share provided by the shea national income is 1.05 billion CFA francs (APR 2008). Butter made from shea nuts is consumed locally or exported for cosmetics, confectionery, chocolate making, pastry and vegetable margarines [2]. Trade almonds and shea butter was the first source of cash income for women of certain Ivorian regions [3]. It also records Producer Cooperative regularly constituted with the support of No Governmental Organizations (NGOs) and various stakeholder projects in income-generating activities that focus their activities on fruits and derivatives shea. Shea butter is highly sought after by local processors of cosmetic products such as soap and exported to neighboring countries [1; 4]. Shea butter has a pleasant taste and is an important extra food for the people of northern Benin [5]. It is the staple food oil for over 80% of the population in Borgou and Alibori [5]. It enters in the composition of 75% of used cooking oil [5].

Given the importance of the shea butter, Borgou women are concerned about the transformation of shea nuts to butter in a spirit of entrepreneurship. Entrepreneurship falls individually situated action and influenced by the social and political context in which it takes place [6]. This action is produced by a passionate being who continually

seeks to excel to find the best possible combination to generate economic wealth by taking risks. Entrepreneurship is a process in which free individuals develop an economic activity producing wealth by assuming project risk [6]. It aims to develop the upstream profit with a willing to mobilize resources and achieve or promote the achievement of wider interest (ibid). Entrepreneurship has advantages such as non-monetary benefits, autonomy, wide use of the skills and the opportunity to pursue his own ideas that is to say, more freedom [7]. As a result, female entrepreneurship is therefore a real opportunity for women to leave the autarky which they are subject in traditional societies like North Benin. Despite the importance of this activity for women, women's entrepreneurship oriented processing shea nuts was considered orphan of research. Female entrepreneurship is understood as businesses owned and run by women [8]. According Debroux, the majority of women's businesses have little or no cost and with very limited growth potential [9]. So to appreciate women's motivation to undertake sources and profitability of their business (processing of shea nuts into shea butter) that this study was conducted in North Benin. It aims to analyze the socio-economic dynamics of female entrepreneurship focused on the transformation of shea nuts into shea butter in North Benin.

## II. RESEARCH METHODOLOGY

### 2.1. Study area

The study was conducted in the municipality of N'Dali in North Benin. The town is located in the department of Borgou, between 2° and 2° 40' east longitude; 9° and 10° north latitude according to the Municipal Development Plan [10]. This town was chosen because it is full of many women who process shea nuts to butter as in other municipalities. But the particularity is that this transformation is done for commercial purpose by women who are in group or in cooperation.

The municipality is limited to the south by the municipalities of Parakou and Tchaourou, north by the municipalities of Bembèrèkè Sinendé and to the west by the municipalities of Djougou and Péhunco and east by the municipalities of Nikki and Pèrèrè. It covers an area of 3748 km<sup>2</sup>. N'Dali center, administrative center of the town is about 56 km distant from the third city with special status (Parakou). According to the Municipal Development Plan. The position of the common N'Dali is an asset to the town in the commercial development and



transport. The head of the commune is also a major junction linking Nikki, Djougou, Parakou and Bembèrèkè. The town N'Dali includes five (05) districts: Bori, Gbégorou, Ouénou, Sirarou and N'Dali.

The town of N'Dali account the fourth general census of population and housing in 2013, a population of 114,659 inhabitants, 57,879 men and 56,780 women, or 49.52% women and 50.48% of men. The ethnic composition reveals two majority ethnic groups namely Bariba (55%) and Fulani or Fulbe (19%). The over ethnic groups such as "Otamari" (10%), Yom Lokpa (7%), etc. are noted[10].

The climate in the municipality of N'Dali is Sudano Guinean continental type, characterized by a rainy season (April to October) and a dry season (November to March) with an average rainfall varies between 1100 mm and 1200 mm as low as 900 mm. This is a very favorable climate for agriculture and livestock. The vegetation of wooded savannah type. However, there is encountered a forest classified ie an extension of the classified forest of Higher Ouémé N'Dali.

Products such as mango, papaya, cashew, wood and shea nuts are very important speculations that develop in the town. In the absence of statistics, it is difficult to make an assessment of their contribution to the local economy ([10]. The processing of agricultural products is mainly practiced by women individually or in group. The products such as soybean, cassava, Shea are commonly processed with low processing equipment.

## 2.2. Selection of villages studied and research units

Three villages were chosen for this study. These are the villages of Bori, Maregourou and Tamarou. They were chosen in view of the scale of processing shea nuts by women compared to other villages according to information received from the resource persons.

Research units are only women who process of shea nuts to butter. Sampling is purposive type. A total, 81 women were surveyed and are unevenly distributed between the villages (Table 1). The variation in numbers of respondents reflects the number of women processors present in each village.

