

## **ANALYSIS OF COWPEA FRIED PASTE AMONG WOMEN ENTREPRENEUR IN BAUCHI METROPOLIS, BAUCHI STATE, NIGERIA**

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**ABSTRACT:** *An investigation was carried out in the profitability analysis of cowpea processing among women entrepreneur in Bauchi metropolis, Bauchi Local Government Area, Bauchi State, Nigeria. A random sampling technique was use in selection of 50 respondents. The data obtained was analyzed using descriptive statistics and gross margin analysis. It was realized that, majority (36%) of the respondents who engaged in cowpea processing into cowpea fried paste are within the age bracket of 40-49 years and also of female folk (100%). The women who engaged in this business (88%) had about 1-9 as household size. (48%) of the respondents had informal education. About 38% of the respondent had processing experience of 15 years and above. while only 12% had processing experience of <5 years. Cowpea processing into fried paste in the study area was found to be profitable with a gross margin of ₦1286.5/day, operating ratio of 0.64 and return per naira invested of 1.56. Constraints of cowpea processing include high cost of inputs, inadequate capital base, access to soft loan amongst others. The studies recommend the formation of cooperatives by the women entrepreneurs in order to obtain loan so as to increase their capital base.*

**KEYWORDS:** Cowpea Processing, Gross Margin, Operating Ratio

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### **INTRODUCTION**

Cowpea is an important source of protein. The crop grown in many parts of Nigeria though much of its production takes place in the savannah region of the country. However the domestic production is in the hand of small scale farmers who obtain yield of 200-350kg/ha (Singh and Jackai 1985). Cowpea contain 20-25% protein and 64% carbohydrate. It therefore has tremendous potentials to contribute to the alleviation of malnutrition specifically among poor. Protein shortage of calories (energy foods) this constitute the problem of malnutrition and pronounce spread of human disease. (Fleck, 1981) Nigeria being one of the developing countries of the sub-Saharan Africa is producing protein food items to meet nutritional needs of its teeming population (Nworgu, 1997). In Africa cowpea provide source of income for women farmers who produce, make and sell snacks food from this nutritious legumes. (Singh et al, 1997) Cowpea flour is use in the preparation of cowpea fried paste, cowpea (kosai) steamed paste (moinmoin) and cowpea dumpling (danwake) and surely provide working mother the opportunity to provide this favorites meal with supports it provide. Like other citizens in sub-Sahara African countries, cowpea (*Vigna unguiculata* L. walp.) commonly referred to as 'beans' in Nigeria has been a major food legume for several decades. Nigeria is

the largest producer of cowpea in the world with an annual yield of about 2million metric tons on 4.4 million hectares or 0.45mt/ha (Pereira *et al.*, 2001). Several factors account for the leading position of Nigeria in cowpea production, among which are the significant advances made by the International Institute of Tropical Agriculture (IITA) over the last two decades in improving production in sub-Saharan Africa (Singh *et al.*, 1999}. As a relatively inexpensive source of food, cowpea fits the needs of the rural-urban poor. Cowpea is highly nutritive. Its nutritive value lies in its high protein content of about 23%, which is double that of cereals with a protein content of about 11.5%, fat content of 1.3%, fibre content of 1.8%, carbohydrate content of 67%, and water content of 8-9% (Bressami,1985). It therefore has a tremendous potential to contribute to the alleviation of malnutrition among poor families (Mcfarlane,1983). Furthermore, cowpea is an important legume in Nigeria which serves as a source of farm income (Afolami, 2002).

### **Objectives of the study**

The broad objectives of this study is to evaluate profitability analysis of cowpea processing among women entrepreneurs in Bauchi metropolis ,Bauchi State while the specific objectives are to:

- ❖ Examine the socio-economic characteristics of the respondents
- ❖ Identify their various sources of funds
- ❖ Identify the marketing participant in the marketing channel
- ❖ Estimate the cost and return of cowpea fried paste processors in the study area
- ❖ Identify their major problems encountered in cowpea processing.

