



Marketing Analysis of Garri Products in Ankpa Local Government Area of Kogi State

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Authors' contributions

This work was carried out in collaboration between all authors. Author NYZ designed the study, performed the statistical analysis, wrote the protocol and wrote the first draft of the manuscript. Authors ASY and MIY managed the analyses of the study. Author MIY managed the literature searches. All authors read and approved the final manuscript.

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ABSTRACT

In Nigeria, the marketing of agricultural produce is far from being efficient. Unpredictable fluctuation in the prices of various foodstuffs like Gari has become a common feature of the nation's economy. The situation is such that the consumers of agricultural foodstuff pay exorbitant prices while the producers receive relatively low prices. This research focused on the economics of Gari Marketing Enterprise in Ankpa Local Government Area of Kogi State, Nigeria. Ankpa Local Government Area consists of 5 districts out of which 3 were sampled and used for the study. 6 wholesalers and 6 retailers were sampled from each village making a total of 120 respondents. Responses from 100 respondents made up of 40 wholesalers and 60 retailers. Profitability analysis model was used in data analysis. Finding shows that Marketing of Gari was found to be profitable at the whole sale. This study recommend that marketers should form cooperative societies to enable them handle some of the marketing activities as well as establish Gari processing mills silos to reduce costs.

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1. INTRODUCTION

Roots and tubers are food crops and they are also used in manufacturing and livestock feeding. Growing awareness of the value, both actual and potential, of root crops is reflected in its priorities in recent studies by international agricultural research.

Garri is dehydrated food and product from cassava. It is staple food that provides carbohydrate or energy for more than 500 million people in the tropics. It has always been a cheap source of carbohydrate for humans. Its average moisture content is 8-10% with industrial processing and 12 – 14% with traditional processing and so can be stored for several months. It accounts for about 70% of the entire cassava consumed in Nigeria [1].

Garri appears to be a “food choice” even in the face of alternate food options in urban areas. It is obvious today that in Nigeria and some part of West Africa, garri has become an essential food supply commodity. This is evidenced by the high demand and the increases in price. The demand is continuous and despite the increased domestic production, the prices are not decreasing. The high price could be attributed not only to high demand but also to the general inflation being experienced in various sectors [2].

Garri has come to command a unique and important position in the economy of Nigeria. Its market potentials and exportation have been earning foreign currency for the nation economy. Also, gari exportation has become a source of income to farmer and traders in the country. The capital requirement for retail trade is small and the rural market is the point where most locally produced staple foodstuffs are marketed through redistributed systems [3].

2. STATEMENT OF THE PROBLEM

The important role of efficient marketing of agricultural produce in ensuring cheap and adequate food for Nigeria needs little debate. In Nigeria, the marketing of agricultural produce is far from being efficient. Unpredictable fluctuation in the prices of various foodstuffs like gari has become a common feature of the nation's economy. The situation is such that the consumers of agricultural foodstuff pay exorbitant prices while the producers receive relatively low prices.

Poor marketing infrastructure facilities further compound the problem. Rural roads especially those leading to production areas are in deplorable conditions making it very difficult for gari to be evacuated from such areas. This has adverse implications of the cost of transportation.

Accurate processing cost of data for existing processing methods and machinery do not exist. This has effect on the marketing and pricing of processed products as well as investment decisions [3]. Where there is a clear-cut market for primary processed products, borrowing to acquire such equipment would be economically profitable, and would bring real benefits to the farmers or processors [4,5]. Poor credit facilities and high interest rates, however, make such investments risky and financially unattractive, and hinder the development of the economic potential of the crop [2,4,6,7].

Therefore, since production is incomplete unless the product reaches the final consumers to meet their required satisfaction[8], it becomes necessary that an efficient marketing system be maintained [9].

