CONSTRAINTS HINDERING PROCESSORS' EFFECTIVE ACCESS TO TRAINING PROGRAMMES ON MODERN SHEA BUTTER PROCESSING IN NIGER STATE, NIGERIA

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ABSTRACT

This study examined the constraints hindering processors' effective access to training on modern shea butter processing in Niger State, Nigeria. Primary data were collected using a structured questionnaire administered to 108 processors selected through a multistage sampling technique. The data collected was analysed using descriptive statistics. Results revealed that all the processors were females, young and married with a household size of 5-9 and a low educational status. Results also revealed that the majority (67.6%) of the processors were not aware of training programmes, while 72% of them had not accessed training programmes. The results further revealed that non-awareness of training programmes ($\chi^2 = 2.95$), inadequate information on available training opportunities ($\chi^2 = 2.90$), inappropriate time for training ($\chi^2 = 2.87$), and illiteracy ($\chi^2 = 2.36$) were the major constraints hindering processors' effective access to training on modern shea butter processing. Creation of adequate awareness and dissemination of information by extension officers, extension agents and women in agriculture (WIA) officers on training programmes through the use of mass media, postal and leaflets in the study area is recommended.

Keywords: Extension, constraints, access, training, modern technology, shea butter

1. INTRODUCTION

The shea tree, according to CECI (2009), grows only in Africa, in a geographical zone spanning the continent from the West Coast to the East, from Senegal to Sudan. The greatest concentration of these trees is found in West Africa, in the following countries: Burkina Faso, Cote d'voire, Ghana, Mali and Nigeria (CECI, 2009). Established methods exist for carrying out farming and other operations (Williams, Fenley & Williams, 1984).

The shea tree produces an edible fruit that contains an almond-shape nut from which fat is extracted to make shea butter. Women produce the natural shea butter by using the indigenous processing techniques. These indigenous processing techniques are common in the Shea belt of Nigeria as the knowledge is passed from generation to generation. This process is however time consuming, labour intensive and requires large amounts of water and

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firewood. This process takes about a day to produce a sufficient amount for sale and home use (Peter, 2010).

The demand for shea butter according to CECI (2009) is growing, on the sub-regional market as well as the international market. It is used as a cocoa butter equivalent or improver in chocolate and other confectionaries, margarine, and in cosmetic and personal care products (Omowunmi, 2013). Traditionally, it is used for cooking, medicinal purposes and for body care (CECI, 2009). The world's biggest international markets for shea butter are in Europe and North America (Omowunmi, 2013).

The Federal Government of Nigeria, recognising the potential of this subsector as an agent for generating employment, foreign exchange earnings, income and poverty alleviation among women who incidentally are the major contributors in the value chain, made available some improved shea butter processing equipment, such as crushing machines, milling machines and kneading machines, to the processors through Raw Material Research Development Council (RMRDC) (Daniel, Olufimihan, Kwaya and Odejide, 2005, quoted in Matanmi, Adesiji, Olasheinde and Oladipo, 2011). In the same vein, some non-governmental organisations (NGOs) such as the World Trade Organisation (WTO) and German Technical Cooperation (GTZ) have also provided some of the improved shea butter processing equipment to processors in the various shea butter producing areas in Nigeria. This intervention by the Federal Government and NGOs has led to the production of exportable high-quality shea butter in the country. The use of these improved processing machines saves the processors time, reduces their drudgery and increases their butter yield.

In the area of capacity building, the Federal Government of Nigeria over the years through RMRDC and Nigerian Export Promotion Council (NEPC) in conjunction with some NGOs had carried out training programmes on modern methods of shea nut/ butter processing in the shea-belt of Nigeria. Most recently, NEPC in conjunction with West African Trade Hub (WATH) conducted a training programme for producers/processors in Abuja. In 2011, the Council went a step further by engaging a General Service Agent (GSA) consultant to train over 600 women on proper processing of shea nut into butter. These trainings involved practical demonstrations on every step involved in the proper processing of shea nut/butter (Omowunmi, 2013). These trainings were carried out in order to increase processors' processing capacities, to produce high quality shea butter, to diversify their product line, and to market them more efficiently.

1.1. Problem statement

In recent years, the shea tree has gained importance as an economic crop. This is sequel to the heavy demand for the shea fruit butter, both locally and internationally (CECI, 2009). Shea butter which is a staple food (vegetable oil) in West Africa also serves as a luxury product used as a raw material in many industries like food industries, pharmaceuticals, cosmetics and body care industries.

The Federal Government of Nigeria, recognising the potential of this subsector as an agent for employment generation, foreign exchange earnings, and income and poverty alleviation among women, created awareness on the need of processors to adopt modern shea butter processing technologies so as to produce butter of high quality (Nigerian Export Promotion Council (NEPC), 2012). Thereafter, trainings were conducted on modern methods of shea butter processing by the Federal Government of Nigeria through RMRDC and NEPC and

some NGOs like West African Trade Hub (WATH). These trainings were conducted in order to acquaint the processors with the necessary skills and knowledge that will help them to produce high quality shea butter that will be acceptable in the international market.

