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Economic Analysis of Bread Production with High Quality Cassava Flour in Ndokwa West Local Government Area of Delta State, Nigeria

*[1]Mgbakor Miriam N., [2]Uzendu Patrick O. and [1] Onicha Azuka P.

[1]*Department of Agricultural Economics and Extension, Enugu State University of Science and Technology (ESUT) Enugu, Nigeria.*

[2]*Department of Agricultural and Bioresources Engineering, ESUT, Enugu Nigeria.*

Abstract: *This study deals extensively with the economic analysis of bread production with high quality cassava flour in Ndokwa West Local Government Area of Delta State, Nigeria. It was specifically carried out to examine the socio-economic characteristics of the bread producers in the study area and the profitability of bread production with high quality cassava flour in the study area. Six communities were randomly selected where ten bread producers were selected to give a total sample size of sixty respondents. Both primary and secondary data were involved in the course of this study. At primary level of this project, oral interview, personal observation as well as the use of structural questionnaire was of great importance, while secondary data were gotten from relevant literatures. Descriptive statistics were used to analyze data, and gross margin was used to analyze the cost and returns in bread production. The study revealed that bread producers in the study area comprises of both male and female, bread production in the area lies in the hands of producers between the age bracket of 36-45 years. That does not mean that there are no other producers below or above this age bracket. The study also revealed the problem affecting bread production in the area which are poor power supply and road network, lack of capital and storage facilities, high cost of raw materials and labour and poor awareness of the use of high quality cassava flour in bread production in the study area as well as some recommendations made based on the findings.*

Keywords: *Bread, Cassava, Flour, raw materials, Ndokwa West and Nigeria.*

I. Introduction

Bread is highly nutritious food eaten in one form or another by nearly every person in the world. It is an excellent source of vitamins, protein, and carbohydrate [1]. Bread has been essential element of human diet for so many centuries in all religions except in rice growing South East Asia. Bread is a simple food prepared by baking of dough of flour and water. The infinite combination of different proportions of ingredients has resulted in the wide varieties of types, shapes, sizes, texture and taste available around the world [2]. It may be leavened (aerated) by a number of different processers ranging from the use of naturally occurring microbes to high pressure artificial aeration during preparation and baking, or may be left unleavened for religious ritual purposes. The simplest bread is made from grains such as wheat, oats, barley, millet, and corn which are milled into flour and mixed milk or water. Wheat is highly nutritious and qualitative, but in spite of the numerous qualities, and popularity of wheat flour in bread making. High quality cassava flour (HQCF) has also been widely accepted globally as one of the flours that can be used in bread making or production [3]. It is obvious that the innovation is being adopted in countries, states, Local Government Areas, of which Ndokwa West Local Government Area of Delta State is not an exception.

The following ingredients, flour, salt, egg, sugar, yeast, baking powder, milk, fats and oil, are mixed into dough, shaped and baked. Most people choose to add ingredient like strawberry dry fruits, nuts, almond, sesame seeds and poppy seeds which help boost the protein content as well as enhance flavor [4], in bread making or production, most bakers use compost flour (combination of wheat and cassava flour), instead of just the High Quality Cassava Flour (HQCF) [5].

This flour just as the name implies is processed out of cassava root (*Manihot esculenta Crantz*). Cassava is the most important carbohydrate staple root crop in the tropics. It is an important diet food and cheap source of energy (calories) for about 200-300 million people in the development countries of the world [6].

Because of its efficient production of food and energy, year round, availability and tolerance of extreme environmental stresses, makes it eminently suitable for present farming and food system in Africa [7] and [8].

The numerous qualities of cassava coupled with the fact that it is relatively cheap made (HQCF) to be acceptable as a substitute to wheat flour globally in bread production. The flour is the major component in bread production. The flour is the major component in bread making, because without flour in bread, there will be no dough and that also implies that there will be no shape too [10]. High Quality Cassava Flour (HQCF) changes the texture and increase the nutritional value of bread. This also reduces the cost of bread production as it is made locally and unlike the importee wheat flour.

