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Implications of Agricultural Processed Value Chain Products to Job Creation in Nigeria

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Abstract

This study examined agricultural processed value chain products to job creation in Nigeria. The objective is to find out if inadequate irrigation and mechanized farming equipments; inadequate finance; and inadequate infrastructure and storage facilities determines agricultural processed value chain products to job creation. It adopted quantitative method where-in questionnaire was used in collecting primary data. The scope of the study covered the six geo-political zones of the country; while the population comprised of all farmers, staff and stake holders of agricultural processed value chain products in Nigeria. The sample size of 390 was determined in line with Manion and Morrison, 2011; the variables identified where measured using a four point Likert scale, the reliability of item was computed using Spearman's Correlation, with index of .82, adjudged high for the study. Cumulative mean was computed and compared with a standard/decision mean while the hypotheses were tested with inferential statistics of regression analysis at 0.05 alpha level of significance. The study recommends construction of more dams and agricultural storage facilities; improved financial loan facilities among others.

Key words: Agriculture; Job Creation; Processed Value Chain Products

INTRODUCTION

Background to the Study

A major objective of any government is the survival and welfare of its citizens. Consequently, various policies and strategies can be adopted in the realization of these objectives. While some countries prefer inward looking substitution model because it enables them to evolve their own styles of development and become masters of their own fate, others believes in the adoption of export oriented marketing strategy (Onayemi and Ishola, 2009). The global problem of food scarcity is exacerbated by the increase in population growth, with no complimenting increase in the output of agricultural produce. Over the years it has become a major focus of most government to provide enough food for her citizenry which will in-turn curb the series of social discord that could emerge if a hunger-crisis breaks out, and create an enabling atmosphere for strategic economic development by providing the working population with one of the most important physiological needs. Agricultural processed value chain helps to guarantee food security and provision of employment (ADB, 2013).

The consequence of the phenomenon described above was that owing to the reduced competitiveness of agriculture, Nigeria began to import some of the agricultural products, it formerly exported and other food crops it had been self-sufficient in. Domestic food production also declined substantially, causing the food import bill to attain 4 billion US Dollars in 1982 (Oyejide, 1986). Moreover, available data revealed that the manufacturing sub sector of the economy had often been making minimal contribution to export. The reason that can be adduced for this had been neglect of the sector by colonial masters before independence in favour of export of industrial raw material for their domestic industries (Onayemi and Ishola, 2009). Despite the seemingly high revenue from the oil sector, the paradox of it that over 65 percent of Nigerian population is engaged either in the formal sector or in agricultural production but with various challenges (Olaitan, 2006). The vast employment opportunities and the quest for growth and diversification of the revenue source by the federal government and development agencies calls for improved sustainable agricultural processed value chain products in Nigeria which is the thrust of this research.

Statement of the Problem

The discovery of oil changed Nigerian economy from dependent on export of agricultural commodities for survival. The policy effect is therefore negative development of agricultural processed value chain products. Moreover, available data revealed that the manufacturing sub sector of the economy had often been making minimal contribution to export. The reason that is adduced for this had been neglect of the sector by colonial masters before independence till date, low market penetration due to poor quality control among others constraining the development of agricultural processed value chain products.

Objectives of the Study

The main objective of this study is to investigate the implications of export of agricultural processed value chain products in generating employment in Nigeria. From this broad objective, the following specific objectives were derived.

1. To investigate if inadequate irrigation and mechanized farming equipments determine agricultural processed value chain products to job creation in Nigeria.
2. To access if inadequate finance determines agricultural processed value chain products to job creation in Nigeria.
3. To investigate if inadequate infrastructure and storage facilities determine agricultural processed value chain products to job creation in Nigeria.

Research Questions

Based on the statement of the problem and objectives of the study, the following research questions were formulated for the study.

1. Does inadequate irrigation and mechanized farming equipments determine agricultural processed value chain products to job creation in Nigeria?
2. Does inadequate finance determine agricultural processed value chain products to job creation in Nigeria?
3. Do inadequate infrastructure and storage facilities determine agricultural processed value chain products to job creation in Nigeria?

Hypotheses

Based on the objectives and research questions, the following hypotheses were formulated;

H1: Irrigation and mechanised farming equipments determines agricultural processed value chain products to job creation in Nigeria.

