COMPARATIVE STUDY OF THE PROFITABILITY OF DIFFERENT CASSAVA PRODUCTS IN ORUK ANAM L.G.A OF AKWA IBOM STATE

BY

UMOREN FRIDAY JOHNNY
SCHOOL OF EDUCATION,
NATIONAL OPEN UNIVERSITY
OF NIGERIA, AKWA
STUDY CENTER

ABSTRACT

The study was conducted in Oruk Anam Local Government Area of Akwa Ibom State, a state situated in the South South geographical zone of Nigeria. The study area has a preponderance of ruralities whose major occupations include farming and trading. Stratified random sampling was used to select cassava processors in the study area, The questionnaire was used in data collection with respect to objectives (1) and (2) as descriptive and inferential statistics were used in analyzing data obtained. Acceptability of the end product, cost of processing into particular end products, price of the end products, adhering to the traditional method of processing cassava and consideration of the profit associated with the end product are limiting factors in determining what end-products Cassava is processed into the study area. From the result, it was observed that there was significant difference in both the cost of processing cassava into Fufu and Garri respectively and the returns per kg processed. Also, acceptability of the end product, price of the end product, adhering to the traditional method of processing cassava and consideration of the profit association with the end-products were affecting cassava processing. Based on the above finding, it was recommended that cassava should be processed into Garri since its odour is offensive and cassava should be processed into chalk and starch since its stages involves shorter than that cassava to Fufu.

KEY WORDS: socio-economic characteristic, cassava processors, factors, products, cassava processing.

Introduction

Nigeria is an agrarian society with about 70 percent of over 140 million population engaged in agricultural production (CBN, 2006). Agricultural is therefore, the most assured engine of development and a reliable key to industrialization. Although room exists for prosperity and self improvement, the country continues to face a number of challenges. Polices to date have yet to diversity the production base away from the continued reliance on a single industry, petroleum. A desirable outcome for the Nigerian population is a strong diversified economy able to generate employment and sustained incomes for its citizens increasing the utilization of industrial capacity, diversifying export earnings and providing. Since the cassava initiative launch in July 2002, great excitement has been generated, creating new hopes and even greater expectation. To complement this initiative, IITA, together with Nigeria National Petroleum Corporation (NNPC) recently signed a four-year action plan, providing local

communities with cassava mosaic disease resistant planting support. These improved cultivars also produce more cassava plant per unit area of land.

Cassava production in Nigeria has been steadily increasingly. In the early 1960s, Africa accounted for 42 percent of world cassava production. Thirty years later, in the early 1990s African produced half of the world's cassava output, primarily because Nigeria together with Ghana increased its production four fold from about 7 million tones to about 34million tones (IITA, 2004.). As food crop, cassava fits well into the faming system of the small holder's farmers in Nigeria because of its availability all year round thus providing household food security (FAO, 2003).

It is estimated that more than 40million tonnes of cassava would be needed to service industries that would produce cassava end-products to satisfy industrial demands (RMROC, 2004). Besides, there is high demand for cassava-based products in foreign countries for instance a trade mission of the presidential committee on cassava found out that there is urgent demand for about 400,000 tonnes of cassava chips (about 1.6 million tonnes of cassava) for animal feeds in south African and Botswana alone (RMRDC, 2004).

Statement of the Problem

Poverty reduction has been a subject of intense academic discourse. In order to reduce the incidence of poverty and attendant food insecurity in Nigeria by at least half by the year 2015, as proposed in the Millennium Development Goals, the United Nations Economic Council for African (UNECA, 2003) has stressed the need for the country to achieve and sustain an economic growth of seven percent per annum. Agricultural production and development remains the leeway out of poverty and food insecurity. This is because in Africa, agriculture represents seventy percent ($70^{o}/_{0}$) full employment, 33 percent GDP and 40 percent of it export earnings (IFPRI, 2002). In addition, more than three quarters of the poor and hungry reside in the rural areas and depend on agriculture for their livelihood either directly.

Objective of the Study

The general objective of this study will be to assess the processing option available to cassava processors in Oruk-Anam Local Government Area of Akwa ibom state and to identify the processing option with the highest profit potential. The specific objectives are:

1. Identify the socio-economic characteristic of cassava processors in the study area.
2. Identify factors limiting the number of end products of cassava processing in the study area.

Literature Review

Nigeria's Agricultural Policy and Cassava Production

Cassava production is estimated to have more than doubled from about 14 million tonnes in 1987 to the present level of about 34 million tonnes from around 2 million hectares (NRCRI, 1997). The main reason for the scale of increased production has been an increased demand for locally produced, low cost staple food. This is in itself a consequence of the devaluation of the naira declining real income and the import ban on cereals. These favorable conditions were

attributed to macro and micro-economic policy under SAP. Cassava products therefore, become the life-saver or the poverty–alleviation crop. Also, the policy direction of Nigeria in terms of cassava development has led to a new orientation in research-extension–farmers' linkage especially through the ADPS (RAIDS, 1997).

