International Journal of Science and Research (IJSR)
ISSN: 2319-7064
Index Copernicus Value (2016): 79.57 | Impact Factor (2017): 7.296

Assessment of Marketing Performance in Major Onion Markets, Kano State, Nigeria

Muhammad Nuraddeen Abbas[1], Kabiru Muhammad Kurawa[2], Umar Ibrahim Sabo[3], Mustapha Mukhtar[4], Sabo Ahmad Sai`D[5], Aminu Abdu[6]

[1, 3, 5] Agricultural Economics, Audu Bako College of Agriculture, Dambatta, P.M.B.3159, Kano State, Nigeria

[4]General Studies Agro-Environmental Management, Audu Bako College of Agriculture, Dambatta, P.M.B.3159, Kano State, Nigeria

[2,6]Agricultural Extension, Audu Bako College of Agriculture, Dambatta, P.M.B.3159, Kano State, Nigeria

Abstract: ***The study assessed marketing performances in major onion consuming markets of Kano State. A multi-stage sampling technique was employed to draw the proportion of 151 onion market participants. In the first stage, three (3) Development zones; Kura, Dambatta and Wudil were considered. `Yankaba, Dambatta, Kura and Wudil markets were purposively selected. In the analysis, descriptive statistics (mean, standard deviation, percentages), gross margin analysis were used. Gross marketing margin shows an average return of ₦2, 875:00/50Kgbag, average marketing margin of 81.15% was realized and marketing efficiency of 687.5% was achieved. Major constraints identified were lack of access to credit facility and available storage facilities. The study recommended access to loan and credit facility increase, marketers levels of capital, modern onion processing facilities for value addition could increase onion acceptability and profitability to meet the domestic and international community needs, provision of affordable commercial onion storage facilities to reduce onion damages and spoilage should be encouraged, Research funds should be allocated and made accessible to institutions and individuals for researches on relevant appropriate technologies.***

Keywords: Marketing, Major Consumer, Onion Markets, performance

1. Introduction

Agriculture provides the daily increasing demands by the ever growing countries population. Onion is one of major vegetables on a daily increasing demand in the Kano state of Nigeria. Onion (*Allium cepa* L.) is a member of the *Alliacea* family. It is a vegetable crop widely known for its significant solution to problem of malnutrition and contributes immensely to the individual earning and economic status, improved welfare and adds to Gross Domestic Product (GDP) (Hussaini, *et al.*, 2000). Apart from provision of revenue onion serves as rich source of protein, fats, minerals salt and vitamins. One of the advantages of onion is that the bulbs can be harvested and sold either 'green' in salads (Lannoy, 2001).

Onions are cultivated and marketed throughout the Northern Nigeria, in places such as Kebbi, Kano and Sokoto States (Hussaini, *et al.*, 2000). Onions' position in the Nigerian markets is remarkable as it is marketed to the southern part of the country and marketed for export (Muhammad, 2011). The demand for onions remain constantly increasing considering market size of the country with land size of 923,768 square kilometer (Km^2) with variety of soils (Encarta, 2011) and a total population of 174,557,539 persons and growth rate of 2.54% (CIA World Factbook) , 2013) .Onion is virtually used daily in homes, hotels, schools and hospital as vegetable as stated by Hussain, *et al.*, (2000) and Ahmad, *et al*., (2008). In another dimension it has been reported that onion is consumed in green leafy bulb as well as in mature stage (Ahmad, *et al*., 2008).In 2008 alone, Nigeria produced more than 179,71 000 metric tons of onion annually. In 2010 alone, Kano produced more than 7,000, 000 metric tons under irrigation and rain fed cultivation according to Kano State Agricultural and Rural Development Authority (KNARDA, 2011).Aminu (2009) reported commercial onion is mainly from the Northern States, especially, former Bauchi, Sokoto, Kano and Kaduna States with estimated total land of 0.1 to 0.2 million hectares cropped annually.

Marketing of onion generally involves the movement of onion commodities from where they are produced to the point of their consumption by consumers. In same vain Olukosi and Isito, (1990) described marketing as part and parcel of production and consumption. Onions Marketing specifically, involves the movement of produce from producers to thousands of consumers located in both rural and urban areas (Adegeye and Ditto, 1985). According to Amaza, *et al.*, (2000) there is close inter-relationships between agricultural marketing and the increasing productivity of agriculture. These procedures involved cost and return on the marketing process a subject of the study. The study is significant as it reveals farmer's profitability and efficiency for onion marketing in the study area. It is on this note that this study was conducted with aim to achieve the following objectives:

2. Objectives of the Study

The specific objectives are to:

1) Determine the marketing cost and marketing margin in the study area.
2) Determine the efficiency of onion marketing in the study area.

