



## Analysis of Poverty Level Among Gari Marketers in Ogbomoso Agricultural Zone, Oyo State, Nigeria

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### ABSTRACT

This study examined the poverty level of gari marketers in Ogbomoso Agricultural Zone of Oyo State, Nigeria. A multi-stage sampling method was employed to select ninety (90) respondents. Primary data were collected through a well-structured schedule and the data collected were subject to descriptive, poverty, budgetary and ordinary least squares regression analyses. Findings revealed that the mean age of respondents was 44 years while 23.3% had no access at all to formal education. Majority (76.7%) of the marketers were married with a mean household size of 8 members. Averagely, per capita expenditure per month was ₦4,037.54 for respondents. The moderate poverty line for marketers was ₦2,691.70 while the core poverty line was ₦897.23 per month. The poverty headcount, poverty gap index and severity index of the respondents were 30%, 11.6% and 6.0% respectively. Based on the result of the data analysis, 30% of the marketers were categorized as poor while 70% were categorized as non-poor. Marital status, household size, household access to water had significant effect on poverty level of respondents. The BCR of 1.12 revealed that gari marketing is a profitable enterprise in the study area. It is recommended that stakeholders should provide public cars and buses as a means of transportation. This would reduce the high cost of transportation and thereby increase their income and reduce their poverty level.

Keywords: poverty; gari- marketing; FGT.

### INTRODUCTION

In the agricultural sector in Nigeria, gari marketing is a fairly large industry. This is because, cassava from which gari is derived is commonly and widely cultivated throughout the country. A report by (Phillips *et al.*, 2004) reflects that cassava gari is truly a national food with urban market presence. Gari is also one of the commonest and cheapest sources of dietary carbohydrate in Nigeria. It is steadily demanded and widely consumed both in the rural and urban areas across all income groups; low, medium and high. Gari is produced following harvesting of cassava, peeling, grating, dewatering, fermentation (optional), sieving, frying

and bagging (Afolabi, 2009). Gari marketing provides jobs for a large number of people living in both the rural and urban areas. Gari has a steady national demand pattern all-year-round in Nigeria. Seasonal variability in gari prices are low and highly rational since it can be produced throughout the year. Cassava (gari) appears to be a “food of choice” even in the face of alternative food options in the urban area (Maziya *et al.* 2004). Gari is produced from cassava tubers and it is the commonest staple food in Nigeria consumed by over 130 million people (Okwara, 2010).

Handling of gari has some implications to safety, equity to consumers and weight quality and standards. Gari business attracts different set of



actors at farm gate, village market, peri- and urban-market (Porter et. al, 2004). Gari has a long shelf life, a year or more as long as it is not exposed to moisture, it is therefore also attractive to urban consumers (Nweke, 2003). This product is easily transported to urban markets several kilometers away or as export commodity. With the above market characteristics of gari, one would be tempted to think that urban and rural gari marketers are the sets of agro-allied workers that should live above poverty despite the increasing poverty in agriculture, urban and rural areas of Nigeria. This is because the product they deal in is available, steadily demanded all-year-round, consumed nation-wide, and its price rises in tandem with the general inflationary trend in the country. Since poverty is very pronounced in the agricultural sector especially among farmers, agro-allied workers too may have their share of the poverty situation. The marketers buy gari from the processors.

Cassava marketing in Nigeria is a model of a competitive market and depicts the following characteristics: the operators are independent and decentralized in decision-making, they have fairly homogeneous products though some exhibit certain levels of price differentiation which Ikpi (2002) reported as having monopolistic tendencies. The general outlook is that the degree of competition in the market is fairly high; hence, the market can be described as belonging to the perfectly competitive industry. Moreover there exists free mobility of resources in the industry, and buyers and producers are well informed about the industry's activities.

Succeeding governments in Nigeria have not been able to adequately cope with this deep-rooted problem. The reason for dearth of studies on poverty in Nigeria can be traced to two main reasons. First, before the oil crash of the eighties, government did not view poverty as a main problem and secondly, there were no household survey data to be used for such analysis (Olaniyan and Awoyemi, 2005). Despite the huge natural resources, poverty is widespread in Nigeria. Poverty became widespread

after the implementation of Structural Adjustment Programme (SAP) in Nigeria (Babatunde *et al*, 2008). However, poverty can be reduced drastically if the prevailing social and political conditions are conducive for foreign investments. In flow of foreign investments cannot materialize in an environment of political and economic instability.

