ROOT TUBERS EXPANSION PRORAMME (RTEP) AND QUALITY OF PRODUCTS OF MICRO-SCALE CASSAVA PROCESSORS IN OYO STATE NIGERIA

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ABSTRACT
High unemployment and poverty rate have become alarming over the world especially in Sub-Saharan Africa. Consequently, several poverty alleviation and employment generation programmes have been implemented by Nigerian governments. Root Tubers Expansion Programme (RTEP) is one of such programmes. Past researches have been carried out on challenges and effect of RTEP's technologies on farmers' productivity and poverty alleviation, but no indebt research on effect of RTEP on micro-scale cassava processors' (MSCPs) products' quality. This research intends to close this gap by assessing the effect of RTEP on the quality of MSCPs' products. Survey design was used for the study, and the MSCPs were selected with multistage sampling technique. Data from 151 respondents were gathered with structured questionnaire and analysed with descriptive statistic. Hypothesis was tested with t-test at 5% significant level. The level of significance of .000 respectively which were lower than the table value of 0.05 were obtained from the t-test meaning there was a significant difference in MSCPs products' quality before and after partaking in RTEP. The paper recommends the implementation of more integrative poverty alleviation and employment generation programmes to improve the MSCPs products' quality and make them more competitive in local and world markets.

Keywords*:* Root Tubers; Expansion Proramme; Quality; Micro; Small-scale; Cassava; Prossesors
JEL Classification: I3, I38.

1. Introduction
The spate of poverty, unemployment and increasing population in the world especially in the developing and underdeveloped countries like Nigeria have necessitated government to initiate and implement numerous employment generating, food security and poverty alleviation programmes. Some of these programmes include: Root and Tuber Improvement

Programme on Cassava and Maize and Production (anchored in1971 by IITA), Cassava Multiplication Project (CMP) (anchored between 1987 and 1999 by IFAD), among others. These past Programmes assisted in increasing Nigeria's cassava tubers' productivity (Sanni, Onadipe, Ilona, Mussagy, Abass & Dixon, 2009; Dimelu, Igbokwe & Obieri, 2009), and made Nigeria the largest producer of roots and tubers in Africa (Folorunso & Abia, 2013), and largest producer of cassava in the world (Knipscheer, Ezedinma, Kormawa, Asumugha, Makinde, Okechukwu & Dixon, 2007; FAO, 2015). Cassava production upsurge from 34 million metric tonnes annually in 2002, to 54 million metric tonnes (FAO, 2011; Elemo, 2013; Food and Agricultural Organization Statistics (FAOSTAT), 2015). These agricultural programmes were implemented because, agriculture is the pillar of employment in Nigeria, and it employs around 70% of the working population, therefore, suitable policy measures directed towards poverty alleviation must encompass agriculture and rural development (Federal office of Statistics, 1995/World Bank, 1996).

Despite these progranmmes Obisesan, Omonona, Yusuf and Oni (2012) disclosed that it remains a paradox that in spite of Nigerian's growing economy, the percentage of Nigerians living in poverty is rising every year. Emejo (2020) disclosed that the National Bureau of Statistics (NBS) stated that the poverty rate in Nigeria is presently 40.1%, and over 83 million Nigerians are presently living below the national poverty line. Likewise, the United Nations Development Programme's (UNDP) (2019)'s Human Development Report, revealed that the poverty rate in Nigeria is 64%, its population is 170 Million, population with HIV is 3.4 million and Human Development Index is 152. Also, the World Bank's (2018) Human Capital Index disclosed that the human capital development remains weak in Nigeria as a result of under-investment and the country ranked 152 of 157 countries in this index.

