

Evaluation of Presidential Cassava Transformation Initiative on marketing of cassava products, produced by Micro-Scale Cassava Processing Enterprises in Southwest Nigeria

¹O. T. Okhankhuele, ²Z. O. Opafunso; ³O. O. Akinrinola & ⁴O. J. Ojo

¹Department of Business Administration, Federal University of Technology, Akure, Nigeria

²Department of Mining Engineering, Federal University of Technology, Akure, Nigeria

³Department of Agricultural and Resource Economics, Federal University of Technology, Akure, Nigeria

⁴Department of Project Management Technology, Federal University of Technology, Akure, Nigeria

Email:omotonia2013@gmail.com;zoopafunso@futa.edu.ng;oookinrinola@futa.edu.ng; ojojoo@futa.edu.ng.

Corresponding Author: O. T. Okhankhuele

ABSTRACT

This study evaluated the Presidential Cassava Transformation Initiative (PCTI) on Local and International marketing of cassava products, produced by Micro-Scale Cassava Processing Enterprises (MSCPE) in Southwest Nigeria. Survey design and multistage sampling technique (purposive sampling and proportionate stratified sampling) were used for the study. 292 respondents were selected for the study. However, 251 (86% of 292) questionnaires were retrieved from the MSCPEs in the six Southwest States. Data were collected from the respondents with the aid of structured questionnaire. The respondents consisted of the MSCPEs that took part in the initiative. Data collected were analyzed with descriptive statistic (percentage, mean score), and the hypotheses were tested with Analysis of Variance (ANOVA). The research instrument was validated by a senior lecturer in the Department of Agricultural and Resource Economics, Federal University of Technology, Akure, while Cronbach Alpha was used to test for reliability. The study revealed that the initiative had a significant influence on the local marketing of cassava composite products, produced by the MSCPEs in Southwest Nigeria, but the initiative had no significant influence on the international marketing of the cassava products, produced by the MSCPEs. The study therefore recommends that more efforts be made by the Government, to enhance Nigeria's cassava value-added products and implement strategies that will help reduce the cost of producing industrial cassava products. This will make Nigerian cassava products more competitive with imported products, earn more foreign exchange for Nigeria, save importation bills, and attract more local and international demand for the products.

Keywords: Transformation; Initiative; Cassava; Marketing; Micro-scale; Processing Enterprises.

INTRODUCTION

Cassava is an essential root crop which plays a vital dietary role in Nigeria and several countries in tropical Africa (Ochi, Sani and Idefoh (2015). Its ability to survive bad weather condition, poor soil, pests, diseases and other environmental stress compared to other staple crops (Nweke, 2004; Bunmade, 1990), enables it to be planted in every region in Nigeria (Odebode, 2006). Cassava products, especially starch, gari, fufu, lafun and tapioca are the main staple food consumed by Nigerians especially in the southern region of the country (Olayimika, Oose, Apantaku, Adebowale and Ashimolowo, 2015). Cassava products are also used as raw material in confectioneries, paper, bakery, textile, and plywood industries (FAO, 2003). These coupled with numerous interventions by the government via non-governmental organizations, donors, research institutions, agricultural development agencies, and policies (Eke-Okoro and Njoku, 2012) to develop the cassava industry, led Nigeria to being the leading producer of cassava in the world, at 54 million metric tonnes (FAO 2011; Elemo, 2013).

Before the Presidential Cassava Transformation Initiative, several programmes had been carried out by past governments in Nigeria to develop the cassava industry. These programmes ended up with mixed results (PIND, 2011). The Presidential cassava transformation initiative was established in the year 2003, during President Olusegun Obasanjo's regime. The intention of the initiative was to raise the production of cassava, to meet domestic demand and export, through the development of production, processing, and marketing of cassava processed products (IITA, 2005; Fuller, 2011). Also, to diversify the domestic use of cassava, obtain ₦5 billion annually from exporting cassava products, including: starch, cassava chips and pellets (Ohimain, 2015), and achieve 20% cassava flour replacement for wheat flour in bread production (Ochi *et al.*, 2015). The PCTI helped to create awareness about the multiple uses of cassava to produce value added products PIND (2011).

In order to attain these objectives, the Nigerian Government assisted in developing new disease-resistant cassava varieties with the help of the Federal Ministry of Agriculture, through the State Agricultural Development Projects (ADPs), Root and Tuber Expansion Program (RTEP), International Institute of Tropical Agriculture (IITA), National Root Crops Research Institute (NRCRI),

cassava farmers (Sanni, Onadipe, Ilona, Mussagy, Abass, and Dixon, 2009). In addition, the Federal Institute of Industrial Research Oshodi (FIIRO) and IITA, played a huge part in developing cassava added-value products. Unfortunately Nigeria is still unable to take advantage of the local and international markets demands for its cassava products (Adeyemo, Oke, and Akinola, 2010).

The main objective of this study is to evaluate the influence of the Presidential Cassava Transformation Initiative on the local and international marketing of cassava products, produced by Micro-Scale cassava processing enterprises in Southwest Nigeria. The specific objectives are to examine the influence of the Presidential Cassava Transformation Initiative on the local marketing of cassava products, produced by Micro-Scale cassava processing enterprises in Southwest, Nigeria, assess the influence of the Presidential Cassava Transformation Initiative on the international marketing of cassava products, produced by Micro-Scale cassava processing enterprises in study area, and find out if there is a difference in the local and international marketing of cassava products, produced by the Micro-Scale cassava processing enterprises in study area, before and after the initiative. There are limited studies on the influence of the Presidential Cassava Transformation Initiative on marketing of cassava products, produced by Micro-Scale cassava processing enterprises in Nigeria. This study is therefore intended to contribute to this area of study.