Cassava (*Manihot esculenta*) is a perennial woody shrub with an edible root, which grows in tropical and subtropical areas of the world. It is the most abundant starchy staple crop in the tropics. It belongs to the family Euphrobiacea and unlike yam; it is a single specie *Maninhot esculanta crantz* [11], [12] and [13]. Casssava originated from the tropical America, North East Brazil [14] and was first introduced into Africa in Congo basin by the Portuguese around the year 1558 [15]. Today, it is a dietary staple food in most of tropical Africa. Cassava is rich in carbohydrates, calcium, vitamin B and C and essential materials (minerals). However, nutrients composition differs according to variety and age of the harvested crop and soil conditions, climate, and other environmental factors during cultivation [16]. Cassava is easy to cultivate, it grows on both poor and good soil and requires little attention. Its yield per hectare is higher than any other crop known. It provides food security during conflicts when the invaders cannot easily destroy or remove the crop, since it conveniently grows underground. Cassava is usually intercropped with vegetables, plantation crops (such as coconut, oil palm and coffee), yam, sweet potato etc. it is mainly propagated from stem cuttings. The number of shoots which develop from a stem cutting depends on several agronomic and genetic factors. Cassava is monoecious, with male and female flowers located on the same plant. Adventitious roots at the base of stem develop into a fibrous root system. A few fibrous increase in diameter and become tuberous roots [17]. Cassava is usually diploid, with a chromosome number of 2n=36. Sometimes, naturally hybridization results in polyploidy plants such as triploids (2n=3x=54 chromosomes) and tetraploids (2n=4x=72 chromosomes). Triploid and tetraploid plants differ from diploid plants in plant vigor and leaf shape and size.

Cassava belongs to the "class-*Dicotyledoneae*", Subclass-*Archichlamydeae*", "order-*Euphorbiales*", "family-*Euphrobiacea*", Subfamily-*manihotae*", "genus-manihot", specie -*Manihot esculenta cratz* [18].

Objectives of the study

The broad objective of this research work was to examine, the economic analysis of bread production with high quality cassava flour (HQCF) in Ndokwa West Local Government Area of Delta State.

The specific objectives of the study are to;

1. Determine the socio-economic characteristics of the respondents in the study area
2. Examine cost and returns in the production of bread with HQCF,
3. Examine the technology involved in the production of bread with HQCF,
4. Examine the problems associated with making or production of bread with HQCF.

II. Research Methodology

The Study Area

Ndokwa West Local Government Area is one of the twenty five (25) Local Government Area of Delta State. Delta State is located in the Southern part of Nigeria ; it is situated in the region known as the Niger Delta. The state lies approximately between longitude $5^0$00 and $6^0$45'E and latitude $5^0$00 and $6^0$30'N. It is bounded in the North by Edo State, the East by Anambra State, South-East by Bayelsa State, and on the southern flank is the Bight of Benin which covers about 160 kilometers of the state coastline. It was created on 27th of August, 1991 with Asaba as its capital city. Delta State has a population of about six million, seven hundred and ten thousand, two hundred and fourteen (6,710,214) people (NPC 2006) with a land mass of about 17,698km2 (6,833sq mi). Delta State comprises mainly Anioma, Urhobo, Isoka, Ijaw and Itekiri and the whole ethnic-group that comprise the Delta State are administratively grouped into three senatorial districts namely Delta North, Delta south and Delta central. Delta State is an oil producing state of Nigeria, it comprises of twenty-five (25) Local Government Area named Aniocha North, Aniocha south, Bomadi, Burutu, Ethiope East, Ethiope West,

Ika North East, Ika south, Isoko North, Isoko South, Ndokwa East, Ndokwa West, Okpe, Oshimili North, Oshimili South, Patani, Sapele, Udu, Ughelli South, Ukwuani, Uvwie, Warri North, Warri South and Warri South and Warri South West.