H2: Inadequate finance determines agricultural processed value chain products to job creation in Nigeria.

H3: Inadequate infrastructure and storage facilities determines agricultural processed value chain to job creation in Nigeria

LITERATURE REVIEW

Concept of Agricultural Value Chain

A value chain can be defined as a strategic partnership among inter-dependent businesses that collaborate to progressively create value for the final consumer resulting in a collective competitive advantage (Olaitan, 2006). Agricultural food value chains are designed to increase competitive advantage through collaboration in a venture that links producers, processors, marketers, food service companies, retailers and supporting groups such as shippers, research groups and suppliers (Oseni, 2013). The basic characteristic of a value chain is market-focused collaboration; different business enterprises working together to produce and market products and services effectively and efficiently by allowing businesses to respond to the marketplace through linking production, processing and marketing activities to meet market demands (Mohammad, 2011). One of the central ideas of the agricultural value concept is the differentiation of the total agro system and the specialization of each element so as to optimize the entire system.

Evbuomwan and Okoye (2017) reported that a value chain is a connected string of companies, groups and other players working together to satisfy market demands for a particular product or group of products. Farming is only a small though important part of the agribusiness value chain. The value chain includes resource data processing, input provision, production, aggregating, processing and packaging, retailing and recycling. Making the value chain work efficiently involves connecting farmers to markets.

A value chain is not an object you can see. Chapota (2013) reported value chain as a useful way of understanding how the world of producing, buying and selling things works. We are all part of value chain in one way or the other as producers, consumers of goods and services, processors, retailers, finance providers among others. As consumers we all eat and wear clothes and we are linked to many value chains – chains of grain crops, roots and tubers, fruits and vegetables, legumes, oils and textiles. These chains stretch from growers to our kitchens, eating tables, clothing, and beyond. McVay and Snelgrove (2007) posited that at one end of the agricultural value chain are the producers – the farmers who grow crops and raise animals. At the other end are the consumers who eat, drink, wear and use the final products. And in the middle are many thousands of men and women, and small and large businesses. Each person and each business performs one small step in the chain, and each adds value along the way – by growing, buying, selling, processing, transporting, storing, checking, and packaging.

Agricultural Value Chain and Rural Economic Development

Agriculture is an important economic sector in many developing countries. A large proportion of the world poor people live in rural regions and work in agricultural upstream and downstream sectors. The aim of poverty-oriented promotion of agricultural value chains, which emphasises modernisation and connectivity to markets, is to put resource-poor smallholder producers and processors in a better position to increase their production and productivity, to improve the quality and marketing of their products, and consequently to generate higher incomes (Seville, Buxton and Vorley, 2011). Under the value-chain promotion approach, activities take place both on the micro level, with actors within the value chain, and with state and private sector organisations and macro levels. Within this framework, value-chain promotion draws upon a multitude of different activities. These range from the promotion of advisory services, financing, inputs and business management training, to the promotion of institutions supporting business relationships between the different actor groups in a value chain.

Kaplan, Bettighofer, Bruntrup-Seidemann and Noltze (2016) reported that agricultural value chain is an appropriate value chain

for improving the living conditions of people in rural areas and job creation. Nevertheless the following main constraints and challenges are found:

Value-chain promotion is a versatile approach and therefore appropriate for achieving a range of development objectives and reaching different target groups. However, this can easily lead to setting excessive objectives, which overextends both the value chain approach and the capacity of projects and programme and detracts from the quality of the promotion.

Because of its complexity, value-chain promotion requires continuity over a sufficient period of time to introduce production related, organisational and institutional innovations and to empower the actor groups to respond flexibly to developments in the business environment. This makes particular demands upon the planning, steering and monitoring of projects and programmes.

Value-chain promotion does not reach chronically poor people because a minimum level of recourses such as land, knowledge, capital is necessary prerequisite for inclusion in a value chain. These groups can only be reached indirectly, at best. In order to support these people, other development cooperation measures need to be put in place.

