



**Marketing Analysis of Onion In Sokoto and Kebbi States of Nigeria**

Dogondaji, S. D\*, K. M. Baba and I. Mohammed

Department of Agricultural Economics and Extension, Usmanu Danfodiyo University Sokoto

\*Department of Agricultural Science, Shehu Shagari College of Education, Sokoto.

**Abstract**

This study involved 35 retail and 30 wholesale onion traders in Sokoto and Kebbi States. Eight markets were purposively selected for the study, four each from Sokoto and Kebbi States. Questionnaire were the main instrument of data collection while random sampling technique was used to select respondents for the study. Descriptive statistics and the farm budget technique were used for data analysis. Majority (63.1%) of the respondents had between 5 and 15 years experience in onion trading while only 6.2% of the traders had over 20 years experience in onion trading. Onion supplies were sourced from wholesale or urban markets by 91.43% and 86.66% of the wholesalers and retailers, respectively. The marketing channel showed that onion finds its way to the local consumers and consumers in distant markets through a number of intermediaries. Onion marketing was profitable to the tune of N850.30 and N96.70 per bag for wholesale and retail traders, respectively. Major problems of onion marketing include the frequent price fluctuations and high transportation costs. Provision of efficient transport systems and the establishment of onion processing plants were suggested.

**INTRODUCTION**

In Nigeria, Hussaini *et al.* (2000) reported onion as the second most important vegetable after tomato. According to Ayodele (1996), commercial onion production in Nigeria is mainly in the north. Sokoto and Kebbi States are among the states in the north where considerable quantity of onion is produced annually. Bednaz (1986) observed that in terms of its trade value in Nigeria, onion can stand comparison with tomatoes and peppers. Onion is in focus because of its unique position as a popular vegetable that is utilized almost daily in every home.

Marketing generally involves the movement of commodities from where they are produced to the points of consumption. Agricultural marketing specifically involves the movement of agricultural products/commodities from thousands of scattered small-sized farms where they are produced, to the

thousands of consumers located in both rural and urban areas (Adeyeye and Ditch, 1982). Akinwumi (1999), reported that the marketing of agricultural products involves larger number of people including the producers, assemblers, transporters, bulk breakers and retailers, the final stage of being an interaction between the seller or retailer and the buyer or consumer.

Olukosi and Isior (1990), described marketing as a part and parcel of the production process and that it constitutes a bridge between production and consumption. Amaza *et al.* (1994) opined that there is close inter-relationship between agricultural marketing and the increasing productivity of agriculture. In Sri Lanka, vegetable prices fluctuate during the year based on supply, with the highest and lowest prices recorded during the months which mark the beginning of the cultivation and harvest

seasons, respectively (Sanjayake, 1977). In Texas, lower onion prices are received during periods of high production and vice-versa (Bello, 1988). While in Philippines, Azecuna (1993) reported that onion price fluctuate due primarily to variation in supply and the non-availability of a system for the delivery of market information.

This study examines the marketing system of onion in the study area. Results of the study may provide useful information on the marketing channel and profitability of onion marketing in the study area.

## METHODOLOGY

Sokoto and Kebbi States in northwestern Nigeria share a common boundary and are located 10°40' - 13°55'N and 3°30' - 7°06'E (Singh, 2000). The area falls within the semi-arid sub-Saharan region, the rainfall (400-700mm) is frequently erratic and poorly distributed (Singh, 1995). The vegetation is largely the Sudan Savannah type with the northern part of the two states approaching the Sahel Savannah and the southern part of Kebbi State approaching Guinea Savannah (Shah *et al.*, 1997).

Eight onion markets four each from Sokoto and Kebbi States were purposively selected for the study based on the intensity of onion marketing activities. From each of the selected markets, five wholesalers and five retailers were randomly selected, giving a total of 80 respondents. However, 65 questionnaire comprising 35 retailers and 30 wholesalers were used for the analysis. Data were analysed using descriptive statistics (Means, Ranges, Frequencies, Percentages, Charts) and farm budget analysis in determining the profitability of onion marketing.