## **METHODOLOGY**

### **Study Area**

The study was conducted in Bauchi metropolis, Bauchi Local Government Area, Bauchi State, Nigeria. The area is located in the Sudan savannah ecological zone .It is situated between latitude 10<sup>o</sup> 20' N and longitude 10<sup>o</sup> 10' E .The area has a population of 341,748 people (BSADP (2002).Nine wards were randomly selected in the metropolis which includes: inkil, railway, bakin kura, wunti, ,unguwan hardo, zango, tirwun , kobi and jahun ward respectively. Five respondents were randomly selected giving a total of 50 respondents that used for the study that considered as a population for the study .Bauchi metropolis was chosen because majority of women patronize this petty business which serves as the source of their livelihood.

### **Data collection**

Primary and secondary data were used for the study .Structured questionnaire was administered to the respondents base on socio economic characteristics, costs and returns, sources of funds and other factors influencing their enterprise while the secondary source of data includes journals and text books

## Analytical Techniques

**Descriptive statistics**-This was use to summarized the data at hand which involve the use of percentages and mean.

**Farm budgeting**-involve operation leading to estimate of gross revenue and total cost of production period. The difference between the two parameters is a measure of profit or loss for that period .Olukosi,O(1988)The farm budget techniques gives measure of profitability of farming and resources use on the farm. This technique was use to satisfy objective (2) of the study. The gross margin was used on the assumption that the fixed cost is negligible.

**Gross margin**- This the difference between total return less total variable cost

$$GM=TR-TVC.....(1)$$

$$NFI=TR-TVC-TFC.....(2)$$

Where

GM= Gross Margin

NFI=Net Farm Income

TR=Total Return

TVC=Total Variable cost

TFC=Total Fixed Cost.

## RESULT AND DISCUSSION

### Socio-Economic Characteristics of the Respondents

Table 1 shows that all most all the respondents engaged in cowpea processing into cowpea fried paste in the study area are females. Majority36% of the entrepreneur of cowpea fried paste are within the age group of 40-49years .while only 8% were within the age group of less than 20 years. The result further indicated that 88% of the respondent had family size of between 1-9 persons in their household . However,48% of the respondents had informal education .As the level of education attained by an individual goes along way in shaping his personality, attitude to life and adoption to improve practice(sullumbe,2004).The result shows that 38% of the respondents had processing experience of 15 years and above in the business. while only 12% had processing experience o between of 1-5 years. The result further revealed that 66%of the respondents use their personal saving in financing their business while only 6% gained access to capital from commercial banks.

**Distribution of socio economic characteristics of cowpea fried paste in Bauchi metropolis,**

<b>Variable</b>	<b>Frequency</b>	<b>Percentages</b>
<b>Age(years)</b>		
<20	4	8.00
20-29	10	20.00
30-39	13	26.00
40-49	18	36.00
>50	5	10.00
<b>Total</b>	<b>50</b>	<b>100.00</b>
<b>Household size</b>		
1-9	44	88.00
10-19	4	8.00
>20	2	4.00
<b>Total</b>	<b>50</b>	<b>100.00</b>
<b>Educational Background</b>		
Formal	20	40.00
Informal	24	48.00
Never being to school	6	12.00
<b>Total</b>	<b>50</b>	<b>100.00</b>
<b>Years of Experience</b>		
1-5	06	12.00
6-10	09	18.00
11-15	16	32.00
>15	19	38.00
<b>Total</b>	<b>50</b>	<b>100.00</b>
<b>Source of Fund</b>		
Own saving	33	66.00
Commercial bank	03	06.00
Agricultural bank	03	06.00
Esusu(traditional saving)	02	04.00
Friends and relatives	11	22.00
<b>Total</b>	<b>50</b>	<b>100.00</b>

source: Field survey data,2014

**Cost and return analysis of Cowpea Processing among Women Entrepreneurs**

Table 2, shows the cost and financial benefits from cowpea fried paste in the study area using gross margin analysis. Cost of groundnut oil accounted about (40.7%) of the total cost of production while cost of salt and transportation accounted for 1.31% while cost of fire wood and wrapping material accounted for 13.99% and 5.74% each respectively. On average cowpea fried paste producers spent ₦2296.3 as total variable cost and ₦3582 as total revenue on daily basis while gross margin was found to be ₦1286.5/day with an operating ratio and return per naira invested to be 1.56 each respectively. This implies that cowpea processing is a profitable business in the study area.

