ISSN No:-2456-2165

Banana Fruits Enterprises Profitability Analysis in Odigbo Local Government Area, Ondo State, Nigeria

Ajibade, Y.E., Ameh, O.E., Onoja, N.M. and Jeremiah D. J.
Department of Agricultural Economics and Extension,
Faculty of Agriculture, Kogi State University, Anyigba, Nigeria

Abstract:- The broad objective of this study is to analyze banana fruits enterprises profitability in Odigbo Local Government, Ondo State, Nigeria. The study specifically described the socio-economic characteristics of the respondents, estimated costs and returns of actors, determined the respondents profitability and identified constraints faced by various actors. A multi-stage sampling technique was used for this study. A well-structured questionnaire coupled with personal interview was used to elicit information from one hundred and twenty respondents. The results showed that majority (52.2%) of the respondents were male. Majority of the respondents belonged to the age bracket of 60-69years. Majority (70.0%) of the respondents were married with a household size of 1-10 persons. Majority (53.33%) had formal education with majority (40.83%) having experience of 11-20 years' in banana venture. The results showed that producers incurred a total cost of ₦259,036.67k per annum, earned a total revenue of ₦2,160,422.22k per annum.. The producers earned gross margin of ₦1,907,826.89k per annum with 8.34 as return on investment. The results also showed that processors incurred total cost of ₦158,343.63k per annum, with a total revenue of ₦2,232,260.50k per annum. The results showed e gross margin of ₦2,074,986.72k per annum with 14.10 as return on investment.The results showed that producers/processors incurred a total cost of ₦1,095,172.86k per annum and earned total return of ₦9,237,910.00k per annum from banana production and processing. Their gross margin was ₦9,237,910.00k per annum with 9.42 return on investment. The results showed that marketers incurred a total cost of ₦132,727.45k per annum and earned a total revenue of ₦204,700.00k per annum from banana marketing. The results showd that actors faced diverse constraint in their various ventures. Therefore, their should be construction of good road networking for effective transportation of banana produce and products to the ultimate consumers.

Keywords:- *Banana, Profitability, Enterprises, Fruits, Odigbo Local Government Area.*

I. INTRODUCTION

Banana *(Musa. Spp)* is one of the major commodities in agricultural sector which is used as both food and cash crop. Banana fruits are among the world's most popular fruits and it varies in color, size and shape. Most banana are *Musa acuminate* (cooking banana or plantain), *Musa paradisiacal* (banana or french plantain) *and Musa balbisiana* (wild banana). The most common type of desert banana is Cavendish. It's green when unripe and turns yellow as it matures.It contains a fair amount of fiber as well as several antioxidants. Each banana fruit contains about hundred and five (105) calories and exclusively contain water and carbs. The protein content is little with no fat. The carbs in green, unripe banana fruit consists mostly of starch and resistant starch but as banana fruit ripens, the starch turns into sugar (glucose, fructose and sucrose).

India is the largest banana fruit producing country in the world with a total production of 39million metric tons which represents 18percent of the world's total production (FAO, 2012). Uganda is the largest producer of banana fruit in the Sub-Saharan Africa (SSA) followed by Rwanda, Ghana, Nigeria and Cameroon (FAOSTAT, 2018). Banana fruit is a major staple food in Tanzania and Uganda, it is also an important cash crop in their local economy (IITA, 2014). Nigeria is among the largest banana fruit producing countries in Africa Producing about 2.8million metric tons of banana annually, with a production area which covers about 450,000 hectares of land. It is widely produced in south and central regions of the country such as; Oyo, Edo, Ondo, Bayelsa, Delta, Akwa Ibom, Rivers, Ogun, Cross river, Ebonyi, Abia, Ekiti, Imo, Plateau, Osun, Kogi, Anambra and Enugu States. Banana fruits have always been important traditional staples for both rural and urban populaces in Nigeria. Banana fruit distribution in Nigeria is a bit complex, farmers whose land lies near major roads, harvest the crop at the mature green stage and display it at the roadside or transport the crop to nearby markets, allowing small scale wholesalers, retailers and consumers to purchase directly. In some cases assemblers move around farms, collect the produce from farmers and transport it to cities where they hand them over to wholesalers who in turn pass the produce on to the retailers or vendors for sale to the ultimate consumers (EPAR, 2013).

