Watermelon (*Citrillus lanatus*) Marketing in Bauchi Metropolis of Bauchi State, Nigeria

ABSTRACT

The study sought to determine the profitability and constraints to watermelon marketing in Bauchi metropolis of Bauchi State and a sample of 75 marketers were randomly selected from markets and streets in the metropolis. Data were collected with the aid of structured questionnaire and analyzed using descriptive statistics (mean and percentages) and farm budgeting technique. Results showed that all the marketers in Bauchi metropolis were male, with most (77.34%) within the age bracket of 21-40 while 56.0% of the marketers were married with household size of 1-5 person which constituted 74.67%. Most (89.34%) of the marketers had marketing experience of 1-10 years while 97.33% of the marketers had one form of education or the other. Furthermore, the result of the study revealed that water melon marketing was a profitable venture in the study area with ₦0.32k profit on every naira invested in the business. Despite the profit some constraints were encountered in the marketing of water melon, which include inadequate capital, followed by lack of credit facilities. It is therefore, recommended that the marketers should form association in order to access loans from financial institutions.

Keywords: *Marketing*, *water melon*, *metropolis*, *fruits* and *vegetable*.

1.0 INTRODUCTION

Nigeria has in recent years been involved in executing painful economic recovery programmes arising from recession in international oil market and changes in the macro-economic direction of the world. This is the consequence of dependence on a mono-economy at the expense of other untapped economic resources of the nation. It will be recalled that in the 1960's Nigeria relied heavily on the agricultural sector for economic

development contributing over 70% to the gross domestic product (GDP). But the oil boom of the 1970's, the contribution of agriculture fell drastically to the extent that the nation became a net –importer of major agricultural commodities in the 1980's. Farming became an unattractive and non-lucrative business, but a means of survival for the aged in the rural areas (Husseini, 1996).

Marketing is defined as a process of satisfying human needs by bringing product to people in the proper form and a proper time and place. Marketing has economic value because it gives form, time, place utility to product and services.

Baker (1989) stated that there is no universally accepted definition of marketing indicating the variety of opinions which exist concerning the subject. Olukosi and Isitor (1990) defined agricultural marketing as the performance of all activities which direct the flow of goods and services to the consumer from the producer (farmer) in order to accomplish the producer's objectives.

Watermelon (*Citrillus lanatus*) belongs to the botanical family *cucurbitaceous* and have important place in all cultivated crops, it's cultivation occurs at wider scale in all round the world. It is a warm-weather annual crop which is grown for its large, juicy sweet fruit (George *et al.*, 2000; USDA, 1994). It is cultivated and consumed throughout the world and tropical countries, for it contains most of the basic daily nutritional requirements of the human body (Onyemauwa, 2010). The global consumption of watermelon is greater than that of any other cucubit (Adeoye *et al*., 2011). Nigeria produced more watermelon in 2011 (139,223 tons) than the leading African exporter Kenya which produced 66, 196 tons and South Africa that produced 77,993 tons (This Day, 2014). Fruits and vegetables, such as water melon are important sources of vitamins and minerals and are thus essential component of human diet (Egharevba, 1995). It is referred to as "the chief of the world's luxuries and king over all fruits of the earth "(USDA, 1994).

Watermelon is produced in the state and there is considerable variability in watermelon prices within the year due mostly to seasonal changes in the volume of production. This study becomes pertinent to ascertain the economics of watermelon marketing in Bauchi metropolis of Bauchi State, Nigeria.

The broad objective of this study is to examine the economics of watermelon marketing in Bauchi metropolis, Nigeria while the specific objectives are:

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1. To assess the socio-economic characteristics of the marketers.

2. To determine the costs and returns of watermelon marketing.

3. To identify the constraints to watermelon marketing.

2.0 MATERIALS AND METHODS

The study was carried out in Bauchi metropolis of Bauchi Local Government Area of Bauchi State, Nigeria. Bauchi Local Government Area lies between longitude 9° 5 and10°40°N and latitude 9° 30 and 10° 15E with an altitude of 609.3m above sea level. The local government is bounded in the North by Darazo local government area; East by Alkaleri local government area; south and west by Dass and Toro local government areas respectively; the vegetation is guinea savannah with an estimated land area of 3,345km^2. According to National bureau of statistics (2008), the census figure of Bauchi local government area was 493,810 people. BSADP (1996), reported that April is the hottest month of the year with temperature rising to about 40°c. The coldest months are December and January, when the temperature may fall as low as 17°c to 22°c. The mean annual rainfallranges between 1000-1200mm. The raining season extends from May/June to September/October. The dry season starts from September/October to April/May. The humidity may increase drastically during the middle of raining season to about 96% in August and drop sharply to about 10% during harmattan around December. The major occupation of the inhabitant of the local government is farming.

