# A Situational Analysis Study of Yam Distribution Strategies of Farmers In Boki Local Government Area Of Cross River State, Nigeria In 2015

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### ABSTRACT

This study undertook a critical situation analysis of the effect of distribution strategy on the production capacity of yam farmers in Boki Local Government Area of Cross River State, Nigeria. This was motivated by the fact that distribution makes a great impact in bridging the gap between the producers and final consumers by moving the products from the point of production to the final consumers, thereby boosting the economic fortunes of the farmers and enhancing their morale to do more next farming season. The specific objectives of the study were: to examine the relationship between storage and transportation in the distribution strategies used by farmers in Boki Local Government Area of Cross River State and their yam production performance. The population of the study was 35,000 yam farmers, dealers and retailers, while the sample size was 166. Chi-square test statistics was used to test the hypothesis. Among the findings, it was revealed that storage and transportation methods have no significant effect in the distribution of yam in Boki Local Government Area and the yam production performance of the farmers. This notwithstanding, it was recommended that for effective distribution of yams to distant markets in the country's major cities, government should build good roads, subsidize prices of yam inputs and provide enabling environment for the yam farmers such as security and essential services, to boost national food security.

Keywords: Farmers, yam distribution, storage, transportation, situation analysis, Nigeria.

### 1. Introduction

The major purpose of every production activity is the satisfaction of the consumers. But where products and services are not being made available to the final consumers through a well-structured distribution channel, production will result to a waste of both human efforts and material resources (Yeboah et al, 2013). Distribution is defined as the process of moving goods and services from the point of production to the final consumers through an organized distribution channel (Kotler, 2010). It is also seen in terms of methods involved in the movement of goods and services from the point of production to the final consumer in order to achieve organization marketing objective (Goering, 2010). According to Szopa and Pekała (2012), effective management of distribution channels is one of factors that ensure the success of products sold in the market. However, the producer and marketer should not forget about the appropriate upgrading of the product over time to meet the expectations of customers (Szopa and Pekała, 2012). Yeboah et al (2013), added that distribution plays a key role within the marketing mix, and the key to success is its successful integration within the mix, ensuring that customers get their products at the right place and at the right time. If the product cannot reach its chosen destination at the appropriate time, then it can erode competitive advantage and customer retention. In his own view, Okafor (1986) defines distribution strategy as a set of objective, policies and rules that guide over time the marketer's efforts in response to changing environmental and competitive conditions. In fact, it is his grand design for achieving set marketing objectives. To what extent do Boki people of Nigeria who are great farmers adhere to these standards in the marketing of their farm produce, especially yam? This study tried to find out.

Meanwhile, the Boki people are found in Cross River State of Nigeria. They boast of a population of about 500,000 people, and are mainly agrarians. They share a contiguous territory border with the republic of Cameroon. The people are highly reputed for the production of cocoa, coffee, timber, palm produce and yam for local consumption and inter-tribal trades (Udensi et al, 2012). There exist some difference between marketing of other agricultural commodities and marketing of yam. Firstly it is like other agricultural commodities in unprocessed and in most cases also sells to an undifferentiated market. Hence, the market oriented yam producer uses product-differentiation to segment his yam market into its basic categories such as water yam, three leaf yam and white yam . However, farmers can harvest yams during months when market prices of yam tubers are high, which would improve their incomes (Fu et al, 2011).

For the far distant markets in Nigeria, yams are distributed through merchant whole sellers and retailers and franchised operators (Nakasone et al, 2006). There is also direct sales by the yam producers which are often selectively distributed (Shiwachi, 2005).

### 2. Statement of the Problems

Yam distribution in Boki Local Government Area of Nigeria is hampered by various problems which make the farmers often derive minimal returns from their production. Some of the problems faced by the farmers include transportation difficulties, inadequate storage facilities, low prices of yams, lack of credit facilities and low turnover or profitability rate. All these are often compounded by the problem of lack of access to distant larger markets in the big cities.