Commodity and Financial Value Chain: Nigeria Incentive Risk Sharing for Agricultural Lending (NIRSAL)

After due diligence, ten agricultural value-chains were selected for Nigeria, namely; tomatoes, cassava, maize, rice, cotton, soya beans, fruits, fisheries, palm oil, poultry. NIRSAL is intended to strategically re-engineer Nigeria agricultural finance landscape, decompose all existing initiatives into NIRSAL five core components that will unlock the financing challenges of the country agricultural sector.

Tomato Value Chain – Boosting Production and Creating Domestic Paste Processing Capacity

Value chain promotion can be designed very flexibly so that outcomes can be achieved across the spectrum of actors at different stages of the chain. Evbuomwan and Okoye (2017) reported that the tomato value chain is made up of the producers who supply the tomato paste factories that processes it and sells it local consumers and export

market. Along the tomato value chain, there could be wholesalers who take the tomato off the producers and sell to retailers who sell fresh tomatoes to consumers. There could also be agents who buy fresh tomatoes from producers or wholesalers and supply to paste factories. Finally, there are wholesalers/agents taking off the processed tomato paste from the factory and selling to retailers who eventually to final consumers. To all these actors, adequate finance is a critical factor for success.

Nigeria Incentive- Based Risk Sharing for Agricultural Lending (2011) reported that Nigeria is a major consumer of tomato paste; although 20 – 30 percent of paste consumed in Nigeria is produced domestically, 25 – 50 percent of the inputs for this domestic paste is double-concentrated from China. Many domestic players are already involved in the latter half of this equation; re-processing, packaging, and marketing double concentrate combined with other inputs; however, the market for domestically produced double concentrate remains underserved. At industrial-scale production levels and with enforcement of existing import tariffs, Nigerian double concentrate sold to domestic or West African processors/re-packagers can be price-competitive with Chinese imports. The investment could be used as a platform on which to expand into further value-added processing activities following several years of successful operation.

The size of the Nigerian market for tomato paste is approximately 200,000tonnes per annum, with proximity to a broader West African market of 300,000-400,000tonnes per annum. Imports of double concentrate from China make up 55,000tonnes of the domestic tomato paste market; currently, the only domestic production of double concentrate within Nigeria is Ciao. Nigeria tomato paste processors/re-packagers including Vital, Gino, Tastitone, Derica, Olam, Chi and Dangote; with a start-up cost of about 3.9 million US Dollars, a 75,000tonnes tomato processing project has a projected return on investment of 20 percent and a payback period of 4 years (NIRSAL, 2011). Policy Issues, Entry Barriers and Key Risks: Insufficient certified seeds available to farmers, hence supply chain inefficient from inception. Entry barriers include; ensuring supply from smallholder/commercial farming, intra-and inter-state transport infrastructure and ensuring demand from end users; risks include import duties, competitor growth and crop viability (Oseni, 2013).

Abdulkarim (2019) reported that the Dangote group announced resumption of work at its tomato processing plant at Kadawa, Kano state. Activities at the plant had been suspended for about two years due to lack of raw tomatoes and inability to reach an agreement with local farmers over price. The plant, which is the biggest in Africa, suspended production barely one year and five months after it was launched. The factory has a capacity of 1,200 metric tons of tomato paste daily. The major challenge is getting the tomatoes that would be sufficient for our daily production. The last time, local tomato growers could not meet their production demand. They also could not agree with the farmers on the price of tomato per basket. He informed that the company now has a new deal with the farmers where the factory will buy raw tomatoes at prices pegged to the price in local markets. Dangote group is also developing a special tomato strain on its farms that could yield 60 tons per hectare, compared to local farmers' yield of 10 tons per hectare. Efforts should be made, therefore, to ensure that it does not suspend activities again. For several years, the federal government has talked about banning tomato paste importation as a means of encouraging local production and also boosting our foreign exchange earnings. This plant can help it achieve that goal. If the company is producing at maximum capacity and able to provide the needed tomato paste, then there will be no need to import the product. Also, tomato farmers in Nigeria have a problem of wastage during the harvest season due to lack of storage facilities. A lot of tomato is wasted during the harvest season, only for it to become scarce and costly in the wet season. The company can buy up the products from local farmers and transform it to tomato paste. With that, more people can be encouraged to go into farming as the fear of not recouping their capital due to non-availability of market will no longer be there. It will also help to tackle the major problem of unemployment as a lot of people will be needed to manage the equipment in the company and handle the various sectors. The Dangote group is doing a lot to boost industrialisation in the country and we commend it for its efforts.

