



## ASSESSMENT OF CONSUMER BEHAVIOUR ON RETAIL PRICES OF GARRI IN IMO STATE

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### ABSTRACT

The study evaluates consumers' behaviour on retail price of garri in Imo State of Nigeria. Data were drawn from the three agricultural zones in Imo State, namely Owerri, Orlu, Okiqwe. A functional market in each zone was randomly selected. A multi stage sampling technique was used for the study. Primary data were obtained by means of interview schedule (questionnaire) administered to consumers of garri at retail shops in the market. Data were analyzed using descriptive techniques and ordinary least square (OLS) method of multiple regression analysis. Empirical result reveals that the mean weekly budget share for garri was ₦790.61 but the actual weekly expenditure was ₦970.69. The differential of 22.8% increase in expenditure from the budget share of garri could be attributed to variability in prices of garri in the market. About 53.33% of garri consumers have a weak bargaining index of 0.67 indicating that consumers' influence on the food product is weak. As the weekly quantity of garri purchased increases, the weekly retail increases as well, there is a less than 0.11% increase in unit weekly retail prices of garri as the quantity bought increase by 1% in the Study area. There is need for consumers' to be encouraged to form co-operative societies through which they can buy food products in bulk to reduce retail price thereby reducing the price margin between their budget share and actual expenditure in view of the fact that their bargaining power is weak. This will also reposition them to play a key role in price formation and sharing market information in order to increase their bargaining power as majority of retailers are only interested in profit maximization to the detriment of consumers. Consumers of garri should be ready to make adjustment on their weekly budget of garri because of price variability.

**Keywords:** Consumer behaviour, retail prices, budget share, price flexibility

### INTRODUCTION

Consumers are supposed to be problem solvers, when they perceive the differences between their existing state of affairs and what it was before. They attempt to solve these problems through their purchasing power. In doing so, they exhibit various kinds of behaviours in the market place (Okwandu et. al., 2001). Colander (2004) define consumers' behaviour as all purchase related activities, thought and influence that occur before, during and after the consumption of products and services, and those that influence the purchase. Consumers' behaviour could be seen as the process where consumers with limited income, decide which goods and services to buy to maximize his satisfaction (Pindyck et. al., 2005). Understanding consumers' purchase decisions and preference is therefore important, consumers compare the satisfaction gained from different activities and products and they prefer some to others. Consumers' demand for high quality food commodity is on the increase in most developed countries. According to Eze et. al., (2017) the reason is simple on their increased knowledge of market situation as well as the price and cost of production of various commodities (Ekerete, 2002), but it should be noted that food prices account for the bulk of consumers' spending. Changes in food price trend affect consumer welfare, perception and expectations (Dacul, 2004). Since consumers are assumed to be king in marketing, due to their wants and preferences, coupled with their level of income,



prices and competitiveness of commodities and other factors, prices at the retail level could be determined by what the consumer can pay (Oni et. al., 2005). Hyman (1992) stressed that consumers make daily decisions on how to spend their limited income. A consumer could be defined as an individual who buys goods and services, which are offered for sale by seller in order to satisfy some personal and household needs, wants and desires (Ekerete, 2002). Consumers' income is expected to affect prices of commodities with taste and preferences inclusive. But it should also be noted that buyers are rational and as such, they have a clear-cut goal of getting as much personal benefit as possible from purchasing goods and services (Hyman, 1992). It then follows that consumers' income and present problems have great effect on food prices (Oni et. al., 2005). It is very important aspect for customers to have an intense bargaining power to sustain and remold their business strategies effectively and remain in the competition (Kotler et. al., 1999). For this the customers need knowledge empowerment and need to collect all the related information regarding the project they have invested in. This knowledge and information could help them to become project specific and experienced enough to deal with supplies and bargain strategically (Eric et. al., 2002). But acquiring this knowledge and experience is very difficult for consumers but until all the minutes technical and calculative aspects are explored (Ayuba, 2005), poorly experience and informed customers fall in the category of being un-subjective and lose the ability make demands from the suppliers according to their needs (Del et. al., 2001). Consumers can exert pressure on business to get them to provide higher quality products, better customer service and lower prices (David et. al., 1999). When analyzing the behaviour of buyers, the industry analysis is being conducted from the perspective of the seller, buyer power is one of the forces that shape the competitive structure of an industry (Robbins, 2001).