This study was carried out in Ndokwa West Local Government Area of Delta State, and its headquarter is Kwale. It has an area of 816m2 and a population census of about 149,325 (NPC 2006). The postal code of the area is 322 – Ndokwa West is made up of many towns and villages, and they are: Kwale, Utagba-uno, Onicha ukwuani, Emu, Ogume, Abbi, Etua, Umusam, Umuseti oliogo, Umusadege Ndemili, Illogwe Isumpe,NJA and others. Ndokwa West people speaks Ukwuani and English, it is one of the highest oil producing local government area in Delta State, and this resulted to the presence of some oil companies functioning there today (Agip, Mid-Western, Sterling Global etc).

Ndokwa West falls under the Delta North Senatorial district for administrative purposes and it is surrounded by other local governments namely: Ndokwa East, Ukwuani, Isoko, and Aniocha Local Government Areas. It shares boundary in the North with Aniocha Local Government Area and Ndokwa East Local Government Area in the East. Here about 90% of the entire populations practice Christianity as their religion while the remaining 10% are traditionalist and pagans. It is a place blessed by God, because they have natural wealth (good land for Farming, water for fishing, land filled with natural oil and so on).

Sampling Techniques

The multi-stage random sampling technique was used to select six (6) communities out of the ten (10) developing and semi-developing and semi-developed communities, from which ten (10) respondents was selected using the simple random sampling technique to arrive at a total sample size of sixty (60) respondents. The six communities that were selected are Kwale, Onicha ukwuani, utagba-uno, NJA, Abbi and Emu.

Data Collection

The data was collected from two major sources which are the primary and the secondary source. This in turn provided the researcher with both the primary and secondary data needed. The primary data are first hand information which was gotten from distributed structured questionnaires, oral interviews as well as personal observations and experience of the researcher who also grew up in the study area.

The structural questionnaires were administered to the sixty (60) bakers that make up the sample size whom were my respondents according to 3.2 above. The researcher collected data relating to the personal information of the respondents, their socio-economic make up, source of cassava flour used for baking, quality of bread produced from cassava flour, consumer reaction and response, cost of production of cassava bread, as well as any other data that helped the researcher to achieve his aim. Any data that could not be sourced using the structured questionnaire was taken through oral interviews. The secondary data were gotten from secondary source which are books, journals, publications, documentaries and other necessary source.

Data Analysis

Data collected from the source outlined above was analyzed using simple statistical tools like measure of central tendency, frequency distribution table, percentages, descriptive statistics, and gross margin.

III. Results And Discussion

SOCIO-ECONOMIC CHARACTERISTICS

The socio-economic characteristics of the respondents taken includes, age distribution, marital status, gender, educational level, occupation and household or family size. The result of the findings are presented in the tables bellow.

Table 1: Distribution of respondents according to age

Age (year)	No of respondent	percentage (%)
20-35	10	17
36-45	27	45
46-55	18	30
56 and above	5	8
Total	60	100

Source : Field Survey 2013

Table 1: above shows that greater percentage (45%) of the respondents are within the age bracket of 36-45 years, while very few of about 8% of the respondents falls within the age bracket of 56 and above. The above table implies that cassava bread production in Ndokwa West Local Government Area of Delta State lies in the hand of the middle aged bakers (36-45 years) of age. This further implies that there is need for the younger generation to embark on bread production with high quality cassava flour in order to boost the trade as the older ones will soon phase out as a result of old age. This also means that cassava production in the area should be increased to help increased to help increase the production of cassava flour as a raw material for bread production.

Table 2: Distribution of respondents according to sex/gender

Sex	No of respondents	Percentage (%)
Male	45	75
Female	15	25
Total	60	100

Source: Field Survey, 2013.

Table 2: above shows that 75% of the respondents are men, while 25% are women. The reason for the large difference in the percentage above is because the nature of the job done in bakeries before bread is finally produced is hard only few women can withstand the stress. The machines are so heavy and needs maximum alertness (physically and mentally) to operate. Therefore, it is considered to be a male job than female. The female involved do minor jobs like greasing the pans, packing, packaging the products after production and sales.