According to Aliyu (2012), the value chain network may be defined as a range of activities that are required to bring a product from its conception, through its designing, sourcing raw materials and intermediate inputs, marketing and distribution to the final consumers. Harbir (2011) stated that, producers gain from increased knowledge, better quality and food safety, reduced costs end losses, higher

ISSN No:-2456-2165

sales and greater value addition in production through modern integrated value chains.The traditional way of food production is being replaced by practices more similar to manufacturing processes, with greater coordination across farmers, processors, retailers and other stake holders in the value chain. Anjani (2012), stated that civilization has changed the pattern of food consumption with demands for high value commodities in terms of quality and safety such as frozen, pre-cut, pre-cooked and ready to eat foods has led to concern for a more sophisticated production, processing and distribution systems which is known as value chain.

Banana fruit production has potentially contributed to the economy over the years, in terms of employment creation, nutrient improvement, extra income generation and reduces poverty in rural areas (Kamal *et al*., 2014). Banana fruit can be transformed from its initial form to a finished product through processing, enhancing different food varieties in terms of taste and human want e.g., banana fruit juice, banana chips etc. Banana fruit enterprise has several constraints that hinder further expansion and good performance among the key actors. The poor performance of farmers arose due to the low prices paid for their produce. The consequence of low price is due to poor processing, branding, packaging and storage which lead to relatively low quantities of banana fruit and post-harvest losses. The low prices paid for banana lead to low farmer's income, discouraging banana fruit farming among the poor rural livelihood. The other group is traders including wholesalers and retailers who always tend to maximize profits. According to Nkuba (2003), many producers have no information about prevailing prices in the markets. Hence, educating farmers on good banana production practices right from the field to storage is an integral part of value chain development and will help to alleviate low profit. Also the role of the various actors in the banana fruit value chain is unknown due to an invisible supply chain that exist among them in the distribution of banana fruit. There is a global need for value addition to agricultural produce such as banana fruit which at recent year received better attention for its comparative advantage and better adaptability to the study area. Value chain theory is a business model that describes the full range of activities needed to create a product or service. For companies that produce goods, a value chain comprises of the steps that involve bringing a product from conception to distribution, and everything in between such as procuring raw materials, manufacturing functions, and marketing activities. A company conducts a value-chain analysis by evaluating the detailed procedures involved in each step of its business. The purpose of a value-chain analysis is to increase production efficiency so that a company can deliver maximum value for the least possible cost. A value chain is a step-by-step business model for transforming a product or service from idea to reality. Value chains help increase a business's efficiency so the business can deliver the most value for the least possible cost. The end goal of a value chain is to create a competitive advantage for a company by increasing productivity while keeping costs reasonable.

Value chain theory is a business model that describes the full range of activities needed to create a product or service. For companies that produce goods, a value chain comprises the steps that involve bringing a product from conception to distribution, and everything in between such as procuring raw materials, manufacturing functions, and marketing activities. A company conducts a value-chain analysis by evaluating the detailed procedures involved in each step of its business. The purpose of a value-chain analysis is to increase production efficiency so that a company can deliver maximum value for the least possible cost. A value chain is a step-by-step business model for transforming a product or service from idea to reality. Value chains help increase a business's efficiency so the business can deliver the most value for the least possible cost. The end goal of a value chain is to create a competitive advantage for a company by increasing productivity while keeping costs reasonable.

The value-chain theory analyzes a firm's five primary activities and four support activities. Because of ever-increasing competition for unbeatable prices, exceptional products, and customer loyalty, companies must continually examine the value they create in order to retain their competitive advantage. A value chain can help a company to discern areas of its business that are inefficient, then implement strategies that will optimize its procedures for maximum efficiency and profitability.In addition to ensuring that production mechanics are seamless and efficient, it's critical that businesses keep customers feeling confident and secure enough to remain loyal. Activities overarching goal of a value chain is to deliver the most value for the least cost in order to create a competitive advantage.