Statement of the Problem

Nigeria is the world's largest producer of cassava. Several programmes have been carried out by past governments in Nigeria to enhance the local and international competitiveness of Nigeria's cassava products. Among these programmes is the Presidential Cassava Transformation Initiative which was established by the Nigerian Government in the year 2003. While some authors agreed that the initiative (Sanni *et al.*, 2009; PIND, 2011; Fuller, 2011; Onwudiwe, Akarakiri, Agbarajo, Onothoja, Agidi and Oyibo, 2015), enhanced the cassava production and processing industry, agro-processing technologies, assisted in the development of value-added cassava products for the local and international markets, and made available strategies to reduce the difficulties confronting cassava processing, marketing, production and utilization, other authors including Olokunle (2016) opined that, the initiative had a little or no influence on the industrial utilization, competitiveness and export of Nigerian

cassava products. What is the influent of the Presidential Cassava Transformation Initiative on the local marketing of cassava products, produced by Micro-Scale cassava processing enterprises in Southwest, Nigeria? What is the influent of the Presidential Cassava Transformation Initiative on the international marketing of cassava products, produced by Micro-Scale cassava processing enterprises in study area? And what is the difference in the local and international marketing of cassava products, produced by the Micro-Scale cassava processing enterprises in study area, before and after the initiative.

PREVIOUS RESEARCH

Past Studies on the effect of the Presidential Cassava Transformation Initiative on the Local and International Marketing of Nigeria's Cassava Products

The Presidential Cassava Transformation Initiative succeeded in stimulating new entrants and investment into cassava micro-scale, small and large scale processing, with a lot of micro and small-scale processors, venturing into the production of traditional foods or intermediate products, like starch and High Quality Cassava Flour (HQCF) (Sanni *et al.*, 2009). The demand for packaged and enhanced cassava food products like cassava flour, garri, odourless fufu, produced by Vesa Foods in Benin, were found in Shoprite, foremost supermarkets in Lagos and other urban centres, as well as America and Europe where a huge population of Nigerians live (PIND, 2011). During the initiative, 500 micro processing centers (MPCs) and 100 SMEs were established by private sector participants, for producing intermediate cassava products. The enterprises made available, a lot of job opportunities for professionals, youths, artisans and technicians. There was a huge investment in novel factories for manufacturing starch, glucose syrup, and High Quality Cassava Flour. Such factories comprised, automated HQCF factory in Benue State, Ekha Agro Farms, a glucose syrup factory in Ogun State built in 2007, cassava starch factory, Matna Foods, built in 2005 in Ondo State and Dutch Agricultural Development Company Nigeria Ltd, built in 2006 (Sanni *et al.*, 2009). Enhanced agro-processing technologies were employed in the production of intermediate products (starch, ethanol, high-quality flour (HQCF), glucose syrup, and government policy was made to use cassava products to replace imported raw materials. This helped to raise cassava production by approximately 10 million tonnes in the 6 years of implementation (Fuller, 2011). Ekha Agro Company

started supplying high quality cassava-based glucose syrup to Cadbury, Guinness and Nestlé, for manufacturing malt and beverages. In addition, Matna, starch industry, and the Nigerian starch mills in Ihiala, Anambra State, who were the major large scale starch processing industries in Nigeria, were supplying high-grade refined products to Nestlé Plc. and Cadbury (Sanni *et al.*, 2009). Also, cassava products were used being used in the feed and non-food industries. Starch was used for manufacturing adhesives, textiles, paints and other chemicals (Sanni *et al.*, 2009). 10% cassava flour was added to wheat flour in making bread (Maziya-Dixon and Onadipe, 2007). This increased the demand for cassava flour and expanded the market for cassava products.

Problems Associated with Processing, Marketing and Sales of Nigerian Cassava Products in the Local and International Markets

Despite the fact that Nigeria is the largest producer of cassava worldwide, Nigeria barely partakes in international cassava trade, and her first export of cassava chips to China in 2005 was at a loss, as a result of uncompetitive production and weak processing systems (United Nations Industrial Development Organization (UNIDO), 2006). Cassava products that were traditionally processed were rejected in more rewarding markets due to their poor quality and safety. Therefore, food manufacturers and prospective industrial users of such products were unwilling to use them as a result of fears about the safety of the manufactured foods and likely negative consumer reaction to the food (UNIDO) (2006). Also, the cost of production in processing factories remained excessive (Olokunle, 2016), making Nigerian cassava products to be none competitive compared to its substitute products that were imported, like starch made from maize, wheat flour, and among others). PIND (2011) agreed that, high processing equipment cost and related infrastructure cost for industrial products, is out of reach of microprocessors in Nigeria.

Nigeria has remained as an inactive partaker in international cassava trade, since a lot of her cassava and cassava products are directed towards the domestic food market, her methods of production are predominantly subsistence in nature and consequently incapable of supporting industrial level demands (UNIDO, 2006). There exist three channels through which cassava and its by-products get to the final markets. These channels include: small scale production for traditional food; medium scale production for enhanced food

products and large scale production for industrial products. In Nigeria, cassava products pass mainly through the first channel, with 80% directed towards traditional food, and only 10 % go via the third channel, into the industrially processed products. This has made the traditional food market to be somewhat saturated and leaving a little chance for growth, while the cassava products that are processed industrially is left with significant potential for growth (PIND, 2011). In addition, when the Nigerian government enforced the inclusion of 10% cassava flour in bread, ₦50,000 per tonne was the factory gate price for wheat flour, and this price was lower than that of high quality cassava flour (HQCF) of ₦75,000 per tonne. Also, cassava flour was considered inferior to wheat flour for bread making. Consequently, the flour mills were not motivated to use HQCF (Ohimain, 2014). Hence, farmers are faced with restricted opportunity to obtain large-scale sales from cassava roots, since the market for cassava products that are processed traditionally are limited to village-level household consumption (United Nations Industrial Development Organization (UNIDO), 2006).