Several researches have been carried out on RTEP in several states in Nigeria. These researches were mainly on the challenges involved in RTEP's implementation by cassava and yam farmers (Nwanyanwu, & Okowa, 2018), impact of RTEP technologies on farmers' productivity and poverty alleviation (Tijani & Thomas, 2011; Obisesan *et al*., 2012; Jaji *et al*., 2013; Okoruwa, Obi-Egbedi & Adeniran, 2015); resource-use efficiency of RTEP on small farm holders (Folorunso & Abia, 2013), and RTEP's effect on gari processors (Matanmi *et al*., 2017). Also, most of these studies were comparative studies between RTEP's beneficiaries and non-beneficiaries, using inferential and descriptive statistics. There have been no in-depth studies on the effect of RTEP on cassava processors products' quality. This is the gap that this study intends to fill. This study will contribute to the existing literature on the effect of RTEP on its beneficiaries' quality of products and performance, aid the Nigerian government in the area of planning and implementation of policies relating to agriculture, food security and poverty alleviation, and provide information for students who would like to carryout researches in this field. The objectives of this study therefore are

to: identify the types of products processed by the micro and small scale cassava processors who participated in RTEP in Oyo State, Nigeria, examine the quality of the MSCPs' products before and after participating in RTEP, and assess the effect of RTEP on the quality of the beneficiaries' products.

The general structure of the rest of the paper would be as follows: (2) Literature Review; (3) Methodology; (4) Results and Discussion of Findings; (5) Conclusions and Recommendations; (6) References; and (7) Appendix of Results Tables and Figures.

2.   Literature Review
2.1 History of RTEP in Nigeria

RTEP was one of the governmental programmes that were carried out to assist in improving agricultural yield-enhancing technologies and productivity in root and tubers and processing in order to attain food security in the country. The programme was implemented in 27 cassava-producing states (including Oyo State) by the Federal Government of Nigeria in collaboration with the International Fund for Agricultural Development (IFAD), State Governments and beneficiary communities (IFAD, 2001; Jaji, Yusuf-Oshoala & Issa, 2013). RTEP was established in July 2001 with a plan to synergize the gains attained under the Cassava Multiplication Programme (CMP), and a goal to raise income, alleviate poverty and improve the food security of small-scale farmers and processors of cocoyam, cassava, sweet and Irish potato and yam, within the project area (RTEP, 2010; Ibrahim & Onuk, 2010; Obisesan & Omonona, 2013; Matanmi, Afolabi, Komolafe & Adefalu, 2017). When the programme newly started, it was considered as a tuber and root multiplication scheme, however, a post-harvest element was later included due to a projected production expansion and post-harvest. RTEP's objectives include to: develop root   and   tuber   production technology in order to increase their productivity; multiply improved planting materials of yam, sweet potatoes and cassava; develop marketing activities and processing technology; and collaborate with NGOs to make training available to farmers (Federal Ministry of Agriculture and Natural Resources (FMANR), 2006; Presidential Research and Communications Unit (PRCU) (2006). The Federal Ministry of Agriculture and Water Resources (FMAWR) was the implementing agency through its Federal Department of Agriculture.

The Agricultural Development Projects (ADPs) in the participating states played enormous part in the programme's implementation. The programme comprised the use of pre-release and improved varieties of roots and tubers, seed quality control, fabricator database, certified seed control, among others, and proper use of technologies in order to make sure that the production practices being used are environmentally sustainable and diversified (Jaji, Yusuf-Oshoala & Issa, 2013). RTEP was carried out in two phases. The first tri-term was implemented from 2001 to 2005, and the second tri-term was implemented from 2006-2010. The second tri-term was redesigned to concentrate on three Local Government Areas

(Dimelu, Igbokwe & Obieri, 2009). The World Bank originally supervised the programme from 2002 to part of 2007, while IFAD directly supervised the programme for the remaining part of 2007 to 2010 (Root Tubers Expansion Programme (RTEP), 2010). The United States Agency for International Development (USAID) (2004) referred to micro enterprises as, enterprises which employ five or fewer workers and family unpaid labour, and small enterprises as enterprises carrying on businesses in the formal sector with five to twenty employees. This research adopted this definition for the study.