Although, various studies have been carried out on Musa Spp such as analysis of operational efficiency of cooking banana (also known as plantain) marketing in Odigbo Local Government Area, Ondo State (Aina *et al*., 2012). Adeoye *et al*. (2013), also studied cooking banana fruit (plantain) value chain mapping in the southwestern part of Nigeria The zone is made up of six states namely Lagos, Oyo, Ogun, Osun, Ekiti and Ondo States. Akinyemi *et al*. (2017) also studies the market structure and performance of banana and cooking banana in Oyo state Nigeria.This study is specifically interested in knowing the activities of four major banana actors in banana market chain in Odigbo Local Government Area. Also, Thus, the study considered banana producers (farmers), banana processors, banana producers/processors and banana fruits and fruit products marketers. To the best of the author's knowledge, there were little or no efforts on the need to visualize network and key actors in the banana fruit Value Chain in the study area.This is the gap this study is filling; it aims at examining banana fruits enterprises in Odigbo Local Government Area, Ondo State, Nigeria. The study answered the following research questions:

- What are the socio-economic characteristics of actors in banana fruit in the study area?
- What are the costs and returns of various banana fruit enterprises in the study area?

ISSN No:-2456-2165

- What are the constraints faced by banana fruit enterprises in the study area?

II. METHODOLOGY

The study was carried out in Odigbo Local Government Area (LGA), Ondo State. The LGA is bounded by Latitudes 6°47′40″ N and Longitudes 4°52′3″ E, with about 1,818 km^2. The LGA has a land mass of about 1,808 square kilometers, density of about 173.5 kilometer square and has about 150 towns and villages with population of about 313,600 according to National Population Commission of Nigeria (NPCSN) and National Bureau of (NBS Statistics) 2016. The Local Government is made up of of Ore, Oniparaga, Odigbo, koseru, Ebijan, Ayesan, Araromiobu, Ajue, Ago-Alaye and Agbagu. It is a lowland within a humid forest zone with a mean cumulative annual rainfall of 1,320 mm. It has monthly mean temperatures that vary from 27.6°C to 31.6 °C. The wet season lasts about seven to eight months, while the dry season lasts three to four months. The Local Government Area falls within the rain forest region with abundant rainfall and sunshine, thus favouring agricultural practice. Many people in this area engage in farming as their sole occupation, the major crops cultivated are cocoa, kolanut, oil palm, coffee, rubber, cassava, pepper, plantain and banana. The people also engage in other occupations such as trading, teaching, tailoring, hunting, and craft making, especially in the area headquarters and major towns.

Many parts of Odigbo Local Government are inhabited by non-indigenes like people from Oyo and Osun States and some parts are occupied by the Ikale people of Okitipupa and Irele Local Government Area, Ondo State. The major language spoken in the LGA is Yoruba.. The soil types comprises of DystricNitosols (Nd) 57.42%, Ferric Luvisols (Lf) 22.26%, EutricNitosols (Ne) 11.87%, Gleysols (G) 7.64%, and Dystric, Regosols (Rd) occupy 0.81% of the study area (FAO-UNSECO , 2007).

A multi-stage sampling technique was used for this study. The first stage was a random sampling of Odigbo Local Government Area among the eighteen(18) LGAs in Ondo State. In the second stage, purposive selection of four (4) villages, which include, Ore, Odigbo, Omifon and Asewele where banana fruit enterprises are concentrated . In the third stage, random selection of thirty (30) respondents from banana fruit enterprises each (banana fruits producers, banana fruit processors, banana fruit producers/processors and banana fruit product marketers) across the four (4) villages making a total sample size of one hundred and twenty (120) respondents.

A well-structured questionnaire coupled with personal interview was used in eliciting information from the respondents. Primary data were collected for this study. The data collected were analyzed using descriptive and inferential statistics. Objective (i and iii) were analyzed using descriptive statistics which consist of frequencies, percentages, tables and mean, while Objective (ii) was analyzed using gross margin and profitability ratio.

III. MODEL SPECIFICATION

Gross Margin (GM) Analysis

This was used to estimate costs and returns of the actors in banana enterprises in the study area.

$$GM = TR - TVC$$

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

The net return represents the total profit and will be determined using:

Net return = TR – TC,

Where:

TR = Total revenue

TC = Total cost

Rate of return to investment ***(ROR)*** = $\frac{current\ value - initial\ value}{initial\ value} \times 100$