Again, in Rahman and Awerije (2016)'s study, it was discovered that, unsteady prices, lack of access to markets, high costs of marketing, and lack of Market Infrastructure, were the main hindrances to the success of cassava processors in Nigeria. Other problems that moderately affect the processing sector include: storage and lack of information. Similarly, Muhammad-Lawal, Omotesho and Oyedemi (2013), noted the common constrained facing cassava processing and marketing in Nigeria, to be the fluctuation of prices. Also, Nwajiuba, Nwosu, and Onyeneke, (2013) concluded that, seasonal scarcity and high cost of raw materials are some of the limitations affecting small-scale food processing enterprises' progress in Africa and Nigeria inclusive. In support of this, Nwosu and Munonye (2016) confirmed that, a lot of the raw materials needed by processors are in abundance all through the harvest season and scarce during off-season. This situation leads to scarcity and increases the cost of the raw materials. Also, one of the main problems associated with the production of High Quality Cassava Flour (HQCF) that was recognized by PIND (2011), was the lack of ability of a lot of cassava farmers to supply freshly harvested cassava roots to processing plants within 24 hours. This can cause a lot of delay in production and untimely delivery of products to customers. This can eventually

affect the image of the processors. This can be occasioned by the poor conditions of farm roads in Nigeria, especially during the raining season.

Furthermore, small scale Nigerian cassava producers and processors are progressively faced with difficulties in gaining access to markets and creating interest in new market opportunities. In fact, taking advantage of new opportunities has been stalled in Nigeria as a result of low processing technology in addition to poor farmers' linkage to manufacturing industry that is cassava-based (Olokunle, 2016). Thus, a lot of initiatives like the presidential cassava transformation initiative have had little or no influence on the competitiveness, export or industrial utilization of cassava. Hence, Nigeria's export share in the cassava global market has remained persistently low.

Study Area

Made up of six states (Ondo, Oyo, Lagos, Osun, Ekiti and Ogun), the study area Southwest Nigeria. The total land area of Southwest Nigeria is 77,818 km², and the area is made up of a total population of 27,581,992 (National Population Census (NPC), 2006). The area is between longitude 2°31'1" and 6°00'1" East and Latitude 6°21'1" and 8° 37'1" North (Agboola, 1979), and it is surrounded by Gulf of Guinea in the south, Kogi and Kwara states in the North, Edo and Delta states in the East, and Republic of Benin in the West. The study area is made up of 85 established forest reserves, which covers 842,499 hectares. The area owns about 44 percent of banking assets, 60 percent of the nation's industrial capacity, 68 percent of insurance assets and it has the nation's three deep sea ports of Apapa, Tin can Island and Roro (Ehinmowo and Fatuase, 2016). Also, the area is made up of wet and dry seasons; the wet season is connected to the Southwest monsoon wind from the Atlantic Ocean, while the dry season is connected to the Northeast trade wind from the Sahara Desert. Southwest Nigeria's vegetation is made up of fresh water swamp and mangrove forest at the belt the low land in the forest. In addition, the area stretches inland to Ogun and part of Ondo State, while its secondary forest stretches towards the direction of the Northern boundary where the derived southern Savannah exists (Agboola, 1979). Its climate is good for cultivating crops like maize, yam, cassava, and among other, and their main occupation is farming (National Population Census (NPC), 2006).

Method

This study used multistage sampling technique to collect sample from respondents. Nigeria's Southwest region was selected by purposive sampling because the region has been identified as one of the Nigerian cassava growing regions (FAO, 2005). The region is made up of Oyo, Ogun, Ondo, Ekiti, Lagos and Osun, states. The micro-scale cassava processing enterprises that partook in the Presidential Cassava Transformation Initiative were selected from the list of the Agricultural Development Projects (ADPs) (one of the Nigerian Government's Agricultural Institution that executed the initiative in every state in Nigeria). 1,083 micro scale enterprises made up the population for the study. This population include: 315 cassava micro-processors from Oyo, 119 from Ogun, 226 from Ondo, 104 from Ekiti, 93 from Lagos and 226 from Osun. Due to the differences in the number of the micro-scale processors that participated in the initiative from each state, proportionate stratified sampling technique was used to select 27% of beneficiaries from each state. The sample size was 292 (Oyo, 85 beneficiaries, Ogun, 32, Ondo, 61, Ekiti, 28, Lagos, 25 and Osun, 61. Data were collected from the respondents using structured questionnaires, with the help of extension agents, trained research assistants and youth leaders who are members of the communities. 251 (86%) of the questionnaires were recovered.

Descriptive statistic-percentages and mean score were used to analyze the collected data, and Analysis of Variance (ANOVA), was employed in testing the hypotheses of the study. The research instrument was validated by a senior lecturer in the Department of Agricultural and Resource Economics, Federal University of Technology, Akure, and Cronbach Alpha was used to test for reliability. Analysis was carried with the aid of the Statistical Package for Social Sciences (SPSS).

