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ANALYSIS OF YAM MARKETING IN NGWA ROAD MARKET, ABIA STATE, NIGERIA

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Abstract: This project analyzed yam marketing in Ahiaohuru, Aba, Abia State, Nigeria. The research employed random sampling technique to select 80 yam marketers in the study area. Results from socio economic characteristics of the respondents' shows that total of 62.5% of the yam marketers were males; while the other 37.5% were females. Total revenue accruable from yam sales by the 80 randomly selected marketers was N620,793.12; while the total cost items was N680,293.25. The net profit gave a negative value of – N59,500.12. This shows that the yam marketer's expenses exceed their revenue. Similarly, 69.36% of the cost items went to the purchase of yams which was a major variable cost. The respondents' sex, marital status, source of start-up capital and total sales obtained were the significant variables influencing income from yam marketing in the study area. Lack of capital, high cost of labour, poor storage facilities, perishability of yam, high cost of transportation and unfavourable market prices were the notable constraints limiting efficiency of yam marketing in the study area. Since yam marketing in the study area was not profitable, measures should be taken to reduce associated cost of marketing. In this regard, the government and other organizations should extend a hand of fellowship to yam marketers by fostering grants and single digit loans.

Keywords: Yam marketing, Market structure, Cost and returns, Determinants of income, Nigeria

1. Introduction

Half of the people in developing countries like Nigeria live in rural areas; globally, >2.1 billion persons live on less than $2 U.S. dollars a day (Chinaka and Emereole, 2013). Majority of these people are considered poor and depends on agriculture either directly or indirectly for their livelihoods (World Bank, 2007). The 2007 World Bank Development Report stresses the important role agriculture and even yam (*Dioscorea esculetum*) plays in curbing hunger and food insecurity in Nigeria. Agriculture generates an average of 29% of the Gross Domestic Products (GDP) and employs >65% of her labour force in Nigeria (Dimelu et al., 2009).

Root and tuber crops comprise crops covering several genera. They are staple food crops; being the source of daily carbohydrate intake for the large populace of the World. They refer to any growing plant that store edible materials in subterranean root, corm or tuber (Oke, 1990). Yam is a member of this important class of food. Yam is an important food crop especially in the yam zones of West Africa, comprising Cameroon, Nigeria, Benin, Togo, Ghana and Cote d' Ivoire. This zone produces more than 90% of the total World production which was estimated at about 20 – 25 million tons per year (Babaleye, 2003). Nigeria is the main producer of yam in the World with about 71% of the World output,

followed by Ghana, Cote d' Ivoire, Benin and Togo (FAO, 2002).

Medicinally, yam tubers are used for various traditional medicines in China, Korea and Japan (United States Department of Agriculture-USDA, 2012). In addition to its importance in diet, it is prominent in traditional festivals, marriages, burials and indeed in almost all social, cultural, religious and economic gathering (Omojola, 2014). Marketing is defined as the process of satisfying human needs by bringing products and services to people in the proper form and at a proper time and place. Marketing has economic value because it gives form, time and place utility to products and services. Agricultural marketing is one of the important branches of marketing that deals with the exchange of agricultural goods. Agricultural marketing comprises all the activities from production to consumption (such as harvesting, grading, packaging, storing, price fixation, selling and buying) (Tiku et al., 2015).

Yam remains a major staple food in Nigeria, contributing immensely to rural economies (Kalu and Erhabor, 1992). It is therefore important to take a critical look into the marketing of this important produce in Ahiaohuru, Aba, Abia State, Nigeria. In view of the foregoing; this study was conducted.

2. Materials and Methods

2.1. Description of the Study Area

The study was carried out in Aba, Abia State, Nigeria. Abia State is one of the five states that make up the Southeast geopolitical zone of Nigeria. Abia state is approximately within Latitudes 4°, 41/ and 6°, 14/ North of the Equator and Longitudes 7°, 10/ and 8° East of the Greenwich meridian. The state has 17 Local Government Areas (LGA) that were divided along three agricultural zones namely Ohafia, Umuahia, and Aba (Nwaru and Iheke, 2010). The state is involved in arable crop production such as cassava, yam, rice, maize and sweet potatoes.

2.2. Sampling Technique and Size

The study employed multistage purposive sampling technique. In the first stage, Ngwa Road Market (Ahiaohuru) was deliberately selected because of the presence of higher number of yam marketers. The second stage involved the random selection of 80 yam Marketers in Ngwa Road Market (Ahiaohuru) Aba, Abia State, Nigeria.