This study was carried out in selected markets and streets of Bauchi metropolis. The markets and streets and the corresponding number of respondents are as follows:

Muda lawal market (10), Wunti market(10), Yelwa market (10), Sabon Kasuwa market (10), Federal lowcost junction (5), Ahmadu Bello Way (5), Dass Park road (5), Jahun street (5), Nasarawa Street (5), CBN roundabout (5), Gwallameji (5).

This markets and streets were purposively selected and a simple random sampling technique was employed to select ten (10) and five (5) watermelon marketers from the markets and streets respectively thereby making a total of seventy five (75) respondents. Data were collected through the use of structured questionnaire supplemented with verbal interview, especially where

the respondents could not read or write. The data collected were analyzed using descriptive statistics such as frequency distributions, percentages and farm budgeting analysis.

The Net profit (NP) is specified as follows:

NP = TR- TC --(1)

TC = TVC + TFC ---(2)

Where:

NP = Net profit

TR = Total revenue

 TC = Total cost

TVC = Total Variable cost

TFC = Total fixed cost

3.0 RESULTS AND DISCUSSION

The result in Table 1 showed that all the watermelon marketers in the area were male (100%) and this is not in tandem with the findings of Ebiwoei(2013) who reported that watermelon marketing is female dominated in Yenagoa, which could be as a result of the dominant religion practiced in the study area with majority within the age range of <20 to 30 years (63.0%). This implied that energetic men were involved in the marketing of watermelon in the study area. The result also indicated that 56.0% were married and had a household size 1-5 children (74.67%) with a marketing experience of 1-10 years (89.34%). Also, majority (60.0%) had one form of formal education.

 The result in Table 2 showed that on the average marketing of watermelon in Bauchi metropolis incurred a total cost of ₦15,169 per month and earned a total revenue of ₦20,000 with a net profit of ₦4,831 and a return on capital invested (RCI) of ₦1.32 per month. The implication of this result is that for every ₦1.00 total cost incurred,*ceteris peribus,*a profit of 32k is made. This shows that watermelon marketing is profitable in the study area and this agrees with the findings

of Ebiwoei(2013) and Ekerete et al (2014) who also reported that watermelon marketing in Yenagoa and Uyo metropolis respectively is highly profitable.

Table 3 showed the distribution of the respondents according to the constraints they faced. Inadequate capital ranked first as one the three major constraints. Lack of credit facilities ranked second and followed by low price of watermelon, transportation cost, poor preservation facilities and perishability of the produce ranked 6th which is the least constraint being experienced by the marketers in the metropolis.

Table 1. Distribution of respondent according to socio-economic variables

Variable	Frequency	Percentage(%)
Sex		
Male	75	100
Age		
< 20	10	13.33
21-30	35	46.67
31-40	23	30.67
41-50	6	8.00
51 and above	1	1.33
Marital Status		
Single	33	44.00
Married	42	56.00
Household Size		
1-5	56	74.67
6-10	19	25.33
Marketing Experience		
1-5	42	56.00
6-10	25	33.34
11-15	7	9.33
16-20	1	1.33
Educational Status		
Never been to school.	2	2.67
Quaranic	28	37.33
Primary	33	44.00
Secondary.	12	16.00

Source: Field survey data, 2016

Table 2: **C**osts and returns per month of watermelon marketing in Bauchi metropolis

	Cost	Percentage
.Variable Cost		
Watermelon acquisition Cost	12,000.00	79.11
Transportation	1,359.00	8.96
.Utility	285.00	1.88
Cost of handling	120.00	0.79
Taxies/levies	100.00	0.66
Rent	250.00	1.65
Polytene bag	125.00	0.82
Total Variable Cost(TVC)	14,239.00	
.Fixed Cost(FC)		
Depreciation of fixed items		
Wheelbarrow	300.00	1.98
Umbrella	200.00	1.32
Tray	100.00	0.66
Knife	80.00	0.52
Table/chair	250.00	1.65
Total Fixed Cost(TFC)	930	100
Total Cost (TC)	15,169.00	
Total Revenue(TR)	20,000.00	
Return on Capital	₦ 1.32k	

Source: Field survey,2016

Table 3. Distribution of respondents according to constraints faced in marketing of water melon

Constraints	Frequency	Percentage	Rank
Inadequate capital	60	23.08	1st
Lack of credit facilities.	55	21.15	2nd
Low price of watermelon	50	19.23	3rd
Transportation Cost	40	15.38	4th
Poor Preservation facilities	30	11.54	5th.
Perishability	25	9.62	6th.

Source: Field survey data, 2016

*multiple responses recorded hence percentage total greater than 100%

CONCLUSION AND RECOMMENDATIONS

The study therefore, revealed that watermelon marketing is a profitable venture in the study area. The result suggests that the marketers could increase their profit by forming cooperatives where they can be able to access loan and credit from financial institutions and this will also reduce the rate at which people go in and out of the business. There is also need for technology incubation centers to come out with technologies of preserving watermelon.

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