IV. RESULTS AND DISCUSSION

A. Socio-economic Characteristics of the Actors

The results in Tables1 describes the socio-economic characteristics of the respondents (banana producers, banana processors, banana producers/processors and banana marketers). Majority of the respondents (52.5%) were male, while 47.5% were female. The predominance of male in banana enterprise could be attributed to heavy involvement of men in cocoa production in the area and they usually plant banana as shade tree for cocoa at tender age and because of tedious activities involved in land preparation and other value addition processing of banana. This concurs with the findings of Ayanwale *et al.* (2018) who revealed that 92.0% of the respondents were male. The mean age of respondents was 56.1, years, However, majority of the respondents (75.67%) fell within 40-69 years. working age. This implies that people of younger age do not consider banana enterprise as serious occupation, since banana is originally being planted as a shade crop for cocoa and other permanent crops. This opposes the study carried out by Ayanwale *et al.* (2018) who reported that majority (60.0%) of the respondents fall within the age brackets of 41-60 years, while 30.71% falls within 20-40years and 9.29% were 60years and above. Majority (70.0%) of the respondents were married while others were single, widowed and divorced. This implies that the respondents were responsible men and women. The findings concurs with the submission of Akinbile (2007) who posited that marriage confers responsibility. The findings showed that most of the respondents had household size of 1- 10 persons, thus, majority of them could access family labour to increase their production and reduce cost of production and processing respectively. The result is in line with the findings of Banmeke *et al*. (2008) who stated that large household size serve as an important source of labor. The results showed that majority (40.83%) of the respondents had spent an upward of ten years in their respective enterprises. This results concur with the findings of Akinyemi *et al* (2017) who revealed that respondents had an average of 20 years of experience which showed that respondents had spent long years in banana enterprise and could predict possible problems and likely solutions that may result in higher profits with regards to the business (Ben- chedo *et al*.,

ISSN No:-2456-2165

2013). The results in Table1 also showed that majority (75.00%) of the respondents were formally educated. Thus, their been literate could assist them in adopting new innovation and skill in their various enterprises in terms of banana production, processing and marketing enterprises . The results is in tandem with the findings of Ariyo *et al.* (2013), whose findings revealed that 87.0% of cooking banana actors had formal education. The results showed that these actors do not only produce, process and market banana, over 50.0% also engaged in other income generating activities such as trading, craft and civil service. This implies that the respondents have other sources of income which could be invested into their banana enterprises for expansion. However, there is need for having other sources of income because banana fruiting and harvesting is seasonal, it would be irrational for the actors to have banana enterprises as sole venture. Furthermore, the results showed that about 54.17% of the respondents belonged to cooperative society, while others belong to other associations. Being a member of any organization could be an avenue for accessing information and other benefits to the enterprises . This findings concur to the findings of Asadu (2013), who reported that membership of any organization is an added advantage which provide a platform for interaction and contact among members..About 58.33% of the respondents do not have any special storage facility, while others made use of sacks, basket and barns.

Variable	Frequency	Percentage	Mode/Mean
Gender			
Female	57.0	47.5	Male
Male	63.0	52.5	
Total	120.0	100.0	
Age			
30-39	9.0	7.5	
40-49	27.0	22.5	
50-59	32.0	26.67	
60-69	33.0	27.5	56.1(11.46)*
70-79	18.0	15.0	
80-89	1.0	0.8	
Total	120.0	100.0	
Household			
1-10	108.0	90.0	6.9(3.02)
11-20	12.0	10.0	
Total	120.0	100.0	
Experience			
1-10	32.0	26.67	
11-20	49.0	40.83	19.13(10.89)
21-30	21.0	17.50	
31-40	12.0	10.0	
41-50	6.0	5.0	
Total	120.0	100.0	
Martial status			
Single	5.00	4.17	
Married	84.0	70.0	Married
Divorced	10.0	8.33	
Widow	21.0	17.5	
Total	120.0	100.0	
Level of Education			
None	19.0	15.83	
Primary	32.0	26.67	
Secondary	58.0	48.33	Secondary
Tertiary	11.0	9.17	
Total	120.0	100.0	
Type of occupation			
Craft	27.0	22.5	
Hunting	21.0	17.5	
Money lending	1.0	0.83	
Tailoring	3.0	2.5	None
Teaching	2.0	1.67	
Trading	10.0	8.33	
None	56.0	46.67	
Total	120.0	100.0	
Association			

ISSN No:-2456-2165

Cooperative	65.0	54.17	Cooperative
Farmers association	52.0	43.33	
Others	3.0	2.5	
Total	120.0	100.0	
Types of storage			
Ban	18.0	15.0	
Basket	2.0	1.67	
Sack/bag	30.0	25.0	None
None	70.0	58.33	
Total	120.0	100.0	