Contributing to the poor market access is also the fact that majority of the farmers are women with multiple competing domestic roles, low educational levels and lack of market information. Today, the problem of ethnicity and the Boko Haram crisis also constitute barriers to market access to some Northern parts of Nigeria (Ugwuanyi & Odigbo, 2012; Eme & Ibietan, 2012; Amuchie, 2012). However, concerned agricultural experts argue that this problem of market access is sometimes linked to the farmers' inability to meet market standard, low volumes of produce, wide dispersion of producers, presence of middlemen and perceived low prices in the formal market (Freeman and Silim, 2001; IFAD, 2003; Jayne et al., 2002; Killick et al., 2010).

Added to all these, the problem of poor storage facilities by farmers often make yams to rot and lose its market values, and this again affects its availability, distribution and revenue to farmers and traders (Nahanga & Becvarova, 2014). These factors motivated the interest for this research to determine the effect of distribution on the performance of Boki yam farmers in Nigeria.

### 3. Objectives of the Study

The broad objective of the research was to examine the effectiveness of the distribution strategies used by yam farmers in Boki Local Government Area of Cross River State in Nigeria. The specific objectives include: i. To investigate the effect of yam storage facilities on performance of farmers in Boki Local Government Area.

ii. To examine the impact of transportation facilities available for yam distribution on performance of farmers in Boki Local Government area.

### 4. Research Hypotheses

The following null hypotheses were tested in the study:

- i. H<sub>o</sub>: There is no significant effect between storage facilities and the performance of farmers in Boki Local Government area.
- ii.  $H_{o}$ : There is no significant relationship between transportation facilities available for yam distribution and performance of farmers in Boki Local Government area.

### 5. Scope of the Study

This study focused on the distribution strategies of yam producers in Boki Local Government Area of Cross River State. The populations surveyed are the yam producers, and the distribution agents such as wholesalers and retailers in Boki Local Government Area.

### 6. Review of Related Literature

### 6.1 Distribution and Business Performance: A Review

Ebitu (2006) defined distribution as all those activities involved in moving goods and services and/or delivering transferred title in goods from the producer (or seller) to the buyer or final consumer. Distribution closes the gap that exists between the producer and the consumer. It also ensures that the utility of time, form, possession and place are created and maintained. It is the duty of the producer to co-ordinate all the activities and institutions involved in transferring ownership or moving goods from the point of supply to the consumers.

Kuswantoro et al. (2012), assert that a distribution channel is supposed to be designed to carry out five fundamental functions, namely assortment, transfer/transportation, storage, handling and communication (Bowersox *et al.*, 1986). Zebra Technology (2013) observed that distribution is quite important to the success of every business. It is among the major chain of events which manufacturers depend on to make their operations work effectively. In addition, mail order fulfillment and distribution companies unable to provide information with their products increasingly find themselves at a disadvantage versus their competitors (Zebra Technology,

2013). To achieve this, however, Kuswantoro et al. (2012) advised that innovation in distribution is very crucial. Distribution innovation is one vital weapon that would enhance firms' performance any time any day (Rosli *et al.*, 2012; Mukhamad & Kiminami, 2011; Pla-Barber & Alegre, 2007). However, the impact of such innovation on firm performance would be less if it does not improve the effectiveness of distribution channel functions (Kuswantoro et al., 2012).

The innovation requisite for effective distribution include: product assortment innovation (Gunday *et al.*, 2011), order handling innovation (Linda *et al.*, 2009), information sharing innovation (Campo *et al.*, 2010), product and distribution scheduling innovation (Chen & Hsueh, 2009), inventory innovation (Chikan, 1990), transportation and coordination innovation (Gunnar, 2009), warehousing and material handling innovation (Heragu & Xiou, 2008), packaging innovation (Morgado, 2008) and acquisition innovation (Graebner *et al.*, 2010). All these would have significant impact on distribution channel effectiveness, which in turn positively enhance firms' performance (Kuswantoro et al., 2012). Unfortunately, the yam farmers of Boki who are mainly small-holder businesses seem far from the above conditions.