The poor in Nigeria are not just people living with resources but with less money, they are among the poorest of the poor. Households are not only poor, they also suffer from vast inequality in incomes, assets (including education and health status), control over public resources, and access to essential services as well as pervasive insecurity (World Bank, 2002). The disproportionate distribution of resources has its consequences on economic growth and is therefore one of the main policy issues that needs to be addressed in Nigeria. Although poverty is a universal phenomenon that affect socio-economic and political well-being of its victims whether in a developed or underdeveloped country, however, available statistics shows that poverty in poor country is absolute and more pronounced in the rural areas (Yakubue *et al*, 2010).

A visit to any rural settlement in Nigeria will reveal dirt and unmotorable roads, children walking barefooted and adults trekking long distance to get water and firewood, pupil studying under trees, dilapidated and ill equipped health centers and scores of poverty driven problems (Aderonmu, 2007). Bakoji *et al*, (2013) observed that, several constraints including high costs of transportation, lack of credit facilities, insufficient funds, price fluctuation and lack of good storage facilities among others affect the profit margin of marketers and other marketing activities in Nigeria. Other constraints according to Ajetomobi, (2010) include drought, flooding, salt stress and extreme temperatures, all of which are expected to worsen with climate change which could subsequently reduce crop productivity and marketing activities.



In the light of this, analysing the poverty level of garimarketers in Ogbomoso Agricultural Zone is of great concern. The main objective of the study is to categorise the marketers according to their poverty status. The specific objectives are to examine the socio-economic characteristics of gari marketers in the study area, compute poverty indices for gari marketers, categorise the marketers according to their poverty status, examine the profitability of garimarketers enterprise in the study area. The study tested a null hypothesis that there is no significant relationship between selected socio-economic characteristics of gari marketers and their poverty index.

## METHODOLOGY

The study was carried out in Ogbomoso Agricultural Zone of Oyo State in Nigeria. Oyo State is located in the South-Western part of Nigeria. It comprises of 33 local government areas with an estimated population of 6,617,720. Ogbomoso Agricultural Zone is one of the four Agricultural zones in Oyo State. The zone was purposely chosen because it contains many gari marketing units. The estimated population of Ogbomoso Zone was 657,412 (NPC, 2006). Ogbomoso lies on 8° 10' North of the Equator and 4° 10' East, of the Greenwich meridian. The town lies within the derived savannah region and has a fairly high uniform temperature, moderate to heavy seasonal rainfall, and high humidity. The mean annual temperature is 26.2°C. The highest degree of temperature is experience in March with a mean of 28.7°C while the lowest degree of temperature is experienced in August with a mean of 24.3°C. The mean annual rainfall is 1,247mm.

Population of the study comprises all gari marketers in Ogbomoso Agricultural zone in Oyo state, Nigeria. The zones consists of Ogbomoso North, Ogbomoso South, Ogo-Oluwa, Suurulere and Oriire Local Government Areas (LGAs). According to the Agricultural Development Project (ADP) categorization, each LGA represents a block and

each block has eight (8) cells. Multi-stage sampling technique was employed to select the respondents. In the first stage, three (3) blocks were randomly selected out of five (5) blocks in the study area. These include Ogbomoso North, Ogbomoso South and Ogo-oluwa. In the second stage, two (2) cells were chosen from each of the blocks which also represent the marketing centres. These include Kinnira and Randa from Ogbomoso North, Kajola and Araada from Ogbomoso South, Odo-oba and Ajaawa from Ogo-Oluwa. In the third stage, two (2) marketing centres were sampled in each of the cells. Finally, a total number of 90 gari marketers formed the sample of the study. Primary data were collected from the selected gari marketers through a well-structured interview schedule. Data collected were subjected to descriptive analysis such as frequency counts, tables, percentages were to analyze socio-economic characteristics of respondents. Foster Greer Thorbecker (FGT) analysis to investigate poverty level, budgetary analysis to examine profitability of gari marketing enterprise and the ordinary least squares regression analysis to test the hypothesis of the study. The implicit formulae is as follows:

$$P = f(X_1, X_2, X_3, X_4, X_5, X_6, X_7, X_8, )$$

Where: P = Per Capita Expenditure; X<sub>1</sub> = Age of household head ( in years); X<sub>2</sub> = Gender; X<sub>3</sub> = Marital status; X<sub>4</sub> = Household Size; X<sub>5</sub> = Education; X<sub>6</sub> = Years of experience; X<sub>7</sub> = Household access to electricity; X<sub>8</sub> = Household access to water.