Cassava Processed Value Chain

Nigeria is the world largest cassava producer, but currently processes about 11% of its production and loses 20-30% of all cassava output to wastage. By processing cassava, first into chips and later into more

advanced pellets, cassava becomes a more tradable community, which can be sold on the global market as an input into industrial animal feed and for energy production. Currently, Nigeria processes only 3.3 million tonnes of cassava, about 2.2% of national production into chips through small scale factories which lack the means to export to key markets. Nigeria also has significant starch and glucose capacity which are underutilized due to insufficient cassava volumes (NIRSAL, 2011).

The cassava value chain is made up of producers, processors and consumers. Currently, the small scale farmers constitute the bulk of the producers of cassava in Nigeria. This is taken off them by the processors who process fresh cassava into products like garri and fufu which are sold to local consumers (it is a major staple food in Nigeria). However, small scale commercial activities in the area of processing of cassava into animal feed foe feeding ruminants, poultry and fisheries (aquaculture). The processing of cassava into flour, starch and glucose for use in the industrial sector such as food industry, brewing industry, pharmaceutical industry is beginning to gain grounds, Potentially, new opportunities to explore in the cassava value chain include, on-farm/rural processing of cassava into chips and ethanol production for both export and local markets (Adesina, 2012)

The global market for cassava chips and pellets is estimated to be 1 billion US Dollars and grew at 20 percent per annum since year 2000. The Nigerian market for starch/glucose is estimated at 18 – 30 billion Naira serving mostly the food and related industries. Thailand with 55 percent of market share, Vietnam, and Indonesia have established a strong presence in the global cassava chips/pellet market and benefited from their close proximity to China and South Korea, the world largest importers. A 115,000 tonnes cassava input mill could break even after 4.5 years, achieving net profit value of #46.95 million Naira and a return on investment of 19% with #525 million start-up costs. Policy issues, entry barriers and key risks: insufficient high yield cuttings available to farmers who are poorly organized, hence supply chain inefficient from start. Poor rural road infrastructure requires significant upgrade but states cannot afford, need Directorate of Federal Rural Road Infrastructure type solution. Need support of new marketing corporations to enforce standards for cassava exports and drive certification (Eluhaiwe, 2010).

Cotton Value Chain

The cotton value chain constitutes; fibre production, spinning, weaving and knitting, dyeing and finishing, garment production and sale to consumers. The cotton value chain can be broken down into sub-value chains depending on its final product which serves as an input into another value chain. The product could be raw fibre which is obtained directly from the producers. It is then an input for the spinners whose product is yarn. This serves as input to weaving and knitting sector as well as the dyeing and finishing sector whose products are fabrics. The fabric constitutes the input for the garment industry. Thus, various financial requirements and services are required along the various chains (Muhammad, 2011).

Cattle Value Chain

The cattle value chain is made up of the following inputs; production, processing/distribution, marketing. The inputs component constitutes the feed, breeding and veterinary services which are required to produce the calf and cow for fattening and dairy. The output is processed into milk, beef, butter, cheese and leather. Marketing is done through local markets, restaurants, supermarkets and even exports to reach the final consumers; crating jodzs (Thisdaylive.com, 2013).

Rice Value Chain

The rice value chain starts with paddy production which could go to cottage millers or commercial mills for processing and straight to the domestic rice market for sale to the consumers. There could also be sub-chains such as the farm gate buyers who supply the local paddy market, where the commercial mills can also buy to process (Independent Evaluation Department, 2012).

