

Marketing Analysis of onion in Bade and Geidam Local Government Areas of Yobe State, Nigeria

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Abstract: This study involved 5 Retail and 15 wholesale onion traders in Gashua and Geidam Local Government Areas in Yobe state. Two markets were purposively selected for the study each from Gashua and Geidam Local Government Areas. Questionnaire was the main instruments of data collection while a multi stage sampling technique was employed for collecting primary data from a sample of forty (40) onion traders in the study area. Analytical tools used were; descriptive statistics, marketing efficiency model and inferential statistics. majority (65%) of onion Traders falls within the age bracket of 25-54 years of age, The years of Onion trading experience of the respondents indicates that most of the respondents (37.5%) had below 5 years of trading experience in onion trading and (40%) had between 5-14 years; while only (22.5%) had between 15-24 years of experience in onion trading in the study area. Result of the costs and returns analysis revealed that onion marketing was profitable to the turn of N5, 515.58 and N3, 469.54 per bag for wholesale and retail traders at peak period of onion supply; and N3, 801.94 and N3, 671.19 per bag for wholesale and retail traders at off-peak period of onion supply respectively. This finding also indicated that marketing of onion during the off-peak period is efficient with total efficiency of 1,610.83% than during the peak period of onion supply with total efficiency of 1,577.20%. Major problems of onion marketing include the frequent price fluctuations and high transportation cost. Introduction of the product to the international markets and establishment of onion dehydration plants were suggested.

Key words: Profitability, Efficiency Ratio, Peak and Off-peak periods

I. Introduction

Gilberto (1995) sees marketing as a 'system' that comprises several usually stable, interrelated structures along with production and consumption underpin economic process. In Nigeria, Hussaini et al (2000) reported onions 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 onions can stand comparison with tomatoes and peppers. Onions is in focus because of its unique position as a popular vegetable that is utilized almost daily in every home. Nigeria like any other developing country is faced with rapid population growth and expanding urban population which increase demand on Agricultural production and marketing system. This has prompted concern about the efficiency and performance of onion marketing and resulted in institutional change in this system. This concern is further justified if one considers the fact that an efficient marketing system is beneficial to marketers in that it maximizes the profit (Olukosi and Isitor 1990).

According to Adekanye (1988), marketing is not just the impersonal forces of supply and demand that come into contact with each other, instead buyers and sellers enter into personal face to face with each other.

Marketing generally involves the movement of commodities from where they are produced to the point of consumption. Agricultural marketing specifically involves the movement of agricultural products/commodities from where they are produced to the thousands of consumers located in both rural and urban areas (Adegeye and Dittoh 1982). While 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 sellers or retailers and the buyer or consumer.

Olukosi and Isitor (1990), described marketing as part and parcel of the production process and that it constitute a bridge between production and consumption. Amaza et al (1999) opined that there is close inter-relationship between Agricultural marketing and the increasing productivity of Agriculture. In Sri Lanka, Vegetable price fluctuate during the year based on supply, with the highest and lowest prices recorded during the month which mark the beginning of the cultivation and harvest seasons, respectively (Sanayayake, 1977). In Texas, lower onion prices are received during the period 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 non-availability of a system for the delivery of market information.

United States Development Agency (USDA) shipping data between 1990 and 2001 show that an average of 8% of the Texas onion crop is marketed during March, 55% in April and the balance is in May and

June respectively (Rabinson 2002). Rabinson's(2002) analysis of the Texas onion market resulted in the discovery that a \$1 per 50-pound price change in the last week's onion price result in a \$0.74 per 50-pound price change in the current weeks in the same direction, but moderate across multiple weeks of the shipping season. His result indicate that for every 100 truckloads of onions shipped from Mexico and South Texas during the marketing window, onion price declines by \$ 0.108 and \$0.105 per pounds, respectively.

Objectives of the study

1. Investigate the socio-economic characteristics of onion traders in the study area.
2. Determine the profitability of onion marketing
3. determine the marketing efficiency of onion traders .

II. Methodology

Gashua and Geidam Towns in Northern Yobe share a common boundry with Bursari, yunusari and karasuwa Local Government Areas and are located 10°38'-12°55'N and 3°30'-4°06'E(Yaro,2011).The area falls within the semi-arid sub Saharan region, the rainfall(350-680mm) is frequently erratic and poorly distributed(Yaro, 2000).The vegetation is largely the sudan savannah type with the northern parts of the two local governments approaching the sahel savannah(Yusuf 2012).

Two onion markets one each from Gashua and Geidam Local Government Areas were purposively selected for the study because of the intensity of onion marketing activities in the locations. From each of the two towns selected for this study, lists of relevant actors (Retailers and Wholesalers) were obtained from vegetable marketers Association officials. 5 Retails and 15 wholesale traders were randomly selected from each of the 2 towns included for this study. Hence, a sample of 40 traders from the list of 87 onion traders was studied. Data were analyzed using descriptive statistics and marketing efficiency model in determining the socio-economic characteristics and marketing efficiency of the traders in the study area.

