

THE MARKET STRUCTURE, CONDUCT AND PERFORMANCE FOR YAM IN ONDO STATE, NIGERIA

C.I. Ada-Okungbowa
Dept. of Agricultural Economics
and Extension Services
University of Benin
P.M.B. 1154
Benin City, Nigeria.

ABSTRACT:

There are peculiar purchase characteristics for commodities just as there are unique behaviours of middlemen, with regard to their pricing and product policies, that illustrate the features of the market under focus. This study focused on the elements that determine the size and purchase characteristics of yam in Owo Local Government Area of Ondo State.

Data collected from a random sample of one hundred yam sellers, from ten markets in the study area, were analyzed using descriptive statistics and the Lorenz curve.

The analysis of the Lorenz curve and its corresponding slope (Gini co-efficient) indicate that there was high degree of inequality in income distribution among the yam sellers and that the market was highly concentrated, exhibiting features of oligopoly.

Investigations further showed that there were no objective measures for determining the quality of yam as each buyer relied on personal experience to facilitate a good buy. Sharp practices of selling "unwholesome" yam tubers to unsuspecting buyers by the sellers were also observed.

The study recommends the provision of adequately ventilated lock-up stalls, storage and processing facilities, and the introduction of standard measures, preferably in kilograms (kg) to enhance the structure and conduct of the yam markets in the study area.

Introduction

There are certain factors that are believed to influence the nature of market competition and price formation for a commodity or commodity group. According to Buell (1992), they include demographic, geographic and

economic factors. He had earlier argued that three other factors: cultural change as reflected in social values, attitudes and lifestyles; technological developments; legal and government policy control, even

though very important, are difficult to track and estimate.

The demographic factor is about people and it reflects the size and make-up of the population while the geographic factors describes where the people live and the locations of the market(s) both in spatial and areal terms. The economic factor measures the individual and family purchasing power as well as the sales potential of firms in the marketing system. The precipitate of these interactive factors is that farmers react to the preference of consumers by producing the commodity that has the highest demand, a phenomenon often referred to as "supply response" (Olayide and Heady, 1982).

In the case of yam, there is the need to develop the marketing system through research so that the consumers can be assured of continuous supply of the tubers at all times and at reasonable prices. According to Osagie (1992), yam was adapted into Portuguese as Ynhame; into Spanish as name; into French as igname, and into English as yam. Also, "sweet potatoes are often called yams in the United States and some people refer to cocoyam as yam" (Purseglove, 1988). In this study, the term yam is confined to plants and rootstocks of the genus Dioscorea.

It has been argued that inadequate transport facilities are largely responsible for the poor marketing efficiency and continuing subsistence farming generally while inadequate storage facilities cause

serious wastage of foodstuffs and increased costs to consumers (Abbott and Makeham, 1986). Therefore, the objective of this paper is to examine the market structure, conduct and performance for yam in the study area in order to enhance a better rationalization of the poor marketing efficiency of most agricultural products. This will be important for short term planning and most importantly, understanding the factors that cause significant change in the structure and conduct of commodity markets is necessary for longer-range planning. Against this background this paper is structured as follows: section one presents the background information while section two focuses on the theoretical underpinnings of the study, section three discusses the methodological approach used in the study while section four presents the results and discussion of the results. The policy implications of the outcome of the study is the focus of section five while section six presents the conclusion and recommendations arising from the study.

Theoretical Framework:

According to Adekanye (1988), market structure refers to certain characteristics of the market which are believed to influence its nature of competition and the process of price formation. These characteristics include: size and number of buyers and sellers ensuring an adequate intensity of price and quality competition, freedom of entry and

Analytical Techniques:

Yam sellers' concentration in the Area was estimated using Lorenz curve and its corresponding slope (the Gini co-efficient). The Lorenz curve is obtained by plotting the cumulative percentage of the earnings of yam sellers from the smallest number to the largest.

Gini concentration ratio or Gini co-efficient is a measure of the relative degree of income inequality in the market. It is given by: -

$$\text{Gini co-efficient} = 1 - \Sigma XY$$

Where,

X=the cumulative percentage of yam sellers

Y=the cumulative percentage of their revenue.

Σ =the summation sign.