2.2 Factors that affected the Effectiveness of RTEP

RTEP programme was saddled with insufficient funding, unrealistic scope, use of low number of human resources, low adaptability of the programme in some localities and low impact (Dimelu *et al*., 2009). Jaji *et al*. (2013) stated that, over half (71.9%) of their respondents agreed that under RTEP, credit facility was a serious limitation and other limitations include: their inability to use or fully use RTEP's technologies; and marketing of their produce, which would have been able to bridge the gap between the quantity of produced products and quantity lost due to the perishability of the products goods. Moreover, Obisesan and Omonona (2013) observed that RTEP's participants were saddled with Lateness in inputs' supply; inadequate credit; high input cost; insufficient markets for their products; attitude of some farmers towards change; insufficient financial commitment; and inadequate knowledge in record keeping and marketing. In addition, Jaji *et al*. (2013) further disclosed that, the farmers face a lot of problems in crop production maximization, despite the successful researches carried out on new agricultural practices in crop cultivation. They explained that the farmers do not get close to the desired upper-limit yield as a result of: little or no education which results in a huge gap between agricultural researches and its application; low crop yield; loss of crop yield to pests, weeds, and other diseases and other unfavourable growing conditions; and lack of expert advice on crop cultivation which does not reach some of the farming communities on time as a result of the proportion of extension agent to farmers. Also, the traditional method of disseminating technology via the train the trainers is insufficient in meeting the anticipated outcome of the farmers as a result of inadequate coverage, inadequate fund and personalized advice. Hence, a lot of rural farming communities still produce by using old methods which are inefficient and effective.

Furthermore, Tijani and Thomas (2011) stated that, a lot of African farmers cultivate not more than two hectares of farm lands, make use of elementary tools, have no access to efficient processing machines and storage facilities. These set back restrict RTEP's participants' ability to accumulate their products until they are adequate to form a batch that is attractive and large enough to go into a supply chain. They further affirmed that, 70% of the Nigerian food production is consumed as food by its citizens, and small quantity is left for commercial purpose, as such, the quantity and quality of cassava produced in Nigeria is not enough to attain a level that can meet up with the demands of local and international

markets. Absence of suitable storage facilities to a high extent, restricts the capability of accumulating products until it becomes a batch that is adequately huge and attractive enough to go into a supply chain (Nweke, 2004). Also, a lot of the funnel's tack producers' organization and product quality find it difficult to go into the international food chains and there are also problems associated with inadequate labour, timely information to farmers, transportation, inadequate access to fertilizer, capital, storage facilities, among others.

In summary, Nwanyanwu & Okowa (2018) enumerated the factors that hindered the effectiveness of RTEP as reported by Project Completion Digest, 2010 to include:

(i) Unreliable payment of counterpart funds by the participating states. This left the programme to be sponsored with only the funds from IFAD and the federal government of Nigeria. Therefore, this situation had a negative effect on making improved seeds and seedlings available to farmers, payment and organizing personnel, as well as research and training of farmers;

(ii) The programme's design was complex. In consequence, the monitoring of the project by supervisors became extensive and cumbersome;

(iii) The programme had an almost frustrating beginning because of delay in payment of initial deposit; delay in funding and loan disbursement; inadequate funds; loan amendment and unfulfilled counterpart-funds' contributions;

(iv) There was bureaucratic bottlenecks and slow actions which resulted in unfriendly actions that affected the attainment of RTEP's targeted objectives;

(v)The projected value of RTEP's Economic Rate of Return (ERR) was greater than the estimated value ERR;

(vi) There was a weak and delay in project implementation and supervision of the project from 2003 to 2008 by IFAD. This resulted to further delay in the takeover of the programme by the World Bank, and the follow-up supervision ended up covering only about three to four states; and

(vii)There was low manpower to manage the vast programme.

2.3 Empirical Literature

Obisesan *et al*. (2012) carried out a research on technology adoption and poverty alleviation among cassava-based farming households in Southwest, Nigeria: a case of RTEP Production technology. Multistage sampling technique was used to select respondents while data were gathered with structured questionnaire from 482 households who were both RTEP's beneficiaries and Non-RTEP's beneficiaries within RTEP LGAs (NRTEPW) and Non-RTEP's beneficiaries living outside RTEP LGAs (NRTEPO). Data were analyzed with descriptive statistics, Propensity Score Matching and Foster-Greer-Thorbecke weighted poverty index. The result revealed that, the cassava production technology that was adopted under the RTEP was able to reduce the poverty of the beneficiaries.