RESULTS AND DISCUSSION

Personal Characteristics of Beneficiaries of the Initiative

Table 1 shows the personal characteristics of beneficiaries of the initiative. 22 (8.8%) were from Ekiti State, 24 (9.6%) Lagos State, 26 (10.4%) Ogun State, 60 (23.9%) Ondo State, 49 (19.5%) Osun State, and 70 (27.9%) from Oyo State. This implies that, the beneficiaries in all the six Southwest states were represented. Also, 65 (25.9%) of the beneficiaries were male, whereas 186 (74.1%) were female. This means that most of the beneficiaries were female. This finding

agrees with that of Ajayi (1995), whose study on gender roles in subsistence crop production in Kwara State, Nigeria, concluded that, processing in Nigeria is mainly a female enterprise and indeed, most African societies. Also, PIND (2011), whose report on cassava value chain analysis in the Niger Delta, confirmed that, women are almost totally responsible for processing and marketing of cassava and cassava by products in the Niger Delta region, and Muhammad-Lawal, Omotesho, and Oyedemi, (2013) who disclosed in their study on assessment of the economics of cassava processing in Kwara State, Nigeria, that, 88.1% of cassava processors in Kwara State are women.

In addition, 4 (1.6 %) of the beneficiaries, were between 20-29 years, 20 (8.0%) were between 30-39 years, 107 (42.6%) were between 40-49 years, 73 (29.1%) were between 50-59 years, and 47 (18.7%) were 60 years and above. This shows that most of the beneficiaries were between 40-49 years. This discovery is not far from that disclosed by Muhammad-Lawal, Omotesho and Oyedemi (2013), who concluded that, a lot of cassava processors (83%) in Kwara State are within the age bracket 40-59 years. Furthermore, 241 (96%) of the beneficiaries were Nigerians, and the remaining 10 (4%) were none Nigerians.

Once more, 53 (21.1%) of the beneficiaries were between 1-10 years experienced on the trade, 148 (59.0%) were between 11-20 years experienced, 38 (34%) were between 21-30 years, 8 (3.2%) between 31-40 years and 4 (1.6%) had above 40 years of experience. This implies that the beneficiaries were well experienced to give useful information about the trade. The finding is similar to those of Ijigbade, Fatuase and Omisope (2014)'s study on conduct and profitability of garri production for increased food security in Ondo State, Nigeria revealed that, 64% of cassava processors in Kwara State, had been producing garri for between 11 and 20 years. In addition, 80 (31.9%) of the beneficiaries had Primary School Certificate, 45 (17.9%) had Secondary/O' Level, 20 (8%) had Vocational/Technical education, 18 (7.2%) had Polytechnic/University education, while 88 (35%) were not educated. This result disclosed that, a large number of the beneficiaries had either Primary School Certificate or were not educated. This discovery is comparable to that of Muhammad-Lawal, Omotesho, and Oyedemi (2013), whose study revealed that, 60.20% of cassava processors in Kwara state had some forms of education, while 39.80% had no formal education.

Table 1: Distribution of Personal Characteristics of beneficiaries of initiative

Personal Characteristics	Frequency	Percentage (%)
LOCATION		
Ekiti	22	8.8
Lagos	24	9.6
Ogun	26	10.4
Ondo	60	23.9
Osun	49	19.5
Oyo	70	27.9
Gender		
Male	65	25.9
Female	186	74.1
AGE		
20-29	4	1.6
30-39	20	8.0
40-49	107	42.6
50-59	73	29.1
Above 60	47	18.7
NATIONALITY		
Nigerian	241	96
Others	10	4
YEAR OF EXPERIENCE		
1-10	53	21.1
11-20	148	59.0
21-30	38	34
31-40	8	3.2
Above 40	4	1.6
EDUCATION		
Primary School Cert	80	31.9
Secondary/O' Level	45	17.9
Vocational/Technical	20	8
Polytechnic/University	18	7.2
Not Educated	88	35

Source: Field Work 2016

Influence of the FGCTI on the Local Marketing of Cassava Products, Produced by the Micro-Scale Cassava Processing Enterprises in the Study Area

Table 2 shows the distribution of the influence of the FGCTI on the local marketing of cassava composite products, produced by the Micro-Scale cassava

processing enterprises in the study area. The table revealed that, the average number of market outlets for Oyo State, increased from 4 before the initiative, to 9 after the initiative. Also, the quantity supplied per week, for Oyo State, rose from 117.17 kilogrammes (KG) to 254.73 KG, while the amount of sales rose from ~~₦29,292.52~~ to ~~₦68,013.52~~. Ondo State had an increase in the average number of market outlets from 2 before the initiative, to 4 after the initiative, quantity supplied per week, rose from 103.97 KG to 343 KG, per week, while the amount of sales rose from ~~₦26,512.26~~ to ~~₦92,610.5~~. Osun State, also had an increase in the average number of market outlets from 2 before the initiative, to 4 after the initiative, quantity supplied per week, rose from 165.10 KG to 356.80 KG, per week, while the amount of sales rose from ~~₦46,228.57~~ to ~~₦94,195.04~~. In the case of Ekiti State, the average number of market outlets rose from 3 before the initiative, to 7 after the initiative, quantity supplied per week, rose from 165.10 KG to 356.80 KG, per week, while the amount of sales rose from ~~₦46,228.57~~ to ~~₦94,195.04~~. Ogun State had an increase in the average number of market outlets from 2 before the initiative, to 5 after the initiative, quantity supplied per week, rose from 156.71 KG to 263.38 KG, per week, while the amount of sales rose from ~~₦40,745.49~~ to ~~₦75,591.46~~. While Lagos State had an increase in the average number of market outlets from 2 before the initiative, to 4 after the initiative, quantity supplied per week, rose from 136.47 KG to 233.39 KG, per week, while the amount of sales rose from ~~₦34,799.32~~ to ~~₦59,421.1~~.