### 6.2 Importance of Marketing in Agricultural Production/ Distribution

According to Olukunle (2013), marketing involves getting the agricultural products from the farmers to the consumers. It helps to enlarge production by stimulating consumption, expanding the agro-industry and facilitating industrial growth. For the marketing to play an essential role in increasing agricultural production, Olukunle (2013) noted that the following five basic elements are necessary:

- i. Transportation for moving the products from where they are produced to where they are consumed.
- ii. An efficient network of road is imperative. The majority of Nigerian rural roads are in very deplorable conditions.
- iii. Safe and efficient storage system to ensure continuous supply of agricultural commodities in the market. This is very inadequate and ineffective.
- iv. Financing for the marketing to ensure prompt payment to the farmers as they deliver goods for sale.
- v. Processing system that stimulates production by furnishing a continuous outlet for the farmers to produce over a long period of time.
- vi. The marketing system also requires a functioning and dynamic information system in which both the buyers and sellers are linked together.

### 6.3 Distribution Challenges for Agricultural Produce in Nigeria

Agricultural producers and marketers in Nigeria face a lot of problems. The major ones among them include: *6.3.1 Storage and Processing Problems* 

The lack of adequate storage and processing facilities accounts for divergence between national food security and household food security. Storage and processing are critical in ensuring that the commodities produced at a particular period are available for consumption whenever and wherever they are required. A significant quantity of products harvested in Nigeria perish due to lack of storage and processing facilities (Olukunle, 2013). Most of the farmers still depend on crude traditional storage methods and facilities with their obvious deficiencies.

### 6.3.2 Infrastructural Inadequacies

Agricultural performance in Nigeria is greatly impaired by the low level of development of infrastructure. This is more prevalent in the rural areas where majority of the smallholders operate. Inadequate infrastructure constitutes a major constraint to agricultural investment, production and trade (Olukunle, 2013).

### 6.3.3 Poor Access to Market Information

Access to market information and markets is highly unavailable to local farmers, thereby making middlemen to take undue advantage over them. This also limits their chances of taking opportunities in distant markets and other areas of shortages.

### 6.4 Boki People of Nigeria

Boki local government area is in Cross River State of Nigeria. It is one of the eighteen local government areas of Cross River State and the second largest in terms of landmass (344,952km2). It is located between latitudes 50821 and 60401N and longitudes 80501 and 900001E. The local government area is bounded to the North by Obudu and Obanliku local government areas, to the South by Ikom, to the West by Ogoja and to the East by Cameroun Republic. Boki has a projected population of 238,293 as at 2015. The population is unevenly distributed across the ten political wards such as Ekapask 1, Agba 2, Boje, Abo, Truan, Alankv, Abu-Borum, Njua, Kakwagom/Buyop, Wula and Bateriko (Takon et al., 2013).

The local government is surrounded by mountains and hills, the most notable are: the Boje and Nsadop hills, Erruan Mountains and Mbe Mountains. It also has many streams and rivers such as Afi, Okorn and Aren rivers. Minor streams exist across the entire area that constitutes the tributaries of the main rivers. Boki also has a tropical climate typified with distinct wet and dry seasons. It has a mean annual temperature of 25°C and annual rainfall of between 2000m to 3500mm (Ajake, 2008). The volume of rainfall is doubled in July and September. The above climatic conditions and rich soils are favourably disposed to farming in Boki local government area of Nigeria.

### 6.5 What is Yam

The Nigeria's International Institute of Tropical Agriculture (IITA, 2009) observed that yams (dioscorea species) are annual root tuber-bearing crops with more than 600 species out of which six are socially and economically important in terms of food, cash and medicine. Some of the species include: water yam (dioscorea alata), white yam (dioscorea rotundata) and yellow yam (dioscorea cayanensis) (FAO, 1998; Zaknayiba and Tanko, 2013). It is a staple food crop of most Africans, grown mainly in tropical regions, especially the savannah region of West Africa, where rainfalls are divided into wet and dry seasons (FAO, 1998).