Technical efficiencies of Onion traders were determined by measuring the productivity of performing marketing services expressed as follows:-

$$ME = \frac{VA}{Cms} \times 100/1$$

Where,

ME = Marketing efficiency (technical)

VA = Value added by marketing

Cms = Cost of marketing services

Value added by marketing = price (in Naira) received by trader less price received by proceeding trader, that is selling value less purchase price.

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III. Results And Discussion

Table 1: Age Distribution

Traders		
Age group	Frequency	%
25-34	7	17.5
35-44	10	25
45-54	9	22.5
55-64	10	25
65 and above	4	10
Total	40	100

Source: Field Survey, 2013.

As presented in the table 1, majority (65%) of onion Traders falls within the age bracket of 25-54 years of age, this slightly varies with the finding of Adamu,(2000),who reported 80% of the onion traders in the study area fell between the age bracket of 25-50 years. With only 25% of the traders within the age categories of 55-64 years. This signifies that most traders were within productive age bracket.

Table 2: Distribution of onion traders according to years of experience

Years of experience	Traders	
	Frequency	%
Below 5	15	37.5
5-14	16	40
15-24	9	22.5
25 and above	-	-
Total	40	100

Source: Field Survey, 2013.

The years of Onion trading experience of the respondents as reflected in the table 2 also indicates that most of the respondents 37.5% had below 5 years of trading experience; 40% had between 5-14 years; while only 22.5% had between 15-24 years of experience in onion trading in the study area. It can therefore be deduced from these findings that most of the respondents have been into Onion business in the study area for a long period of time. As reported by (Dogondaji, 2006) that experience in marketing is expected to enhance the efficiency with which the trading activities are performed.

Table 3: Gender of onion traders

Gender	Traders	
	Frequency	%
Male	36	90
Female	4	10
Total	40	100

Source: Field Survey, 2013.

As indicated in Table 3, majority of onion traders (90%) were male, with only 10% were females. This implies that men were found to be in active participation in onion marketing in the study area more than their women counterparts.

Table 4: Marital status of onion Traders

Marital Status	Traders	
	Frequency	%
Married	29	72.5
Single	8	20
Divorced	3	7.5
Total	40	100

Source: Field Survey, 2013.

The table also shows the distribution of onion traders according to marital status, the result indicates that majority of the respondents 72.5% were married, where as 20% were single, and 7.5% of the respondents were divorced. This indicates that Onion trading was mostly engaged in by married men.

Table 5: Estimation of cost and Returns for onion marketing at peak and off-peak peri

Variable	Peak period			Off-peak period				
	Wholesaler	%	Retailer %	Wholesaler	% Retailer	%		
Puchasing price	13,000.00	-	8,739.39	-	11,808.82	-	9,465.2	-
Selling price	20,108.82	-	12,545.45	-	16,975.00	-	13,460.6	-
Transport cost	800.59	50.25	117.58	34.94	795.59	58.3	113.03	34.9
Commision tax	742.65	46.61	208.94	62.09	524.71	38.5	201.24	62.0
Market tax	15.00	0.94	-	-	15.00	1.10	-	-
Cost of loading	30.00	1.88	-	-	25.00	1.8	-	-
Security tax	5.00	0.31	-	-	3.94	0.29	-	-
Depreciation	-	-	10.00	2.97	-	-	10.00	3.08
		100		100		100		100
TMC	1,593.24		336.52	1,364.24		324.27		
TMC+P	14,593.24		9,075.91	13,175.06		9,789.42		
NR	5,515.58		3,469.54	3,801.94		3,671.19		
RRR	0.378		0.382	0.289		0.379		

Source: Field Survey, 2013.

The result as presented in table 5 shows that a wholesaler purchased one bag (122.6kg) of Onion at ₦13,000.81 and sold at an average price of ₦20,108.82 with a total wholesaling marketing costs of ₦1,593.24. Commission paid to the commission agents was ₦742.65 per bag which accounted for 46.61% of the marketing cost where the transportation cost was ₦800.59 per bag which accounted for (50.25%). However, Local Government Area Tax was ₦15.00 which accounted for only (0.94%), Security charges paid was ₦5.00 per bag and accounted for (0.31%), and at the same time cost of loading per bag was ₦30.00 which accounted for (1.88%). Similarly, a retailer incurred a total marketing cost of ₦336.52 per business cycle in addition to the purchasing price per bag of ₦8, 739.39 and selling price of ₦12, 545.45. At the same time commission charges and transportation cost reflect ₦208.94 and ₦117.58 per business cycles thereby accounted to (62.09%) and (34.94%) respectively. This accounted for more than (90%) of retailing total marketing costs.