2.3. Analytical Techniques

Socio-economic characteristics of the yam marketers as well as their market structure were analyzed with the application of descriptive statistics such as frequency tables, percentages and mean. Cost and returns involved in yam marketing was analyzed with the application of budgetary technique involving profitability function and rate of returns. Income obtained from yam marketing was evaluated with the use of multiple regression model. On the other hand, constraints to yam marketing in the study area were analyzed with the use of Likert scale.

2.4. Model Specifications

Cost and returns associated with yam marketing in the study area was analyzed with the application of budgetary technique involving model on profitability and rate of returns on investment. The rate of returns from was determined with the application of Gross Margin (GM) analysis while the profitability level was determined using Net Profit (NP) function.

GM = TR – TVC ....(1)
NFI = GM-TFC or TR-TC ....(2)
NROI = NFI/TC ....(3)

Where;
GM= gross margin, TR= total revenue, TVC= total variable cost, NFI= net farm income, TFC= total fixed cost, TC= total cost, NROI= net return on investment.

The income from yam marketers in Ngwa Road Market (Ahiaohuru) Aba was analyzed with the use of multiple regression analysis.

$Y= f (X_1, X_2, \ldots X_8, X_9, \mu)$ ....(4)
$Y= b_0 + b_1X_1 + b_2X_2 + \ldots + b_8X_8 + b_9X_9 + \mu$ ....(5)
Where;
Y= income from yam marketing, X_1= sex, X_2= age (years), X_3= marital status, X_4= household size, X_5= marketing experience, X_6 = source of finance, X_7 = educational level (years spent in schooling) of marketers, X_8= sales of yam, X_9= number of items sold, μ= stochastic error term, X_1-X_9= defined in the implicit form, b_1-b_9= regression coefficients of variables X1-X5, b_0= constant term

Constraints to yam marketing were analyzed with the use of Likert scale. In the use of the Likert scale, the researcher considered the mean score of 2.5 to be accepted while any constraints below 2.5 were rejected. The score of 2.5 was calculated using the weightings attached to the response options of;

Strongly Agree   (SA),   = 4
Agreed   (A)   = 3
Disagree   (DA)   = 2
Strongly Disagree (SD)   = 1
Hence,   4+3+2+1 = 10 = 2.5
           4   4

2.5. Ethical Consideration

The authors confirm that the ethical policies of the journal, as noted on the journal's author guidelines page, have been adhered to. The experimental procedures were approved by the Michael Okpara Univeristy of Agriculture, University Research Ethics Review Committee, Umudike, Nigeria.

3. Results and Discussion

3.1. Socio – Economic Characteristics of Yam Marketers in Aba, Abia State

The result of the analysis of the socio economic characteristics of the yam marketers in the study area were presented in Table 1 and 2; and the discussion follows suite. Table 1 shows the gender, age, marital status, educational level and household size of the randomly selected yam marketers in Ahiaohuru, Aba, Abia State, Nigeria. From Table 1, it was observed that a total of 62.5% of the yam marketers were males; while the other 37.5% were females. The result shows that greater percent of the yam marketers in the study area were males. This result conforms to the findings of Audu (2009) who noted that the productivity and marketing skills of men tends to be higher than that of the women. This may be connected to the laborious nature of yam marketing which most females cannot contend with. Omojola (2014) noted that the marketing of yam is an energy demanding activities which require men who are naturally endowed with abundant physical strength necessary for such jobs.

Age distribution of the sampled yam marketers' shows that 10% were equaled to or less than 25 years; 33.75%, 37.5% and 12.5% were within the age brackets of 26-35 years, 36-45 years and 46-55 years respectively. Furthermore, 3.75% and 2.5% of the yam marketers in the study area were within 56-65 years and greater than 66 years respectively. The mean age of the marketers was 36.92 (approximately 37 years).

Table 1. Distribution of respondents' according to gender, age, marital status, educational level and household size*

	Category	Frequency	Percentage (%)
Gender	Male	50	62.50
	Female	30	37.50
Total		80	100
Age (Years)	≤ 25	8	10.00
	26-35	27	33.75
	36-45	30	37.50
	46-55	10	12.50
	56-65	3	3.75
Mean: 36.92	66 and above	2	2.50
Total		80	100
Marital Status	Single	21	26.25
	Married	55	68.75
	Divorced	1	1.25
	Widowed	3	3.75
Total		80	100
Educational Level	Primary	10	12.50
	Secondary	42	52.50
	NCE	2	2.50
	OND	8	10.00
	HND	7	8.75
	University degree	11	13.75
Total		80	100
Household Size	≤ 4	39	48.75
(Number of persons)	5-9	35	43.75
	10-14	3	3.75
	15-19	1	1.25
	20-24	1	1.25
Mean: 5.42	25 and above	1	1.25
Total		80	100