In Nigeria, yams are the fifth most harvested crops following after cassava, maize, guinea corn, and beans/cowpeas. This shows that after cassava, yams are the most commonly harvested tuber crops in Nigeria according to the National Bureau of Statistics (NBS, 2012). It is one of the major cash crops and most consumed food crops in Nigeria (NBS, 2012), thus, plays significant roles in the social, cultural and economic wellbeing of thousands of people in Nigeria. Hence, the prevalence of new yam festivals and yam cultivation or harvesting festivals in most Nigerian communities, like the Ikeji yam festival by the people of Arondizuogu in Imo State, the Ahajioku yam festival of Owerri people still in Imo State and the annual Boki people's yam festival in Cross River State of Nigeria. The Boki people's yam new festival in Cross River State is done in August 18 of every year.

### 6.6 Yam Cultivation in Nigeria: Empirical Review

Nigeria is reported to be the world's largest producer of yams, accounting for over 65% (about 38 million metric tons) of the world total production output, value at about \$7.75 billion. The country cultivated about 2.9 million hectares of land in 2012. Depending on the variety of yams, its yield potential ranges from 20 - 50 tons per hectare (FAO, 1998). According to Verter & Becvarova (2014), despite the importance of yam as a pillar of food security, income and employment generation, its production has not been given the utmost attention in Nigeria. Yam production is regarded as a source food security and employer of labour in many areas where it is cultivated. However, partly due to the lack of farm inputs, finance, and high rate of poverty, limited added value and the loss of soil fertility in the areas, total annual yam output has not been increasing as expected. Factors that determine annual volume of yam output in Nigeria are many and have been captured in the research work of other scholars. For instance, a study by Etim, Thompson and Onyenweaku (2013) points to the fact suggest that farmers' education, family labour, extension contact and experience of farmers have a positive effect on the farm inputs, high cost of inputs, poor producer prices, high incidences of pests, diseases and inadequate storage facilities do negatively affect yam production too. In their own study, Ennin et al. (2009) found a strong relationship between land improvement techniques in Nigeria and net returns in yams output by the farmers.

Again, Maikasuwa and Ala (2013) in their study observed that factors of production such as labour, finance and material inputs like fertilizer have significant influence on yam production output. While in their study, Shehu et al. (2010), found that factors such as land, seed yam, family labour, education, and fertilizer significantly influenced yam production in their own area of study in Nigeria.

### 7. Methodology

The study adopted survey design, with a multi-stage sampling method of structured questionnaire and interview as instruments for data collection. The area of study was Boki Local Government Area of Cross River State, Nigeria. Likert 4-points scale was employed in data generation and presentation. The population of the study includes all yam producers, dealers and retailers in Boki with special consideration on four communities with the highest yam producing ratio: Okundi, Orimekpang, Ekpashi, and Alike, with a population of 35,000. The sample size was 166. The chi-square statistical too was employed for the data analysis.

### 8. Data Presentation and Analysis

# 8.1 Data Presentation

## Table 1: Distribution of Respondents by Category

	Frequency	Percent	Valid Percent	Cumulative
				Percent
Producers	59	40.7	40.7	40.7
Retailers	47	32.4	32.4	73.1
Wholesalers	39	26.9	26.9	100.0
Total	145	100.0	100.0	

### Source: Fieldwork, 2015

Table 1 above shows that out of the 145 respondents surveyed, 59representing 40.7 percent are producers of yam; 47 representing 32.4 percent are retailers; and 39 representing 26.9 percent are wholesalers.

Table	2:	Distribution	of	Respondents	by	their	Responses	to	Preferred
Storag	e N	lethod							

	Frequency	Percent	Valid Percent	Cumulative			
				Percent			
House	69	47.6	47.6	47.6			
Barn	76	52.4	52.4	100.0			
Total	145	100.0	100.0				

### Source: Fieldwork, 2015

From Table 2 above, out of 145 respondents, 69 representing 47.6 percent claimed to store their yams in houses; and 76 representing 52.4 percentstore their yams in barns.