The idea is for bargaining power of buyers in an industry to affect the competitive environment of the sellers and influences the seller's ability to achieve profitability (Leon et. al., 2004). Strong buyers can pressure sellers to lower prices, improve products quality and offer more and better services. All these things represent costs to the seller (Del et. al., 2001). A strong buyer can make an industry more competitive and decrease profit potential for the seller. On the other hand, a weak buyer is one who is at the mercy of the seller in terms of quality and price, makes an industry less competitive and increase profit potential for the seller (Eze et. al., 2014). These issues have been probing the mind of many, whether consumers can actually influence the prices of goods and services to a significant extent through their purchasing and bargaining power, in rejecting or accepting goods and services which suits their income (Dacul, 2004). It is evident that a huge sum of money is annually spent in Nigeria by consumers on various goods and services especially 'consumables'. But the issues that still remain and tend to bother everyone is that, despite effort to create awareness on consumers' purchasing and bargaining power (price givers), consumers are helpless (Henderson et. al., 1991, Hyman, 1992). Therefore, what are the final selling prices of garri? What quality of garri do consumers buy in the area? What are the budget shares for garri and what proportion of this share do consumers spend actually in the market. What is the level of consumers' behaviour on prices of garri and what



actually influence it. What determines the price flexibility based on quality bought and the degree of consumers bargaining power?

## METHODOLOGY

The study was conducted in Imo State. Imo State is located in the South-Eastern part of Nigeria, occupying the area between the lower River Niger and the upper and middle Imo River. She is bounded by the states of Anambra in the north, Abia in the east and Rivers in the south (IBD, 2001). Imo State has an estimated area of 5,150 square kilometers. The state has 27 local government areas with three agricultural zones orlu, Okiqwe and owerri (IBD, 2001). The State has two seasons, the rainy season and the dry season. The rainy season lasts from March to early November with its peak between June to September, while the dry season lasts from late November to early March. The annual mean daily air temperature is 28<sup>o</sup>c with high relative humidity, which reaches 90 percent at night and remains at 72 percent in the day time throughout the growing season of the major annual crops (ISADAP, 1985).

A multi - stage sampling procedure was adopted in this study to give a total representation of the State. From each agricultural zone, a metropolitan city was purposively selected because of the presence of markets where buyers and sellers of garri dominated. Therefore Eke-Ukwu Owerri, in owerri zone, International market Orlu in Orlu zone and Okiqwe central market in Okiqwe zone were selected for this study. The list of retailers in each of these markets was gotten and compiled with the help of market leaders association. From the sample frame 6 garri sellers were randomly selected from each market identified. 5 consumers who patronized selected garri retailers were selected using accidental sampling technique. Each 30 consumers from garri retailers in market were drawn. These gave a total 30 consumers of garri drawn from each market and L.G.A visited. A total of 90 consumers were drawn from 18 garri sellers in the three markets in each zone. A well-structured questionnaire that elicited information on socio-economic features of the consumers' budget share for garri quantity and price of each product and their bargaining powers was used for the study. Data were analyzed using descriptive techniques such as mean, frequency and percentages as well as other appropriate statistical and economic tools such as simple ratio and multiple regression techniques.

The demand model was stated with price as a function of quantity demanded, consumers' bargaining powers. The model is fitted into Cobb-Dauglas function before subjecting to ordinary least square regression analysis in which multiple regression models was used to ascertain price flexibility. It is explicitly specified as follows;

$$\ln P_i = a_0 + \ln Q_{ty} + \ln C_{bp} + e$$

$$i = 1, 2$$

Where

i = unit price of garri specified as follows;

$$\ln P_i = a_0 + \ln Q_{ty} + \ln C_{bp} + e$$

$$i = 1, 2$$

Where

i = unit price of garri (Naira)



$2 =$  unit price of garri (Naira)

Qty = quantity bought (Naira)

$2 =$  unit price of garri (Naira)

Qty = quantity bought by consumers' in kg

Cbp = consumers' bargaining power captured as du consumers' in kg

Cbp = consumers' bargaining power captured as dummy 'yes' = 1 and otherwise = 0

The choice of Cobb-Dauglas model in this study was due to its simplicity in estimating the elasticities of the included explanatory variable. The co-efficient of the Cobb-Dauglas model are themselves elasticity and this explained the degree of responsiveness of price to a slight change in quantity demanded of garri in the area. The elasticities so obtain from this analysis explained the flexibility of price of garri due to a slight change in quantity bought by consumers and his bargaining power.