3. OBJECTIVES OF THE STUDY

The broad objective of the study is to analyze the marketing efficiency of gari marketing in Ankpa Local Government Area of Kogi State. Other specific objectives are to:

1. Examine the socioeconomic characteristics that affects sale volume; and
2. Estimate the profitability of gari marketing.

3.1 Area of Study

The study was conducted in Ankpa Local Government Area of Kogi State. It is bound on the North by Omala and on the South by Olamaboro Local Government, on the East by Dekina Local Government and Oyangede, Benue State in the West. Agriculture and marketing are the major occupation of the people. Garri is produced in large quantities in the area and neighbouring communities such as Ikanakpo, Okaba, Amoke, Atuma, Inye, Oyangede, Ibado and Akpacha. The census conducted in 2006

showed that the population of Ankpa Local Government Area was 845, 645.

3.2 Data Collection and Sampling Technique

Multi stage sampling technique was used. Ankpa Local Government Area consists of 5 districts. 3 of the Districts were sampled and used for the study. In each of the Districts, 4 villages were sampled. Four wholesalers and six retailers were equally sample from each village making a total number of 120 respondents. Out of the 120 questionnaires administered, 100 were correctly completed and returned. Responses from 100 respondents made up of 40 wholesalers and 60 retailers were used for the study.

3.3 Methods of Data Analysis

The research data was analyze using cost and return model from which marketing margins, net and gross marketing returns and marketing efficiency were calculated. Marketing margin and marketing efficiency were calculated using the formula [3]:

$$\text{Marketing Margin (MM)} = \frac{\text{Selling Price} - \text{Purchase Price}}{\text{Selling Price}} \times 100$$

$$\text{Marketing Efficiency (ME)} = \frac{\text{Marketing Benefit}}{\text{Selling Price}} \times 100$$

4. RESULTS AND DISCUSSION

4.1 Socioeconomic Characteristic of Respondents

In this section, the socioeconomic characteristic of the respondents (Wholesalers and retailers) as well as the profitability of gari, were examined.

This study revealed that the majority of the respondents were females, i.e. 61%, thus showing that the frequency of female is higher than that of the males. This indicates that gari marketing enterprises are dominated by females at both the retail and wholesale levels. This might stem from the fact that most of the entrepreneurs who sell gari also undertake the processing of cassava into gari, an activity that is commonly out by females.

This result show that most of both the wholesalers and retailers are within the active working age. About 52.5% and 48.33% of the wholesalers and the retailers respectively are within the age ranges of between 31 and 50 years. However, the retailers are relatively younger and vibrant. This is necessary because gari marketing enterprise requires people who are strong and energetic to be able to cope with the bulky nature of the product.

Table 1. Distribution of respondents according to sex

Sex	Wholsalers		Retailers		Total	
	Frequency	%	Frequency	%	Frequency	%
Male	16	40	23	38.3	39	39
Female	24	60	37	61.7	61	61
Total	40	100	60	100	100	100

Source: Field Survey, 2018

Table 2. Distribution of respondents according to age

Age	Wholesalers		Retailers	
	Frequency	%	Frequency	%
21-30	4	10	15	25
31-40	12	30	21	35
41-50	9	22.5	8	13.33
51-60	11	27.5	11	18.33
61 & above	4	10	5	8.33
Total	40	100	60	100

Source: Field Survey, 2018

Table 3. Distribution of respondents according to marital status

Marital status	Wholesalers		Retailers	
	Frequency	%	Frequency	%
Single	8	20	11	18.33
Married	29	72.5	31	51.67
Widowed	3	7.5	13	21.67
Divorce	-	-	-	8.33
Total	40	100	60	100

Source: Field Survey, 2018

The result from the Table 3 indicates that about 72.5% of the wholesalers and 51.67% of the retailers are married, thereby showing the majority of the entrepreneur are responsible people. However, 21.67% of the retailers are widowed. Thus, this implies that more married people are involved in garri marketing, and this might have both positive and negative implications for the enterprise. Thus some might divert resources from the enterprise for family upkeep, while on the other hand, family members might render assistance in the enterprise.