However, the number of processors that have been trained over the years are inconsequential as large numbers of processors in the study areas still depend on indigenous techniques to produce shea butter that are of low quality. In view of this, this study was designed to provide answers to the following research questions:

1. What are the socio-economic characteristics of the respondents?
2. Are the respondents aware of training programmes on modern shea butter processing?
3. Have respondents accessed training on modern shea butter processing?
4. What are the constraints hindering processors in accessing training on modern shea butter processing?

1.2. Objectives of the study

The broad objective of this study was to examine constraints hindering processors effective access to training programmes on modern shea butter processing in Niger State, Nigeria. The specific objectives of the study were to:

1. Determine the socio-economic characteristics of respondents in the study area.
2. Ascertain the awareness of respondents of training programmes.
3. Determine the accessibility of respondents to training.
4. Examine the constraints hindering respondents' effective access to training programmes on modern shea butter processing.

2. METHODOLOGY

2.1. Study area

The study was conducted in Niger State, Nigeria. The State lies between latitudes $8^0\,20^1$N and $11^0 30^1$ and longitudes $3^0 30^1$E and $7^0\,20^1$E. The State covers a total land area of about 76,363 square kilometres and shares boundaries with Zamfara State in the North, Kebbi State in the West, Kogi State in the South, Kwara State in the South-West, and Kaduna State and Federal Capital Territory in the North-East and South-East respectively. The State has 25 Local Government Areas which are Agaie, Agwara, Bida, Borgu, Bosso, Chanchaga, Edati, Gboko, Gurara, Katcha, Kotangora, Lapai, Lavum, Magama, Mariga, Mashegu, Mokwa, Muya, Paikoro, Rafi, Rijiau, Shiroro, Suleja, Tafa, and Wushishi. It has a population of 3,950,249 (National Population Commission, 2006). The State has two main climatic seasons; the dry (Harmattan) seasons and wet (rainy) seasons. The natural vegetation of the State comprises of the wooded and rain forest savannah. The maximum temperature is usually not more than 94^0F, recorded between March and June, while the coldest temperatures are measured usually between December and January. The rainfall both in amount (1,100 – 1,600mm per annum) and duration (8 months) favours the growth of shea nut trees in virtually all the Local Government Areas. Other important crops that grow in the State include kolanut, tobacco, beniseed, and millet. Shea-butter extraction activities are carried out across all the Local Government Areas of Niger State.

2.2. Sampling procedure

A multi-stage sampling procedure was used to select 108 processors in the study area. The State has three agricultural zones which consist of zone A, B and C. These three zones which reflect the geographical structure of the State were decisively observed. In the first stage, two zones (B and C) out of the three zones were purposively selected, based on the prevalence of shea butter processing activities. This was followed in the second stage by a purposive sampling of one Local Government Area (LGA) each from zone B and C because of the training that had taken place in the two LGAs. The LGAs selected were Bida from zone B and Borgu from zone C. The third stage involved the use of simple random sampling technique to select three communities in the two LGAs based on the high proportion of shea butter processors. The selected communities were Bangie, Wuya, Aketanbako in Bida LGA, and Agbeshidi, Alufeturen and Aheandum in Borgu LGA. The fourth stage involved random sampling of 18 respondents from each selected community, thus making 108 respondents that were used for this study.

2.3. Method of data collection

The study was based on primary data obtained from the field survey using a structured questionnaire that was administered to shea butter processors. The questionnaires had both open ended and closed ended questions concerning the objectives. The questionnaire obtained information on the socio-economic characteristics of respondents, awareness of respondents of training programmes, their accessibility to training programmes, and the constraints hindering effective access to training programmes. A 3-point Likert scale of very severe = 3, severe = 2 and not severe = 1 was used to elicit information on constraints hindering processors effective access to training programmes. Total mean scores were obtained and averages found. Therefore, a means value and above indicates very severe constraints hindering respondents' effective access to training programmes while below mean value is taken as not severe constraints.

2.4. Data analysis

Descriptive statistics such as frequency counts, percentages, means and standard deviations were used to analyse the data collected.

3. FINDINGS

3.1. Socio-economic characteristics of respondents

The result of the study as indicated in Table 1 shows that all the respondents were female, implying that women dominated shea butter processing activities within the sampled communities. This agrees with the findings of Garba & Sanni (2015). In addition, the majority (64.8%) of the respondents were between the ages of 31 and 40 years. This implies that a large proportion of the respondents in the study area were below 50 years, which means that they were in their active and productive age category, so there is a lot of prospect for the shea industry in the study area. Table 1 also indicates that 83.3% of the respondents were married, 7% single, 8.3% divorced and 1.9% widowed. This implies that a greater percentage of the respondents have persons living in their household. In the same vein, 68.5% of the respondents had a household size of 5-9. The large number of household size in the study area is understood since processing of shea butter is the primary occupation of the respondents in the study area. This agrees with the findings of Fakayode, Akangbe, Akinseye, & Adesuyi (2013) and Ayande, Akangbe, & Fakoya (2013). Furthermore, 59.3% of the

respondents had no formal education, while 19.4%, 14.8% and 6.5% had quranic, primary and secondary education respectively. This finding is in line with that of Ogunjinmi, Ijeomah & Aiyeloja, (2009) that rural farmers/processors are characterised by low level of educational background. The low literacy level could lower the propensities of the respondents to attend training programmes on modern shea butter processing.

