STRUCTURE AND CONDUCT OF VEGETABLE MARKETING IN KWADOM YALMATU DEBA LOCAL GOVERNMENT AREA OF GOMBE STATE, NIGERIA

A. A. NDAGHU, V. B. TARU AND J. A. ISAH

ABSTRACT

The study examined the structure and conduct of vegetable marketing in Kwadom, Yamaltu Deba Local Government Area of Gombe State, Nigeria. Data were collected by administering structured questionnaire to 120 vegetable marketers. Analytical tools used include Gini co-efficient, gross and marketing margin analyses. The result indicated that vegetable marketing was profitable with an average gross margin of ₦65, 242.81 per week and an average net income of ₦64, 944.50 per week during peak period of vegetable production with high marketing margin of 31.78%. The Gini co-efficient analysis indicated that the market was highly concentrated (0.69). This leads to the presumption of non-competitive behaviour and inequality in earnings among the marketers.

KEY WORDS: Marketing Structure; Conduct; Gini Co-Efficient; Gross Margin; Vegetable Marketing.

INTRODUCTION

Vegetable encompasses the herbaceous or edible parts of herbaceous plants which are widely cultivated for their food and nutritive values. In Nigeria these crops are mostly cultivated around the fadama watersheds of the northern region. The term %vegetable+ is usually used to describe the soft and herbaceous parts of plant that may be eaten raw or cooked alone or in combination with other products like meat, fish and other preparations (Brader, 2000; cited by Adeokun *et a.,l* 2006).In the opinion of Okigbo (1990) vegetables are edible, mostly herbaceous plant species or relatively tender parts of plants that are consumed fresh, steamed, boiled, salted, or cooked. Vegetables are eaten as part or full course of a meal. Vegetables are also refreshing with aromatic taste and are vital in contributing to human body calories, protein, minerals and other dietary constituents. Vegetables contain considerable quantity of vitamins A, B, C and K which protect the body against diseases and contribute significantly to good health (Agusibo, 1984).Tomatoes, for example, supplying about 4% of individuals requirement for vitamins A,B,K and L while pepper is a good source of vitamin A and minerals (Olaniyan and Fawusi,1992).Also onion ranks among the five most important vegetables in Nigeria(NIHORT, 1986).Onion has also been recommended for brain neutralization as well as boosting male reproductive cells. Dry okra is also found to be a very nutritive food as it contains up to 20% protein (Martin *et al*., 1980) Apart from being sources of minerals, vegetables also have laxative effect and substantially improve dietary quality. In addition, vegetarians take delight in vegetables. Vegetables are prepared into vegetable dishes, salads, breakfast with

cereals supplements and baby weaning food while the inflorescence is a good source of feed for animals. Some vegetables like the wonder plant *Moringa olifera,* fluted pumpkin, and bitter leaf, *Vernonia amygdalina,* have medicinal values (Yakubu *et al,* 2005).

Interest in vegetable production and marketing has increased rapidly in the last two decades as a result of greater appreciation of the importance of vegetables occasioned by rising awareness of balanced diet and knowledge of the fact that consumption of vegetables could create a healthy living than of other food items. Production and marketing of vegetables also serve as important source of livelihood for those outside the formal sector (Yakubu *et al.,* 2005). In the study area, the cultivation and marketing of vegetables have increased rapidly as farmers cultivate vegetables throughout the season while buyers and marketers abound all year round. Despite increase in awareness of the importance of vegetables to health and dietary requirements for well being of the people no effort has been made to improve the production, distribution and marketing of vegetables in Nigeria. It is against this background that this study analyses the marketing of vegetables in Yamaltu Deba Local Government Area (LGA) of Gombe State, Nigeria. This is important for the fact that marketing is the prime conveyor of products to prospective consumers in the country.

MATERIALS AND METHOD

Yamaltu Deba LGA is located in the southern part of Gombe State. The LGA has a total land area of 222,756 sq.km, and lies between latitude $11^0 31^1$ and longitude $11^0 24^1$ of the equator (Umar, 2006).