The study also revealed that, the programme had a positive influence on the local marketing of cassava products, produced by Micro-Scale cassava processing enterprises Southwest Nigeria, by increasing the number of market outlets from 2.50 before the initiative, to 5.50 after the initiative, quantity supplied from 129.84 KG per week before the initiative, to 286.22 KG, and sales, from ~~₦33,781.09~~ per week, before the initiative, to ~~₦76,676.44~~ after the initiative. This means that, the number of outlets more than doubled after the initiative. These results are in line with those of Ohimain (2015)'s study on a decade (2002 – 2012) of presidential intervention on cassava in Nigeria; the Successes and Challenges. This study revealed that, the Presidential Initiative resulted into huge investment and employment in the Nigerian cassava subsector, decreased the food import bills, and upsurge cassava produce from 10.8 tonnes per hectare (t/ha) to 20 t/ha. Also, Donkor, Onakuse, Bogue and De Los Rios (2016)'s study on the effect of presidential cassava transformation

initiative on cassava productivity: implication for food security in Nigeria, disclosed that the PCI's implementation led to 6.4% upsurge in the production of cassava, 8.7% in national food production and 1.9% in food adequacy. Likewise, the study is related to that of Maziya-Dixon and Onadipe (2007) who stated that, the policy of adding 10% cassava flour to wheat flour in making bread during the initiative, helped to increase the demand for cassava flour and expanded the market for cassava products. Similarly, PIND (2011), who disclosed that, the initiative helped to increase the demand for packaged and enhanced cassava food products like cassava flour, garri, odourless fufu, produced by Vesa Foods in Benin, and these products were found in Shoprite, foremost supermarkets in Lagos and other urban centres, as well as America and Europe where a huge population of Nigerians live. Also related to these findings is that of Sanni *et al.*, (2009) who revealed that, due to the initiative, Ekha Agro Company, started supplying high quality cassava-based glucose syrup to Cadbury, Guinness and Nestlé, for manufacturing malt and beverages, Matna, starch industry, and the Nigerian starch mills in Ihiala, Anambra State, who were the major large scale starch processing industries in Nigeria, were supplying high-grade refined products to Nestlé Plc. and Cadbury. Also, cassava products were being used in the feed and non-food industries. Starch was used for manufacturing adhesives, textiles, paints and other chemicals. Also related to the finding are those of Ogunleye, (2016), Ogunleye and Oladeji (2012), Onwudiwe, Akarakiri, Agbarajo, Onothoja, Agidi and Oyibo (2015), Awoyinka (2009), who disclosed that, the programme enhanced access to marketing, and established market linkages in the cassava industry. However, the findings are in not in agreement with that of Olokunle, (2016)'s study on Socio-Economic Determinants and Profitability of Cassava Production in Nigeria. This study revealed that, the presidential initiative had a little or no effect on the cassava industry in Nigeria.

Table 2: Distribution of the influence of the FGCTI on the local marketing of cassava products, produced by the Micro-Scale cassava processing enterprises in the study area

	Before			After		
	AVERAGE NO OF OUTLETS	QUANTITY SUPPLIED (KG) (per wk)	AMT SUPPLIED (NAIRA ₦) (per wk)	NO OUTLETS	QUANTITY SUPPLIED (KG) (per wk)	AMT SUPPLIED (NAIRA ₦) (per wk)
OYO	4	117.17	29292.52	9	254.73	68013.52
ONDO	2	103.97	26512.26	4	343	92610.5
OSUN	2	165.10	46228.57	4	356.80	94195.04
EKITI	3	99.64	25108.39	7	266.01	70227.04
OGUN	2	156.71	40745.49	5	263.38	75591.46
LAGOS	2	136.47	34799.32	4	233.39	59421.1

Source: Field Work 2016

ANOVA Result on the differences in the Local Marketing of Cassava Products, produced by the Micro-Scale Cassava processing enterprises in Southwest Nigeria, before and after the FGCTI

Table 3, reveals the ANOVA that was used to test if there is a significant difference in the local marketing of cassava products, produced by the Micro-Scale cassava processing enterprises in Southwest Nigeria, before and after the FGCTI.

H₀ = There is no significant difference in the local marketing of cassava products, produced by the Micro-Scale cassava processing enterprises in Southwest Nigeria, before and after the FGCTI.

TEST STATISTIC= ANOVA

LEVEL OF SIGNIFICANCE (α) = 0.05 (1%)

LEVEL OF CONFIDENCE= 0.95 (95%)

DECISION = The p-value for the number of outlets, quantity supplied, and amount supplied before and after the FGCTI were, .001, .000, and .001 respectively. These values are all less than the table value of 0.05. Based on this result, the null hypotheses H₀, which states that there is no significant difference in the local marketing of cassava products, produced by the Micro-Scale cassava processing enterprises in Southwest Nigeria, before and after the FGCTI was rejected and the alternate hypothesis which states that there is a significant difference the local marketing of cassava products, produced by the Micro-Scale cassava

processing enterprises in Southwest Nigeria, before and after the FGCTI was accepted. This means that, the local marketing of cassava products, produced by the Micro-Scale cassava processing enterprises in Southwest Nigeria increased after the initiative.