*Field survey data, 2018

The result posits that majority (37.5%) of the yam marketers were within the age bracket of 36-45 years. This has a lot of implication as majority of the marketers were in their active and productive age. From Table 1, it was also observed that 26.25% and 68.75% of the yam marketers in Ahiaohuru, Aba, Abia state were single and married respectively; while divorced and widowed constituted 1.25% and 3.75% respectively. The result infers that greater percent of the yam marketers were married.

The educational distribution of the marketers shows that 12.5% had completed their primary school education, 52.5% had completed their secondary school education while 2.5%, 10% and 8.75% had NCE (National Certificate of Education), OND (Ordinary National Diploma) and HND (Higher National Diploma) respectively. Only 13.75% of the sampled respondents had university degree. The result concludes that majority of the yam marketers in the study area had Senior School Certificate of Education (SSCE). This surmises that mainstream (75%) of the marketers had basic education. Analysis of household size of the respondents shows that 48.75%, 43.75% and 3.75% of the yam marketers had less than 4 persons, 5-9 persons and 10-14 persons in their household respectively. The mean household size of the respondents was 5.42 (roughly 6) persons. The result shows that greater percentage of the yam marketers in the study area had less than 4 persons in their household. The implication of this result is that larger household size could provide additional family labour required for marketing and other related operations.

Table 2 shows additional socio economic characteristics of the yam marketers. About 67.5% of the marketers had less than 10 years of marketing experience. A total of 27.5% and 2.5% had between 11-20 years and 21-30 years of experience in yam marketing; while 1.25% had more than 31 years of marketing experience. The average marketing experience of the yam sellers was 9.78 years.

The average income accruable from yam marketing in the study area was N237,172. Preponderance of the marketers makes ≤ N50,000 on a monthly basis. About 63.75%, 20% and 6.25% of the marketers obtains financial assistance through personal savings, friends/relatives and cooperative society respectively. This indicates that mainstream of the yam marketers in Ahiaohuru, Aba, Abia state source their capital from personal savings or equity.

3.2. Market Structure of Yam in Aba, Abia State, Nigeria

The market structure of the respondents comprises

information on the types of crops marketed, information on price fixation, data on respondents marketing status, source of marketing information and level of marketing information among other descriptive variables.

Table 2. Distribution of respondents' according to years of experience, average income, source of finance and religion*

	Category	Frequency	Percentage (%)
Years of Experience in yam	≤ 10	54	67.50
marketing	11-20	22	27.50
	21-30	2	2.50
	31-40	1	1.25
Mean: 9.78	41 and above	1	1.25
Total		80	100
Income Accruable from Yam	≤ 50,000	26	32.50
Marketing in Nigerian Naira	50,001-150,000	13	16.25
(₦)	150,001-250,000	18	22.50
	250,001-350,000	4	5.00
(@ ₦365.73 to $1.00)	350,001-450,000	5	6.25
	450,001-550,000	6	7.50
Mean: ₦237,172.50	550,001 and above	8	10.00
Total		80	100
Source of Finance	Personal Savings	51	63.75
	Friends/Relatives	16	20.00
	Cooperatives	5	6.25
	Microfinance banks	2	2.50
	Commercial Banks	5	6.25
	Others	1	1.25
Total		80	100
Religion	Christianity	73	91.25
	Islam	2	2.50
	Traditional religion	5	6.25
Total		80	100

*Field survey data, 2018

Table 3 shows the percentage distribution of the respondents by the crops they marketed. From Table 3, it was observed that 77.5% of the respondents marketed only yam while the other 22.5% marketed yams and other crops. The result indicates that greater percentage of the respondents marketed only yam.

Table 3. Percentage Distribution of Respondents by Crops Marketed*

Crops Marketed	Frequency	Percentage (%)
Yam only	62	77.50
Yam and other crops	18	22.50
Total	80	100

*Computed from field survey data, 2018

Table 4 shows the distribution of yam marketers according to their marketing status. The marketing status portrays if the respondents were full time or part time marketers. The result shows that 75% of the marketers were full time yam marketers; while the other 25% were part time marketers. The result posits that preponderance of the yam marketers in the study area were full time marketers. Full time marketers are expected to devout their time, resources and effort in making profits; assuming all things are equal.