Increase in cassava production and productivity has been largely attributed to the rapid spread of improved varieties (Nweke et al., 1996). Apart from general marketing and price policies, there have never been direct marketing and price policies on cassava. Cassava is a highly perishable and bulky crop and if these attributes are considered along with a relatively poor transportation system, farmers have no choice than to sell at farm gate price. Apart from very low prices, Cassava has been one crop that is greatly affected by price fluctuation; hence there is the need to further pursue a policy that will encourage storage and processing to ensure that the producers enjoy reasonable and stable prices. However, the aspect of processing in cassava development has not been able to keep pace with the level of production (Ugwu, 1996). An elaborate plan to strengthen cassava processing would therefore be needed.

Cassava processing would therefore, have to be diversified into such options as chips pellets, flour and starch for use by households, industries and exports. Generally, policy thrusts in some aspect have not been consistent. For some years, Cassava products enjoyed trade liberalization, while in other years; it would be concluded among prohibited exportable commodities. This inconsistency does not encourage sustainable development of the crop. It is hoped that a more stable socio-policy environment would become available for the growth and development of the Crop.

Current Status of Cassava Production in Nigeria

Nigeria Cassava production is by far the largest in the world, a third more than production in Brazil and almost double the production of Indonesia and Thailand (Sahib et al., 1997). The Food and Agricultural Organization of the United Nations (FAO) in Rome estimated 2002 cassava production in Nigeria to be approximately 34 million tonnes (FAO, 2004). The trend for cassava production reported by the Central Bank of Nigeria mirrored the FAO data until 1996 and thereafter rose to the highest estimate of production at 37 million tones in 2000 (FMANR, 1997, Central Bank of Nigeria, 2002).

Comparing the output of various crops in Nigeria, Cassava production ranks first, followed by Yam production at 27 million tones in 2002, sorghum at 7 million tonnes, millet at 6 million tonnes and rice at 5 million tonnes (FAO, 2004). Expansion of cassava production has been relatively steady since 1980 with an additional push between the years 1988 to 1992, owing to the release of improved IITA varieties. By zone, the North Central Zone produced over 7 million tonnes of Cassava a year (1999 to 2002). South South produced over 6 million tonnes a year while the South West and South East produced just less than 6 million tonnes a year. The North West and North East are small by comparison at 2 and 0.14 million tonnes respectively.

On a per capita basis, North Central is the highest producing region at (.72) tonnes/person in 2002, followed by South East (.56), South South (.47), South West (.34) North West (.10) and North East (.01). National per capita production of Cassava is .32 tonnes per person. Benue and Kogi States in the North Central are the largest producers of cassava (IITA, 2004). Cross River, Akwa Ibom, Rivers and Delta State dominate Cassava production in the South South. Ogun,

Ondo and Oyo dominate in the south west and Enugu and Imo dominate production in the south East. Kaduna alone in the North West is comparable in output to many of the states in the southern regions at almost 2 million tonnes a year with very little currently produced in the North East.

Method

Area of Study

The study was conducted in Oruk-Anam local government Area of Akwa Ibom

Population of the Study

The study population was cassava processors/farmers in Oruk-Anam local government area of Akwa Ibom state

Sampling Procedure and Sample Size

Oruk-Anam was purposively sample for the study because of cassava processing activities taking place there. Stratified random sampling was used to select cassava processors in the study area.

Instrument for Data Collection

A survey questionnaire were developed, adopted and used in the study. The questionnaire was used in data collection with respect to objectives (1) and (2)

Analysis of Data

To accomplish the objectives of the study, a combination of descriptive and inferential statistics were used in analyzing data obtained. Descriptive statistics such as tables were used to achieve objective (1) and (2).

Method of Data Analysis

Various analytical techniques were used for the analysis of data obtained through the questionnaire. These include description and inferential statistics used in analyzing data obtained.Descriptive statistic such as tables were used to achieve objectives (1) and (2) while one-way analysis of variance was used to analysis of variance was used to analysis the data with respect to objective 3 and 4 in order to produced f-value.

Presentation of Data Analysis and Result

Sex Competition of the Respondents

Table 1: Composition of Sex of the Respondents

Sex of the respondent	No of Respondent	% of Total
Male	41	45.06
Female	51	54.94
Total	**92**	**100.0**

Source: Field Survey, 2008

The table shows that 41(54.06%) of respondents are male while 51(54.94%) are females, female constituting the majority. This is in line with gender perception among rural dwellers where a majority of processing activities is left in the hand of the female folk.

Table 2: Age of the Respondents

Age Group	No of Respondent	% of Total
Less than	3	3.26
20-29	16	17.39
30-39	51	55.44
40-49	19	20.6
50-59	3	3.26
60 and above	0	0.00
Total	92	100.0

Source: Field Survey, 2008

Table 2 clearly shows that the majority of the respondents fall within the age of 30-39 years. While no respondents is up to 60 years, a few are both below 20 and up to 50 but not up to 60.48% of the respondents are up to 20 years but not up to 60 years, which is in the region of age of the active workforce of any given population.