Influence of the FGCTI on the International Marketing of Cassava Products, produced by Micro and Micro-Scale Cassava Processing enterprises in the Study Area, before and after the Initiative

Table 4 shows the distribution of the influence of the FGCTI on the international marketing of cassava composite products, produced by Micro-Scale cassava processing enterprises in the study area, before and after the initiative. The table revealed that, only beneficiaries from Oyo and Lagos States reported having international marketing outlets, before and after the FGCTI. The average number of market outlets for Oyo State, remained 1.25, quantity supplied, 232.67KG, and sales ₦80,640, before and after the initiative, while the number of outlets for Lagos State also remained 2.1, quantity supplied, 121.34 KG, and sales ₦38,671.01, before and after the initiative. These findings are similar to that of UNIDO (2006) who stated that, Nigeria has remained as an inactive partaker in international cassava trade, due to the uncompetitive production and weak processing systems of the cassava processors, poor quality and safety of the products (UNIDO) (2006). Therefore, food manufacturers and prospective industrial users of such products were unwilling to use them as a result of fears about the safety of the products and likely negative consumer reaction to the products. In addition the findings are in accord with Olokunle, (2016)'s findings which asserted that, the presidential initiative and transformation agenda had little or no impact on industrial utilization, competitiveness and export of cassava in Nigeria. Therefore, the export share of Nigeria in the cassava global market has remained very low even after the implementation of the initiative. In agreement with Olokunle, (2016), Tijani and Thomas (2011), agreed that, Nigeria only accounts for 0.001% of the world cassava export market, even after the FGCTI. The finding are however, not in agreement with those of Donkor, Onakuse, Bogue and De Los Rios (2016), Ogunleye (2016)Awoyinka (2009) Ogunleye and Oladeji (2012) Onwudiwe, Akarakiri, Agbarajo, Onothoja, Agidi and Oyibo (2015), which disclosed that, the FGCTI programme helped in enhancing processing for export.

Table 4: Distribution of the influence of the FGCTI on the international marketing of cassava composite products, produced by Micro-Scale cassava processing enterprises in the study area, before and after the initiative

	Before			After		
	NO OF OUTLETS	QUANTITY SUPPLIED (KG)	AMT SUPPLIED (₦)	NO OF OUTLETS	QUANTITY SUPPLIED (KG)	AMT SUPPLIED (₦)
OYO	1.25	232.67	80640	1.25	232.67	80640
ONDO	0	0	0	0	0	0
OSUN	0	0	0	0	0	0
EKITI	0	0	0	0	0	0
OGUN	0	0	0	0	0	0
LAGOS	2.1	121.34	38671.01	2.1	121.34	38671.01

Source: Field Work 2016

ANOVA result on the difference in the international marketing of cassava products, produced by the Micro-Scale cassava processing enterprises in Southwest Nigeria, before and after the FGCTI

Table 5 shows the ANOVA result that was used to test if there is a significant difference in the international marketing of cassava products, produced by the Micro-Scale cassava processing enterprises in Southwest Nigeria, before and after the FGCTI.

H₀= There is no significant difference in the international marketing of cassava products, produced by the Micro-Scale cassava processing enterprises in Southwest Nigeria, before and after the FGCTI

TEST STATISTIC= ANOVA

LEVEL OF SIGNIFICANCE (α) = 0.05 (1%)

LEVEL OF CONFIDENCE= 0.95 (95%)

DECISION = The p-value for number of outlets, quantity supplied and amount supplied are .264, .321 and .221 respectively. These values are all greater than the table value of 0.05. Based on this result, the null hypotheses H₀, which states that there is no significant difference in the local marketing of cassava products, produced by the Micro-Scale cassava processing enterprises in Southwest Nigeria, before and after the FGCTI was accepted and the alternate hypothesis which states that there is a significant difference the local marketing of cassava products, produced

by the Micro-Scale cassava processing enterprises in Southwest Nigeria, before and after the FGCTI was rejected.

Table 5: ANOVA result on the distribution of the difference in the international marketing of cassava products, produced by the Micro-Scale cassava processing enterprises in Southwest Nigeria, before and after the FGCTI

ANOVA Table			Sum of Squares	Df	Mean Square	F	Sig.
NUMBER OF OUTLET FOR INTERNATIONAL MARKET BEFORE*	Between Groups		8.204	1	1.641		
	Within Groups		.0000	5	.0000	0.554	.264
	Total		8.204	6	1.641		
NUMBER OF OUTLET FOR INTERNATIONAL MARKET AFTER							
QUANTITY SUPPLY TO INTERNATIONAL MARKET BEFORE*	Between Groups		95943.083	1	19188.618		
	Within Groups		.0000	5	.000	0.61	.321
	Total		95943.083	6	8722.099		
*QUANTITY SUPPLY TO INTERNATIONAL MARKET AFTER							
AMOUNT SUPPLY TO INTERNATIONAL MARKET BEFORE*	Between Groups		11251474193.1	2	2250294838.62		
	Within Groups		.0000	4	.0000	0.009	.221
	Total		11251474193.106		1022861290.28		
INTERNATIONAL MARKET AFTER							

Source: Field Work 2016

Reliability Test on questions used to assess the influence of the Federal Government's cassava transformation initiative on the national and international marketing of cassava products, produced by the Micro-Scale cassava processing enterprises in Southwest Nigeria, before and after the FGCTI

Table 6 reveals that, the Cronbach Alpha coefficient for the questions used to determine the influence of the presidential initiative on the local and international marketing of cassava composite products, produced by the Micro-Scale cassava processing enterprises in the study area, is 0.845. That means, the reliability of the research instrument used is higher than 0.7, which implies that, the result is high and it is appropriate for social science.