Table 1: Socio-Economic Characteristics of the Respondents

Source: Field Survey, 2020

Note: values in parentheses are standard deviation

B. Costs and Returns of Banana Producers

Table .2 showed that the banana producers incurred a total cost of ₦259,036.67k per annum from banana fruits production and earned a total revenue of ₦2,160,422.22k per annum. The result of the gross margin analysis shows that production of banana is profitable with a gross margin of ₦1,907,826.89k per annum. The returns on investment is 8.34. It implies that for every ₦1 investment in production of banana there was a return on investment of ₦8.34k. This concurs with the study of Ranathilaka *et al*. (2017) which showed that the total cost from banana fruit production was ₦1,387,640.00K with the total revenue of ₦2,013,917.00k. The result of the gross margin was ₦1,242,772.00K. This implies that, banana fruit production is a highly profitable venture in the study area.

Cost items	Aver. Qty	Aver. Price	Value
Variable cost			
land clearing			30,333.33
Ridging			28,283.33
Suckers	1,967.67		25,543.33
Weeding			13,783.33
Fertilizer	131.29		8,250.00
Pesticide	1.83		6,806.67
Harvesting			13,510.00
Herbicide	42.03	1,360.00	57,165.33
Labour	26.30	2,500.00	65,750.00
Transport			3,170.00
Total Variable Cost			252,595.33
Fixed Cost(depreciation)			
Matchet			1,249.00
Hoe			409.67
Digger			1,117.67
Wheel barrow			2,799.33
Sprayer			568.00
Sickle			297.67
Total fixed cost			6,441.33
Total cost			259,036.67
Returns	3,393.33	636.67	2,160,422.22
Gross Margin			1,907,826.89
Net farm income			1,901,385.56
ROR			8.34

Table 2: Costs and Returns of Producers
Source: Field Survey, 2020

ISSN No:-2456-2165

C. Costs and Returns of Processors

The results in Table .3 shows that the respondents incurred total cost of ₦158,343.63k per annum with a total revenue of ₦2,232,260.50k per annum from banana fruits processing. The result of the gross margin analysis shows that processing of banana fruit is profitable with a gross margin of ₦2,074,986.72k per annum, The return on investment is 14.10. It implies that on every ₦1 investment in processing of banana fruits, there was a return on investment of ₦14.10k. This finding corroborates Makindara *et al.* (2015) findings who showed that total cost spent on banana fruits processing was ₦108,429,55.00k with a total revenue of ₦216,000,000.00k with gross margin of ₦107,570,448k. Thus, banana processing is a profitable venture.

Cost items	Aver. Qty	Aver. Price	Value
Variable cost			
Cost of Banana processed	251.33	572.73	143,945.45
Peeling			2,393.33
Slicing			1,748.28
Drying			1,361.11
Grinding			2,078.95
Frying			2,250.00
Fermenting			1,600.00
Preservation			1,350.00
Transportation			546.67
Total Variable Cost			157,273.79
Fixed Costs			
Peeler			214.21
Slicer			148.75
Dryer			220.00
Grinding Machine			136.88
Baking Machine			350.00
Total Fixed Cost			1,069.84
Total Cost			158,343.63
Returns			
Flour	364.56	941.18	343,117.65
Juice	3,457.14	423.97	1,465,714.29
Chips			423,428.57
Total Returns			2,232,260.50
Gross Margin			2,074,986.72
Net returns			2,073,916.88
ROR			14.10

Table 3: Costs and Returns of Processors

Source: Field Survey, 2020

D. Costs and Returns of Producers/Processors

The results in Table 4 showed that the respondents incurred a total cost of ₦1,095,172.86k per annum and earned total return of ₦9,237,910.00k per annum from banana fruits production and processing. The result of the gross margin analysis shows that production and processing of banana is profitable with gross margin of ₦9,237,910.00K per annum. The return on investment is 9.42 which implies that for every ₦1 investment in production and processing of banana there was a return on investment of ₦9.42k. This agrees with the findings of Mbathu et *et al.* (2018) whose study showed that banana fruit production and processing is profitable.