# Table 3:Distribution of Respondents by their Responses to Preferred Transportation Medium

	Frequency	Percent	Valid Percent	Cumulative Percent
Head Carriage	49	33.8	33.8	33.8
Bus	44	30.3	30.3	64.1
Motor Cycle	52	35.9	35.9	100.0
Total	145	100.0	100.0	

Source: Fieldwork, 2015

Data on table 3 indicate that out of 145 respondents, 49 representing 33.8 percent claimed to distribute their products through head carriage; 44 representing 30.3 percent distribute their products through buses; while 52 representing 35.9 percent distribute their products through motor cycle.

Table 4: Distribution of Respondents by their Responses to whether Yam	Distribution
is Dependent on Storage Method of Farmers	

	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly agree	68	46.9	46.9	46.9
Agree	53	36.6	36.6	83.4
Disagree	10	6.9	6.9	90.3
Strongly Disagree	14	9.7	9.7	100.0
Total	145	100.0	100.0	

Data on table 4 indicate that out of 145 respondents, 68 representing 46.9 percent strongly agreed that yam distribution is dependent on storage method of farmers in Boki L.G.A.; 53 representing 36.6 percent agreed; 10 representing 6.9 percent disagreed; and 14 representing 9.7 percent strongly disagreed.

# Table 5: Distribution of Respondents by their Responses to whether Yam Distribution is Dependent on Transportation Medium used by Farmers

	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly agree	69	47.6	47.6	47.6
Agree	57	39.3	39.3	86.9
Disagree	18	12.4	12.4	99.3
Strongly Disagree	1	.7	.7	100.0
Total	145	100.0	100.0	

Source: Fieldwork, 2015

Data displayed on table 5 show that out of 145 respondents, 69 representing 47.6 percent strongly agreed that yam distribution is dependent on transportation medium used by farmers in Boki L.G.A.; 57 representing 39.3 percent agreed; 18 representing 12.4 percent disagreed; and 1 representing 0.7 percent strongly disagreed.

# Table 6: Distribution of Respondents by their Responses to whether it is Effective for Farmers to Sell Directly to Consumers

	Frequency	Percent	Valid Percent	Cumulative
				Percent
Strongly agree	31	21.4	21.4	21.4
Agree	69	47.6	47.6	69.0
Disagree	30	20.7	20.7	89.7
Strongly Disagree	15	10.3	10.3	100.0
Total	145	100.0	100.0	

## Source: Fieldwork, 2015

Data displayed on table 6 show that out of 145 respondents, 31 representing 21.4 percent strongly agreed that it is effective for farmers to sell directly to consumers in Boki L.G.A.; 69 representing 47.6 percent agreed; 30 representing 20.7 percent disagreed; and 15 representing 10.3 percent strongly disagreed.

Table 7: Distribution of Respondents by their Responses to whether it is Effective for	or
Farmers to Sell their Yams through Retailers	

	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly agree	33	22.8	22.8	22.8
Agree	70	48.3	48.3	71.0
Disagree	31	21.4	21.4	92.4
Strongly Disagree	11	7.6	7.6	100.0
Total	145	100.0	100.0	

Source: Fieldwork, 2015

Data displayed on table 7 show that out of 145 respondents, 33 representing 22.8 percent strongly agreed that it is effective for farmers to sell their yams through retailers in Boki L.G.A.; 69 representing 48.3 percent agreed; 31 representing 21.4 percent disagreed; and 11 representing 7.6 percent strongly disagreed.