Problems of Agricultural Value Chain in Nigeria

The Nigerian agricultural value chain has not been at premium in its performance because of the avalanche of inherent inefficiencies that characterize the elements. Abu, 2012; Mohammad, 2011; Thisdaylive.com, 2013 reported the problems of agricultural value chain in Nigeria as follow:

In Nigeria, attention is mostly focused on primary production; huge crop turnover/harvest, large flock management, enormous plantation among others. Nigerians pride themselves in being large producers of cocoa, yam, cassava, groundnut among others. The question here is: despite the seemingly agricultural feats in Nigeria, why is the agricultural industry not regarded as developed? Production efficiency which could have been realized from the processing of massively harvested crops is lost; for example cocoa beans are exported unprocessed and are transformed into varied products such as beverages, chocolate bars and candles to mention but a few which are in turn imported into the country and sold to Nigerians at increased prices. Appreciable economic gains will accrue to the nation if there are policies to guide against exporting raw crop produce; which will strengthen the value addition process and encourage investment in such areas of the economy.

A typical Nigerian farmer will produce the seeds he needs for planting, grow and harvest the crops on his field, process the harvested crops, market the processed produce and in some cases be the final consumer himself, promoting the saying "Jack of all Trade, Master of None". There are oftentimes no differentiation of farming activities which resultantly shields the benefits that could have accrued from trade specializations. The sustained efficiency in the agricultural industry of the developed nations is hinged on the principle of specialized diversification through the value chain. Here, each of the producers, processors, marketers and researchers focuses on his enterprise, ensuring quality delivery of resources to the next level link without encroaching into other production niche.

The utility of time, place and standardization has not been fully exploited in the Nigerian agro-industry, which happens to be one of core functions of marketing. Nigeria major pitfall is on the issue of packaging and standardization which has ousted it from the global market to their own economic detriment. Effective packaging adds value to produce, enables traceability, enhances standardization, and provides feedback thereby gaining the confidence of customers. In developed nations, Universal Product Code (UPC) which is a set of 12 numerical digits for scanning of trade items are often assigned to local or imported produce to aid control of quality, pest and disease, traceability and hence feedback.

METHODS

The description survey research design was utilized in the study. The population of the study comprises of Nigerian farmers, 250,000 farmers (CBN, Anchor Borrowers Program, 2018) agricultural processing value chain, above 50, 000 staff (Agro-processing companies in Nigeria, 2017) A sample size of 390 respondents participated in the study; this is in line with the sampling guideline of Cohen, Manion and Morrison (2011), that when a population is 10,000 or above at 95% confidence level (5% interval), 370 or above should constitute the sample.

Multi stage sampling procedure was used to arrive at the sample size. The first stage involved cluster sampling from different units; farmers and agricultural processing value chain staff involving the six geo-political zones, this was done using simple random sampling technique of balloting without replacement. This is to ensure equal representation. The second stage involved dividing the sample size into the six zones of Nigeria (390 /6 = 65), while the third stage involved respondents from each zone based on the state with highest population from the zone as reported by list of Nigeria population by states (2006) as follows:

Kano State -North West Zone; Lagos State - South West Zone; Rivers State - South South Zone; Bauchi State - North East Zone; Benue State - North Central Zone; Anambra State - South East Zone
The instrument for data collection was a researcher designed questionnaire; a four-point rating scale as follows: Strongly Agree (SA) = 4, Agree (A) = 3, Disagree (D) = 2, Strongly Disagree (SD) = 1.

A pilot test was used to determine the reliability of the instrument. Twenty (20) copies of the questionnaire was administered to the farmers and agricultural processing value chain staff, they will not be part of the main study. The reliability of item was computed using Spearman's Correlation formula. The reliability index of .82 was adjudged high for use in the study. This is in line with the assertion of Sekaran (2006), which state that if the reliability index yields .70 or above, it will be considered reliable for use in the study but if it is less than .70, it was adjudged not. Quantitative method was used in analysing the study; cumulative mean was computed and compared with standard/decision mean to analyse the data and the research

hypotheses were tested with inferential statistics of regression analysis at 0.05 alpha level of significance.

DATA ANALYSIS AND INTERPRETATION OF RESULTS

Research Questions

Question One: Does inadequate irrigation and mechanized farming equipment determine agricultural processed value chain products to job creation in Nigeria?