Also, Obisesan and Omonona (2013)'s study on the impact of RTEP technology adoption on food security status of cassava-farming households in Southwest, Nigeria, employed a multistage sampling technique in their study. Data for the study were gathered from 540 households with structured questionnaire. The respondents comprised RTEP's beneficiaries (RTEP) and Non-RTEP's beneficiaries within RTEP LGAs (NRTEPW) and Non-RTEP's beneficiaries living outside RTEP LGAs (NRTEPO).

Descriptive statistics, Foster-Greer-Thorbecke model and Propensity Score Matching were used to analyse data. The result of the study disclosed that RTEP assisted in raising the production technology and had the likelihood to improve food security. The food insecurity incidence decreased as a result of participating in the programme. This implied that the cassava production technology introduced under the programme reduced food insecurity. Furthermore, Tijani and Thomas (2011)'s study on the effectiveness of root and tuber expansion programme on cassava farmers' production in Remo area of Ogun State, Nigeria, used random sampling technique to select 90 farmers from the list of registered participants cassava farmers in Ikenne zone of Ogun State Agricultural Development Programme (ADP). Data were analysed with Chi square, frequency distribution, percentages, Pearson Product Moment Correlation (PPMC) and t-test. The study revealed that the production output of the participants increased by 98.8%, sales increased by 92.2%, and the methods of processing in each household increased by 87.1% after partaking in RTEP. Therefore, there was a significant difference between cassava farmers' commercialization of cassava production before and after the program, and the access to expansion component also significantly correlated with the farmers' production output.

Meanwhile, Folorunso and Abia (2013) also carried out a study on resource-use efficiency of small holders root and tuber expansion programme (RTEP) in Plateau state, Nigeria: an application of stochastic frontier production function. Multistage sampling technique was used for the study. A total of 160 RTEP nonparticipants and participants were randomly selected and cross-sectional data were also gathered and used for the study. The stochastic frontier production model was also used to analyse and determine the relationship between the level of input used and output. The results disclosed that there was a scope for increasing root and tuber crops' production by 0.91% for RTEP participants and 54% for non-participants with technology used during RTEP.

In addition, Jaji *et al*. (2013) also carried out a study on root and tuber expansion programme technologies and farmers' productivity in Lagos and Ogun States of Nigeria. Multi-stage sampling technique was utilized in selecting 200 (50 randomly selected farmers from each block) farmers from two blocks in each state in the study area. Interview was schedule with these farmers. Inferential and descriptive statistics were used to analyse gathered data. The result disclosed that there was a significant relationship between the use of RTEP's

technologies and farmers' productivity in the study area.

Okoruwa *et al*. (2015)'s study on root and tuber expansion programme and poverty reduction among farmers in Southwest Nigeria assessed the ex-post impact of farmers' adoption of Root and Tubers Expansion Program (RTEP) on crop income, yield, and poverty in rural Nigeria. Primary data were gathered from 161 households in 3 local government areas in South West Nigeria. Propensity score matching techniques and Federal government's poverty measures were used to analyse data. The study revealed that poverty incidence was higher by about 23% among non-beneficiaries than among the beneficiaries of RTEP. Also, Net yield per hectare upsurge by about 13.00 to 18.52 metric tonnes, while net crop income per hectare rose by about ₦39,705 to ₦42,133 ($198-211), and poverty reduced by about 5 to 20%.

Meanwhile, Nwanyanwu and Okowa (2018)'s study on empirical analysis of challenges to the implementation of root and tuber expansion programme (RTEP) in Rivers State, Nigeria: a further study, assessed the collaborative limitations to Government Agricultural Projects in Rivers State with specific emphasis on RTEP in Emohua, Ahoada-West and Gokana local government areas. Ninety (90) registered farmers were randomly selected and used for the analysis. Data were collected with in-depth discussion, camera pictures, structure questionnaire and direct field inspection. Descriptive statistic (percentages) was used to analyse the socio-economic characteristics of the respondents, while mean rating at criterion cutoff of 2.5 was used to analyse other data. The study disclosed that training and re-training of farmers, technology (research, pesticides, storage, among others) were carried out in high extent during the programme, while land acquisition and insecurity took place on a low extent.