The study shows that both the wholesalers and the retailers have the same range of household size of 6-10 persons. This implies that the level of economic dependence on the marketers is high as cost of living is high in Nigeria.

Findings show that 62.5% of wholesalers and about 65% of retailers had nothing less than secondary education. This indicates that the respondents in gari marketing enterprises are quite educated. Hence, it is expected that they should bring about innovation in the garri business.

The table shows that 57% of the wholesalers and 61.67% of the retailers take marketing of gari as their major occupation, while 42.5% of the wholesalers and 38.33% of retailers engage in both farming and trading. Thus it could be said that the study utilized the right target population.

Result show that most of the wholesalers have been in the trade for more than 10 years, while at the retail level, the entrepreneur are not as experienced as the wholesalers, with about 46.67% not having spent more than 10 years.

Table 4. Distribution according to household size of respondents

House hold size	Wholesalers		Retailers	
	Frequency	%	Frequency	%
1-5	11	27.5	21	35
6-10	27	67.5	30	50
10 & above	2	5	9	15
Total	40	100	60	100

Source: Field Survey, 2018

Table 5. Distribution of respondents according to the educational level attained

Level of education	Wholesalers		Retailers	
	Frequency	%	Frequency	%
No Formal	4	10	14	23.33
Primary	11	27.5	7	11.67
Secondary	15	37.5	26	43.33
University	6	15	5	8.33
OND/NCE	4	10	18	13.33
HND/B.Sc	-	-	-	-
Total	40	100	60	100

Source: Field Survey, 2018

Table 6. Distribution of respondents according to their main occupation

Main occupation	Wholesalers		Retailers	
	Frequency	%	Frequency	%
Farming	-	-	-	-
Trading	23	57.5	37	61.67
Both	17	42.5	23	38.33
Total	40	100	60	100

Source: Field Survey, 2018

Table 7. Distribution of respondents according to years of experience

Years of experience	Wholesalers		Retailers	
	Frequency	%	Frequency	%
1-5	6	15	21	35
6-10	7	17.5	7	11.67
11-15	9	22.5	19	31.67
16-20	4	10	3	5
21-25	5	12.5	2	3.33
26-30	9	22.5	8	13.33
Total	40	100	60	100

Source: Field Survey, 2018

Table 8. Distribution of respondents according to source of capital

Source of capital	Wholesalers		Retailers	
	Frequency	%	Frequency	%
Borrowed	16	40	27	45
Gift	7	17.5	6	10
Saved	5	12.5	14	23.33
Loan	-	-	-	-
Both borrowed and Saved	8	20	9	15
Both Gift & Saved	4	10	4	6.67
Total	4	100	60	100

Source: Field Survey, 2018

Table 9. Determinants of quantity of Gari marketed by the entrepreneurs

Functional forms	Linear	Semi-log	Double-log	Exponential
Constant	21.255 (2.426)	-85.048 (-2.488)	-940 (-318)	3.520 (5.670)
Sex (X ₁)	5.349 (2.336)	3.607 (2.015)	.178 (1.152)	.280 (1.726)
Age (X ₂)	.453** (3.490)	2.5.575 (4.131)	1.014 (1.898)	0.18 (2.002)
Marital Status (X ₃)	-4.205** (-4.230)	-4.470** (-6.068)	-.2555** (-4.011)	-.223* (-3.167)
Household Size (X ₄)	-.146 (-.063)	5.314 (1.349)	.046 (.136)	-.147 (-.895)
Educational Level Attained X ₅	-2.412** (-2.810)	10.863** (-3.301)	-.594 (-2.089)	-.114 (-1.872)
Main Occupation (X ₆)	-5.275 (-1.701)	-6.979* (-2.583)	-.252 (-1.082)	-.239 (-1.087)
Years of Experience (X ₇)	.000 (1.630)	3.480* (2.630)	.172 (1.510)	1.62E-005 (1.334)
R ²	.956	.967	.927	.934
F- ratio	8.079**	10.951**	4.740	5.280

Source: computed from survey data 2018;

Note: ***significantly at 1%; **significant at 5%; *significantly at 10%; Values in parenthesis are t- value

In this study, most of the respondents, i.e. 57.5% of the wholesalers and 68.33% of retailers source their capital through a combination of borrowed and personal savings. None of them got loans for their business activities.

