DETERMINANT OF SAVINGS AMONG YAM FARMERS IN PAIKORO LOCAL GOVERNMENT OF NIGER STATE, NIGERIA

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ABSTRACT

The regression, determinant of savings among Yam farmers in Paikoro local government, Niger State was investigated using regression. Data was collected from randomly selected 120 yam farmers using structured questionnaire through interview schedule. Simple descriptive statistics, and multiple regression. Data was collected on socio- economic characteristics, inputs, output as well as their prices. The result revealed that Savings from last cropping season, size of farmland for farming and savings from off-farm activities, household size and household expenses were found to be statistically significant in determining the positive relationship between Net returns (Y) and factors of production. The study recommends that Government and banks should create channels through which farmers especially can be educated on saving modalities, the rural financial intermediaries should encourage farmers to save by raising the interest paid on saving.

Key words: Cropping season, Determinants, Regression, Saving.

INTRODUCTION

Economic growth is associated with an increase in capital per head. The importance of capital becomes more important as traditional agriculture becomes modernized. The means and the degree by which agriculture provides its own capital becomes an increasingly important consideration in determining the net contribution of capital from the farm to the non-farm sector. Given the scarcity of economic resources and insatiability of human wants, there can never be a better future or development of any kind without capital accumulation in the present. Savings therefore becomes a necessary factor for development and investment at rural and national levels.

Yam is one of the major staple food crops grown in Nigeria. The crop is of great nutritional and economic importance to both the rural and urban dwellers and also acknowledged to provide some 200 calories of energy per capita daily in Nigerian and West African diet (Reuben and Barau, 2012). Yam is also a source of industrial starch and a preferred staple food appreciated for its taste and cultural role (Reuben and Barau, 2012; Amujoyegbe and Bamire, 2005).

The economic importance of yam as a food crop to the people of West Africa and in Nigeria in particular cannot be over emphasized. IITA (1998) reported that yam is a preferred food and a food security crop in most Sub- Sahara African countries, and Babaleye (2003) opinioned that it is an important source of income and also a sociocultural crop in Nigeria. In order to break the vicious cycle of poverty there is need to advance savings facilities to farmers mainly, because money or capitals is requires for improvement on land purchase, wage and labour this will go a long way to alleviate and enhance yam farmers output thereby improving their standard of living. Lack of saving facilities to farmer in Nigeria has kept the farmer not to adopt the new improved farming practices and improved yam varieties.

Available statistics however indicate low saving mobilization base in this part of the world. For instance, in Nigeria between the periods of 1980-2001, saving particularly from Agricultural sector amounted to average of 21.6 percent (based on World Bank data base). According to United Nations Organization of 2000, capital accumulation is a major prerequisite of economic development and if the volume of savings was inadequate to meet investment requirements, major bottlenecks were likely to develop in the process of capital formation and the drive for development. Ayanwale and Bamire (2000) opined that the saving behaviour of farmers in developing countries are less dependent on the absolute

level of aggregate income and more dependent on the relationship between current and expected income, the nature of business, household size, wealth and demographic variables like age.

Two conflicting views have been aired: the traditional or old view and the new view. The traditional view posited that yam farming households cannot save because they have low productivity as they are confined to the traditional methods of farming. In furtherance, Adams and vonPischke (2008) also argued that rural yam farmers are too poor to save and even if they get some additional income through some windfall, they spend if on consumption or on ceremonies. In contrary to the traditional postulations, the new view argued that rural households have the capacity and the desire to save and would respond appropriately to saving opportunities and incentives.

In developing countries like Nigeria and Niger State in particular, there seems to be majority of cases of low investment and production due to low rate of domestic saving, which hitherto, can lead to low rate of savings. Therefore, there is a need for saving mobilization by rural farmers so as to enable them cope with the dangerous explosive situation of starving and population growth. At the household level production, consumption savings and investment decisions are still influence and determined based in cultural and traditional factors, and norms which in many cases are quite retrogressive to development. The knowledge will encourage investment by farmers that take loan or borrow as savings can be used to finance farming. This study examined the determinant of savings among Yam farmers in Paikoro Local Government, Niger State.