Table 1: Selection of study villages and research units

Villages	Number of women surveyed	Investigations Proportion (in%)
Bori	33	41
Maregourou	28	34
Tamarou	20	25
<b>Total</b>	<b>81</b>	<b>100</b>

## 2.3. Collected data, technical tools and analysis of data collected

The data collected from women who process shea nuts are related to socioeconomic and demographic characteristics of women, their sources of motivation to undertake the activity, the entrepreneurship-related benefits, the method of transformation, history processing of shea nuts, variable costs, the selling price of a liter of shea, quantity processed and sold shea nuts. These data were obtained through questionnaires administered to women processors in semi-structured interviews.

Descriptive statistics were used to calculate the averages and standard deviations of quantitative characteristics and frequencies of qualitative characteristics of women. The recipe, the total variable cost and profit margin were calculated.

## 2.4. Estimated parameters

The estimated parameters are total variable cost (CTV), the recipe (R) and profit margin (MB) after processing shea nuts to butter. They are reported at 10 liters. Fixed costs were not taken into account because the materials used are not only used for the processing of shea nuts. They are also used for other activities such as cooking, farm work, etc. The total variable cost (CTV) was calculated as follows:

$CTV = \sum c_{vi}$  with  $c_{vi}$ : costs of different variable costs. Variable costs include the costs of raw materials such as shea nuts, water and bundles of firewood.

R recipe is the monetary value equal to the product of the amount of shea butter by the unit price of butter. It was obtained through the following formula:

$R = p \times QBK$  with QBK: amount of shea butter in liters and p: price by liter.

The profit margin (MB) is the monetary value obtained after deducting the total variable cost (CTV); recipe (R) marketing of shea butter from processing. Gross margin (MB) was calculated using the formula:  $MB = R - CTV = R - \sum c_{vi}$ .

If the MB is positive, whereas female entrepreneurship oriented processing shea nuts is profitable. Female entrepreneurship would not be profitable when the MB will be negative.

## III. RESULTS

### 3.1. Characteristics of women entrepreneurs shea nut processing

The average age of women processors of shea butter is 41 years ( $\pm 13.43$ ) (Table II). They belong to households whose average size is about 8 ( $\pm 2.75$ ) members (Table 2). The number of assets in their household is about 4 persons ( $\pm 2.19$ ).

They have extensive experience in the business (15 years of experiences in the transformation of shea nut to butter) (Table 2).

Table 2: Quantitative characteristics of women processors of shea nut to butter

Characteristics of women	Ave- rage	Maxi- mum	Mini- mum	Standard Deviation
Age	41,38	68	15	13,43
Household size	7,99	16	2	2,75
Number of assets	3,91	13	1	2,19
Years of experiences	15,26	50	1	12,40

Source: Field Survey, 2014

Most respondent's processors (88%) are married women living under the roof of a man. Approximately 78% of these processors are not educated. They have not access to credit (90% women).

Table 3: Qualitative characteristics of women processors of shea nut to butter

Variables	Modalities	Frequencies (en %)
Marital status	Single	6
	Married	88
	Divorced	6
	Total	100
Education level	No education	78
	primary level	9
	Secondary level	6
	Non-formal education	7
	Total	100
Access to credit	Yes	9
	No	91
	Total	100
Beneficiaries of the project	Yes	68
	No	32
	Total	100

Source: Field Survey, 2014.

### 3.2. Source of motivation entrepreneurial women

The transformation of shea nut to butter is an activity imposed by tradition according to 90% of women surveyed. Indeed, development projects intervened to raise up the enthusiasm of women, but this is in lesser extent (1%).

Table 4: Frequency of interviewees by the source of entrepreneurial motivation

Motivation source	Frequenciesb of women (%)
Self motivation	5
Motivation of a group	4
Imposed by tradition or husband	90
Excitement generated by a project	1
<b>Total</b>	<b>100</b>

Source: Field Survey, 2014

The women use the butter for the processing of other products. The photo below shows the importance of shea butter for women.



Fig.1. Use of butter by woman for over processing

### 3.4. Reasons for choosing processing shea nuts to butter

Several reasons justify the choice of processing shea nut to butter. They can be summarized through the following figure.

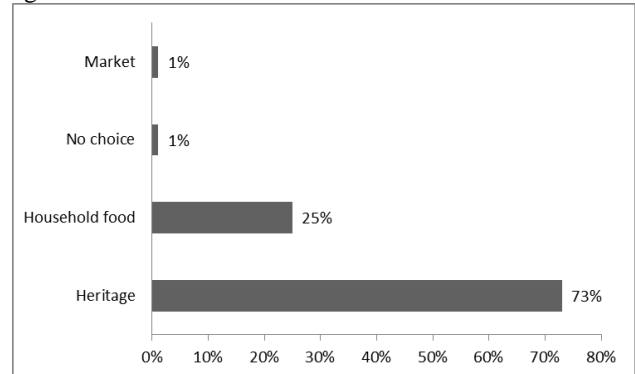


Fig.2. Primary choice of processing shea nuts

The transformation of shea nut to butter is inherited by most of the women surveyed (71%) in the municipality of N'Dali (Figure 1). By cons, some women (1%) have begun processing activity because they have no other choice (Figure 1).