It also revealed that during the off-peak period of Onion supply, the transportation cost ₦795.59 per bag for transporting the purchased onion from the markets in the study area to other distant markets account for (58.32%) of the wholesaling marketing cost, where commission charged ₦524.71 and cost of loading ₦25.00 account for (38.46%) and (1.83%) whereas, Local Government Area Tax and security fees account for (1.10) and (0.29 %) and these accounted for less than (2%) of the total marketing cost. Moreover, Onion per bag were purchased at the cost of ₦11, 808.82 and sold at ₦16, 975.00. The difference between the two prices account for value added by market. Similarly, retails purchasing and selling prices of Onion per bag were ₦8, 739.39 and ₦12, 545.45. Where commission charged cost ₦208.94 accounted for (62.09%). Also cost of transportation and LGA Tax accounted for only (34.94%) and (2.97%) respectively.

Table 6: Profitability Levels of Onion Trading

Profitability index	Net Return in Naira per bag (122.6kg)		
	Peak period	Off-peak period	Total
<u>Net return (₦)</u>			
Wholesaling	5,515.58	3,801.94	9,317.52
Retailing	3,469.54	3,671.19	7,140.73
<u>Rate of Return Ratio (RRR)</u>			
Wholesaling	0.378	0.289	0.667
Retailing	0.382	0.375	0.757

Source: Field Survey, 2013.

The table 6 shows a total Net returns value of ₦9, 317.52, indicates the magnitude of the returns in two Onions marketing periods at wholesaling level. The peak period of supply had ₦5, 515.58 while off-peak marketing had ₦3, 801.94. At a retailing level, peak period recorded a net return of ₦3, 469.54 while off-peak period had ₦3, 671.19. Also the table reveals the rate of return ratio of 0.378 and 0.289 at wholesaling indicates that for every naira invested yield additional 37 kobo and 28 kobo a crossed the period of Onion supply to the market. More also, at retailing level, Rate of Return yield 38 kobo at peak period and 37 kobo at off-peak period of Onion marketing in the study area.

Table 7: Efficiency level of onion marketing

Market participant	Marketing Cost(₦)	Purchasing price (₦)	Selling Price (₦)	Value Added (₦)	Efficiency (%)
Peak period					
Wholesaling	1,597.24	13,000.00	20,108.82	7,108.82	446.19
Retailing	336.52	8,739.39	12,545.45	3,806.06	1,131.01
TOTAL	1,929.76	21,739.39	32,654.27	10,914.88	1,577.20
Off-peak period					
Wholesaling	1,364.24	11,808.82	16,975.00	5,166.18	378.69
Retailing	324.27	9,465.15	13,460.61	3,995.46	1,232.14
TOTAL	1,688.51	21,273.97	30,435.61	9,161.64	1,610.83

Source: Field Survey, 2013.

As indicated in the table 7, at the wholesaling and retailing levels, the cost of onion marketing in the peak period has ₦1, 597.24 with value added of ₦7, 108.82 which yield an efficiency of ₦ 446.19 whereas, the cost expenses during the off-peak period was ₦1, 364.24 and added value of ₦5, 166.18 which resulted to an efficiency of ₦378.69. Similarly, retailing in the peak period recorded a marketing cost of ₦336.52 and value added of ₦3,806.06 with efficiency of ₦ 1,131.01 while off-peak period had value added of ₦3,995.46 with corresponding marketing costs of ₦324.27 which yield an efficiency of ₦ 1,232.14. This showed that marketing

of onion during the off-peak period in the study area is efficient with total efficiency of ₦ 1,610.83 than during the peak period of onion supply with total efficiency of ₦ 1,577.20. In contrast, marketing during the off-peak period of onion supply appeared efficient than during the peak period because of low purchasing price and marketing cost indicated that the traders from other distant market in the country are trooping to the market in the study area to purchase more of the product at the peak period of onion supply during which the demand for onion was higher hence, leading to higher purchasing price and cost of marketing. 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 non availability of a system for the delivery of market information.

Table 18: Traders constraint to onion marketing

Constraints	Wholesalers		Retailers	
	Frequency*(n=34)	%	Frequency*	%
High cost of transport	205.3	58.8	-	-
Fluctuations of market price	15	44.1	28	84.8
Lack of adequate storage facilities	-	-	30	90.9
Lack of sufficient capital	12	3	22	66.7

Source: Field Survey, 2013.

*Multiple responses

The major problems that militate against onion marketing in the study area were combination of transportation, unstable price, storage and insufficient capital. High cost of transport was a major concern of wholesalers (58.8%), whereas lack of adequate storage fertilities ranks higher (90.9%) with retailers as presented in table 8, This is obvious considering the fact that retailers usually sell in small quantity at a point in time, hence good storage facilities would most likely be their concern. Wholesalers on the other hand, usually travel far and wide to procure the commodity and so have to contend with rising transport fares. Transportation cost was found (Lale and Adu-Nyako, 1991) to constitute large portion of marketing margin in Africa.

IV. Conclusion

Based on the findings of this research work, it has been possible to establish the fact that marketing of onion was profitable for both categories of middlemen (wholesalers and retailers) through out the periods of onion supply. In similar vein, marketing of onion during the off-peak period was efficient (1,610.83%) than during the peak period (1,577.20%) of onion supply. Major problems of onion marketing were lack of adequate storage facilities, high cost of transport and fluctuation of market price.

V. 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.

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