3. Methodology

3.1 The Study Area

The study was conducted in Yankaba, Kura Dambatta and Wudil markets of Kano State. The state is one of the thirty

six (36) states of the Nigeria Federation. It has forty (44) Local Government Areas with total population of 9, 401, 28 persons (www.en.wikipeadia.org/kano state/). The state lies between the latitude 11° 59`47"N and longitude 8°31E (www.travelmath.com/../kano%2BNigeria. The state has crop-growing season of 100 to 150 days and average 125 days with annual rainfall ranges between 500mm to 1000mm (KNARDA, 2011).The state has temperature variations in some locations. More than forty nine thousand hectares (49,000Ha) of land were being cultivated under Fadama project (Abbas, 2014). Kano state is bounded by Jigawa state in the North to north East, Katsina State to west and Bauchi and Kaduna States to the south respectively.

3.2 Sampling Technique and Size

A multi stage sampling technique was employed in the study. In the first stage, the three Agricultural Development zones (zone 1(Kura), zone II (Dambatta) and zone III (Gaya)) were purposively selected based on the availability of vegetable marketing infrastructures, concentration of onion marketing activities, production volume and number of market participants. In addition, the markets represent major fadama crops producing areas in the state (KNARDA, 2011). In the second stage, major urban (U) consuming market ('Yankaba market) was selected as the major consuming market in the state and three rural markets (R). (Kura market) from zone i, Dambatta market, zone ii and Wudil market from zone iii). These markets were primarily due to the high onion marketing activities, preponderance of onion farmers which clearly relates to the onion production infrastructure and represents major areas for onion in the state. Twenty percent (20%) of the market participants based on the degree and entry and exit from each market were sampled. In whole, a total of one hundred and eleven (151) respondents were sampled from 765 participants (Abbas, 2014).

3.3 Sample Frame and Size

Table 1: Sample Frame and Size for onion Marketers in the Areas Studied

S/n	Zonal Area population Df=3	Markets Sampled Marketers (20%)
1.	`Yankaba Market 369(48.23)	`Yankaba(R) 73(73.8)
2.	Zone II 159(20.78)	Dambatta 31(31.8)
3.	Zone I 126(16.47)	Kura 25(25.2)
4.	Zone III 111(14.50)	Wudil 22(22.2)
	Total 765(100)	**151(100)**
	Average Population of marketers	**191**

Source: My Field Survey, 2015

3.4 Data Source and Collection

Primary data was basically used in the study using structured questionnaire, informal discussions from the markets under study were employed by the researcher with assistance of other six (6) trained enumerators. The information sourced included onion prices, sources of finance, means of transportation, quantity of onion handled, prices of onions bought and prices sold and marketing activities. The data was used to achieve objective i and ii.

3.5 Analytical Techniques

Accordingly, data were analyzed using descriptive statistics (percentages, frequency and mean, table) farm budget model, marketing margin and marketing efficiency analysis.

Descriptive Statistics
Descriptive statistics was employed to achieve part of objective i and ii. It includes the application of percentages (%), frequency, mean and standard deviation.

Marketing cost, Marketing Margin and Efficiency Models

Marketing Margin
The marketing margin model was used in achieving objective II. The marketing margin model

Was specified as follows:

$$MM\ (₦aira) = \frac{SP - PP}{RP} \times 100/1 \ldots\ldots\ldots\ldots (1)$$

Where as
MM= market Margin
SP=Selling price (₦)
PP= Purchase price (₦)
SP= Selling price (₦)
RP=Retail Price (₦) Abbas, (2014).

Gross Margin Analysis
The concept of gross margin (GM) involves determination of the differences between Gross income (GI) and the total variable cost (TVC). The variable cost includes the cost of transportation and handling, marketing. Olukosi and Erhabo (2008) emphasised gross margin analysis as the difference between the gross income (GI) and total variable cost (TVC). Gross margin is employed to measure the cost and returns for marketing Onion (*Allium cepa* L.)
The Gross margin model can be specified as:

$$\mathbf{GM=TR-TVC} \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots (2)$$

Where:
GM=Gross marketing Margin
TR=Total Revenue/Naira (₦)
TVC=Total Variable Cost (₦)

Marketing Efficiency (ME)
Marketing efficiency model was used in achieving part of objective II. It is normally estimated using pricing behavior over time and space. It is concerned with how effectively prices reflect the cost of moving the cost through the marketing system. The formulae for computing marketing efficiency can be specified as follows:

$$ME = \frac{VA}{C_{ms}} \times \frac{100}{1}$$

Where:
ME= Marketing efficiency
VA=Value added by marketing
$\mathbf{C_{ms}}$=Cost of marketing service
Source: (Aminu, 2009).