Table 5 shows the distribution of yam marketers according to their source of marketing information. The result shows that 25% of the marketers obtained marketing information from their fellow marketers, 8.75% got it from marketing agent; while 45% of the respondents obtain marketing information from wholesalers.

Table 4. Distribution of yam marketers in Ngwa Road Market (Ahiaohuru) Aba, Abia State according to their marketing status*

Marketing Status	Frequency	Percentage (%)
Full Time Marketer	60	75.00
Part time marketer	20	25.00
Total	80	100

*Computed from field survey data, 2018

Further result shows that 20% of the yam marketers in Aba, Abia state obtain marketing information within themselves. The result infers that greater percentage of the respondents obtained marketing information from large scale marketers or wholesalers.

Table 5. Distribution of Yam Marketers in Ngwa Road Market (Ahiaohuru) according to the source of marketing information*

Source of Marketing Information	Frequency	Percentage (%)
Fellow marketers	20	25.00
Marketing Agents	7	8.75
Wholesalers	36	45.00
Self	16	20.00
Others	1	1.25
Total	80	100

*Computed from field survey data, 2018

Table 6 shows the percentage distribution of yam marketers according to their level of marketing information. From Table 6, it was observed that 80% of the respondents stated that there was free flow of price information; while the other 20% stated that there was restricted flow of price information. The result portrays that greater percentage of the yam marketers in the study area had free flow of price information. The result suggests that there was a good knowledge of price information among the marketers in the study area.

Table 6. Percentage distribution of respondents according to the level of marketing information*

Level of Marketing Information	Frequency	Percentage (%)
There is free flow of price information	64	80.00
There is restricted flow of price information	16	20.00
Total	80	100

*Computed from field survey data, 2018

Table 7 shows the data relating to fixing and setting of yam price in the study area. From Table 7, it was observed that 73.75% of the yam marketers specified that the price of yam was fixed through collective bargaining; 16.25% of the respondents observed that the price of yam in Aba, Abia state was determined through the quantity traded (otherwise referred to as the interaction of demand and supply dynamics). A total of 6.25% and 3.75% noted that the price of yams was determined through the prevailing market price and through group discussions. The result suggests that greater percentage of the yam marketers fixes the price of yam through collective bargaining. This implies that the price of yams in Ahiaohuru, Aba, Abia state was determined through collective bargaining.

Table 7. Percentage distribution of respondents according to fixing and setting of yam prices among the Yam Marketers in Aba, Abia State, Nigeria*

Fixing of Price of Yam	Frequency	Percentage (%)
Through bargaining	59	73.75
Through quantity traded	13	16.25
Current/prevailing market price	5	6.25
Through group discussion	3	3.75
Total	80	100

*Computed from field survey data, 2018

Table 8 shows the percentage distribution of respondents by the level of entry and exit into the yam markets in Ahiaohuru, Aba, Abia State, Nigeria. It was observed that 90% of the yam marketers stated that there was free entry and exit of members into the market; while the minority 10% noted restricted entry and exit into the market. The result suggests that there was free entry and exit of members in the market. This suggests that yam marketing in the study area is a competitive venture.

Table 8. Entry and exit situation among Yam Marketers in Ahiaohuru, Aba, Abia State, Nigeria*

Fixing of Price of Yam	Frequency	Percentage (%)
Free entry and exit	72	90.00
Restricted entry and exit	8	10.00
Total	80	100

*Computed from field survey data, 2018

Yam marketing association provides useful information to the buyers and sellers which enable them make rational decisions in the market environment they operate. Table 9 shows the information pertaining to membership of yam marketing association. About 68.75% of the yam marketers stated they belong to yam marketing cooperative; while the other 31.25% specified otherwise. The result shows that preponderance of the yam marketers in Ahiaohuru, Aba, Abia state belongs to yam marketing association or cooperatives.

Table 9. Membership of Yam Marketing Organization among the Yam Marketers in Aba, Abia State, Nigeria*

Membership of Yam marketing Association (Cooperative)	Frequency	Percentage (%)
Yes	55	68.75
No	25	31.25
Total	80	100

*Computed from field survey data, 2018

3.3. Average Cost and Returns involved in Yam Marketing in Ahiaohuru, Aba, Abia State, Nigeria

Table 10 shows the average cost and returns associated with yam marketing in Aba, Abia State, Nigeria. From Table 10, it was observed that the total revenue accruable from yam sales by the 80 randomly selected yam marketers in Ahiaohuru, Aba, Abia state was N620,793.12. The cost items included yams purchased for resale, rent, transportation, storage, labour expenses amongst others cost items. The cost of yams purchased for resale was N471,900; while the cost of rent was N70,763.75. Other cost items was transportation representing N58,700 while storage was N17,775. The total cost items was N680,293.25. The net profit/loss which is a measure of the profitability of the marketers was calculated as the total accruable revenue less the total cost incurred in marketing operations. The result of the net profit/loss gave a negative value of –N59,500.12. This shows that the marketers were running deficit. This implies that yam marketing in the study area was not profitable.