In addition, Matanmi *et al*. (2017)'s study on impact of RTEP: the case of gari processors in Kwara State, Nigeria was carried out via comparative study of the beneficiaries and non-beneficiaries of the programme. Simple random sampling technique was used to select 160 respondents (80 RTEP beneficiaries and 80 non-beneficiaries). Structured interview schedule was used to gather data, while inferential (t-test) and descriptive (frequency, percentages) statistics were used to analyse data. The results revealed that RTEP had a positive impact on the beneficiaries via improved income generation and productivity.

3. Methodology
3.1 Study Area
The study area, Oyo State has Ibadan which is the largest city in West Africa as its State capital. The state's population is 5,591,589 (NPC, 2006), The State is one of the 6 States in South-West region of Nigeria and the climatic of the State is tropical. The weather of the State is good for the production of varied food crops including tuber and root crops

(cocoyam, yam, sweet-potato and cassava). Hence, the major occupation of the people is farming (NPC, 2006). RTEP operated in five (5) Local Government Areas (LGAs) and had 12 groups in Oyo State. These LGAs and groups are: Iseyin LGA (4 groups), Oluyole LGA (2 groups), Ibarapa Central LGA (2 groups), Ogo-Oluwa LGA (3 groups), and Saki East LGA (1 group).

3.2 Method

Survey design and multistage sampling technique were used in this study. Oyo state was purposively selected because the state hosts a sizable and quite a number of research institutions and Agricultural Development Project (ADP) offices that were used to implement and develop numerous parts of the programme. Therefore, the State serves as a good representative of a research reference in Nigeria. The population of the study was 754 cassava processors that partook in RTEP in five (5) LGAs and twelve (12) groups in Oyo State. These LGAs, number of groups and number of processors in each group include: Iseyin LGA (4 groups and 297 processors) Oluyole LGA (2 groups and 35 processors), Ibarapa Central LGA (2 groups and 223 processors), Ogo-Oluwa LGA (3 groups and 41 processors), and Saki East LGA (1 group and 158 processors), totally 754 processors. Twenty percent (20%) of processors were selected from each group and used as the sample size (754 * 22% = 166 processors). That means: 65 processors were selected from Iseyin LGA, 8 processors from Oluyole LGA, 49 processors from Ibarapa Central LGA, 9 processors from Ogo-Oluwa LGA and 35 from Saki East LGA. The number of selected processors that made up the sample size are captured on table 1.

Table 1: Local Government Areas (LGAs) in which Oyo State RTEP were implemented, number of groups in each LGA, number of microscale cassava processors in each group and number of processors selected as sample size

(A) Iseyin Local Government = 4 Groups	NO. in Each Group	NO. selected from Each Group
1) Garigbayi	267	59
2) Ifedawapo	10	2
3) Jesuloba	10	2
4) Ibuku Oluwa	10	2
Total	**297**	**65**
(B) Oluyole Local Government = 2 Groups		
1) Basiri	25	6

2) Ola-Oluwa	10	2
Total	**35**	**8**
(C) Ibarapa Central Local Government = 2 Groups		
1) Ore-Ofe	68	15
2) Ibukun Oluwa	155	34
Total	**223**	**49**
(C) Ogo-Oluwa Local Go vernment = 3 Groups		
1) Idewure	16	4
2) Agbelobaloba-Ege	15	3
3) Agbeloba	10	2
Total	**41**	**9**
(E) Saki East Local Government = 1 Group		
1) Egbelowo	**158**	**35**
Grand Total	**754**	**166(22%)**

Source: Field Work, 2020

Purposive sampling technique was also used to select the LGAs where RTEP was executed and the groups of micro-scale cassava processors that took part in the programme. These were selected from the record and lists provided by the Agricultural Development Projects (ADPs)'s office in Ibadan. The micro-scale cassava processors that formed the sample size were randomly selected form the list.