In order to determine the variables which significantly affect the quantity of gari marketed, four functional forms of ordinary Least Square Regression model were fitted.

On the basis of statistical value of the R-square (R^2) and econometric value of F-ratio, as well as the number of variables that are significant, the semi-log functional form gave the best fit and was therefore used for discussion. The R^2 value (coefficient of determination) was .967 indicating that about 96.7% of variation in the quantity of gari sold is associated with changes in the explanatory variables (i.e. $X_1, X_2, X_3, \dots, X_n$). Furthermore, the semi-log functional form indicated that Age (X_2) significantly affects quantity of gari sold (Y). This is at the 5% level. It has a positive relationship indicating that the higher the age, the higher the quantity of the gari handled. This result conforms to a-priori expectation. It is expected that elderly people may have been in the business and have been earning profits which enhances their ability to handle higher quantities of gari.

The variable marital status (X_3) was found to have significant effect on quantity of gari handled at the 1% level. The relationship is negative, indicating that the more the entrepreneurs are married, the less the quantity handled. This could be as a result of the fact that married people have more responsibilities and may therefore channel the funds meant for business to marital issues.

Education was found to be significant at 5% level with positive relationship. This indicates that people with higher education handle more quantities. This result conforms to the position of [10] and finding of [11] that education exposes people and also helps the entrepreneurs to become innovative in their business activities.

The years of experience (X_7) was also found to be positively related to the quantity handled and significantly at the 10% level. This is also expected as this confirms to the saying that experience is the best teacher. Thus, people with more experience tend to use it to perform better in the business [12].

Occupation was found to be a significant determinant of quantity handled at the 10% level of significance. Majority of the respondents were traders, which shows that the experience they get in the course of business activities enhances their capacity or scale of operation.

4.2 Marketing Margins

The result of the computation carried out shows that the marketing margin of gari wholesalers is 17.07%, and that of the retailers is 8.5%. Thus, indicating that the margin of the wholesalers is higher than that of retailers. This shows that the marketing margin for the wholesalers is high, the coefficient of marketing efficiency for the wholesalers was calculated as 218.00 and that of the retailers was 5.28. This result indicates that, the efficiency of gari marketing at the wholesale level is higher than that at the level. This indicates that the wholesale market is more efficient. The coefficient of marketing efficiency as the retail was actually less than 100% indicating that there is a lot of inefficiency as the retail level.

4.3 Marketing Cost and Returns

The result of the cost return analysis computed indicates that the wholesalers have a net profit of N26, 195.13, while the retailers have a net profit of N4, 786.47 indicating that gari marketing enterprise is profitable but more at the wholesale level.

5. CONCLUSION AND RECOMMENDATIONS

The result of the analysis indicates that most of both the wholesalers and retailers are within the active working age; the main source of capital was personal savings, and there were no credit facilities. Majority of the wholesalers and retailers are married. Both the wholesalers and the retailers have average household size in the range of 6-10 persons. Findings show that most of them had at least secondary education. Some variables were found to have significant effect on quantity of gari marketed. This included year of experience, educational level, household size and age. Marketing of gari was found to be profitable especially at the wholesale level, where it is also efficiently done, but inefficient at the retail level. Some important determinants of quantities handled were also identified. It was recommended that the government should

extend credit facilities to both the wholesalers and retailers; that the government should build modern markets with coverings so that the marketers can have shops to store their product.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

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