METHODOLOGY

The study will be carried out in Paikoro Local Government Area of Niger State, Nigeria. Paiko is the headquarters of Paikoro Local Government Area of Niger State. The study area is within latitude 3.20° East and longitude 11.30° North with a population of 187490 as estimated in 2011. It is made up of two districts namely Kafinkoro and Paiko. The dominant ethnic groups are Gwaris, Hausa, Yoruba and Igbo. There are two distinct climate season, rainy (April to October) and dry November to March). Common arable crops grown include, yam, millet, rice, maize, melon, and cowpea. Livestock raised include birds and fish. Paikoro Local Government Area falls within the Southern Guinea Savannah region, with an average annual rainfall ranging between 1,100 mm- 1,300 mm and the mean temperature of the area is 37°C during the dry season. The Area is endowed with large water bodies such as River Niger, River, Gurara, River Chanchaga and numerous streams and extensive flood plains.

Sampling Procedure and Sample Size

Multi-stage sampling techniques was used in the selection of the respondents. First, the two districts was purposively selected based on the predominance of yam farmers. The districts are Paiko and Kafin Koro. Secondly, twenty (20) villages were randomly be selected from each of the two districts making it a total forty villages. The total number of yam farmers selected in each district was depend on the number of registered yam farmers in the study area. From each sample area, sixty (60) questionnaire was administered making a total of one hundred and twenty (120) questionnaires administered in the study area. Data were collected using well-structured questionnaire and oral interview on socio- economic characteristics: gender, marital status, household size, production goal, years of farming experience, number of tubers planted, annual income, other occupation, amount paid on tax, off farm income, assets, income from other family members, total value of farm output, cost of production, distance to nearest saving institution.

Analytical Technique

Regression analysis was used to determining the factors that influence the level of saving among yam farmers. The model is expressed in implicit form as indicate below:

$$Y = f(X_1, X_2, X_3, X_4, X_5, X_6, X_7) \qquad \text{...(1)}$$

where;

Y=	Household Savings (₦)
X_1 =	Age (years)
X_2 =	Savings from last cropping season (₦)
X_3 =	Size of farm land for farming (ha)

X_4 =   Total current assets (₦)

X_5 =   Household size (numbers)

X_6 =   Years of farming (years)

X_7 =   Expenses on food (₦)

e =   Error term which is used to capture the influence of variables not included in the model.

Cobb- Douglas (Double- log) was chosen to determine the factors influencing level of savings. The model is expressed in explicit form as follows:

Double- log function

$$\text{Log } Y = a + b_1 \log x_1 + b_2 \log x_2 + b_3 \log x_3 + b_4 \log x_4 + b_5 \log x_5 + b_6 \log x_6 + b_7 \log x_7 + \log e$$

where;

$Y, X_1, X_2, X_3, X_4, X_5, X_6, X_7$, are as defined in the implicit form   ...(2)

$b_1 - b_7$ = regression coefficient

a =   constant term

e =   error term

RESULTS AND DISCUSSION
Socio-economic Characteristics of the Respondents

Table 1 revealed that majority of the respondents were married, with a mean age of 38 years and household size of 6. Majority of the respondents had mean income of ₦95,433.33 from farming activities. Majority of the respondents saved their cash in *Adashe*. This is in agreement with the findings of Nwobi and Mbam (2012) and Okeke *et al.* (2015) who asserted that yam farmers saved informally through *Isusu* (*Adashe*), and non- cash in form of livestock investment.