Table 1: Responses on how inadequate irrigation and mechanized farming equipment determine agricultural processed value chain products to job creation in Nigeria

S/NO	ITEMS	Response categories				MEAN
		SA	A	D	SD	
1	Food crops are produced during and off seasonal periods in Nigeria.	21	43	266	60	1.382
2	There are enough irrigation dams in Nigeria	5	50	222	113	1.295
3	Most Nigeria farmers are involved in mechanized farming.	21	19	197	153	1.259
4	Nigeria have enough food crops for agricultural processed value chain throughout the year	21	41	176	152	1.372
5	There are enough food crops during the harvesting period but little or nothing during the off season in Nigeria.	134	177	60	19	2.938
6	Farmers in Nigeria are encouraged into mechanized agriculture	19	54	121	196	1.423
7	We have enough mechanized farms in Nigeria	22	22	174	172	1.282
8	Nigerians are mostly involved in irrigation farming	20	60	232	78	1.462
9	Nigerian youths are mostly involved in agricultural processing value chains	18	37	176	159	1.328
10	Lack of agricultural education and motivation affect agricultural value chains in Nigeria processing value chain	170	177	21	22	3.215
	CUMULATIVE MEAN					1.696

STANDARD/DECISION MEAN =2.500

The table above showed that there is very low and inadequate irrigation and mechanized farming equipment which negatively determine agricultural processed value chain products to job creation in Nigeria. Reason being that the cumulative mean agreement of 1.696 is below the 2.500 standard/decision mean, specifically, there are enough irrigation dams in Nigeria as this view attracted the least man of 1.295 as details showed that while a combined 55 respondents were in agreement the rest 335 respondents were in disagreement. In the same vein most disagreed with the view that most Nigeria

farmers are involved in mechanized farming as this had a mean of 1.2593 as combined 40 respondents agreed while 350 respondents were in disagreement. In summary, there is very low and inadequate irrigation and mechanized farming equipment which negatively determine agricultural processed value chain products to job creation in Nigeria, especially as there is gross inadequate irrigation dams in Nigeria and most farmers hardly involve in mechanized farming.

Question Two: Does inadequate finance determine agricultural processed value chain products to job creation in Nigeria?

Table 2: Responses on how inadequate finance determine agricultural processed value chain products to job creation in Nigeria

S/NO	ITEMS	Response categories				MEAN
		SA	A	D	SD	
1	Nigeria farmers have enough finance to engage in agricultural activities	17	17	117	239	1.218
2	Farmers can easily obtained loans from banks	16	18	181	175	1.215
3	Collateral securities required by financial institutions from farmers are encouraging	25	25	108	232	1.321
4	Farmers in Nigeria have enough collateral securities to offer to financial institutions before loans are issued.	17	25	156	192	1.259
5	Most Nigeria farmers collect loans for export of agricultural processed value chains through cooperative societies	26	17	133	214	1.287
6	Economic policies of government encourages agricultural activities in Nigeria	58	138	60	134	2.154
7	Exchange rate between the naira and other foreign currencies are high	145	41	53	151	2.326
8	Foreign exchange rate encourages export of agricultural processed Value chain activities in Nigeria	17	42	165	166	1.346
9	Interest rates from agricultural processed value chain in Nigeria is low and in single digit	25	25	157	183	1.321
10	Nigeria farmers are not adequately informed on agricultural financial policies of government and loan conditions	24	26	68	272	1.318
	CUMULATIVE MEAN					1.477

STANDARD/DECISION MEAN =2.500

The table above revealed that inadequate finance seriously undermine agricultural processed value chain products to job creation in Nigeria. For instance the total financing of farmers is generally very low. This is because the cumulative mean level of 1.477 is very low and lower than the 2.500 standard decision mean. Most of the respondents disagreed that Nigeria farmers have enough finance to engage in

agricultural activities as this had only a mean agreement of 1.218 as only 34 were in agreement while the rest 356 were in disagreement. In the same vein majority do not agree with the fact that farmers easily obtain loans from the banks as this had only a mean agreement of 1.215 as details showed that while only 34 agreed that farmers easily obtained bank loans the rest, 356 vehemently refuted this assertion

In summary, there is generally gross inadequate finance for the farmers which adversely affects agricultural processed value chain products; thus they cannot easily obtain bank loans and therefore do not have enough finance to engage in agricultural activities.

Question Three: Do inadequate infrastructure and storage facilities determine agricultural processed value chain products to job creation in Nigeria?