FGT model was used to measure the poverty level. The formula is as follows:

$$P\alpha = \frac{1}{N} \sum_{i=1}^{\alpha} \left[ \frac{Z - Y_i}{Z} \right]$$

Where Z = the poverty line

q = the number of individuals below poverty line

q



$N$  = the total number of individuals in the reference population

$Y_i$  = the expenditure/income of the household in which individual lives

$\alpha$  = Foster-Greer-Thorbecke (FGT) index and takes on the values of 0, 1, and 2.

$\alpha = 0$  gives the poverty incidence

$\alpha = 1$  the depth of poverty

$\alpha = 2$  the severity of poverty (Foster Greer Thorbecker, 1984).

Budgetary Analysis was used to investigate profitability gari marketing enterprise.

Total Revenue (TR) = Price x Quantity of the product

Total Cost (TC) = Total variable cost + Total fixed cost

Gross Margin (GM) = TR - TVC

Profit (Net return) = Gross Margin - Total Fixed Cost

The profitability ratios estimated include:

Benefit Cost Ratio (BCR):-  $\sum TR \div \sum TC$

If  $BCR > 1$ , then the business is profitable;  $BCR < 1$ , then the individual has incurred a loss.

2. Rate of Return Ratio (RRR) = Net Return  $\div$  Total Cost

The higher the rate of return ratio, the more is the financial empowerment for further business venture and vice versa. It represents the return of cash to the business.

3. Expenses Structure Ratio (ESR) = Fixed Cost  $\div$  Total Cost

Low ESR is an indicator of a health business venture. High ESR heightens the variable cost and hence dampens the business expansive effort.

4. Gross Margin Ratio (GMR) = Total Revenue  $\div$  Net Revenue

If the  $GMR > 1$ , the business is profitable;  $GMR < 1$ , the business is unprofitable.

5. GRR = Total Cost  $\div$  Total Revenue

If the  $GRR > 1$ , the business is unprofitable, otherwise the business is profitable.

## RESULTS AND DISCUSSION

### Socio-Economic Characteristics of Respondents

Table 1 showed that 36.6% of the marketers were aged between 41-50 years, 3.3% were over 60 years with mean age of 44 years. The categories of families having household members between 6 and 10 members constituted about 37.8% of all the respondents and 33.2% had greater than 10 members in the household. The mean household size for the marketers was 8 members. The result of analysis revealed that 76.7% of the marketers were married while 3.3% were divorced. Also about 51.1% of the marketers had primary school education while 5.6% had tertiary education. The mean years of marketing experience were 11 years. Result showed that 90.7% of gari marketers earned below ₦40,000 per month and 8.8% of the gari marketers earned above ₦40,000 per month. The average income of gari marketers was ₦22,105 per month.

### Poverty indices for gari marketers

Result of analysis revealed that the total monthly expenditure for the respondents was ₦2,476,910.80. The respective mean per capita expenditure (MPAEHE) per month was ₦4,037.54 for respondents while the moderate poverty line was ₦2,691.70 for respondents. Any adult marketers spending less than ₦2,691.70 per month on consumption is described as poor related to other marketers. The core poverty line (1/3) was ₦897.23 per month for respondents. The incidence of poverty (or poverty head-count) was 0.30 while poverty gap or depth ( $P_1$ ) was 0.116. The poverty severity index was 0.060 for the respondents.

### Poverty status for gari marketers

Table 2 categorised the marketers according to their poverty status. The analysis showed that 30% of the marketers were poor while 70% of the marketers were non-poor. This implies that majority of the marketers are not poor.

## The Cost and Return Associated with gari marketing enterprise per month

Table 3 showed that respondents have no fixed cost per month but a variable cost of ₦448, 568.58 and total revenue of ₦505, 979.80 per month. This indicates that marketers earned ₦57, 411.22 as gross margin and a profit of ₦57, 411.22 per month. Moreover, the BCR for marketers was 1.12. This showed that they made profit in their business. Also the RRR was 0.12. This means that their financial empowerment for further business venture is low. The ESR was 0.000. This is an indicator that marketers have healthy business venture. The GMR was 8.81. This showed that the business is profitable. Finally the GRR was 0.88 which showed that the business is better.