A. A. Ndaghu, Department of Agricultural Economics and Extension Federal University of Technology P.M.B. 2076 Yola, Adamawa State, Nigeria

V. B. Taru, Department of Agricultural Economics and Extension Federal University of Technology P.M.B. 2076 Yola, Adamawa State, Nigeria

J. A. ISAH, Department of Agricultural Economics and Extension Federal University of Technology P.M.B. 2076 Yola, Adamawa State, Nigeria

The area has a population of 255,248 people (NPC, 2006) with a temperature range of 20^{0c} - 30^{0c}. The area is transverse by river Benue and the Dadin Kowa dam is located there. The dam serves as source of water for the large vegetable cultivation in the Area. The dam is reputed to be the second largest in the country with a capacity of 1.77 million cubic metres of water.

SOURCE OF DATA AND SAMPLING PROCEDURE

The data for this study were basically primary. These were collected with the use of structured questionnaire randomly administered to hundred and twenty vegetables marketers in Kwadom market where all vegetable marketers from near and far around Yamaltu Deba Local Government come to on weekly basis.

ANALYTICAL TECHNIQUES

Marketing margin, Gini-coefficient and Gross margin analysis were employed in the study. The marketing margin is determined from the difference between retail prices and producers price (Ehirim *et al*, 2007). Marketing margin is thus expressed as:-

Marketing margin (Mm) = R_p - P_põ õ õ õ i
Rp   =   Retail Price
Pp   =   Purchase Price

Adekanye (1988) and Okumadenwa & Mafimisebi (2001), independently emphasized that marketing margin is expressed as a percentage of the Price and this is expressed by a percentage Mm =   (Rp - Pp)/Pp x 100 õ (2)

Gini co-efficient was used to determine the degree of market concentration of buyers and sellers in the market. The Gini co-efficient was computed using the following formula after Okereke and Antonio (1988).

G = 1 . n XY
Where G = Gini co-efficient
        X = Percentage share of each class of seller
        Y = Cumulative percentage of their sales

The Gini co-efficient ranges from zero to one. A perfect equality in concentration (low) of buyers and seller is expected if G tends towards zero, while perfect inequality in concentration (high) of sellers is expected if G tends towards one, if G = 1 market is imperfect, and if G = O, market is perfect and competitive.

Gross margin was measured as the differences between total revenue and total marketing cost. The relative Gross margin was examined as a percentage of the difference between total revenue and the variable cost of performing marketing service as expressed below:-

GM   =   TR . TMC õ õ õ õ õ . (3)
Where GM   =   Gross Margin
    TR   =   Total Revenue
    TMC   =   Total Marketing Cost in Naira (130 Naira ₦ = IUSD) as at
                      the time of study.

RESULT AND DISCUSION

Table 1 and 2 revealed that 18.60% of the marketers had weekly sales of ₦100,000.00 and below and accounted for 3.11% of the total volume of the sales, while 60.46% of the marketers had weekly sales of ₦100,001 . 300,0000 and accounted for 21.35% of the total sales, 42.09% of the marketers had weekly, sales of ₦300,001 . 500,000 and accounted for 31.21% of the total volume of weekly sales, while 79.06% of the marketers had weekly sales of ₦500,001 . 700,000 and accounted for 41.18% of the total volume of sales 83.71% of the marketers had a weekly sales of ₦700- 900 and accounted for about 49.98%. 83.36% of the marketers had weekly sales of ₦900,001 . ₦ 1,100,000 and accounted 59.93% of the total volume of the sales. Ninety three point zero one percent (93.01%) of the marketers had a weekly sales of ₦1,00,001 . ₦ 1,300,000 and accounted for 73.17% of the total volume of sales. The remaining 95.34% and 97.67% of the marketers had weekly sales of ₦1, 300,001-1,500,000 and ₦1, 500,001 . ₦ 1,700,000 of total sales and accounted for 80.89% and 90.01% of the total volume of the weekly sales respectively.