One hundred and sixty-six (166) copies of structured questionnaire were distributed to gather information from the selected micro-scale cassava processors. However, only 151(90.96%) copies were retrieved from the processors. The dissemination and collection of the copies of questionnaire were executed by the trained research assistants/extension agents who were allocated to the various selected groups within each LGA. Data were analyzed with descriptive statistic (mean average) while t-test was used to measure the significant difference between the quality of the processors' products before and after participating in RTEP. Cronbach Alpha was used to test for the reliability of the research instrument while the instrument was

validated by two experts in the field of the study (Agriculture). Pilot test was also carried out by administering 10 (15%) of the total copies of questionnaire disseminated, to the beneficiaries of the Federal Government of Nigeria's Cassava Transformation Initiative (FGCTI), in Ondo State. The FGCTI was initiated in 2003, with similar objectives as RTEP, but with more emphasis on increasing primary processing and utilization of cassava in order to be able to mop up the national cassava production glut, increase the yield and annual production of cassava and identify and develop new market opportunities for import substitution and export, and prepare Nigerian cassava products to be competitive in the world cassava market (Nigeriafirst.org, 2005; Adebayo, 2009). Ondo State was selected because, the State has comparable characteristics with the study area. During the process of running the pilot test, the suitability of the measuring instrument to measure what it was anticipated to measure was tested and corrections were effected in the questionnaire before it was administered to the respondents in the study area.

The questionnaire was made up of two sections, A and B. Section A was based on the socio-economic characteristics of the respondents, and section B contained questions that made available, information whose responses were used to analyse the effect of RTEP on the quality of micro-scale cassava processors' products in Oyo State Nigeria. Cronbach Alpha was used to test for the reliability of the research instrument, and the coefficient of 0.714 which is greater than 0.7 was obtained. This shows that the result is high and appropriate for social science. Also, t-test (5% confidence level) was used to test for the significant difference between the quality of cassava products of the processors before and after the processors participated in RTEP. Likert scale (Very high (5) High (4), Moderate (3), Low (2) and Very low (1)) was used to measure the quality of the MSCPs' products before and after the MSCPs participated in RTEP.

The theory upon which this study is based is structuralist theory. This theory is associated with this study because as explained by Eboh (2011), structuralism is a theory of development that emphasis the need to transform the economy of a country from subsistence agriculture to a modern, industrial manufacturing and service economy. The theory promotes a major intervention of government in every economy in order to stimulate the industrial sector and achieve an import substitution industrialization.

4. Results and Discussion of Findings
4.1. Socio-Demographic Characteristics of the Respondents

Table 2: Distribution of Socio-Economic Characteristics of the Beneficiaries of RTEP

Personal Characteristics	Frequency	Percentage (%)
Age Range (years)		
20-29	5	3.31
30-39	20	13.25
40-49	84	55.63
50-59	31	20.53
60 years and above	11	7.28
Gender		
Male	37	24.50
Female	114	75.50
Nationality		
Nigeria	151	100.00
Others	0	0.00
Working Experience (years)		
1-10	26	17.22
11-20	71	47.02
21-30	35	23.18
31-40	14	9.27
Above 40	5	3.31
Level of Education		
Primary School Cert	49	32.45
Secondary/O' Level	23	15.23
Vocational/Technical	10	6.62
Polytechnic/University	9	5.96
Not Educated	60	39.74
Area of Specialization		
Garri	102	67.55
Cassava Flour	10	6.62
Starch	7	4.64
Lafun	23	15.23
Pupuru	3	1.99
Cassava Pellet	6	3.97

Source: Field Work, 2020

Table 2 revealed that, 3.31% of the beneficiaries were between ages 20 and 29 years, 13.25% were between ages 30 to 39 years, 55.63% between 40 and 49 years, 20.53% between 50 and 59 years, while 7.28% were 60 years old and above. This means that majority of the beneficiaries were adults who are within productive age of 40 to 49 years. This finding is in agreement with the study of Matanmi *et al*. (2017) which disclosed that, RTEP's