Table 3: Responses on how inadequate infrastructure and storage facilities determine agricultural processed value chain products to job creation in Nigeria

S/NO	ITEMS	Response categories				MEAN
		SA	A	D	SD	
1	Infrastructural facilities are enough for export of agricultural processed value chain activities in Nigeria	15	16	125	234	1.197
2	Agricultural storage facilities are enough for agricultural activities in Nigeria	30	46	258	56	1.467
3	Food crops are wasted during harvesting period as a result of lack of storage facilities	95	249	31	15	3.008
4	Prices of food crops are cheaper during harvesting periods	31	272	56	31	2.633
5	Road networks to our farmlands are motor able and well maintained	12	112	134	132	1.667
6	Government encourages the farmers by providing storage facilities, thus enabling them to preserve their products	30	15	123	222	1.308
7	Firms involved in export of agricultural processed value chains have enough raw materials all through the year	16	28	287	59	1.267
8	Farmers in Nigeria provides enough storage facilities through farmers cooperative societies	101	172	71	46	2.659
9	Firms involved in export of agricultural processed value chains are highly motivated by government.	16	196	108	70	2.128
10	Government help to stabilize farm products through buying the products during harvesting periods and storing them in their storages facilities	31	31	149	179	1.397
	CUMULATIVE MEAN					1.873

STANDARD/DECISION MEAN =2.500

Inadequate infrastructure and storage facilities to determine agricultural processed value chain products to job creation in Nigeria, is very low. This is because their cumulative mean agreement of 1.873 is below the 2.500 standard/decision mean. For instance they vehemently disagree with the notion that infrastructural facilities are enough for export of agricultural processed value chain activities in Nigeria as this view attracted only a mean agreement of 1.1997 as only a combined 31respondents agreed while the rest 359 respondents disagreed. In the same vein, they disagree with the notion that firms involved in export of agricultural processed value chains have enough raw materials all through the year as this view attracted only a mean agreement of 1.267 as only 44 respondents agreed while 367 disagreed.

In summary, inadequate infrastructure and storage facilities to determine agricultural processed value chain products to job creation in Nigeria, is very low especially as infrastructural facilities are not enough for agricultural processed value chain activities in Nigeria, while firms involved in agricultural processed value chain produvts do not have enough raw materials all through the year

HYPOTHESIS TESTING

Hypothesis One: Irrigation and mechanized farming equipments significantly determine agricultural value chain products to job creation in Nigeria.

Table 4: Regression analysis on Irrigation and mechanized farming equipment as a determinant of agricultural processed value chain products to job creation in Nigeria

ANOVA[a]

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	764.803	1	764.803	11.293	.001[b]
	Residual	26276.594	388	67.723		
	Total	27041.397	389			

a. Dependent Variable: EXPORT_OF_AGRIC_VALUE_CHAINS

b. Predictors: (Constant), Irrigation_mechanised_farming_equipments

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.768[a]	.928	.826	8.22941	.028	11.293	1	388	.001

a. Predictors: (Constant), Irrigation_mechanised_farming_equipments

Results of the Regression analysis above showed that: Irrigation and mechanized farming equipments significantly determine agricultural processed value chain products to job creation in Nigeria. Reason being that the computed p value of 0.001 is lower than the 0.05 alpha level of significance and the computed F value of 11.293 is higher than the 3.00 F critical value. The Model summary statistics table showed that Irrigation and mechanized farming equipment is a strong determinant of export of agricultural value chain products marketing in Nigeria because the computed R, R square and Adjusted R square values of 0.768, 0.928 and 0.826 is each stronger than the standard R value of 0.400. Therefore the alternate hypothesis which state that Irrigation and mechanized farming equipment significantly determine agricultural processed value chain products to job creation in Nigeria, is hereby accepted and retained

Hypothesis Two: Inadequate finance significantly determines agricultural processed value chain products to job creation in Nigeria.