Cost items	Aver. Qty	Aver. Price	Value
Variable cost			
A. Production			
Land clearing			12,566.67
Ridging			7,600.00
Suckers			18,700.00
Weeding			7,566.67
Fertilizer			8,310.00
Pesticide			3,980.00
Harvesting			18,400.00
Herbicide	26.43	1,500.00	39,642.86
Labour	15.90	2,000.00	31,800.00
Total Production			148,566.20
B. Processing			
Cost of banana fruits processing	1,553.33	572.73	889,636.36
Ripening			560.00
Peeling			4,426.67
Slicing			3,159.29
Drying			4,453.33
Grinding			5,236.36
Frying			5,916.67
Fermenting			3,233.33
Boiling			4,750.00
Baking			5,500.00
Preservation			3,533.33
Transportation			1,823.33
Total Processing			932,228.68
Total Variable Cost (A+B)			1,080,794.87
Fixed Cost(Depreciation)			
C. Production			
Matchet			735.33
Hoe			833.00
Digger			807.33
Wheel barrow			838.00
Sprayer			365.00
Sickle			386.00
Total fixed Cost(Production)			3,964.66
D. Fixed Cost (Processing)			
Peeler			7,333.33
Slicer			1,020.00
Dryer			1,025.00
Grinding Machine			475.00
Baking Machine			550.00
Total Fixed Cost			10,403.33
Total Fixed Cost(C+D)			14,367.99
Total Cost			1,095,162.86

ISSN No:-2456-2165

Returns			
Unprocessed Banana	1,268.18	572.73	739,772.73
Flour	2,112.08	911.24	1,924,625.00
Juice	17.57	1,667.89	29,307.14
Chips	1,837.50	3,125.85	5,743,750.00
Cookies	1,075.00	1,750.00	1,881,250.00
Total returns			10,318,704.87
Gross Margin			9,237,910.00
Net farm income			9,223,542.01
ROR			9.42

Table 4: Costs and Returns of Producer/Processors

Source: Field Survey, 2020.

E. Costs and Returns of Marketers

Table 5 showed the cost and returns of marketers, it revealed that the respondents incurred a total cost of ₦132,727.45k per annum and earned a total revenue of ₦204,700.00k per annum from banana fruit products marketing. This indicates that the respondent earned a gross margin of ₦71,972.55k per annum. The return on investment is 1.54. This implies that for every ₦1 investment in marketing of banana there was a return on investment of ₦1.54k This study correlates with the study carried out by Akinyemi *et al*. (2017) which showed the return on investment to be 1.20 which implied that for every ₦1 invested, ₦ 1.20k was realized as profit by banana marketers, (₦1 = $0.006 at the time the study was carried out). This shows that banana marketing is a profitable enterprise.

Cost items	Aver. Qty	Aver. Price	Value
Variable cost			
Cost of banana	267.00	458.33	122,374.11
Transport			2,050.00
Storage			1,800.00
Taxes			670.00
Packaging			2,750.00
Advertising			1,616.67
Levies/Revenue			1,466.67
Total Variable Cost			132,727.45
Returns			
Sales of Banana	267.00	766.67	204,700.00
Gross Margin			71,972.55
ROR			1.54

Table 5: Costs and Returns of Marketers

Source: Field Survey, 2020

F. Constraints Faced by Producers

Table 6 showed that low technology (96.7%), pest and diseases infestation and vulagaries of weather (86.7%) were the major constraints in the study area, while inadequate input supply (26.7%) and inadequate labour supply (23.3%) were not considered as constraints. This corroborates with the findings of Zenebe *et al*. (2015) who considered banana farming to be limited with access to reliable transport networks and viable markets, poor handling and delays in transport due to poor roads and deficient transportation means, quality and poor price, inadequate infrastructure for storing and marketing of bananas were considered as major constraints in his study. Other constraints he stated were limited flow of information from the markets to the farms and vice versa increases the likelihood of unnecessary shortages or peaks of supply, with price fluctuation affecting producers. He observed that during peak periods of production, supply may outweigh demand, leaving little incentive for producers to market their produce in view of low prices.

Constraints	Frequency	Percentage
1. Pest and diseases Infestation	26	86.7%
2. Low technology	29	96.7%
3. Vulgaries of weather	26	86.7%
4. Inadequate labour supply	7	23.3%
5. Inadequate inputs supply	8	26.7%

Table 6: Constraints Faced by Producers

Source: Field Survey, 2020.

G. Constraints Faced by Processors

Table 7 showed that inadequate storage facilities (70.0%), low market price (56.7%), huge transaction cost (56.7%), inadequate storage facilities (53.33%), inadequate capital (50.0%) were considered as the major constraints while low patronage (43.33%) was not considered as a constraint. This study concurs with the findings of *Adeoye et al*. (2013), who found that the major constraints in cooking banana processing business were credit, training, labour, storage and transport. credit facilities.