beneficiaries and non-beneficiaries in Kwara State, were mainly between the ages of 41–50 years, and Tijani and Thomas, (2011)'s study on RTEP and cassava farmers production in Remo Area of Ogun State which agreed that majority of the respondents in their study area were between the ages of 31-40 years. Likewise, Nwanyanwu and Okowa (2018)'s study on the challenges encountered while implementing RTEP in Rivers concluded that majority of respondents were youths whose ages were from 18 to 30 years. This may be due to the fact that the respondents of these studies were farmers who need a lot of energy to exact on farming. The study also revealed that a lot (75.50%) of the micro-scale processors were women. This result is in agreement with that of Nwanyanwu and Okowa (2018) who concluded that youths mostly ladies participated more in the RTEP's programme in Rivers State. In addition, Odediran and Ojebiyi (2017)'s study on cassava processors in Southwest Nigeria and Okpeke and Onyeagocha (2015)'s study on garri processors in Isoko North Local Government Area of Delta State, agreed that 76.50% and 95% of the processors respectively, were females. Hence, Nwanyanwu & Okowa (2018)'s study concluded that RTEP was designed in favour of the women gender. Furthermore, Matanmi, Afolabi, Komolafe & Adefalu (2017)'s study on RTEP and gari processing in Kwara State, concluded that females dominate cassava processing among the RTEP beneficiaries and Non-beneficiaries.

Moreover, 100% of the participants were Nigerians, 17.22% had 1-10 years of experience, 47.02% had 11-20 years of experience, 23.18% had 21-30 years, 9.27% had 31-40 years and 3.31% had above 40 years of experience. This implies that the beneficiaries had enough experience to provide valuable information on subject matter. This result is in agreement with Okpeke and Onyeagocha (2015), who revealed that, majority of cassava processors in Isoko North Local Government Area of Delta State had 11 to 15 years experience, and Ijigbade, Fatuase & Omisope (2014)'s study revealed that, 64% of cassava processors in Kwara State had been producing garri for 11 to 20 years.

Furthermore, 32.45% of the beneficiaries had Primary School Certificate, 15.23% had Secondary/O'Level, 6.62% had Vocational/Technical education, 5.96% had Polytechnic/University education, while 39.74% were not educated. This result revealed that, a huge number of the respondents either had Primary School Certificate or were not educated. This finding is comparable to that of Oluwasola (2010), who revealed that 80% of cassava processors in Oyo State, did not go beyond primary school education. Nevertheless, the result is in disagreement with that of Muhammad-Lawal, Omotesho & Oyedemi (2013), who disclosed that 33% of garri processors in Isoko North Local Government Area of Delta State had secondary school leaving certificates, Tijani and Thomas (2011)'s study which concluded that 50% of its respondents went beyond secondary education and Jaji *et al.* (2013)'s study on RTEP technologies and farmers' productivity in Lagos and Ogun States which revealed that 67.3% of the respondents had formal education.

Also, the most popular product that the beneficiaries processed was garri (69.7%). This result is due to the fact that, out of all the cassava composite products, produced in Nigeria, garri is the most consumed, and most traded. Garri is eaten as a meal by almost every Nigerian household on daily basis and in several forms (eaten soaked in water, used to make eba, among others). In accord with this result, are those of Dada (2014) and Kleih, Phillips, Wordey & Komlaga (2013) which affirmed that, garri is the major cassava product, out of all cassava composite products produced, consumed and used in Nigeria. The next most popular product was Lafun (15.23%) followed by Cassava Flour (6.62), Starch (4.64%), Cassava Pellet (3.97) and the least processed was pupuru (1.99%).

4.2 Result of the rating of the quality of the MSCPs' products by the processors, before and after RTEP based on quality indicators in table 3.

Table 3: Distribution of result of the rating of the quality of the MSCPs' products by the processors, before and after RTEP based on quality indicators below

Quality Indicators		Mean	N	Std. Deviation
Pair 1	Packaging of the product AFTER	3.80	151	.781
	Packaging of the product B4	1.98	151	.684
Pair 2	Colour of the product AFTER	3.23	151	.622
	Colour of the product B4	2.34	151	.515
Pair 3	Presence of foreign particles (Contaminants) in the product AFTER	1.69	151	.754
	Presence of foreign particles (Contaminants) in the product B4	3.64	151	.963
Pair 4	Taste of the product AFTER	3.51	151	.677
	Taste of the product B4	2.55	151	.559
Pair 5	Odour of the product AFTER	3.51	151	.628
	Odour of the product B4	2.33	151	.624
Pair 6	Texture of the product AFTER	3.78	151	.806
	Texture of the product B4	2.15	151	.585
Pair 7	Shelf life of the product AFTER	3.67	151	.613
	Shelf life of the product B4	2.14	151	.351

