Constraints to Watermelon Marketing in Uyo Metropolis of Akwa Ibom State, Nigeria

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Abstract

The study ascertained the constraints to watermelon marketing in Uyo Metropolis of Akwa Ibom State, Nigeria. Data obtained from ninety watermelon marketers from March, 2012 to June, 2012 were analyzed using descriptive statistics such as frequencies, percentages, ranks and gross margin analysis. Results showed that 53.3% of the watermelon marketers were females; 50.0% were aged between 31-40 years; and 53.3% had secondary education. Gross margin analysis indicated that the total variable cost of watermelon marketing by the respondents was ₦ 8, 671, 200.00 and the total revenue from sales was ₦ 16,447,000.00, and marketing profit was ₦ 7, 775, 800.00 indicating that watermelon marketing was profitable. Findings also revealed that losses resulting from fruits spoilage, lack of preservation facilities, high cost of transportation, and lack of credit facilities were the most severe constraints to watermelon marketing in Uyo Metropolis, Akwa Ibom State. It is recommended that watermelon marketers in the study area form effective co-operatives which will help them collectively tackle these constraints in order to optimize their marketing activities.

Keywords: Constraints, Watermelon, Marketing, Uyo Metropolis

1. Ntroduction

Watermelon (*Citrullus lanatus*) is one of the most widely cultivated crops in the world at large and the global production in 2002, according to Huh *et al* (2008), reached 89.9 million mega grams. It belongs to the botanical family cucurbitaceous, (Ebiwoei, 2013), and there are over 1,200 varieties of watermelon worldwide and quite a number of these varieties are also cultivated in Africa (Zohary and Hopf, 2000).

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Watermelon is consumed throughout the world and tropical countries because it contains most of the basic daily requirements of the human body (Onyemauwa, 2010). Fruits and vegetables, such as watermelon, are important sources of vitamins and minerals and are thus essential components of the human diet (Egharevba, 1995). Consequent upon this, there has been increased trade and commerce activities surrounding these commodities. Efficient marketing of watermelon is important to ensure its all-year round availability due to its high demand by consumers in the study area. Adeoye *et al* (2011) reported that global consumption of watermelon is greater than any other cucurbit, thereby underlying the high demand for watermelon. However, Ibok (2012) stated that the marketing system of watermelon in Uyo Metropolis of Akwa Ibom State is very inefficient due to certain constraints. This study therefore aimed at ascertaining these constraints to watermelon marketing. Specifically, the objectives were to examine the socio-economic characteristics of watermelon marketing in Uyo Metropolis, determine the profitability of watermelon marketing and ascertain the constraints to watermelon marketing in the study area.

2. Methodology

The study was conducted in Uyo Local Government Area of Akwa Ibom State. The Local Government Area lies between latitude $4^032''$ and $5^033''$ North and longitude $7^025''$ and $8^025''$ East of the Equator; occupies a land mass of 8,413 km^2 and has an estimated population of 309,573 (NPC, 2006), this is within the equatorial rain forest belt. The target population for the study were the watermelon marketers in Uyo metropolis. A two-stage sampling procedure was used to select the sample for the study. The first stage involved the purposive selection of five out of the eight major roads in Uyo Metropolis where most watermelon marketers sell their goods. The selected roads were Tunde Ogbeha Drive, IBB Avenue, Park Road off Ikot Ekepene Road, Oron Road and Ikpa Road. The second stage involved the random selection of eighteen watermelon marketers from each of these selected roads. This resulted in the sample size of ninety.

Data for the study, obtained using a validated questionnaire from March 2012 to June 2012, were analyzed using descriptive statistics and the budgeting technique. Farm budget analysis was constructed to estimate the production cost, revenue and gross margin accruable to the marketers. The equation used in estimating the gross margin is defined below:

GM   =   TR − TVC
Where:
GM = Gross margin, TR = Total revenue and TVC = Total variable cost

3. Results and Discussions

3.1 Socio-Economic Characteristics

Table 1 shows the socio-economic characteristics of watermelon marketers in Uyo Metropolis. The Table reveals that 50.00% of the farmers were aged 31-40 years while 8.88% of them were above 50 years. About 53.33% of the respondents were females while 46.67% were males. The findings corroborate Ebiowei (2013) who reported that watermelon marketing is female-dominated in the Niger Delta Area of Nigeria. Majority of the respondents (56.67%) were married while 43.33% were single. Over fifty three percent (53.33%) of the respondents had secondary education, 32.22% had primary education and 2.22% had tertiary education thus revealing a high level of literacy among the respondents. About 38.89% of the respondents earned a monthly income of between ₦20,001.00 - ₦40,000.00 and 44.44% of them had household sizes of between 4-6 persons. About 71.11% of the respondents had 1-5 year(s) of watermelon marketing experience while only 7.78% had 11-15 years of marketing experience. The mean age of watermelon marketing experience, for the respondents was, 5 years.