Marketing Cost

Gross marketing margin (GM), marketing margin (MM) and marketing efficiency (ME) for onion in table 2

Result in table 2 reveals a total variable cost (TVC) ₦ 1; 950:00 of onions is representing 100% of the TVC and average acquisition cost representing 84.61% of services for a 50Kg onion bag which was obtained in the studied markets. The result further shows the gross revenue (GR) of ₦2, 875:00 for all the markets studied. The average marketing margin was 81.15% and average efficiency was 687.05% for all the markets studied. By implication, the results revealed a good profit margin for the onion. This has indicated that onion marketing is profitable and efficient at markets in all zones and onion markets studied.

Table 2: Gross marketing margin, efficiency for onion

Item	*Average value (₦/50Kg)*	*TVC (%)*
(a) Variable cost		
Buying price	1,650:00	84.61
Transportation	150:00	7.69
Loading and offloading	50:00	2.56
Market tax	20:00	1.03
Cost of package bag	80:00	4.10
Total Variable Cost (TVC)	1,950:00	100.0
(b) Returns		
Gross Revenue (selling price (GR))	2,875:00	
Gross Margin (GM)	925:00	
Marketing Margin (MM)	42.60:00 %	
Marketing Efficiency (ME)	687.05:00%	

Source: Survey, 2015.

Marketing margin (MM) analysis for onions in the markets studied (₦/50Kg) is presented in table 3.

Result in table 3 shows that among all the markets studied `Yankaba has the highest PP N2, 500, SP 3,500 and the least MM (40%), followed by Dambatta with PP of ₦ 1,500, SP of ₦3,000 achieved MM of 100%.For Kura and Wudil PP of ₦1,300,SP and 92.30% MM was achieved proportionately, and the state average PP price was found to be 1,650 and a value of MM 81.15% for all the markets.

Table 3: Marketing margin for onion sales in the study area

Markets	*PP (1)*	*MC (2)*	*SP (3)*	*MM (%)*
Yankaba	2,500	250	3,500	40.00
Danbatta	1,500	200	3,000	100
Wudil	1,300	150	2,500	92.30
Kura	1,300	150	2,500	92.30
State Ave	**1,650**	**187**	**2875**	**81.15**

Source: Computed from Field Data, 2015

Marketing Efficiency

Marketing Efficiency for Onion Markets is presented in table 4

Result in table 4 reveals that marketing in Yankaba market was 400% efficient followed by Dambatta market which was found to be 750% efficient while Wudil and Kura markets were found to be the highest (800%) efficient. The findings reveals that markets in the state were efficient as presented in table 4. The last two markets implied equal efficiencies this could not be unconnected to similar marketing facilities. Olukosi, *et al.*,(2010) stated that marketing cost should be as low as possible and this can be achieve through efficient marketing system as in marketing economies. The higher the efficiency value the better the marketing performance (Aminu, 2009) It can be inferred that during the period of the study, onion sales were efficient in all the markets in the state.

Table 4: Marketing efficiency for onion sales in the markets studied (₦/50Kg)

Markets	*MC(₦)*	*SP(₦)*	*ME (%)*
Yankaba	250	3,500	400
Dambatta	200	3,000	750
Wudil	150	2,500	800
Kura	150	2,500	800
State Average	**187:05**	**2,875:00**	**687.5**

Source: Computed from Field Data, 2015

4. Conclusion and Recommendations

4.1 Conclusion

In conclusion, the study reveals that marketing onion in the study area was profitably performed as indicated by gross margin analysis. The marketing system for onion was also efficient taken into cognizance; the costs and revenue streams realised. The market structure reveals a pure competitive nature of interactions among the market participants based on the nature of entry and exit.

4.2 Recommendations

Based on the findings of the study the following recommendations were put forward that:

- Access to loan and credit facility by farmers should be increased to increase marketers levels of capital,
- Modern onion processing facilities for value addition could increase onion acceptability and profitability to meet the domestic and for international community needs,
- Provision of affordable commercial onion storage facilities to reduce onion damages and spoilage should be encouraged;
- Research funds should be allocated and made accessible to institutions and individuals for researches on relevant appropriate technologies.