# Table 8: Distribution of Respondents by their Responses to whether it is Effective for Farmers to Sell their Product through Wholesaling

	Frequency	Percent	Valid Percent	Cumulative
				Percent
Strongly agree	41	28.3	28.3	28.3
Agree	63	43.4	43.4	71.7
Disagree	25	17.2	17.2	89.0
Strongly Disagree	16	11.0	11.0	100.0
Total	145	100.0	100.0	

Source: Fieldwork, 2015

From Table 8 above, out of 145 respondents, 41 representing 28.3 percent strongly agreed that it is effective for farmers to sell their yams through wholesalers in Boki L.G.A.; 63 representing 43.4 percent agreed; 25 representing 17.2 percent disagreed; and 16 representing 11 percent strongly disagreed.

# Table 9: Distribution of Respondents by their Responses to whether Intensive Distribution Strategy is Often used by Farmers

		Frequency	Percent	Valid Percent	Cumulative Percent
	Strongly agree	25	17.2	17.2	17.2
Valid	Agree	39	26.9	26.9	44.1
	Disagree	48	33.1	33.1	77.2
	Strongly Disagree	33	22.8	22.8	100.0
	Total	145	100.0	100.0	

Source: Fieldwork, 2015

Data displayed on table 9 gives the information that out of 145 respondents, 25 representing 17.2 percent strongly agreed that intensive distribution is often used by farmers in Boki L.G.A.; 39 representing 26.9 percent agreed; 48 representing 33.1 percent disagreed; and 33 representing 22.8 percent strongly disagreed.

 Table 10: Distribution of Respondents by their Responses to whether Selective

 Distribution Strategy is Often used by Farmers

	Frequency	Percent	Valid Percent	Cumulative
				Percent
Strongly agree	33	22.8	22.8	22.8
Agree	57	39.3	39.3	62.1
Disagree	34	23.4	23.4	85.5
Strongly Disagree	21	14.5	14.5	100.0
Total	145	100.0	100.0	

Source: Fieldwork, 2015

Data on table 10 show that out of 145 respondents that responded to the item, 33 representing 22.8 percent strongly agreed that selective distribution is often used by farmers in Boki L.G.A.; 57 representing 39.3 percent agreed; 34 representing 23.4 percent disagreed; and 21 representing 14.5 percent strongly disagreed.

### Table 11: Distribution of Respondents by their Responses to whether Exclusive Distribution Strategy is Often used by Farmers

	Frequency	Percent	Valid Percent	Cumulative		
				Percent		
Strongly agree	47	32.4	32.4	32.4		
Agree	25	17.2	17.2	49.7		
Disagree	34	23.4	23.4	73.1		
Strongly Disagree	39	26.9	26.9	100.0		
Total	145	100.0	100.0			

Source: Fieldwork, 2015

Data on table 10 show that out of 145 respondents that responded to the item, 47 representing 32.4 percent strongly agreed that exclusive distribution is often used by farmers in Boki L.G.A.; 25 representing 17.2 percent agreed; 34 representing 23.4 percent disagreed; and 39 representing 26.9 percent strongly disagreed.

# 8.2 Tests of Hypotheses

Yam distribution is not dependent on storage method employed by farmers in Boki L.G.A.  $H_{01}$ : Table 12: Chi-square Analysis showing the dependence of yam distribution on storage mode

# Yam Distribution: Storage \* Storage mode Cross tabulation

	Storage mode		Total
	House	Barn	
Strongly agree	31	37	68
Agree	23	30	53
Disagree	8	2	10
Strongly Disagree	7	7	14
Total	69	76	145

### **Chi-Square Tests**

	Value	Df	Asymp. Sig. (2-sided)
Pearson Chi-Square	4.727 <sup>a</sup>	3	.193
Likelihood Ratio	4.974	3	.174
N of Valid Cases	145	•	

a. 1 cells (12.5%) have expected count less than 5. The minimum expected count is 4.76.

### Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Contingency Coefficient	.178	.193
N of Vali	d Cases	145	

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.

As shown in table 12 above, yam distribution is not dependent on storage mode employed by farmers in Boki L.G.A. ( $X^2$ =0.178, p > 0.05). Hence we accept the null hypotheses and reject the alternative.