Results and Discussion:

Structure of The yam Market:

The markets surveyed were characterized by the presence of large number of buyers and few sellers. The number of yam seller in each market was easy to determine through head count (approximately 47 yam sellers, on the average, in each of the 10 markets on market days which were at intervals of every five days). Results presented in table 1 indicate that retailers were more numerous than wholesalers as 70 percent of the sample accounted for less than five thousand naira (₦5,000.00) sales volume each. This amount (sales volume) was observed to be grossly inadequate to carry on any meaningful marketing activity especially at the "wholesale" level. In addition, there was relative

freedom of entry into the trade and a substantial degree of price competition prevailed among the sellers. Thus, the structure of the yam market in Owo Local Government Area could be said to be essentially oligopolistic

The Lorenz curve for the yam sellers is presented in figure 1. It is noted from the curve that 70 percent of the sellers (retailers) received less than 40 percent of the total sales indicating that over 60 percent of market sales was concentrated in the hands of 30 percent of the sellers.

The slope of the curve (Gini Co-efficient) was estimated to be 0.6895 (see table 1). These results indicate that there was a high degree of inequality in income distribution among the sellers. As for the Gini co-efficient in particular, which ranges from 0 to 1, the closer the value is to unity, the greater is the degree of income inequality and the higher is the level of concentration of sellers, and vice versa. This result indicates that the structure of the yam markets places the sellers with higher sales at a greater advantage than the small sellers in terms of market share. This, however, does not suggest that the small sellers are not important in yam marketing in the sampled markets.

The reasons for the high concentration of retailers in yam marketing may be traceable to the small capital outlay needed, the requirement of little or no specialized skill and the inability to invest in alternative enterprises that are more risky.

Were some who earned N1,667.00. The high market margin (over 50 per cent on the average) may also be an indication that the yam markets surveyed were inefficient.

The yam market in the area of study need to undergo substantial modifications and improvements so that it could continue to render valuable services to consumers. Such modifications and improvements include:

(i) Provision of adequately ventilated lock-up stalls by the local government authority to minimize waste of time and energy in conveying yam tubers from individual homes to the market and vice versa on every market day.

(ii) Provision of storage and processing facilities for yam to increase value added to the consumers with a view to minimizing losses and enhancing sellers' incomes.

(iii) the introduction of standard measures for yam sales preferably in kilograms (kg) to facilitate pricing and buying behavior of consumers. These recommendations will not doubt enhance the structure, conduct and performance of yam markets in the study area

Acknowledgement

I am grateful to the anonymous reviewers of this article for their helpful comments and suggestions.

References

- Abbott, J.C. and Makeham, J.P. (1986): Agricultural Economics and Marketing In the Tropics; Longman Publishers, London PP. 10-15, 120-126.
- Adegeye, A.J. and Dittoh, J.S. (1995): Essentials of Agricultural Economics; Impact Publishers Nigeria Ltd.; PP. 164 - 176.
- Adekanye, T.O. (1988): Readings in Agricultural Marketing; Longman Publishers Nigeria Limited. PP. 1- 120.
- Buell, V.P. (1992): Marketing Management: A Strategic Planning Approach; ISE. McGraw - Hill Publishers. New York. Pages 60-90.
- Kotler, P. (1990): Marketing Management Analysis, Planning, Implementation and Control; Prentice Hall Ltd; New Delhi. PP. 135.
- Olayide, S.O. and Heady, E.O. (1982): Introduction to Agricultural Production Economics; Ibadan University Press (IUP), Ibadan - Nigeria.
- Osagie, A.U. (1992): "The Yam Tuber In Storage" Post Harvest Research Unit, University of Benin, Benin City - Nigeria PP. 157 - 169.
- Purseglove, J.W. (1988): Tropical Crops; Monocotyledons; London Group Limited, London. PP. 97 - 99.