TABLE 1 CONCENTRATION OF VEGETABLE MARKETING BASED OF WEEKLY SALES

Sales ₦	No. of Sellers	Percentage of Seller	Cumulative Percentage
2100,000.00	8	18.60	18.60
100,001-300,000	18	41.86	60.46
300,001-500,000	5	11.63	72.69
500,001-700,000	3	6.97	97.06
700,001-900,000	2	4.65	83.71
900,001-1,100,000	2	4.65	88.36
1,100,001-1,300,000	2	4.65	93.01
1,300,001-1,500,000	1	2.33	95.34
1500,001-1,700,000	1	2.33	97.67
1700,001-1,900,000	1	2.33	100.00
Total	**43**	**100.00**	

Source: Field Survey, 2008

TABLE 2: WEEKLY SALES OF VEGETABLES

Total Values of Weekly sales ₦	Percentage of total sales	Cumulative Percentage	∑XY
580,900.00	3.11	3.11	0.0058
3,403,400.00	18.24	21.35	0.0893
1,840,750.00	9.86	31.21	0.0363
1,862,000.00	9.97	41.18	0.0287
1,642,000.00	8.80	49.98	0.0232
1,856,000.00	9.95	59.93	0.0278
2,470,200.00	13.24	73.17	0.0340
1,440,000.00	7.72	80.89	0.0188
1,700,000.00	9.12	90.01	0.0269
1,865,5000.00	9.99	100	0.0233
Total: 18,660,750.00	100.00		0.308

Source: Field Survey, 2008

$$G = 1 - n\,XY$$
$$= 1 - 0.308$$
$$= 0.69$$

The mean value of the weekly sales was estimated to be ₦433, 970.93. The Gini co-efficient analysis showed that the market was highly concentrated (0.69) indicating the possibility of non-competitive pricing behaviour and inequality in earnings among the marketers. Thus, the vegetable market in Yamaltu Deba is imperfect. Inequality in earnings is said to be a partially related to the differences in riskness of the investment. People differ in their risk preferences and this also affects their earnings. Marketers that are less risk averse tend to choose high risk ventures and consequently could have larger earnings and make more profits (Iheanacho, 2005). This is accounted for the fact that vegetable marketing is a risky investment usually arising from the delicate and highly perishable nature of the products. Sometimes losses are incurred through spoilage during transportation. The high risk associated with vegetable production makes room for the survival of the fittest where some risk averse marketers tend to abandon the market for the less risk averse ones.

The gross margin, otherwise known as return over variable cost served as a proxy measure of preferentiality and performance of the market. The average gross margin and average net income of all the vegetable marketers in the study area were estimated to be ₦65,242.81 and ₦64,946.30 respectively. This high gross margin is due to the nature of the market which is a wholesaler market and the fact that the study was conducted during the peak period of vegetable production.

Table 3 shows that the marketing margin was 31.78%. This implies that the marketers reaped 31.78% of the final selling price paid by the consumer. The existence of high marketing margin is detrimental to both the producers in form of low prices and to the consumers in form of high prices or both (Iheanacho, 2005).

TABLE 3: GROSS AND MARKETING MARGINS OF VEGETABLE   MARKETERS

Items	Cost (₦)
Variable cost (a)	1,235,000.00
Transportation	185,090.00
Loading/off loading	153,810.00
Empty bags	1,427,880.00
Empty buckets	57,029.00
Tax for Local Government	66,500.00
Tax of Vegetables Purchased	12,730,000.00
Total Variables (TVC)	15,855,309.00
Fixed cost (b)	
Rent on shad/store	4,250.00
Security	8,500.00
Total fixed cost (TFC)	12,750.00
Total cost (TC) = (TVC + FFC)	15,868,059.00
Returns	
Total revenue (TR)	18,660,750.00
Gross margin = (TR-TVC)	2,805,441.00
Average Gross Margin	65,242.81
Net Income = (TR-TC)	2,792,691.00
Average Net Income	64,946.30
Marketing Margin	31.78%

Source: Field Survey, 2008

CONCLUSION

This study revealed that vegetable marketing in Yamaltu Deba Local Government is profitable. Sellersq concentration was high, indicating the possibilities of existence of non-competitive marketing practice and inequality in earnings among marketers. The perishable and high risk associated with vegetables marketing contributed to this structure. This is happening even in the face of poor communication network and transport infrastructure which is unarguably the bane of rural production, distribution and marketing.

RECOMMENDATIONS

Credit facilities through banks and cooperatives should be made available in advance to the marketers and the procedure to accessing the loan should also be made simple, this is to enable the marketers to have access to capital in order to expand their businesses thereby making vegetable marketing competitive. Also, transportation facilities should be provided by the government at subsidized rate to reduce the burden of high cost of transportation to reduce marketing margin. Finally, a large market should be constructed by appropriate authorities to reduce congestion in the market

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