**Table 2 Cost and Return Analysis of Cowpea Processing in Bauchi Metropolis,**

Variable	Estimated value(₦)	Frequency
<b>Variable cost</b>		
(a) Cost of beans	443	19.29
(b)Cost of Groundnut oil	935.6	40.74
©Cost of onion and pepper	117,2	5.1
(d)Cost of firewood	321.3	13.99
(e) Cost of water	286.6	14.46
(f)Cost of wrapping material	132.4	5.75
(g) Cost of salt	30	1.31
(h)transportation Cost	30	1.31
<b>Total Variable Cost</b>	2296.3	100
<b>Total cost</b>	2296.3	
<b>2.Total Revenue</b>	3582.8	
Operating Ratio	0.64	
Return per naira Invested	0.56	
Gross Margin	1286.5	

Source: Field survey data, 2014

### Place of Marketing of Processed cowpea

Table 3,shows that 44% indicated that they used to fried their cowpea fried paste (kosai)along the street, while only 8% of the respondent used to f fried their cowpea paste inside their homes (mostly by married women).

**Table 3,Distribution of the Respondent Based on their Place of Marketing.**

Variable	Frequency	Percentages
Home	4	8.00
School	9	18.00
Filling station	5	10.00
Street	22	44.00
Motor park	5	10.00
Offices	5	10.00
<b>Total</b>	50	100.00

Source :Field ,survey data,2014

### Market Participants in Cowpea Processing

Table 4,shows the distribution of the respondents based on who are the major key players in buying their product in the study area .Result on the table 4 below revealed that children(34%) are the major consumers of cowpea fried paste mostly in the morning which serve as their morning meal taking with gruel, while civil servant, drivers student and civil servant accounted for 22%,20% and 10% respectively of the consumer in the area.

**Table4,Market Participants**

Variable	Frequency	Percentages
Children	17	34.00
Drivers	11	22.00
Travelers	7	14.00
Student	10	20.00
Civil servant	5	10.00
Total	50	100.00

Source: Field survey data, 2014

### Constraints Encountered by cowpea processors

Constraints identified to be militating against cowpea fried paste business include:

high cost of inputs 24%, inadequate capital 44%, lack of cooperatives 16% and lack of their husband support are the major problems hindering the fried cowpea paste in the study area.

**Table 5 Constraints Encountered by women Entrepreneurs in Cowpea Processing**

Variable	frequency	percentages
High cost of inputs	12	24.00
Lack of cooperatives	08	16.00
Inadequate capital	22	44.00
Lack of husband support	08	16.00
<b>Total</b>	50	100.00

Source: Field survey data,2014

## SUMMARY, CONCLUSION AND RECOMMENDATIONS

### Summary

Based on the finding. It can be concluded that cowpea fried paste is a lucrative business in the study area with operating ratio and return per naira invested as 0.64 and 0.56 respectively. This shows that the business will survive within the short run. The investor will realized ₦0.64 for every naira invested, as most of the women used the derived income in educating, clothing and sustenance which contribute immensely to the upliftment of their standard of living.

### Conclusion and Recommendation

From the foregoing it can be calculated that cowpea fried paste is profitable venture considering the profitability indices of operating ratio 0.64,return per naira invested 0.56 and

gross margin of ₦1286.5 respectively. All the constraints affecting cowpea fried paste if properly tackled will invariably increase their profit margin. The producers however are advised to form cooperatives in order to help themselves, Government and other non governmental organization should provide them with soft loan at subsidized rate to those women entrepreneur so as to improve their capital base.

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