Table 3: Distribution of respondents according to the marital status

Marital status	No of respondents	Percentage (%)
Married	45	75
Single	10	17
Divorced	-	-
Widowed	5	8
Total	60	100

Source : field survey 2013.

Table 3: above shows that 75% of the respondents are married, 17% are single, and 8% are widowed while none is divorced. The result shows that the bakery business can be embarked upon by both married and unmarried.

Table 4: Educational level of the respondent

Level of education	No of respondents	Percentage (%)
Primary	8	13.3
Secondary	15	25
Tertiary	25	41.7
No formal	12	20
Total	60	100

Source : Field Survey 2013

Table 4: above shows that 13.3% of the respondents had primary education, 25% had secondary education, 20% had no formal education, while 41.7% went through the tertiary level of education, which includes holders of B.Sc, NTECH,HND, OND, NCE and other related certificate. It is clearly understandable to anyone that bakery, business does not require certificate before embarking on it but the skill instead.

Table 5: Occupation of the respondents

Occupation	No of respondents	Percentage (%)
Full time baker	40	66.67
Part time baker	12	20
Civil servants	4	6.67
Others	4	6.67
Total	60	100

Source : field survey 2013.

From table 5: above, it shows that 66.67% of the respondents are full time bakers or bread producers, 20% are part time bakers who are likely to quit the trade when a better job opportunity comes their way. 6.67% of the respondents are engaged in other business.

Table 6: Family size of the respondents

Family size	No of respondent	percentage (%)
1-3	20	33.3
4-6	35	58.3
Above 6	5	8.3
Total	60	100

Source : field survey, 2013.

Table 6: above shows that 33.3% of the respondents have family size of 1-3, 58.3% has 4-6 and 8.3% of the respondents have the family size of above 6.

Table 7: Sources of fund for the respondents

Fund source	No of respondent	Percentage (%)
Family savings	25	41.7
Bank loan	15	25
Cooperatives loan	12	20
Other source	8	13.3
Total	60	100

Source: field survey 2013.

Table 7: shows that 41.7% of the respondent sources of fund is through family savings, 25% source their fund from banks, 20% from cooperative while the remaining 13.3% of the respondents source funds from other source (money lenders, business associates etc).

Table 8: Respondents experience in bread production

Years	No of respondents	Percentage (%)
5-10	10	16.7
11-15	30	50
16-20	15	25
21 and above	5	8.3
Total	60	100

Source: field survey, 2013.

Table 8 above indicates that 50% of the respondents have about 11-15 years experience in bread making, 25% have about 16-20 years experience and the remaining 8.3% of the respondents have above 20 years experience in bread making.

Table 9: Distribution of the respondents according to the type of bread produced.

Bread type	No of respondents	Percentage (%)
Cassava bread	15	25
Cassava and wheat	20	33.3
Wheat bread	20	33.3
Other bread	5	8.3
Total	60	100

Source: field survey 2013.

Table 9: above shows that 25% of the respondents produce cassava bread. The reasons are highlighted below:

- Poor awareness of its nutritional values to the masses
- Response from consumers
- Lack of supply of cassava flour in excess to be used as input.

33.3% of the respondents produces compost bread (9 combination of wheat and cassava flour), 33.3% also produce wheat while the remaining 8.3% produce bread using other flour like rye, millet, oat, corn etc. these ones comes in different shapes and sizes, mostly sweetened, colourful, richer, and desirable tastes.

Table 10: Distribution of respondents according to cost of production of cassava bread and compost bread

Type of bread	high	very high	moderate	not high	percentage (%)
Cassava	-	-	-	15	25
Wheat	-	20	-	-	33.3
Compost	-	-	20	-	33.3
Other	5	-	-	-	8.3
Total no of respondents = 60					100

Source : field survey, 2013.

According to table 10 above it shows that 25% of the respondents believe that the cost of producing cassava bread is not high , 33.3% believes that the cost of producing wheat bread is very high, another 33.3 says that the cost of producing compost bread (combination of wheat and cassava flour) is moderate and the remaining 8.3% says that producing other bread is high in cost.