Table 5: Inadequate finance as a determinant (predictor) of agricultural processed value chain products to job creation in Nigeria

ANOVA[a]

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	16620.132	1	16620.132	618.794	.002
	Residual	10421.265	388	26.859		
	Total	27041.397	389			

a. Dependent Variable: EXPORT_OF_AGRIC_VALUE_CHAINS

b. Predictors: (Constant), Inadequate_finance2

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.784[a]	.615	.614	5.18256	.615	618.794	1	388	.000

a. Predictors: (Constant), Inadequate_finance2

Results of the Regression analysis above showed that: Inadequate finance significantly determine agricultural processed value chain products to job creation in Nigeria. Reason being that the computed p value of 0.002 is lower than the 0.05 alpha level of significance and the computed F value of 618.794 is higher than the 3.00 F critical value. The Model summary statistics table showed that inadequate finance is a strong determinant of export of agricultural value chain products marketing in Nigeria because the computed R, R square and Adjusted R square values of 0.784, 0.615 and 0.614 is each stronger than the standard R value of 0.400. Therefore the alternate hypothesis which state that inadequate finance significantly determine agricultural processed value chain products to job cration in Nigeria, is hereby accepted and retained

Hypothesis three: Inadequate infrastructure and storage facilities significantly determine agricultural processed value chain to job creation in Nigeria

Table 6: Regression analysis on Inadequate infrastructure and storage facilities as a determinant of agricultural processed value chain to job creation in Nigeria

ANOVA[a]

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	2925.039	1	2925.039	47.060	.011[b]
	Residual	24116.358	388	62.156		
	Total	27041.397	389			

a. Dependent Variable: EXPORT_OF_AGRIC_VALUE_CHAINS

b. Predictors: (Constant), Inadequate_infrastructure_and_storage_facilities3

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.629[a]	.608	.606	7.88388	.108	47.060	1	388	.000

a. Predictors: (Constant), Inadequate_infrastructure_and_storage_facilities3

Results of the Regression analysis above showed that: Inadequate infrastructure and storage facilities significantly determine agricultural processed value chain products to job creation in Nigeria.

Reason being that the computed p value of 0.011 is lower than the 0.05 alpha level of significance and the computed F value of 47.060 is higher than the 3.00 F critical value. The Model summary statistics table showed that inadequate infrastructure and storage facilities is a strong determinant of agricultural processed value chain products to job creation in Nigeria because the computed R, R square and Adjusted R square values of 0.629, 0.608 and 0.606 is each stronger than the standard R value of 0.400. Therefore the alternate hypothesis which state that inadequate infrastructure and storage facilities significantly determine agricultural processed value chain products to job creation in Nigeria, is hereby accepted and retained

SUMMARY OF THE MAJOR FINDINGS

The followings are the summary of the major findings of the study:

1. there is very low and inadequate irrigation and mechanized farming equipment which negatively determine agricultural processed value chain products to job creation in Nigeria, especially as there is gross inadequate irrigation dams in Nigeria and most farmers hardly involve in mechanized farming
2. there is generally gross inadequate finance to the farmers which adversely affects agricultural processed products; for instance farmers cannot easily obtain bank loans and therefore do not have enough finance to engage in agricultural value chain processing.
3. inadequate infrastructure and storage facilities to determine agricultural value chain products to job creation in Nigeria, is very low especially as infrastructural facilities are not enough for agricultural processed value chain activities in Nigeria; thus firms involved in agricultural processed value chains do not have enough raw materials all through the year, proper local and international marketing channels determine agricultural processed value chain to job creation in Nigeria.

CONCLUSIONS

The following basic conclusions could easily be deduced, thus

1. Irrigation and mechanized farming equipment is a strong determinant of agricultural processed value chain products to job creation in Nigeria
2. Inadequate finance is a strong determinant of agricultural processed value chain products to job creation in Nigeria
3. Inadequate infrastructure and storage facilities is a strong determinant of agricultural processed value chain products to job creation in Nigeria

RECOMMENDATIONS

The under listed recommendations are put forward as a result of the findings of the study:

1. The irrigation farming should be improved by constructing more dams so that farmers will be involve in mechanized farming which will improve agricultural processed value chain products to job creation in Nigeria.
2. Farmers finance should be improved by ease to obtaining loans from the banks and other financial institutions with little or no collaterals and interest as inadequate finance determine agricultural value chain products to enhance employment in Nigeria.
3. The government should provide adequate infrastructure and storage facilities for farmers which they earnestly need to be able to enhance export of agricultural processed value chain products to facilitate job creation in Nigeria.

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