Table 6: Result of the reliability test on questions used to assess the influence of the FGCTI on the local and international marketing of cassava products, produced by the Micro-Scale cassava processing enterprises in the study area

Reliability Statistics	
Cronbach's Alpha	.845

CONCLUSION

It can be concluded from the findings of the study that, the Federal Government Cassava Transformation initiative had an influence on the local marketing of cassava composite products, produced by Micro-Scale cassava processing enterprises in Southwest Nigeria. However, the initiative had no significant influence on the international marketing of cassava products, produced by the Micro-Scale cassava processing enterprises. Also, there is a significant difference in the local marketing of cassava products produced by the micro-scale cassava processing enterprises in Southwest Nigeria, while there is no significant difference in the international marketing of cassava products produced by these micro-scale cassava processing enterprises.

RECOMMENDATIONS

It is therefore recommended that Government's efforts and policies that will further assist in enhancing Nigeria's cassava value-added products, be enacted and implemented. This will make the products to become more competitive locally and internationally, so that they can attract more local and international demand, save importation bills and attract foreign exchange for the Nation. Also, strategies that will help reduce the cost of producing industrial cassava products should be implemented in order to make Nigerian cassava products more competitive nationally and internationally.

REFERENCES

- Adeyemo, R., Oke, J. T. and Akinola, A. A. (2010). Economic Efficiency of Small Scale Farmers in Ogun State, Nigeria. *Tropicultura*, 2010. Vol. 28 (2). pp. 84-88.
- Agboola, S. A. (1979). *An Agricultural Atlas of Nigeria*. Nigeria: Oxford University Press. 1979. p. 248.

- Ajayi, S. (1995). Gender Roles in Subsistence Crop Production in Kwara State, Nigeria. *Agrosearch: Journal of Agriculture, Food and Development*. Vol. 1(2). pp. 145 – 151.
- Awoyinka Y. A. (2009). Cassava Marketing: Option for Sustainable Agricultural Development in Nigeria. *Ozean Journal of Applied Science*. Available: http://ozelacademy.com/OJAS_v2n2_5.pdf. Vol. 2(2). pp. 175-183.
- Bunmade, V. B. (1990). An Overview of Improved Traditional and Small Scale Processing and Utilization of Cassava by Rural Women in Nigeria. Proceedings of 1990.National Agricultural Extension and Research Liason Services. National Home Economics Workshops.Ahmadu Bello University, Zaria. pp. 15 –26.
- Donkor, E., Onakuse¹, S., Bogue¹, J. and De Los Rios, I. (2016). The Effect of the Presidential Cassava Initiative on Cassava Productivity: Implication for Food Security in Nigeria. A Ph.D. thesis project, at the Department of Food Business and Development and Centre for Sustainable Livelihood, University College Cork, IRELAND and Department of Agronomy, Food and Biosystems, Technical University of Madrid, SPAIN. Supported by the Agricultural Transformation by Innovation (AGTRAIN) Erasmus Mundus Joint Doctorate Program, and funded by the EACEA (Education, Audiovisual and Culture Executive Agency) of the European Commission. Agronomic, Food and Biosystems, University College Cork, Ireland.
- Ehinmowo O. O., Fatuase A. I.(2016). Adoption of Improved Cassava Processing Technologies by Women Entrepreneur in South – West, Nigeria. *World Journal of Agricultural Research*. Vol. 4, No. 4. Doi: 10.12691/wjar-4-4-2. pp 109-113.
- Eke-Okoro, O. N. and Njoku, D. N. (2012). A Review of Cassava Development in Nigeria from 1940–2010. *ARPJN Journal of Agricultural and Biological Science*. Vol.7 (1). 5. pp. 9–65.

- Elemo, G. N. (2013). The Prospects and Challenges of Cassava Bread and Confectioneries in Nigeria. A Paper Presented by General/CEO Federal Institute of Industrial Research, Oshodi (FIIRO), During the NISER Research Seminar Series (NRSS) at Premier Hotel, Ibadan. Tuesday, 26 th march, 2013. pp. 2-3.
- FAO (2003): Food and Agriculture Organization (FAO) FAO website. www.fao.org.
- FAO (2011). The State of Food and Agriculture. 2010-2011. <http://www.fao.org/docrep/013/i2050e/i2050e00.htm>. 2011.
- Foundation for Partnership Initiatives in the Niger Delta (PIND) (2011). A Report on Cassava Value Chain Analysis in the Niger Delta. pp. 1-80.
- Fuller, D. (2011). Case Study on Potential for Scaling Up: Adding Value to Waste in the Cassava Processing-Goat Keeping Systems in Nigeria. Prepared by: Danielle Fuller, the Heller School for Social Policy and Management, Brandeis University. World Bank Development Marketplace Project Number 4345. Implementing Organization: University of Agriculture, Abeokuta, Nigeria (UNAAB) Support from the World Bank Agriculture and Rural Development. September, 2011. pp. 1-30.
- Ijigbade, J. O., Fatuase, A. I. and Omisope, E. T. (2014). Conduct and Profitability of Gari Production for Increased Food Security in Ondo State, Nigeria. *IOSR Journal of Humanities and Social Science (IOSR-JHSS)*. Volume 19, Issue 7. Ver. VI (July. 2014). e-ISSN: 2279-0837, p-ISSN: 2279-0845. www.iosrjournals.org. pp. 89-95.
- International Institute of Tropical Agriculture Ibadan, Nigeria (IITA) (2005). Additional Funding Program Description. Cassava Enterprise Development Project (CEDP). Submitted to the United States Agency for International Development (USAID) –Nigeria Mission and the Shell Petroleum Development Company (SPDC) – Nigeria by the International Institute of Tropical Agriculture Ibadan, Nigeria March 21. pp. 1-31.