Table 10. Entry and exit situation among Yam Marketers in Ahiaohuru, Aba, Abia State, Nigeria*

Items	Amount in Naira (₦)
Revenue/Sales	$1.00 / ₦365.73
Sale of Yams	620,793.12
Cost Items	
Purchase of yams for resale	471,900.00
Rental fee on shop	70,763.75
Transportation expenses	58,700.00
Storage cost	17,775.00
Cost expenses on Labour	8,866.75
Carriage inward	7,940.62
Carriage outward	7338.75
Taxes	17,190.00
Storage facilities/equipment	4,407.50
Security	1,496.25
Depreciation	9,296.25
Miscellaneous	985.00
Others	3,633.38
Total Cost Items (TC)	680,293.25
Net Profit/Loss = TR – TC	-59,500.12

*Field Survey Data, 2018

3.4. Evaluation of Income obtained from Yam Marketing in Ahiaohuru, Aba, Abia State, Nigeria

The multiple regression coefficients of the total accruable income obtained from yam marketing in the study area was presented in Table 11. From Table 11, the regression model has a coefficient of determination (R^2) of 0.698, implying that 69.8% of the variation in the endogenous variable (income from yam marketing) was accounted for by the independent variables (X1-X9). The F-ratio was 18.0 and statistically significant at 1% level, which implies that the model has a good fit. The constant term ($\beta 0$) was positive and not significant; but has a coefficient of 255359.23. This implies that income from yam marketing will increase by N255,359.23 assuming other explanatory variables were held constant. From Table 11, four out of the nine exogenous variables in the model statistically influence the dependent variable. The significant variables were sex (X1), marital status (X3), source of finance (X6), cash and sales of yam (X8).

Sex of the yam marketers was statistically significant at 5% level; with a negative coefficient of -352814.0; indicating that income of the yam marketers will decrease as the number of female marketers increase. Empirically, an increase in the number of female yam marketers will decrease the income from yam marketing by N352,814.0 assuming other exogenous variables were held constant. Also, the higher the male marketers, the more the income derived from yam marketing in the study area. This could be as a result of the high labour intensive requirement which yam marketing involves which the male gender can render.

In the same vein, marital status of the yam marketers was statistically significant at 10% probability level with a negative coefficient of -188983.71; implying that the income of yam marketers in the study area will decrease as more married marketers are involved in yam marketing. The result connotes that income from yam marketing tends to increase with the married; assuming other explanatory variables were held constant. This implies that the more the married marketers, the more the income derived from yam marketing.

The source of income of the yam marketers was statistically significant at 5% level; with a negative coefficient of -121299.31; indicating that income from yam marketing will decrease as more sources of income are made available. This is contrary to a priori expectations and may be due to high interest rate charged in securing loans from financial institution. Sale of yam was statistically significant at 1% level; with a positive coefficient of 0.735; denoting that income from yam marketing will increase as the sale of yam increases.

3.5. Constraints to Yam Marketing in Ahiaohuru, Aba, Abia State, Nigeria

The constraints limiting yam marketing in the study area was analyzed with the application of 4 point Likert scale. The following scales were Strongly Agree (SA), Agreed (A), Disagree (D) and Strongly disagree (SD). Table 12 is the Likert scale showing the constraints limiting yam marketing in the study area. Any constraints with mean score below 2.5 were rejected; while constraints with mean score above 2.5 were accepted as a major constraint. From Table 12; it was observed that lack of capital (mean score of 3.08), high cost of labour (mean score of 2.63), poor storage facilities (mean score of 2.91), perishability of yam (mean score of 3.28), high cost of transportation (mean score of 2.91) and unfavourable market prices (mean score of 2.55) were the significant constraints limiting yam marketing in Aba, Abia State, Nigeria.