Source: Field Work, 2020

Result on table 3 revealed that the packaging of the products improved from a mean average of 1.98 before to 3.80 after the MSCPs participated in RTEP. The colour of the products improved from a mean average of 2.34 before to 3.23 after participant in RTEP. Also, the presence of foreign particles (contaminants) in the products reduced from a mean average of 3.64 before to 1.69 after participating in RTEP, while the taste of the product improved from

a mean average of 2.55 before to 3.51 after participant in RTEP. In addition, the odour of the product improved from a mean average of 2.33 before to 3.51 after participant in RTEP, while the texture of the product improved from a mean average of 2.15 before to 3.78 after participant in RTEP. Furthermore, the Shelf life of the product improved from a mean average of 2.14 before to 3.67 after participant in RTEP. This result is in accord with that of Matanmi *et al.* (2017) which concluded that RTEP's beneficiaries (51.3%) produced higher quantity of gari after participating in RTEP.

4.3 Result of the t- test for quality of the MSCPs' products based on the quality indicators

Table 4: Distribution of result of the t- test for quality of the MSCPs' products based on the quality indicators

		Paired Differences 95% Confidence Interval of the Difference Upper		t	df	Sig. (2-tailed)
Pair 1	Packaging of the product - Packaging of the product	1.975	22.542		150	.000
Pair 2	Colour of the product - Colour of the product	.985	18.887		150	.000
Pair 3	Presence of foreign particles (Contaminants) in the product - Presence of foreign particles (Contaminants) in the product	-1.792	-23.935		150	.000
Pair 4	Taste of the product - Taste of the product	1.079	17.246		150	.000
Pair 5	Odour of the product - Odour of the product	1.308	19.434		150	.000
Pair 6	Texture of the product - Texture of the product	1.775	23.448		150	.000
Pair 7	Shelf life of the product - Shelf life of the product	1.608	34.711		150	.000

Source: Field Work, 2020

Table 4 shows the result of the t- test for quality of the MSCPs' products based on the quality indicators. Since significant level of the t-test of the various quality indicators was 0.000 which are less than the table value of 0.05, it means that the null hypothesis which states that, there if no significant difference between the quality of the MSCPs product's quality before and after partaking in RTEP is rejected, while the alternate hypothesis which states that there is a significant difference between the quality of the MSCPs products before and

after partaking in RTEP is retained. This implies that RTEP improved the quality of the MSCPs' products. This result is in agreement with those of Ibrahim and Onuk (2010) and Okoruwa *et al*. (2015) which agreed that, the RTEP significantly upturn the income, yield and reduced the poverty of household of farmers in Nasarawa and Southwest Nigeria, respectively. Also, Matanmi *et al*. (2017)'s study which disclosed that there were significant differences between the quantity of gari produced and total monthly income of gari processors in Kwara State after participating in RTEP. Furthermore, the result of Tijani and Thomas (2011)'s study which concluded that the production output of cassava farmers in Remo area of Ogun State increased by 98.8%, sales improved by 92.2%, while the processing methods for each household improved by 87.1% after RTEP is also similar to the result of this study. However, this result is in disagreement with Nwanyanwu and Okowa (2018)'s study which disclosed that the participants in RTEP in Rivers State performed below expectation.

5. Conclusion and Recommendations

This study revealed that MSCPs that participated in RTEP in Oyo State were into the processing of various cassava products including gari, lafun, starch, cassava flour, cassava pellets and pupuru. Majority of the processors were females, between ages 40-49 (55.63%) and they mainly processed gari (67.55%). The quality of the MSCPs' products improved after participating in RTEP, and there was a significant difference (p-value .000) in the quality (using the quality indicators) of the MSCPs before and after participating in RTEP. Therefore, the paper recommends the implementation of more integrative poverty alleviation and employment generation programmes, but with massive training and retraining in cassava processing using improved, more efficient and effective technologies. Also, the programmes collaborators need to provide timely and enough funding to allow smooth running of the programme and involve more MSCPs in other to spread the gains from the programme and improve the MSCPs products' quality in order to make processed cassava products more competitive not only in Oyo State's market, but in the world markets.

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