Table 3 Marital Status of the Respondent

Marital Status	No of Respondent	% of Total
SINGLE	25	27.17

MARRIED	50	54.35
DIVORCED	7	7.61
WIDOWED	10	10.87
TOTAL	**92**	**100**

Source: Field Survey, 2008

The majority of the respondents are married 50 (54.35%) about half the number are single 25 (27.17%) while the divorced constitute 7.61 and the widowed are 10.87%.

Level of Education

Education Attainment of Respondent

Level of Education	**No of Respondent**	**% of Total**
No formal Education	16	17.39
Primary Education	35	38.04
Secondary education	36	39.13
Tertiary Education	5	5.44
Total	**92**	**100**

Source: Field Survey, 2008

The majority of the respondents have secondary education 36 (39.13%) which is slightly higher than those with primary education 35 (38.04%). 16 (17.39%) have no formal education while 5 (5.44) have attended tertiary institutions. Less than half of the respondents 41 (44.57%) have attained at least a secondary education, supposing, can at least read and write.

Table 5: Household Size of Respondents

Household size	**No. of Respondents**	**% of Total**
1-4	33	35.87
5-10	55	59.78
>10	4	4.35
Total	**92**	**100**

Source: Field Survey, 2008

The majority of the respondents 55 (59.78%) belong to the house size members are 33 (35.87%) while those above may be related to the moderate education acquired by the respondents.

Table 6 Number of Product processed by Respondent

Product	No. of Respondents	% of Total
Garri Only	32	34
Fufu Only	31	33.39
Garri and Fufu only	16	17.39
Garri Fufu and Tapioka	13	14.13
Total	**92**	**100.00**

Source: Field Survey, 2008

32 (34.78) of respondents processed Cassava into Garri only while 33.69% (31 Respondents) processed it into Fufu only. 16 (17.39%) process cassava into both Garri and Fufu only while 13 (14.13%) process Garri, Fufu and Tapioka. From the above, the processing of Cassava in the study area tends to favour Garri and Fufu majority, either alone or together.

Acceptability of Products in the Community
Table 7: Products Acceptable in the Communities

Are all these products acceptable in your community	No. of Respondents	% of Total
Yes No	90 0	100 0

Source: Field Survey, 2008

All respondents agree that all products processed from cassava are acceptable in the various communities. This is in agreement with basic principle of as more is demanded, more is supplied.

TABLE 8: SOURCES OF CASSAVA PROCESSED

sources	No. of Respondents	% of Total

(a) Own farm	23	25.00
(b) Purchased farmer	19	20.65
(c) Own farmer or purchased from farmers	46	50.00
(d) Purchase from sellers	4	04.35
Total	92	100.00

Source: field survey, 2008

23 (25%) of respondents said their source is their farm only, whereas 19 (20.65%) said their source is through purchases from farm and 46 (50%) said that their source are both from their farm and purchase from farmers, while 4.35% (4 respondents) said options (a), (b) and (C) purchases from sellers combined make up their source of cassava processes. From the above, the major source of cassava processes are from both their individual farmers are purchases from other farmers.

FACTORS THAT DETERMINE THE END-PRODUCTS CASSAVA PROCESSED

Table 9: Factors affecting what end-products cassava processed into

		Very Important		**Important**		**Not at all important**	
		No. of Respondent	% of Total	No. of Respondent	% of Total	No. of Respondent	% of Total
1	Non availability of sufficient Cassava	43	46.74	39	42.39	10	10.87
2	Non availability of capital to set up processing plant	22	23.91	27	29.35	43	46.74

3	Acceptability of the end products	63	68.48	25	27.17	4	4.35
4	Cost of processing into particular end product	49	53.26	36	39.13	7	7.61
5	Price of the end product	62	67.39	30	32.61	0	0
6	Lack of Knowledge of other product	8	8.70	24	26.09	60	65.22
7	Adhering to the Traditional method of processing cassava	12	13.04	55	59.78	25	21.17
8	Consideration of the profit associated with the end product	58	63.04	28	30.44	6	6.52

Source: Field Survey 2008

From the above table, very important is equated with limitation and not important with any limitation. Acceptability of the end product, cost of processing into particular end products, price of the end products, adhering to the traditional method of processing cassava and consideration of the profit associated with the end product are limiting factors in determining what end-products Cassava is processed into the study area.

Conclusion

From the study, it was concluded that there is significant difference in both the cost of processing cassava into Fufu and Garri respectively and the returns per kg processed. Also, acceptability of the end product, price of the end product, adhering to the traditional method of processing cassava and consideration of the profit association with the end-products are affecting cassava processing.

Recommendation

The researcher wish to present the following recommendation

1. Cassava should be processed into Garri since its odour is offensive
2. Cassava should be processed into chalk and starch since its stages involves shorter than that cassava to Fufu
3. Since more people prefer Fufu to Garri because of its weight, Cassava should be processed into Fufu.

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