### 3.5. Benefits related to women's entrepreneurship

Female entrepreneurship provides a plurality of advantages to these actors. The transformation of shea nut to butter provides food, money and prestige according to women surveyed (Figure 3).

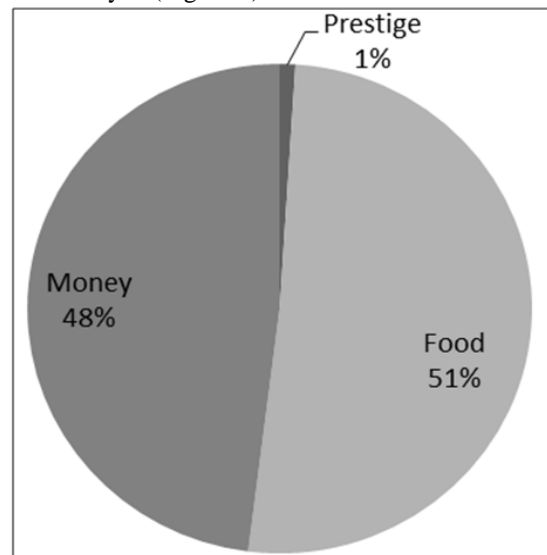


Fig.3. Benefits related to the processing of shea nut butter

Most women surveyed are looking for more food from their homes through women's entrepreneurship. Thus, women entrepreneurship goes beyond the pursuit of profit.

### 3.6. Margin processing of shea nut to butter

Variable costs include the costs of raw materials such as shea nuts, water and firewood. They are reported to obtain 10 liters of shea butter. The selling price of butter on the market is 1000 FCFA per liter at the time of data collection on the local market. Variable costs, the recipe and the profit margin of processing shea nuts are presented in the table below:



Table 5: Estimate the cost and the profit margin of the transformation of shea nut to butter

Topics		Amount (FCFA <sup>1</sup> )
Processing costs	Sheanuts	6000
	Water	260
	Firewood	500
<b>Total</b>		<b>6760</b>
<b>Recipe</b>		<b>10000</b>
<b>Profit margin</b>		<b>3240</b>

Source: Field Survey, 2014

The profit margin of the transformation of shea nut to butter is 3240 FCFA per 10 liters of shea butter. Indeed, the profit margin is 324 FCFA by liter.

#### IV. DISCUSSION

The average age of women processors of shea butter is 41 years. The average age is the age of an adult in North Benin [11]. According to these authors, adults in northern Benin are producers who have an age between 40 and 60 years. Thus, processing of shea nut to butter is practiced by adults. So we can say that female entrepreneurship is an adult matter. This could be explained by the fact that young women or newly married women did not have a proper income generating activity in the household. They are especially housework until the husband takes another wife who takes over in the household. Thus, the arrival of a new woman in the household discharge the first women of some household activities.

Processing shea nuts by women is done traditionally. This confirms the assertion of Kariuki and Balla that businesses owned by women are characterized by low use of technology [12]. Female entrepreneurship requires general conditions built around participation in the labor market, family responsibilities, prejudice on gender, ideological and political context [8]. Thus, processing of shea nuts to butter is driven to search for food for most women even if the pursuit of profit is less essential. As a result, female entrepreneurship has both effects on entrepreneurs as their families as Toupin and Goudreault have said in a study[13]. These authors stated that entrepreneurship allows the contractor to come out of isolation and reintegrate into the society. That's why the processing of shea nuts has been imposed to most women by tradition or their husbands. Debroux reported also that as entrepreneurs, their activities could sometimes have an important social role in the local society[9]. He revealed through this study that the benefit of women's entrepreneurship is the search for money, power and prestige in society. This is also the case mentioned by Baumol when he says that entrepreneurs are all ingenious and creative individuals looking to find ways to improve their own healths, power and prestige[14]. Thus, the reasons that drive entrepreneurship are not directly contribute to the growth of national product; but it's looking for an activity without putting in the foreground

the profit [15]. It should be emphasized that female entrepreneurship is much more for women, a source of independence and a clean accomplishment that is often mentioned as important motivation to become employer to increase the power gain[16].

The analysis of the profitability of the processing of shea nut to butter reflects the economic importance of women's entrepreneurship. Indeed, the production of 10 liters of butter enables women to generate an average profit margin of about 3240 FCFA in the town of N'Dali. This allows to raise the access to credit constraints in the sense that the activity would allow entrepreneurs beneficiaries to repay their loans [12]. According to these authors, the difficulties of access to credit and low income level of women are major constraints to the emergence of female entrepreneurship. In this study, only 9% of women surveyed have access to credit; which also justifies the traditional stage of women's entrepreneurship.

#### V. CONCLUSION

Female entrepreneurship in progress in the town of N'Dali is an opportunity for women to contribute to food of his house. The choice of processing shea nut to butter is in the traditional sense. The mode of transformation remains traditional. The transformation of shea nut to butter allows women to have a profit margin of 324FCFA per liter of shea butter. Thus, the activity processing reflecting women's entrepreneurship is profitable in the town of N'Dali.

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<sup>1</sup> 1 dollar= 550 FCFA



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