Table 11: Distribution of respondent according to source of flour used in their production of bread

Source of flour	No of respondents	percentage (%)
Self	5	8.3
Market	50	83.3
Others	5	8.3
Total	60	100

Source: field survey, 2013

From the result in table 11 above, 8.3% of the respondents produce their own flour, 83.3% of the respondents purchase flour they use from the market while the remaining 8.3% get their flour from other means.

Table 12: Distribution of respondents according to consumer's demand of bread

Type of bread	No of respondents	Percentage (%)
Cassava	20	33.3
Wheat	15	25
Compost	20	33.3
Other	5	8.4
Total	60	100

Source : field survey, 2013.

Table 12 above shows that 33.3% of the respondents indicated that consumers demand more of cassava bread, also 25% of the respondents indicated that consumers demand wheat bread, while 33.3% indicated that it is compost bread that the consumers demand. The remaining 8.4% indicated that consumers demand breads from other flour.

Table 13: Distribution of respondent according to source of labour used

Source of labour	No of respondents	Percentage (%)
Family	20	33.3
Hired	40	66.7
Other	-	-
Total	60	100

Source : field survey, 2013

From table 13 above 33.3% of the respondents uses family labour and 66.7% of the respondents uses hired labour for their individual reasons, while from my field survey, none of the respondents use or employ other form of labour.

Table 14: Distribution of respondents according to the buyers of the product

Buyers	No of respondents	Percentage (%)
Wholesale	20	33.3
Retailer	30	50
Consumers	10	16.7
Others	-	-
Total	60	100

Source : field survey, 2013

Result in the table 14 above shows that 33.3% of the respondents market their products to wholesalers, 50% market their products to retailers, 16.7% also market to consumers while none of the percentage of the

respondents sells to other buyers. Respondents said they their products both at the factory and in supply to the market.

Table 15: Distribution of respondents according to their takes a profitability of production and marketing of bread in the area.

Profitability	No of respondents	Percentage (%)
Agree	60	100
Disagree	-	-
Undecided	-	-
Total	60	100

Source : field survey, 2013.

The table above shows that 100% of the respondent says that production and marketing of bread in the area is profitable not minding the problems and constraints involved in the production.

Table 16: Distribution of respondents according to their ingredient mixing methods

Methods of mixing ingredients	No of respondents	Percentage (%)
Manual mixing	10	16.7
Machine mixing	50	83.3
Other mixing method	-	-
Total	60	100

Source : field survey 2013

Table 16 above represents the distribution of respondents according to their ingredients mixing techniques and it shows that 16.7% of the respondents uses manual mixing while 83.3% of the respondents use machine mixing and non of the respondents use other form of mixing technique. Those respondent that uses manual mixing do not produce much bread, their production is directed to consumers.

Table 17: Distribution of respondents according to molding materials used in bread production

Materials	No of respondents	percentage (%)
Metal mould	25	41.6
Wooden mould	25	41.6
Other mould	10	16.7
Total	60	100

Source : Field survey, 2013.

Table 17 above shows that the percentage of the respondents that use metal mould is the same as the percentage that uses wooden mould (41.6%), while 16.7% of the respondents use other mould for some fancy bread production.

Table 18: Distribution of respondents according to the type of oven used in bread baking

Type of oven	**No of respondents**	**Percentage (%)**
Traditional oven	**30**	**50**
Conventional oven	**15**	**25**
Industrial oven	**5**	**8.3**
Other oven	**10**	**16.7**
Total	60	100

Source : Field survey, 2013.

Table 18 above shows that 50% which is half of total respondent uses the traditional oven in baking of bread for so many reasons, 25% uses conventional oven, 8.3 uses industrial oven and 16.7% uses conventional oven and 16.7% use other oven in bread baking.