Table 1: Distribution of respondents according to socio-economic characteristics (n=108)

S/N	Variables	Frequency	Percentage
1	Sex		
	Male	-	-
	Female	108	100
2	Age		
	Below 20	3	2.8
	21 – 30	19	17.6
	31 – 40	70	64.8
	41 – 50	9	8.3
	51 – 60	6	5.6
	Above 60	1	0.9
3	Marriage		
	Single	7	6.5
	Married	90	83.3
	Divorced	9	8.3
	Widowed	2	1.9
4	Household size		
	1 – 4	13	12
	5 – 9	74	68.5
	10 – 14	18	16.7
	Above 14	3	2.8
5	Level of education		
	No formal education	64	59.3
	Quranic	21	19.4
	Primary	16	14.8
	Secondary	7	6.5

Source: Field survey, 2016

3.2. Awareness of training programmes on modern shea butter processing

Table 2 reveals that the majority (67.6%) of the respondents were not aware of training programmes on modern shea butter processing while only a few (32.4%) of the respondents were aware. The low level of awareness of training programmes by respondents may be due to the fact that large proportions of the respondents were illiterate as indicated in Table 1.

Table 2: Distribution of respondents according to awareness of training on modern shea butter processing (n=108)

Awareness	Frequency	Percentage
Yes	35	32.4
No	73	67.6

Source: Field survey, 2016

3.3. Accessibility to training programmes on modern shea butter processing

As indicated in Table 3, the majority (72%) of the respondents had not accessed training programmes on modern shea butter processing. Out of the 32.4% of respondents that were aware of training programmes, 28% had accessed the training programmes. From this finding, it can be inferred that the level of respondents' accessibility to training programmes in the study area is very low. This can also be attributed to the low level of awareness on training programmes by the respondents.

Table 3: Distribution of respondents according to accessibility to training programmes (n=108)

Accessibility	Frequency	Percentage
Yes	30	28
No	78	72

Source: Field survey, 2016

3.4. Constraints hindering processors effective access to training programmes on modern shea butter processing

A number of constraints hindering processors' effective access to training programmes on modern shea butter processing is indicated in Table 4. Non-awareness of training programmes ($\chi^2 = 2.95$), inadequate information on available training opportunities ($\chi^2 = 2.90$), and inappropriate time for training ($\chi^2 = 2.87$) were found to be very severe constraints hindering processors' effective access to training programmes. The implication of this finding is that most of the processors will lack the necessary skills and knowledge on modern processing technologies that would have enhanced their production of high quality shea butter. Others include illiteracy ($\chi^2 = 2.36$) and inaccessibility of training locations ($\chi^2 = 2.28$). Furthermore, Table 4 reveals that inadequacy of government aid ($\chi^2 = 1.50$), inadequate fund ($\chi^2 = 0.70$), and no time for training ($\chi^2 = 0.61$) were constraints that were not severe in hindering respondents' effective access to training programmes.

Table 4: Distribution of constraints hindering processors' effective access to training programmes on modern shea butter processing (n=108)

Constraints	Mean score (χ^2)	Standard deviation (SD)
Non-awareness of training on modern shea butter processing technologies	2.95	0.23
Inadequate information on available training opportunities	2.90	0.37
Inappropriate time for training	2.87	0.34
Illiteracy	2.36	0.65
Inaccessibility of training locations	2.28	0.79
Inadequacy of government aid	1.50	1.17
Inadequate fund to attend training	0.70	0.87
No time for training	0.61	1.05
Level of training instruction inappropriate	0.29	0.65
Unavailability of modern processing equipment at training centres for training exercise	0.20	0.44
Total mean score	**17**	
Average mean score (χ^2)	**1.7**	

(Very severe = 3, Severe = 2, Not severe = 1
Decision rule: ≥ 1.7 = Very severe, < 1.7 = Not severe
Source: Field survey, 2016

4. CONCLUSION

The study has shown that all the processors were females with low educational status. The study also showed that most of the processors could not access training programmes because of their low level of awareness. Non-awareness of training programmes, inadequate information on available training opportunities, inappropriate time for training and illiteracy were the major constraints hindering processors' effective access to training programmes on modern shea butter processing.

5. RECOMMENDATIONS

1. Creation of adequate awareness and information dissemination by the stakeholders on training programmes in the study area should be carried out. This will enhance processors' access to training programmes organised by concerned stakeholders.
2. In designing training programmes for processors in the study area by the appropriate stakeholders, accessibility to training locations and time of training should be well considered since they were found to be among the major constraints limiting processors' effective access to training.

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