Table 1: **Computation of Gini Co-efficient for Yam Sellers in Owo Local Government Area, Ondo State**

Sales (N)	Number of firms (sellers)	% of total sales	Cumulative of total sales (Y)	% of sellers (X)	Cumulative of total sales (X)	XY
1667	6	2.06	2.06	6	6	0.0012
1800	7	2.23	4.29	7	13	0.0030
2000	10	2.47	6.76	10	23	0.0068
2400	9	2.97	9.73	9	32	0.0088
2500	13	3.09	12.82	13	45	0.1167
3000	4	3.71	16.53	4	49	0.0066
3333	4	4.12	20.65	4	53	0.0083
3600	3	4.45	25.1	3	56	0.0075
3750	3	4.64	29.74	3	59	0.0089
4000	8	4.95	34.69	8	67	0.0278
4167	3	5.15	39.84	3	70	0.0120
5000	6	6.18	46.02	6	76	0.0276
6000	2	7.42	53.44	2	78	0.0107
6667	7	8.24	61.68	7	85	0.0432
7000	5	8.65	70.33	5	90	0.0352
10000	8	12.36	82.69	8	98	0.0662
14000	2	17.31	100	2	100	0.0200
80.884	100	100		100		0.3105

SOURCE: Field survey (1996).

Mean value of sales N808.84

Gini co-efficient 1 0.3105

0.6895

Table 2: **Features of Yam Markets in Owo Local Government Area, Ondo State**

S/No	Features	Observations/Comments
1.	Number of sellers	Few, indicative of oligopolistic competition
2.	Product (Yam)	Undifferentiated
3.	Price	Pricing in concert was common, some firms act independently.
4.	Entry of new firms	Somewhat easy, Cartel's imposed restrictions usually present a barrier.
5	Marketing effort	Very large amount of non-price competition with heavy emphasis on product display and gesticulation mannerisms.

Source: Field survey (1996)

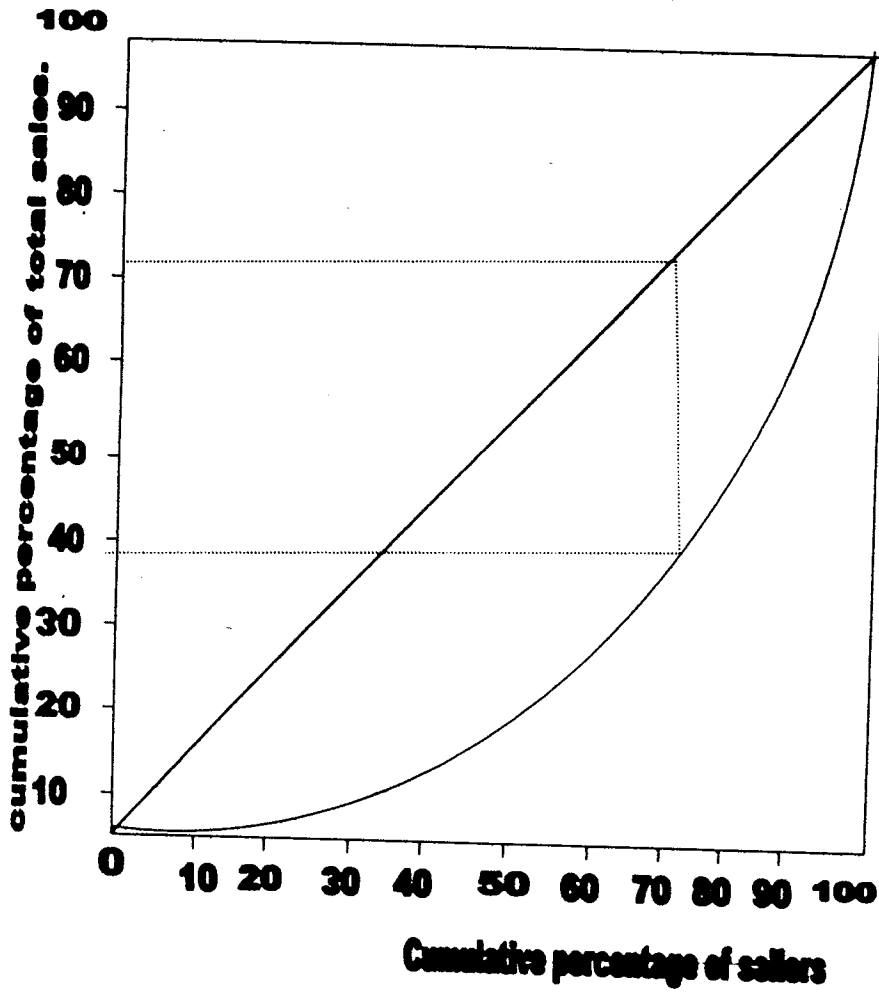


Fig 1: The Lorenz curve for yam sellers in