## RESULTS AND DISCUSSION

### Marketing Experience of the Respondents

Experience in marketing is expected to enhance the efficiency with which the trading activities are performed. Results of the study (Table 1) shows that majority (63.1%) of the respondents had been onion traders for a period of between 5 and 15 years. New comers into the business with less than 5 years trading experience represent only 6.2% whereas traders with over 20 years experience in onion trading represent 16.9% of the respondents.

Table 1. Distribution of respondents according to years of experience in onion trading

Years of experience	Frequency	Percentage
Less than 5	4	6.2
5-10	25	38.5
11-15	16	24.6
16-20	9	13.8
21 and above	11	16.9
Total	65	100

Source: Field Survey, 2002/2003

### Sources of Onion Supply and Quantity Handled by the Respondents.

Onion traders obtain their supplies from different sources in the study area. Traders were categorized into wholesalers and retailers based on the quantity of onion handled. Retailers display their onion in small containers or the onion is displayed in small heaps on the ground. Wholesalers usually buy and transport sizeable quantities for sale in other states. Trading activities holds daily in Sokoto and Aliero markets in Sokoto and Kebbi States, respectively. Other markets in the study area hold on weekly basis, and traders come to buy onion from these markets on weekly basis. Findings of the study revealed that 91.43% of the wholesalers and 86.69%

of retailers buy their onion at the urban markets (Table 2). Onion was bought from farmers at the farm gate by 17.14% and 10% of wholesalers and retailers, respectively, whereas only 8.57% of the wholesalers buy onion from farmers at home. Urban wholesalers register higher level of transactions during the harvest season. Dogondaji (2005) reported that over 80% of respondent farmers each in Sokoto and Kebbi States sold their produce at the urban markets.

Table 2: Distribution of respondents according to source of onion supply

Source of supply	Wholesalers		Retailers	
	Frequency	%	Frequency	%
From Gate	6	17.14	3	10
Farmer's Home	1	8.57	0	0
Village Market	5	14.29	0	0
Urban Market	32	91.43	26	86.66
From Wholesalers	4	11.43	4	13.33
Total	50*		33*	

\*Greater than sample size because some respondents buy from more than two sources.

Source: Field Survey, 2002/2003

The average quantity of onion handled per wholesaler per week was 17,545kg, while the average quantity handled per retailer per week was 502kg.

#### Marketing Channel for Onion

Marketing channels, that is, the path of a product as it moves from the producers to the final consumers are important in evaluating marketing systems (Oluksodi and Isitor, 1990). They indicate how the various products market participants are organized to accomplish the movement of a product from the producer to the final consumer. The marketing channels for onion in the study area is depicted in Figure 1.

Majority of the middlemen (91.43%) and

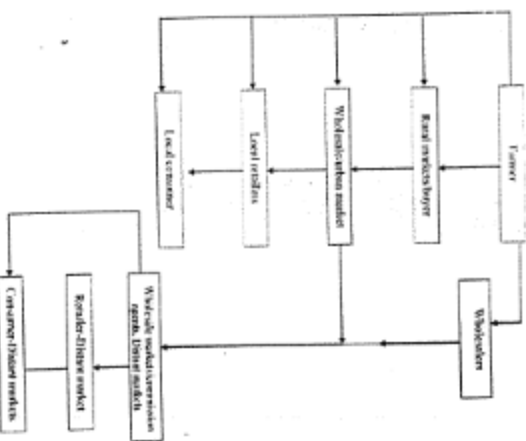


Fig 1. Marketing channel for onion

wholesalers (86.66%) buy their onion from wholesale or urban markets. The urban or wholesale markets take their supply from two main sources. The sources include farmers who transport direct to the markets and rural buyers who buy from the farm, home or rural markets and transport to the urban markets. Onion retailers source their supply from the urban markets or direct from the farmers. Retailers, in turn sell in small quantities to consumers (Figure 1). Means of transportation used by respondents were camels, donkeys and motor vehicles.