## RESULT AND DISCUSSION

### Table 1 - Socio-Economic Characteristics of the Respondents

Table 1 shows that majority of customers to the garri sellers we meet were females constituting 61.11% while males accounted for 38.89% of contacted customers during the research work period. This may be to the fact that it is mostly female gender that does the purchases for house hold needs and it agrees with (Eze et. al., 2014). Who observed that female gender buys more of household needs than their male counterpart? The result further showed consumer within the ages of above 51 years and above constituting 33.33% dominated as majority of contacted consumers in the study area at the markets visited during the period of the study. This could suggest that majority of regular visitors to the market in the study area are mostly elderly people because majority of those above 51 years and above are working and have families to provide for, so they had to regularly visit the market to make purchases for household goods (Griffith et. al., 1999). Consumers with secondary level of education dominated with 44.44%, they were followed with consumers who had tertiary level of education with 42.22%. It further showed that household size of garri consumers between 4 – 6 persons were highest accounting 42.22%. Large household size could induce the consumers to bargain properly to push down the purchasing price (Schwarz, 2004). It further shows that consumers who earned between ₦41000 - ₦60000 were highest accounting for 24.44%. This indicated that garri consumers in the study area will have weak bargaining power because of low income since they may not be making most of their purchases by cash. The result further showed that greater numbers of consumers are married with 61.11%. This could imply that married consumers will have to replace finished food items in the house to cater for the need of family members while the single consumers 38.89% may opt to eat out. Further result showed that majority of consumers that accounted 38.89% do not belong to any co-operative society. It indicates further that consumers bargaining power will be weak since they can't come together to make purchase in bulk thereby reducing the purchasing price and increase consumers utility. The result further showed that majority of garri consumers meet in the market are civil servants with 38.89%. This could be attributed to the fact that civil servants have more purchasing power relative to other consumers.



**Table 1 Socio-economic Characteristics of The Respondents**

Variables	Frequency	Percentage
<b>Gender</b>		
Male	35	38.89
Female	55	61.11
<b>Age (Years)</b>		
20 – 30	20	22.22
31 – 40	15	16.67
41 – 50	25	27.77
≥ 51	30	33.33
<b>Levels of education</b>		
1 – 6	12	13.33
7 – 12	40	44.44
13 – 18	38	42.22
<b>Household size</b>		
1 – 3	23	25.55
4 – 6	38	42.22
≥ 7	29	32.22
<b>Consumers' income</b>		
5000 – 20000	12	13.33
21000 – 40000	16	17.78
41000 – 60000	22	24.44
61000 – 80000	17	18.89
81000 – 100000	13	14.44
101000 – 120000	10	11.11
<b>Marital status</b>		
Married	55	61.11
Single	35	38.89
<b>Cooperative society</b>		
Yes	25	27.77
No	65	38.89
<b>Consumers major Occupation</b>		
Farming	11	12.22
Trading	17	18.89
Civil servants	35	38.89
Students	13	14.44
Artisans	14	15.55
Total	90	100

Source: Field survey data, 2017

**Table 2 – Consumers' Budget Share for Garri**

Consumers' budget share shows the amount consumers budgeted weekly as they made their daily expenditures. Table 2 shows the consumers budget share of garri consumers ranging from ₦60 to ₦2375 showing a mean budget share of ₦790.61. Indicating consumers who budgeted between ₦801 to ₦1200 dominated in the study area accounting to 31.11% of consumers. They were followed by those who budgeted between ₦301 to ₦800 accounting 26.67% and the least are those who budgeted more than ₦1600 who accounted 10%. This



implies that consumers in this area of study are knowledgeable in financial management since they made weekly budgets for garri. It also showed that they are knowledgeable enough since they could set weekly targeted expenditure to help them bargain properly in influencing food prices to suit their income.