**Table 1. Socio-Economic Characteristics of Respondents, n=90**

Variable	Frequency	Percentage
20-30	9	9.9
31-40	25	27.6
41-50	33	36.6
51-60	20	22.1
> 60	3	3.3
<b>Sex</b>	<b>Frequency</b>	<b>Percentage</b>
Male	3	3.3
Female	87	96.7
<b>Household size</b>	<b>Frequency</b>	<b>Percentage</b>
1-5	26	28.8
6-10	34	37.8
> 10	30	33.2
<b>Marital status</b>	<b>Frequency</b>	<b>Percentage</b>
Single	3	3.3
Married	69	76.7
Widowed	7	7.8
Divorced	3	3.3
Separated	8	8.9
<b>Educational status</b>	<b>Frequency</b>	<b>Percentage</b>
No formal schooling	21	23.3
Primary school	46	51.1
Secondary school	18	20.0
Tertiary school	5	5.6
<b>Total</b>	<b>90</b>	<b>100.0</b>
<b>Years of Experience</b>	<b>Frequency</b>	<b>Percentage</b>
<10	51	56.6
11-20	33	36.6
21-30	4	4.4
> 30	2	2.2
<b>Income/month</b>	<b>Frequency</b>	<b>Percentage</b>
1000 - 20000	59	65.4



20001 - 40000	23	25.3	
40001 - 60000	2		2.2
60001 - 80000	1		1.1
80001 - 100000	2	2.2	
> 10000	3		3.3

Source: Field Survey, 2014.

**Table 2: Poverty Status Distribution of marketers**

Poverty Category	Frequency	Percentage
Poor	27	30.0
Non-poor	63	70.0
Total	90	100.0

Source: Field survey, 2014.

**Table 3: Summary of Budgetary Analysis of Respondents**

Variables	Mean value (₦)
Income	57,411.22
Variable Component	
Transportation	157.78
Purchase of gari	441,284.90
Shop rent	161.74
Communication	1,088.89
Tax	33.33
Baf	32.11
Congo	53.78
Bag	5,792.05
Total	448,568.58
Fixed cost	0.00
TR (d)	505,979.80
TC (e)	448,568.58
NR (f)	57,411.22
BCR (d/e)	1.12
RRR (f/e)	0.17
ESR (c/e)	0.00
GMR (d/f)	8.81
GRR (e/d)	0.88

Source: Computed from Field Data, 2014.



## Result of Regression Analysis

Table 4 revealed that marital status, household size and household access to water of respondents were significant variables affecting poverty status among marketers in the study area. The adjusted  $R^2$  for the relationship was 0.750 meaning that the explanatory variables had 75% decisive influence on the poverty status of respondents. The F value was 13.75 and significant at 1%, indicating the goodness of fit of the model. Marital status is significant at 5% but has a negative relationship with poverty level of respondents which indicates that as respondents have more hands to help in business, the less likely they are poor. Household size is also significant at 1% but has a negative relationship with poverty level of respondents. This is an indicator that respondents with larger household size are less likely to be poor. This may have to do with the probability of more members working and bringing income into the household. The household members are also a source of free family labour in gari marketing activities. Household access to water of respondents is significant at 1% and has a positive relationship with poverty level. This is an indicator that as respondent has more access to good water, the tendency to be poor is low.

**Table 4: Relationship between Poverty Index and Socio-economic Characteristics of Respondents**

Variables	Coefficients	t-ratio
Constant	3.440	3.625
Age	-0.065	-1.488
Gender	-0.001	1.420
Marital status	-0.311 -2.036**	
Household size	-0.087 -7.964***	
Education	0.027	1.519
Years of experience	0.008	0.821
Household access to electricity	0.160	1.170
Household access to water	0.3242.414***	

Adjusted  $R^2=0.750$

F value =13.75

\*\*\* 1% significant level, \*\* 5% significant level

Source: Field survey, 2014

## CONCLUSIONS

This study concluded that majority of the marketers are categorized as non-poor. Marital status, household size and household access to water had significant effect on poverty level of respondents. Gari marketing is profitable in the

study area. The study recommends that the stakeholders should provide public cars and buses as means of transportation especially to the marketers of gari. These would reduce the high cost of transportation and thereby increase their income and reduce their poverty levels. Moreover the



government should try to furnish marketing centres so that most of the marketers would live above poverty line.

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