All the respondents (wholesalers) transport onion for sale to other states of the federation, the marketing channels are thus extended (Figure 1). Onion is purchased from the wholesale markets

within the study area and transported to other wholesale markets in cities outside the study area. Onion is also sourced from the farmers and transported to the distant wholesale markets, without necessarily passing through the local wholesale markets. At the distant markets, the onion is sold through commission agents for a fee. Retailers at the distant markets buy from the wholesale markets and in turn, sell to the consumers.

#### Cost and Returns in Onion Marketing

Trading in onion by both categories of middlemen (wholesalers and retailers) in both Sokoto and Kebbi States was profitable as revealed by results of the analysis on costs and returns (Table 3). As can be seen in Table 3, apart from the cost of onion purchases, which accounted for 76.02% and 92.11% of the marketing cost for wholesalers and retailers,

respectively, the second most important component of the marketing costs was the cost of transportation. This was particularly important in wholesale trade where it accounted for 13.33% of the total marketing costs. Overhead costs accounted for 3.11% and 3.68% of the marketing cost of wholesale and retail trades, respectively (Table 3).

Average gross returns of N4,861.94 and N4,108.24 per bag were received by the wholesalers and retailers, respectively. This gives a net income of N850.30 and N796.70 for the wholesalers and retailers, respectively. The difference in net income between wholesalers and retailers could be due to the high demand for the commodity in the Central and Southern States. Nyoku (1994) reported a profit of N3873.51 per tonne of onion for wholesalers in the Owerri area.

**Table 3:** Cost and returns analysis of onion marketing in Sokoto and Kebbi States (N/kg)\*

Cost item	Wholesale (n=30)		Retail (n=35)	
	Cost (N)	% of total	Cost (N)	% of total
<b>Variable costs</b>				
Cost of onion	3049.54	76.02	3049.54	92.1
Loading	20.00	0.49	20.00	0.60
Off-loading	30.00	0.75	20.00	0.60
Transportation	537.10	13.39	50.00	1.51
Commission agents fee	250.00	6.23	50.00	1.51
Total variable costs	3886.64	96.89	3189.54	96.32
<b>Overhead costs</b>				
Commodity tax	5.00	0.12	2.00	0.06
Cost of sack	120.00	2.99	120.00	3.62
Total overhead costs	125.00	2.11	12.00	3.68
Total marketing costs	4011.64	100	3311.54	100.00
Total returns	4861.94		4108.24	
Net returns	850.30		796.70	

\* 1 Bag = 122.8kg

Source: Field survey, 2002/2003.

### Problems of Onion Marketing

Onion marketing proved to be profitable at both wholesale and retail levels. However, the activity is not without problems. The most important problems reported by all the respondents were high cost of transportation, unstable and very low prices particularly at harvest season. The problem of high transportation cost could be as result of frequent increases in the pump price of petroleum products. The problem of high losses in stored onion, lack of sufficient capital and insecurity on our roads were also reported as impediments to smooth conduct of onion marketing in the study area.

### CONCLUSIONS

From the findings of the study, it could be concluded that majority (63.1%) of the respondents involved in onion marketing had between 5 to 15 years experience in onion marketing. Onion supplies were sourced from the wholesale or urban markets by 91.43% and 86.6% of the wholesalers and retailers, respectively. Onion find its way from the farmers to the consumers through the rural buyers, wholesalers and retailers. Marketing of onion was profitable for both categories of middlemen (wholesalers and retailers). Major problems of onion marketing were the high cost of transportation and fluctuations in onion prices.

### RECOMMENDATIONS

To overcome the problem of price fluctuations, the private sector should be encouraged to establish onion dehydration plants to process the onion into more durable products. This may help to enhance

the year round availability of the commodity in addition to preparing it for export. Introducing the product to the international market may help in raising the demand for the product, increase producer prices and hence income of the farmers.