Table 19: Distribution of respondents according to the cooling method in bread production

Cooling method	No of respondents	Percentage (%)
Cooling machine	20	33.3
Natural cooling	40	66.7
Other	-	-
Total	60	100

Source : field survey 2013.

Table 19 above shows that 33.3% of the respondents uses machines in cooling bread after baking while 66.7% of the respondents uses natural air to cool bread of cooling in bread after baking.

Table 20: Distribution of respondents according to problems affecting bread production.

Problems	**No of respondents**	**Percentage (%)**
High cost of raw material	20	33.3
High cost of processing equipment	30	50
Poor power supply	25	41.7
Poor storage facilities	20	33.3
Lack of capital	5	8.3
High cost of labour	10	16.7
Other problems	5	8.3
Total	-	-

Source : field survey 2013.

There are no total under number of respondent and percentage and percentage as a result of multiple responses. In a case of multiple responses, it shows that an individual can be involved in more than one problem. This shows that so much work is to be done in the production of bread in the area.

Table 21: Distribution of respondents according to their opinion on the improvement of bread production in the Area.

Ways of improving production	No of respondents	Percentage (%)
Encourage the use of cassava flour	30	50
Reduce price of import duties on	30	50
Granting loans	20	33.3
Provision of power	30	50
Provision of good road	40	66.7
Formation of co-operation	10	16.7
Provision of local wheat & cassava flour	45	75
Other ways	20	33.3

-

Source : Field Survey, 2013

Table 21 above shows the percentage of the respondents in their different ways to improve bread production in the area. One respondent has more than one opinion on the improvement of bread production and this leads to multiple responses above.

Table 22: Cost and Returns from bread production (Gross Margin Analysis)

Gross margin analysis was used to analyze data on costs and returns in making or producing bread (objective II).

Fixed cost

Item	Qty	Unit cost (N)	Total cost (N)	Life span (Yrs)	Annual depreciation (N)
House	**-**	**-**	**150,000**	**-**	**150,000**
Oven	**2**	**40,000**	**80,000**	**8**	**10,000**
Pan	**1500**	**50**	**75,000**	**5**	**15,000**
Water tank	**2**	**21,000**	**45,000**	**8**	**5,200**
Vehicle	**2**	**450,000**	**900,000**	**8**	**112,500**
Kneading Machine	**2**	**30,000**	**60,000**	**8**	**7,500**
Mixer	**2**	**23,000**	**46,000**	**8**	**5,700**
Art. Cooler	**1**	**48,000**	**48,000**	**8**	**6,000**
Table	**5**	**2,500**	**12,500**	**5**	**2,500**
Basin	**5**	**800**	**4,000**	**5**	**800**
Knives	**10**	**120**	**1,200**	**5**	**240**
Total			**1,418,700**		**315,490**

Source : Field Survey 2013

The table above shows the total fixed cost (TFC) of a bakery per year which is N 315,490.

Table 23: Operating cost for a bakery per week

Ingredient	Qty	Unit Cost (N)	Total Cost (N)
Cassava flour	6 bags	5,500	33,000
Sugar	2 bags	6,000	12,000
Butter	4 buckets	1,500	6,000
Yeast	12 serchets	300	3,600
Flavor	20 bottles	100	2,000
Water	1 tank	1,000	1,000
Egg	12 crates	650	7,800
Salt	½ bag	3,000	1,500
Gas	2cylinder	11,500	23,000
Dry fruits	8packets	300	2,400
Baking powder	4 big cans	1,300	5,200
Milk	5 cartons	2,100	10,500
Others	-	-	10,000
Total			118,000

Source : Field survey 2013

The table above shows the operating cost for a bakery per week. Therefore, the operating cost for a month will be N118,000x 4 weeks

Operating cost/month = N472,000

Table 24: Labour cost per month

No of labourers	Unit cost(N)	Total cost(N)
12	12,000	144,000
Total		144,000

Source : Field Survey 2013

Table 25: Total Variable cost per month

Item	Cost (N)
Operating cost	472,000
Labour cost	144,000
Totalvariable Cost	616,000

Source : Field Survey 2013

The table above shows the total variable cost per month. Therefore, total variable cost per annum if all things being equal will be

TVC =N616,000x 12months

=N7,392,000

Therefore, the total cost will be

TC= TFC + TVC

TC = N315,490 + N7,392,000

TC = N7,707 490.