H<sub>02</sub>: Yam distribution is not dependent on transportation medium used by farmers in Boki L.G.A.

# Table 13: Chi-square Analysis showing the dependence of yam distribution on transportation mode Yam Distribution: Transportation \* Transportation Mode Cross tabulation

Count

	Transportation Mode			Total
	Head Carriage	Bus	Motor Cycle	
Strongly agree	24	15	30	69
Agree	20	22	15	57
Disagree	5	6	7	18
Strongly Disagree	0	1	0	1
total	49	44	52	145

#### Chi-Square Tests

	Value	Df	Asymp. Sig. (2- sided)
Pearson Chi-Square	8.163 <sup>a</sup>	6	.226
Likelihood Ratio	8.423	6	.209
N of Valid Cases	145		

a. 3 cells (25.0%) have expected count less than 5. The minimum expected count is .30.

b.

#### Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Contingency Coefficient	.231	.226
N of Valid Cases		145	

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.

As shown in table 13, yam distribution is not dependent on medium of transportation employed by farmers in Boki L.G.A. ( $X^2$ =0.231, p > 0.05). Hence we accept the null hypotheses and reject the alternative.

### 9. Discussion of Findings

As shown in table 12, the result of hypothesis 1 reveals that yam distributors do not depend on storage mode employed by farmers in Boki L.G.A. This finding shows that yam farmers in Boki do not lay emphasis on storage. Notwithstanding that a study by Kuswantoro et al. (2012) confirmed that the distribution channel effectiveness mediated the relationship between distribution channel innovation and SMEs performance including small-holder yam farmers. It was found that innovation in certain distribution channel functions, mainly storage, assortment and transportation coordination enhanced the effectiveness of distribution channel, which ultimately improved the performance of farmers and agricultural marketers. The people believed that as long as there are distribution channels that can move the various yam variants from their locality to the consumers, the modes and means of storage is of limited importance.

Hypothesis two result also reveals that yam distribution does not depend on transportation medium employed by farmers in Boki L.G.A. This is because their transportation mode in itself is not reliable. Hence, the agric-marketers and middlemen must find their own transportation means to convey the yams to distant markets in the big cities. Pricing is, however, the key motivator in this business for gaining competitive advantage. This implies that yam farmers and distributors in Boki L.G.A are much more affected by price determination than any other drive. Hence, whatever transportation mode is used, as long as the prices of the different yam variants are favourable to the agricultural marketers, the means or mode of transportation will be of little relevance.

### 10. Conclusion

This study reveals the importance of yam cultivation to the economy and development of local communities in Africa, like the Boki people of Cross River State-Nigeria. The result of the finding suggested that, even if the local people are aware of it or not, due to their low literacy levels, the government should ensure adequate good road (transportation) network, by constructing rural-urban roads, subsidizing inputs for farming such as yam seedlings, encouraging farmers by granting them loans and conducive environment of trading, mindful of

the fact that agriculture is the back-bone of every developing nation's economy, and yam is one of the major staple food of the food, next to cassava.

#### 11. Recommendations

Based on the findings drawn above the researcher thus recommenced the following:

- 1. Since distribution is not dependent on storage mode, the producers should ensure that they have good distribution channels that will be able to convey their products from the point of production to their consumption point as an when needed.
- 2. Sine distribution is not also dependent on transportation medium, the government should ensure that adequate road are constructed to ensure that whatever medium of transportation employed by the producers, will ease the free movement of produce from the production point to the final consumers.
- 3. The producers should ensure that they have a large market share that will be able to buy the products not minding the means of transportation and storage mode used by the farmers.
- 4. The producer should also subsidize the prices of their yams for them to be able to have a market share that will patronize them thereby making the means and mode of transportation and storage limited importance.
- 5. Government at all stages should provide enabling environment for yam farmers in Boki L.G.A such as security, and essential services.
- 6. Price determination of yam should be done by market forces.
- 7. For easy distribution, prices of yam should be of mutual benefit both to the producers and the buyers.

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