To reduce the problem of high transportation cost to the barest minimum, government should ensure the provision of efficient transportation system. Government should equally hasten the resuscitation of the rail transport system as a cheaper means of moving onion and other farm products.

### REFERENCES

- Adegeye, A.J. and Ditch J. S. (1982). *Essentials of Agricultural Economics*. Centre for Agricultural and Rural Development, University of Ibadan, Pp.110-133.
- Akinwumi, J.A. (1999). "Agricultural Economics and Marketing". In Youdeowei, A. F.O.C. Ezedinna and O.C. Onazi (eds). *Introduction to Tropical Agriculture*. Longman Group, England Pp. 274-281.
- Amaza, P.S., Ogunbanmeru, B. O., Iheanacho, A. C. and Anogic, D. A. (1994). Marketing constraints of fadama agricultural products: A case study of Borno and Yobe States. In Kolawole, A., I. Scoones, M.O. Awopfode and J.P. Voh, (eds) *Strategies for the Sustainable Use of Fadama Lands in Northern Nigeria*. CSIR/IARU (Zaria) and IIED (London) ix-214.
- Ayodele, V.I. (1996). Onion *Allium cepa L* and *Allium cepa L*. Var *aggregatum* production in Ibadan, Southwest Nigeria; prospects and

- limitation. Paper presented at the 11<sup>th</sup> annual conference of the Horticultural Society of Nigeria, Ogun State University, Ago-Iwoye, 1-4 April.
- Azucona, C.F. (1993). "Socio-economic considerations in onion production and handling in the Philippines: Opportunities for technology transfer". *Onion News Letter for the Tropics*, 5:10-15.
- Beharaz, F. (1986). Suggestions on onion (*Allium cepa* L.) Variety Improvement in Nigeria. Mimeo-graph, Plant Science Department, I.A.R., ABUZaria, Pp.25.
- Bello, H.M. (1988). An economic analysis of factors influencing Texas and U.S. dry onion prices. Unpublished MSc. Thesis, Texas A and M University, USA.
- Dogondaji, S.D. (2005). Economics of dry season onion production and marketing in Sokoto and Kebbi States, Nigeria. Unpublished Ph.D. Thesis, Department of Agricultural Economics and Extension, Usmanu Danfodiyo University, Sokoto, Nigeria. Pp.180.
- Hussaini, M.A., E.B. Amans and A.A. Ramalan (2000). Yield, bulb size distribution and storability of onion (*Allium cepa* L.) under different levels of N fertilisation and irrigation regime. *Tropical Agriculture (Trinidad)*, 77(3):145-149.
- Njoku, J.E. (1994). The economics of wholesale marketing of vegetables in Owerri area of Southern Nigeria: The case of onions. *Tropical Agriculture (Trinidad)*, 71(2): 139-143.
- Olukosi, J.O. and S.U. Isior (1990). *Introduction to Agricultural Marketing and Prices: principles and Applications*. Living books series, G.U. Publishers, Abuja.
- Senamyahe, Y.D.A. (1977). "Vegetable production in Sri-Lanka". *Proceedings of the workshop on Pre-and Post-Harvest Vegetable Technology in Asia*. The Asian Vegetable Research and Development Centre, Shanhua, Taiwan, R.O.C. Pp.70-84.
- Shaib, B.A., A. Aliyu and J.S. Bakshi (eds). *Nigeria: National Agricultural Research Strategy Plan: 1996-2010*. Department of Agricultural Sciences, Federal Ministry of Agriculture and Natural Resources, Abjia, Nigeria. Pp.335.
- Singh, B.R. (1995). Soil management strategies for the semi-arid ecosystem in Nigeria. The case of Sokoto and Kebbi States. *African Soils*, 28:317-320.
- Singh, B.R. (2000). Quality of irrigation water in *fadama* lands of north-western Nigeria II. Tubewell waters Zamfara State. *Nigerian Journal of Basic and Applied Sciences* 9:191-202.