Table 26: Total Output (Revenue) per week production

S/N	Average output in loaves	Price/loaf(N)	Total price (N)
1	1000	190	190,000
2	1500	160	240,000
3	500	120	60,000
Total			490,000

Source : Field Survey 2013

From the table above, the total output per week is N490,000 and the prices of bread of different shapes, tastes and sizes are shown. If the total per week is N490,000 and there are 52 weeks in a year, therefore, the total output (Revenue) per annum will be

Total Revenue (TR) = N490,000x 52 weeks

TR = N25,480,000

Gross Margin

Gross Margin (GM) =TR –TVC

Therefore, GM = N25,480,000 –N7,392,000

GM = N 18, 088,000

Benefit cost Ratio (BCR)

This is the ratio of total cost to total revenue. It can be used to measure the overall effectiveness of any business. It gives the profit per cost incurred during the business transaction.

$$BCR = \frac{\text{Total Revenue}}{\text{Total cost}}$$

$$= \frac{N25,480,000}{N7,707,490} = 3.3$$

The study shows that for every one naira (N1) invested into the business, there is a profit of N3.3, if all things being equal. Therefore, we can say that the business of bread production with high quality cassava flour is profitable in the study area.

IV. Discussion

In this study, it was observed that cassava flour can be used in the production of bread just like the bread made from wheat flour. It means that cassava bread has all the textural quality of the sensory attribute of bread. Majority of the bread producers in the study area are males while few of them are females whose age bracket is between 20years and 45years. This shows that economically active people are involved and there is

prospect for expansion in the business. An average bread producer in the study area has at least a primary and secondary education meaning that tools for business management are slightly employed but efficiency requires tertiary education for more profitability. The business in the area is more of sole proprietorship which limits chances of growth and expansion. There are limited credit available to the producers rather they fund the business from their personal savings. Most of the bread producers in the area are aware of cassava flour and knows it can be used along side with flour in the ratio 50:50 or 60:40 to produce bread while very few of the producers practice the use of cassava flour alone for production. The producers make use of hired labour mostly. This study also reveals the cost and returns in producing cassava bread, the benefit cost ratio which is 3.3, shows that every N1 invested yields a profit of N3.3 and this shows that the business is profitable and viable.

Finally, the most pressing problems affecting bread production in the area are poor supply and road network, lack of capital and storage facilities, high cost of raw materials and labour and other problems.

V. Conclusion

The uniqueness of cassava in improving nutrition and bringing about national development in the food industry cannot be overemphasized. While other commodities such as corn, millet and soybean has been shown to outweigh their benefits. The inclusion of cassava flour and starch in wheat flour for the preparation of bread and other baked goods has several socio-economic advantages. Utilization of cassava would resolve the vicious cyclic effect association with its production, increase stakeholder's income, create more jobs, solve some health problems and reduce dependence on wheat importation. These benefits can be summed up as improvements in food and livelihood security for the vast majority of citizens.

Recommendations

Based on the study and its findings, the following recommendations are made:

I. That avenues should be created through which financial assistance can be given to bread producers in the form of loans and credits.

II. That the federal government should reduce the rate of wheat importation in the country so that we can concentrate on processing our cassava into flour and thereby creating job opportunities for the youth in the country.

III. That farmers should be encouraged to produce more cassava which can be processed into flour for bread production and wheat flour programme should be sponsored by both government and private organization to ease the scarcity of flour occasioned by foreign exchange rate in Nigeria as well as to boost the awareness of cassava flour to increase its popularity among bread producers.

IV. That further work on the use of high quality cassava flour bread production and other bakeries should be carried out like improving the protein content in cassava flour.

V. That government should see to resolving the problems affecting the bread producers to make production easy and conducive for them.

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