**Table 2: Distribution of Consumers' Weekly Share for Garri**

Budget share range (₦)	Frequency	Percentage
≤ 400	18	20.00
301 - 800	24	26.67
801 - 1200	28	31.11
1201 - 1600	11	12.22
> 1600	9	10.00
Total	90	100

Mean of garri consumers budget share ₦790.61

Source: Field survey data 2017

**Table 3 - Actual Weekly Expenditure by Garri Consumers**

This Explains Weekly Actual Expenditure of Consumers in The Study Area. Table 3 shows the actual expenditure of consumers in the study area ranged from ₦50 to ₦3000 with a mean of ₦970.69. It showed that consumers who spent ₦801 to ₦1200 dominated in the study area accounting to 26.67%. They were followed by consumers who spent between ₦401 to ₦800 accounting for 22.22% and the least are those consumers who spent more than ₦1600 accounting 14.44%. This implied that as consumers in the study area made budgets, they actually spent more than budgeted amount, indicating a low level of influence being exercised by consumers in the study area. Which is attributed to their not being knowledgeable enough of their position as king in the market situation using the instrument of demand and supply and their bargaining power in influencing retail prices in the market place. The result showed that there is 22.8% increase in mean expenditure for garri from its budget share. This shift could be due to price variability of garri in the market. Consumers are advised to always make adjustment of 22.8% increase in their budget share to meet up with their household demand for garri.

**Table 3: Distribution of Actual Weekly Expenditure by Garri Consumers**

Actual Expenditure	Frequency	Percentage
≤ 400	17	18.88
401 - 800	20	22.22
801 - 1200	24	26.67
1201 - 1600	16	17.78
> 1600	13	14.44
Total	90	100

Mean of garri consumers actual expenditure ₦970.69. Change in actual expenditure and budget share of garri 22.8%

Source: Field survey data 2017





**Table 4 Level of Consumers' level of Bargaining Power**

This shows the level consumers' level of bargaining power. Table 4 shows degree of consumers' bargaining power for retail price of garri in the area. This result shows that about 46.67% of consumers indicated strong bargaining power of above mean level 64.09% for unit retail price of garri while majority (53.33%) of consumers indicating a weak level of consumers bargaining power of below mean level of 64.09%. The high proportion of consumers with weak consumer bargaining power for garri is an indication that retailers still have more control of the market prices. Oni et. al., (2005) and Adegeye et. al., (1985) individually noted that consumers are not regarded as key factor in price-fixing by retailers especially when they interest of retailers is profit maximization. Consumers are at a disadvantage in bargaining strength when majority of the sellers are faced with such motives.

**Table 4: Distribution of Levels of Consumers' Bargaining Power for Garri**

Level	Class boundaries	Frequency	Percentage
Strong	0.00 – 64.09	42	46.67
Weak	> 64.09	48	53.33
Total		90	100

Mean bargaining power 64.09

Source: Field survey data 2017

**Table 5: The result of Determinant of Price Flexibility of Garri**

The Degree of Consumers Bargaining Power on the Unit Price of Garri. The price flexibility model of garri is shown in table 5, the co-efficient of multiple determinations ( $R^2$ ) is 0.10, the F – Valve of 2.98 is greater than the tabulated value of 2.02 at  $P < 0.05$  critical levels. This shows that the model is best fit and that about 10% explanation to variations in price can be accounted for by changes in consumers' bargaining power and the volume of garri bought weekly. The model is thus represented as:

$$\ln P = 4.66 + 0.11mQty - 0.01Cbp.$$

$$(35.5) \quad (2.4) \quad (0.05)$$

$$F - \text{Value} = 2.98^{**}$$

$$R^2 = 0.10$$

It can be deducted from the table that while consumers' bargaining power has direct but significant effect on retail prices, quantity of garri purchased per week does not. As the weekly quantity of garri purchased increases, the weekly retail increases as well, there is a less than 0.11% increase in unit weekly retail prices of garri as the quantity bought increase by 1% in the State. In this case, garri actually behaved like an abnormal good, but with inelastic characteristics. The reason for the behaviour could be explained from the fact that supply may be declining following an off-season garri production. The increasing demand relates to static or decreasing supply may push up the retail price, thought at a decreasing rate with demand. This collaborate Ehirim etc. al., (2003) finding, they noted that garri an inelastic demand behavior and it contradict with its inverse relationship with unit market price.



In the same way, there is a less than proportionate decrease in weekly unit increase in consumers' bargaining power. This implies that consumers actually exert influence on garri which gives strong bargaining characteristics.

Table 5 Distribution of Determinant of Price Flexibility of Garri

Explanable Variable	Co – eff	t - ratio
Constant	4.66 <sup>***</sup>	35.46
Quantity demanded of garri (Qty)	0.11 <sup>**</sup>	2.42
Consumers bargaining power (Cbp)	-0.01	0.05
R <sup>2</sup>	0.10	
Adj R <sup>2</sup>	0.07	
F – Value	2.98 <sup>**</sup>	
N	90	

Source: Field survey 2017

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