Table 11. Multiple Regression Coefficients showing the Evaluation of Income obtained from Yam Marketing in Ahiaohuru, Aba, Abia State, Nigeria

Variables		Coefficient	Standard error	t – ratio	p-value
Constant	(β_0)	255359.236	334392.998	0.764	0.448
Sex	(X_1)	-352814.003	149222.669	-2.364**	0.021
Age	(X_2)	381.129	5236.948	0.073	0.942
Marital status	(X_3)	-188983.714	110580.404	-1.709*	0.092
Household size	(X_4)	6195.637	14272.091	0.434	0.666
Marketing experience	(X_5)	-15436.462	10459.650	-1.476	0.144
Source of finance	(X_6)	-121299.312	57569.772	-2.107**	0.039
Level of education	(X_7)	-49173.176	43084.889	-1.141	0.258
Sales of Yam	(X_8)	0.735	0.060	12.164***	0.000
Number of items sold	(X_9)	48838.388	171986.252	0.284	0.777
R		0.836			
R²		0.698			
F – Statistics		18.009***			

*Field Survey Data, 2018
*** $P<0.01$, ** $P<0.05$, * $P<0.10$.

Table 12. Likert Scale showing the Constraints Limiting Yam Marketing among Yam Marketers in Aba, Abia State, Nigeria

Constraints	SA	A	DA	SD	Mean	Decision
Lack of capital	44 (176)	5 (15)	25 (50)	6 (6)	3.08	Accepted
Absence of Market information	15 (60)	13 (39)	47 (94)	5 (5)	2.47	Rejected
High competition	1 (4)	33 (99)	33 (66)	13 (13)	2.27	Rejected
High cost of labour	21 (84)	12 (36)	44 (88)	3 (3)	2.63	Accepted
Poor storage facilities	28 (112)	19 (57)	31 (62)	2 (2)	2.91	Accepted
Perishability of Yam	50 (200)	4 (12)	25 (50)	1 (1)	3.28	Accepted
Cost of transportation	28 (112)	19 (57)	31 (62)	2 (2)	2.91	Accepted
Poor market prices	13 (52)	22 (66)	41 (82)	4 (4)	2.55	Accepted

*Field Survey Data, 2018

The respondents considered lack of capital as a major constraint limiting yam marketing in the study area. This is so because capital is important to enhance access to inputs and offset marketing cost, storage cost and cost of transportation.

Subsequently, perishability caused by pest and diseases are major constraints to yam marketing in the study area. Those attacked by pest and disease result in losses reflected by fall in the price of the yam due to reduction in quality. On the hand, transportation was considered a constraint because yam is heavy, bulky and fragile (can easily break), so transporting the produce can be difficult and costly. Difficulty in transporting yam output to market could result in low income and losses resulting from breakages and spoilage.

4. Conclusion and Recommendations

It can be concluded that greater percentage of the yam marketers in the study area were males. This is because the marketing of yam is an energy demanding activities which require men who are naturally endowed with abundant physical strength necessary. Mainstream of the yam farmers in the study area are in their economic active age. Also, greater percentage of the yam marketers' was married.

Greater percentage of the yam marketers in Aba, marketed only yam. There was good knowledge of price information among the marketers; while the price of the produce was determined through collective bargaining. Yam marketers in the study area operated in a competitive market environment. The result of the net profit/loss from yam marketing in Ahiaohuru, Aba, Abia state gave a negative value of – N59,500.12. This shows that the marketers were running deficit. This entails that yam marketing in the study area was not profitable.

The respondents' sex, marital status, source of finance and sales of yam were the significant variables influencing income from yam marketing in Ahiaohuru, Aba, Abia State, Nigeria. Lack of capital, high cost of labour, poor storage facilities, perishability of yam, high cost of transportation and poor market prices were the significant constraints limiting yam marketing in the study area.

Measures should be taken to reduce the total cost of production; while increasing the total accruable revenues from sales of yam. Perishability due to poor storage was

identified as one of the major problems plaguing yam marketing in the study area. It therefore becomes necessary for Agricultural Development Programme (ADP) through the Extension Service unit to introduce better storage technology. It is hoped that this will help ameliorate the problem. The marketers need to be organized into cooperatives. Through this, the marketers can have access to credits facilities as well as trainings from extension personnel.

Author Contributions

JCM; carried out the project in collaboration with all authors. FOO; guided by the expert advice, JCM; designed the study and wrote the first draft of the manuscript. IMK made contribution to the first draft and supervised the data collection, sorting and coding. FOO and IMK; managed the analyses of the study as well as the literature search. All authors made contributions to the project.

Conflict of Interest

The authors declare that there is no conflict of interest.

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