- Maziya-Dixon, B. and Onadipe, O. O. (2007). *Cassava Industrial Market Study in Nigeria*. Ibadan, Nigeria: IITA.
- Muhammad-Lawal, A., Omotesho, O. A. and Oyedemi, F. A. (2013). An Assessment of the Economics of Cassava Processing in Kwara State, Nigeria. Invited Paper Presented at the 4th International Conference of the African Association of Agricultural Economists, September 22-25, 2013. Hammamet, Tunisia.
- Nwajiuba, C. U., Nwosu, C. S. and Onyeneke, R. U. (2013). Motivation, Factors and Constraints to Growth of Small Scale Food Processing Enterprises in Owerri Metropolis, Imo State, Nigeria. *International Journal of Entrepreneurship and Small Business*. Vol. 19. No. 4. pp. 488-497.
- Nweke, F. (2004). New Challenges in the Cassava Transformation in Nigeria and Ghana. Environment and Production Technology Division (EPTD) Discussion Paper No. 118, International Food Policy Research Institute, Washington, D.C., USA, June, 2004, 118 pp.
- Nwosu, C. S. and Munonye, J. O. (2016). Survival Approaches of Small-Scale Food Processing Enterprises in Imo State, Nigeria. *World Review of Business Research*. Vol. 6. No. 1. March 2016 Issue. pp. 106 – 117.
- Ochi, J. E., Sani, R. M., Idefoh, F. K. (2015). Economic Analysis of Resource Use Efficiency among Small Scale Cassava Farmers in Nasarawa State, Nigeria: Implications for Agricultural Transformation Agenda. *Journal of Applied Economics and Business Research*. February 2015. ISSN 2394-5907 (Print) and ISSN 2394-5915 (Online). Vol. 2(2). pp. 14-21.
- Odebode, S.O. (2006). Financing cassava processing among women in rural Nigeria to alleviate poverty: The Place of self-help groups. *Bulgarian Journal of Agricultural Science*. Vol. 12. pp. 115-122.

- Ogunleye, K. Y. (2016). Farmers Accessibility to the Cassava Initiative Elements in the Central Agricultural Zone of Nigeria. *Nigerian Journal of Technological Research*. Vol. 11. No. 1. <http://dx.doi.org/10.4314/njtr.v11i1.2>. pp. 7-15.
- Ogunleye, K. Y. and Oladeji, J. O. (2012). Cassava Farmers' Perception of Cassava Initiative: Implication for Cassava Transformation in Nigeria. *Journal of Biology, Agriculture and Healthcare*. ISSN 2224-3208 (Paper) ISSN 2225-093X (Online). Vol 2. No.7. 2012. www.iiste.org. pp 25-32.
- Ohimain, E. I. (2015). A Decade (2002 – 2012) of Presidential Intervention on Cassava in Nigeria; the Successes and Challenges. *Asian Journal of Agricultural Extension, Economics & Sociology*. Article no. AJAEES.2015.076. ISSN: 2320-7027. Vol. 6(4). www.sciencedomain.org. pp. 185-193.
- Olayimika, O. M., Oose, M. O., Apantaku, O. S., Adebowale, A. A. and Ashimolowo, O. R. (2015). Baker's Willingness to Utilize High Quality Cassava Flour (HQCF) for Bread Production: Experience from Ogun State, Nigeria. *International Journal of Applied Agricultural and Apicultural Research (IJAAAR)*. © Faculty of Agricultural Sciences, LAUTECH, Ogbomoso, Nigeria, 2015. Vol. 11 (1&2). pp. 146-156.
- Olokunle, O. T. (2016). Socio-Economic Determinants and Profitability of Cassava Production in Nigeria. *International Journal of Agricultural Economics and Extension*. ISSN 2329.9797. Vol. 4(4). April, 2016. Available online at WWW.internationalscholarsjournals.org. pp. 228-249.
- Onwudiwe, N., Akarakiri, C. N., Agbarajo, C., Onothoja, E., Agidi E. K and Oyibo, A. A. (2015). Effect of Presidential Initiative on Cassava in Alleviating Poverty Among Rural Women in Delta Central Senatorial District, Nigeria. *International Journal of Innovative Agriculture and Biology Research*. Vol 3(1). Jan.-Mar. 2015. ISSN:2354-2934. www.seahipaj.org pp. 1-5.

- Rahman, S. and Awerije, B. O. (2016). Exploring the Potential of Cassava in Promoting Agricultural Growth in Nigeria. *Journal of Agriculture and Rural Development in the Tropics and Subtropics* · June 2016. Vol. 117. No. 1. pp. 149–163.
- Sanni, L. O., Onadipe, O. O., Ilona, P., Mussagy, M. D., Abass, A., Dixo, A. G. O. (2009). Successes and Challenges of Cassava Enterprises in West Africa: A Case Study of Nigeria, Bénin, and Sierra Leone. International Institute of Tropical Agriculture (IITA) Report. Supported by Common Fund for Commodities (CFC). Available:www.iita.org. pp. 1-19.
- Tijani, S. A. and Thomas, K. A (2011). Effectiveness of Root and Tuber Expansion Programme on Cassava Farmers Production in Remo Area of Ogun state Nigeria. *Ozean Journal of Applied Sciences*. Vol 4(3). pp. 295-306.
- United Nations Industrial Development Organization (UNIDO) (2006). Cassava Master Plan. A Strategic Action Plan for the Development of the Nigerian Cassava Industry. Prepared within the Framework of the Nigeria Country Service Framework and in Cooperation with the Presidential Initiative on Cassava. March, 2006. pp. 1-105.