Constraints	Frequency	Percentage
1.Low Market Price	17	56.7%
2. Huge Transaction Cost	17	56.7%
3. Inadequate Capital	15	50.0%
4. Low Patronage	13	43.33%
5. Inadequate processing facilities	21	70.0%
6. Inadequate Storage facilities	16	53.33%

Table 7: Constraints Faced by Processors

Source: Field Survey 2020

H. Constraints faced by Producers/Processors

Table 8 showed that huge transaction cost (76.0%), inadequate farm machinery and processing facilities (76.7%), vulgaries of weather (70.0%), pests and disease infestation (63.3%) were considered as the major constraints, while inadequate storage facilities (46.7%), poor pricing (30.0%), inadequate labour supply (30.0%), inadequate capital (26.7%), low patronage (23.33%) and high costs of farm and processing inputs (23.33%) were not considered as constraints. This study correlate with the finding of Mbathu *et al*. (2018), who considered poor pricing, distance to market, low technical know-how,and transport as the major constraints in his study area.

Constraints	Frequency	Percentage
Poor Pricing	9	30.0%
Huge transaction cost	23	76.7%
Inadequate of capital	8	26.7%
Low Patronage	7	23.33%
Inadequate farm machineries and processing facilities	23	76.7%
Inadequate Storage facilities	14	46.7%
High costs of processing and farm Input	7	23.3%
Inadequate Labour supply	9	30.0%
Pest and Diseases infestation	19	63.3%
Vulgaries of weather	21	70.0%

Table 8: Constraints Faced by Producers/Processors

Source: Field Survey, 2020.

ISSN No:-2456-2165

I. Constraints Faced by Marketers

Table 9 showed the extent to which different constraints hinders the banana fruits and product marketing in the study area. The Table showed that poor pricing (83.3%), poor road networking (83.3%) were considered as major constraints in banana fruits and product marketing. Inadequate capital (30.0%), low patronage (26.7%), high transaction cost (26.7%) and poor market information (16.7%) were not major constraints. This concurs with the study of (Amen *et al*., 2018) who found that market distance was not satisfactory and it is comparatively far away which in turn has led to high transport cost.

Constraints	Frequency	Percentage
1. Poor pricing	25	83.3%
2. Low patronage	8	26.7%
3.High transaction cost	8	26.7%
4. Inadequate capital	9	30.0%
5.Poor market information	5	16.7%
6.Poor road networking	25	83.3%

Table 9: Constraints Faced by Marketers

Source: Field Survey, 2020

V. CONCLUSION AND RECOMMENDATION

This study examined banana fruits enterprises in Odigbo Local Government Area, Ondo State, Nigeria. The study identified four different banana fruit enterprises in the study area (banana fruit producers, producer/processors and marketers). Majority of the respondents were men and were majorly old people, with many years of experience in their respective enterprises. Both male and female respondents were married and responsible. All the enterprises were profitable and viable. However, each of the enterprises had varied constraints ranging from huge cost of transaction, inadequate capital, transportation, inadequate storage and processing facilities among others, Thus, younger people should be encourage to engage in banana fruit enterprises. They should come together to generate more capital to purchase storage and processing facilities for increase production and prevent wastage and ridiculous pricing at the peak of harvest.

REFERENCES

[1.] Adeoye I. B., Omobowale A. O., Sulaiman A. Yusuf &Kemisola O. A. (2013). Plantain Value Chain Mapping in South-western Nigeria, National Horticultural Research Institute, P.M.B 5432, Idi-Ishin, Department of Agricultural Economics, University of Ibadan, Ibadan, *Nigeria Journal Of Economics And Sustainable Development*. Vol. 4, No.16. Www.Iiste.OrgISSN 2222-1700 (Paper) ISSN 2222-2855 (Online).

[2.] Akinbile, L.A, (2007). Standardization of Socio-Economic Status (SES) Scale for Farm Families in South Western Nigeria: *Journal of Social Sciences*. 14 (3), 221-227.