Table 1: Socio-Economic Characteristics of Watermelon Marketers (n = 90)

Variable	Category	Percentage
Age	21-30 years	6.67
	31-40 years	50.00
	41-50 years	34.44
	> 50 years	8.89
Sex	Male	46.67
	Female	53.33
Marital Status	Single	43.33
	Married	56.67
Educational Status	No formal education	12.22
	Primary education	32.22
	Secondary education	53.33
	Tertiary education	2.22
Monthly Income	1 - 20,000	21.11
(in Naira)	20,001 - 40,000	38.89
	40,001 - 60,000	24.44
	60,001 - 80,000	15.56
Household Size	1 - 3 person(s)	37.78
	4 - 6 persons	44.44
	7 - 9 persons	13.33
	10 - 12 persons	4.44
Years of Marketing	1 - 5 year(s)	71.11
Experience	6 - 10 years	21.11
	11 - 15 years	7.78

Source: Field Survey, 2012

3.2 Profitability of Watermelon Marketing in Uyo Metropolis

The gross margin analysis of the profitability of watermelon marketing in Uyo Metropolis is shown in Table 2. The Table reveals that the total variable cost of watermelon marketing was ₦8, 671, 200.00 and the total revenue realized from sales of watermelon was ₦16 ,447, 000.00; the gross margin of watermelon marketing, therefore, was ₦7, 775, 800.00 indicating that watermelon marketing is profitable in the study area. The findings agree with Ebiwoei (2013) who reported that marketing of watermelon in the Niger Delta Area of Nigeria is highly profitable.

Table 2: Profitability of watermelon marketing in Uyo Metropolis

Item	Total cost (₦)	Average Cost (₦)	Percentage
A. Fixed Cost			
Cost of equipment	246,600.00	2,740.00	36.60
Cost of building stalls/sheds	427,200.00	4,746.67	63.40
Total Fixed Cost (TFC)	673,800.00	7,486.67	100
B. Variable Cost			
Cost of watermelon	6,348,000.00	70,533.33	73.21
Cost of transportation	922,200.00	10,246.67	10.64
Market union fees	475,000.00	5,277.78	5.48
Handling charges/holding and off-loading cost	926,000.00	10,288.89	10.68
Total Variable Cost (TVC)	8,671,200.00	96,346.67	100
C. Total Cost, TC			
TC = TFC + TVC	9,345,000.00	103,833.33	
D. Total Revenue, TR			
Sales of watermelon	16,447,000.00	182,744.44	
E. Gross margin, GM			
GM = TR – TVC	7,775,800.00	86,397.78	

3.3 Constraints to watermelon marketing in Uyo Metropolis

The constraints associated with watermelon marketing in the study area are shown in Table 3. The Table reveals that the most severe constraints to watermelon marketing are losses resulting from fruits spoilage, lack of preservation facilities, high cost of transportation of fruits and lack of credit facilities. The findings agree with Ebiwoei (2013) who reported that spoilage of watermelon fruits and inadequate capital are major constraints of watermelon marketing in the Niger Delta Area of Nigeria. Adeoye *et al* (2011) also reported that inadequate credit is a major constraint to watermelon production in Nigeria. On the other hand, the least severe constraints to watermelon marketing in Uyo Metropolis, as revealed by the Table, are theft of watermelon fruits and bulky nature of fruits. This could be attributed to the fact that the bulky nature of the fruits actually deters theft of the fruits.

Table 3: Constraints to Watermelon Marketing in Uyo Metropolis, Akwa Ibom State

Constraint	Frequency	Rank*
1. Inadequate capital	68	5
2. Seasonality	33	7
3. Lack of credit facilities	78	4
4. Losses resulting from fruits spoilage	90	1
5. Irregular supply	45	6
6. Lack of preservation facilities	82	2
7. High cost of transportation	81	3
8. Price fluctuation	27	8
9. Theft	22	9
10. Bulky nature of fruits	18	10

Note: * = Rank 1 is considered the most severe constraint to watermelon marketing while rank 10 is the least severe constraint.

4. Conclusion and Recommendation

The study has shown clearly that watermelon marketing in Uyo Metropolis of Akwa Ibom State, Nigeria is profitable with marketing margin of ₦7, 775, 800.00. Watermelon marketing is therefore a profitable livelihood activity in the study area positively impacting on the incomes of those engaged in it. Losses resulting from fruits spoilage, lack of preservation facilities and high cost of transportation and lack of credit facilities were the most severe constraints associated with watermelon marketing in the study area. It is recommended that watermelon marketers in the study area form effective co-operatives which will help them collectively tackle these constraints in order to optimize their marketing activities.

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