References

[1] Abbas, M.N.(1995). The impact of World Bank on State Agricultural Development: A case Study of Kano State. A project Submitted to Department of Agricultural Science Education Double Majors (DM), School of Vocational and Technical Education, Federal College of Education Katsina, July, Pp.1-36.

[2] Abbas, M.N. (2004): Performance of National Fadama Development Programme (NFDP) in Kano State 1992 to 2003: B. Agric. Tech. (HONS) Published Project Submitted to the Agricultural Economics and Extension Programme, Abubakar Tafawa Balewa University, Bauchi. Pp1-56.

[3] Abbas, M.N. (2014). Economics of Onion (Allium cepa L.) Marketing in Kano State.An M.Sc Published Dissertation submitted to the Department of

Agricultural Economics, Faculty of Agriculture, Bayero University, Kano, Nigeria, Pp 1-73.
[4] Aminu, A. (2009): Framework for Agricultural Market Analysis: Theories and Applications. Ahmadu Bello University Press, Ltd. Zaria, Nigeria.Pp.1-184.
[5] Bolotova, Y., C.S. McIntosh, K. Muthusamy, and P.E. Patterson. (2008): "The Impact of Coordination of Production and Marketing Strategies on Price Behavior: Evidence from the Idaho Potato Industry." *International Food and Agribusiness Management Review* 11(3): 1-29.
[6] Currah, L. F.J. Proctor, (1990).Onions in the Tropics and Subtropics an Agricultural Bulleting (35) Pp3-10.
[7] Dessalegn,G. Jayne, T.S. and Shaffer, J.D. (1998). "Market Structure, Conduct and Performance: Constraints on Performance of Ethiopian Grain Markets. *Working paper 8;Grain Market Research project*. Ministry of Economic Development and Cooperation, Adis Ababa,Pp.51.
[8] Ditto, S. (1992). The economics of Dry Season Vegetable Production in Nigeria. ActaHorticulture :296-237.
[9] Gido *van de ven*, (2010). Trend and Seasonal Components: Removing of Trend and Seasonality. Pp.8.
[10] Grema, I.J.and Gashuwa, A.G.(2014).Economic Analysis of Onion Production along river Komadugu Area of Yobe State, Nigeria. *A paper presented at the first National Conference Held at Audu Bako college of Agriculture, Danbatta, Kano State, Nigeria,Pp.1*-17.
[11] KNARDA, (2011). Kano State Agricultural and Rural Development Authority, Media News Letter, KNARDA, Media Press. Kano.Pp.2-15.
[12] Miller, R.K.(1981). Introductory statistics for Business and Economics, St Martins, Press, New York, USA Pp. 361-383.
[13] Negassa, A. and Shahidur-Rashid (2010). Analyzing price seasonality "Food Price Variability: Causes, Consequences and policy options" presented at the *COMESA policy seminar on 25-26 January* in Maputo, Mozambique, under the COMESA-MSU-IFPRI African Agricultural Markets Project (AAMP).Pp 1-10.
[14] NIHORT, (1986). National Horticultural Research Institute, Jericho, Ibadan, Annual Report, Nigeria. Pp.1-35.
[15] Olukosi, J.O and Isitor, S.U. and Moses, O.O. (2010). Introduction to Agricultural Marketing and Price: Principles and Applications.4th ed, Ndaki Press, Zaria. Nigeria Pp.1-127.
[16] Qfinance,(2013).http://Qfinance.com/onlinedictionary/
[17] Sai'd, S.A., Kibiya, B.U.and Abbas, M.N. (2013). Marketing of Onions and Tomato in Selected Kano State Markets. A paper presented at the *First Annual Conference of Institute of Administration*, Hassan Usman Polytechnic, Katsina. Pp.1-12

Author Profile

Muhammad Nuraddeen Abbas (Mr.)MASN,MNEED is a Senior Lecturer at Audu Bako College of Agriculture Dambatta in Kano State Nigeria. He teaches Farm Management (AHPT 215), Agricultural Projects Planning and Appraisals (AEM436), Agricultural Marketing and Prices (DAEM211), Agricultural Policy and Development (ODC302),Finance and Cooperatives, Computer Application Packages and Programming (DCP 203) and Entrepreneurship. The current article was part of his research with Professor Zilkifilu Abdu (Major Supervisor) and Professor Shehu Alhaji Musa (Internal Examiner and Professor Abba Aminu(Internal Examiner) and Professor Zakari Abdulsalam as External Examiner(ABU ZARIA) at M.Sc. Agricultural Economics of Bayero University Kano, Nigeria in 2012-2014.