[3.] Akinyemi, S. O. S, Adejoro, M. A., Layade, A. A. &AdegbiteO. O. (2017). Market structure and Performance for Plantain and Banana. *International Journal of Fruit Science*, Vol. 17:4, Pp. 440-450, DOI: 10.1080/15538362.2017.1360231

[4.] Aliyu, O. M. (2012). Annual Research Report of the Cocoa Research Institute of Nigeria Ibadan, Nigeria. Pp. 30 – 31

[5.] Amen, D.D., &Desalegn D. (2018). Analysis of Socio-Economic Factors Affecting Banana Production: Evidences From Lowlands of Ubadebreschayworeda, GamoGofazone SNNPIS: *Journal of Economic and Sustainable Development*. ISSN 2222-17000 (Paper) ISSN 222.2855 (Online) Vol. 9. Nov9

[6.] Anjani, K. (2012). Value Chain of Agricultural Commodities and their Role in Food Security and Poverty Alleviation. *Agricultural Economics Research*. Review. January–April, 2012. Pp. 149–152

[7.] Ariyo, O.C, Ariyo, M.O, Okelola O.E, Omodona, S, Akesode, H.A, &Akanni R.J (2013). Profitability Analysis of Cooking Banana Marketing in Kaduna Metropolis, Kaduna State Nigeria. *Journal of Agricultural and Social Research*.

[8.] Ayanwale .B.A, Abiodun .F.O &Paul .O.M (2018), Baseline Analysis of Plantain (*Musa Sp.*) Value Chain in Southwest of Nigeria. FARA Research Report. Vol. 3(1): PP 84.

[9.] Banmeke, T.O.A &Ajayi O.T. (2008): Accessibility of Women Farmers to Agricultural Information in South Western Nigeria. *South African Journal of Agricultural Extension*, 34 (2): 237-246.

[10.] Ben-Chedo, G.N, Ezel, C.C &Asiabaka, C.C (2013). Value Addition to Cooking Banana by Women Entrepreneurs in Imo State, Nigeria. Dev. Country Studies 3 (10): 130-138.

[11.] EPAR, (2013). Evans School Policy Analysis and Research, Banana and Plantain Value chain: West Africa EPAR Brief No. 239.

[12.] FAO, (2012). Food & Agricultural Organization of the United Nations. Http://Www.Fao.Org.Valuechain

[13.] FAOSTAT, (2018). Food & Agricultural Organization Statistics. Http://Faostat.Fao.Org

[14.] FAO-UNESCO (2007). Digital Soil Map of the World.

[15.] Harbir, S. K. (2011). Modern Integrated Value Chain Actors. *Research Journal of Agricultural Economics*.Pp 169 – 180

[16.] IITA (2014). International Institute of Tropical Agriculture in Banana and Plantain. .Http://Www.Iita.Org/Bananaand-Plaintain

[17.] Kamall, M.S, Ali, M.A &Alam, M.A (2014). Socio-Economic Status and Problem of Banana Growers in Bangladesh. *International Journal of National and Social Sciences*. 1 (2): 91-99

[18.] Makindara, J., Alex, A. Tmueweigye&Sikiraa. (2015). Opportunity For Parading The Banana Value Chain In Uganda , Forum For Agricultural Research In Africa (FARA), Accra, Ghana, Sokoine University of Agriculture, Morogoro. *Journal of Continuous Education and Extension*. JCEE, Tanzania, Vol. 6 Issue1. Corresponding Authors: Aariho@Faraafrica.Org

[19.] Mbuthia, S.W, Calvine, K. &Stephen K.W (2018) Constraints to Profitable Participation Agri-Food Value Chains, Department Of Geography, Kenyatta University, Kenya. *International Journal of Scientific Research*. Publication, Issue 7 July, 2018. ISSN 2250-3153, Vol. 8 29322/IJ SRP. 8.7, 2018. P7912, D10:10.

[20.] National Population Census (NPC) (2006). National Bureau of Statistics Official Gazette (FGP 71/5-2007/2 500(O.L) Abuja URL .Http//www.Nigeriasta.Gov.Ng.

[21.] Ranathilaka, M.B, Neluma, L, &Wasantha A. (2017). A Cost Benefit Analysis On Production And Marketing of Banana. *Journal of Smart Economic Growth*. 3 (3), 69-83.

[22.] Zenebe, W., Mohammed A., Derebew, B., Zakarias, S., & Adams, B (2015). Accessement of Banana Production and Marketing in Ethiopia: *International Journal of Sciences, Basic and Applied Research* (IJBARI). Vol. 24, NI3, PP, 283-307.