Table 1: Socio-economic Characteristics of Respondents

Variables	Frequency	Percentage (%)	Mean score
Marital status			
Single	29	24.2	
Married	90	75	
Widowed	1	0.8	
Total	120	100	
Age			
21 -30	12	10	
31 -40	31	25.8	
41 – 50	33	27.5	38
51 -60	17	14.2	
Household size			
1 – 5	62	51.7	
6 – 10	37	30.8	6
11 – 15	17	14.2	
16 – 20	4	3.3	
Total	120	100	
Income from yam production			
0 - 50,000	54	45	
50,001 - 100,000	35	29.2	₦95433.33
100,001 - 150,000	16	13.3	
150,001 - 200,000	5	4.2	
200,001 and above	10	18.3	
Total	120	100	
Method of cash savings			
Did not save	13	12.5	
Adashe	43	35.8	
Bank	18	15	
Home	41	34.2	
Deposit with friends	3	2.5	
Total	120	100	
Method of non- cash savings			
Did not save	27	22.5	
Purchase of land	11	9.2	
Storage of Agricultural produce	36	30	
Livestock investment	42	35	
Building of house	4	3.3	
Total	120	100	

Source: Field survey, 2016

Factors that Influence Level of Savings

The Cobb-Douglas function was used in determining the factors that influence level of savings. The R^2 value is 0.6394 which implies that 63.94% of the variations in the household saving (Y) is explained by the independent variables $X_1 - X_7$ (Age, Savings from last cropping season, size of farm land for farming, household size, years spent in school, expenses on food) included in the model, while

the 36.06% is as a result of factors not accounted for in the research as well as error in estimation. The result showed that three variables namely savings from last cropping season (X_2) was found to be statistically significant at 1% level, Size of farmland for farming (X_3) was found to be statistically significant at 5% level, Total current asset (X_4) and Years of farming (X_6) were found to be statistically significant at 10% level The positive sign of savings from last cropping season (X_2), size of farmland for farming (X_3), and years of farming ($X6$) implies that an increase in these variables will lead to a proportionate increase in the household savings. This is in agreement with the findings of Umar (2014) who asserted that the higher the annual income and farm size used, the higher the savings of farmers.

Table 2: Determining the Factors that Influence Level of Savings

Variable	Coefficient	T – value
Constant	8.767	7.43
Age (X_1)	0.395	1.11
Savings from last cropping season ₦ (X_2)	0.150	11.25***
Size of farmland for farming (Ha) (X_3)	0.372	2.55**
Total current asset (₦) (X_4)	-0.078	-1.78*
Household size (numbers) (X_5)	0.146	1.13
Years of farming (years) (X_6)	0.234	1.61*
Expenses on food (X_7)	0.011	0.69
R^2	0.6394	
R^2 Adjusted	0.6169	
F- ratio	0.000	

Source: Field survey, 2016. ***, ** and * are significant level at 1%, 5% and 10%, respectively.

Constraints Affecting the Level of Saving in the Study Area

The result revealed that majority of the farmers lack of saving was due to bulk of family expenses and low income (22%), followed by low income from farming, investment on other business and price fluctuation (13%), price fluctuation (11%).

Table 3: Constraints affecting the Level of Saving of Yam Farmers

Constraints	Frequency	Percentage (%)
Low income from farming	23	13
Tedious bureaucracy of bank procedure	13	7
Price fluctuation	21	11
Bulk of family expenses and low income	40	22
Attack of pest and diseases	15	8
Investment on other business and price fluctuation	24	13
Inadequate skill due to low level of education	10	6
Inadequate access to bank access and waste of time on withdrawals	10	6
Inadequate information on savings	10	6
Inadequate information on savings, attack on pest and disease and tedious bank procedure	15	8
Total	*181	100

Source: Field survey, 2016. * implies multiple responses

CONCLUSION AND POLICY RECOMMENDATIONS

The study revealed that there was a high level of savings among the yam farmers but there is need for the farmers to save more in cash. It is therefore, recommended that more cooperatives should be created among the farmers, rural financial intermediaries should encourage farmers to save by raising the interest paid on saving and creation of enabling socio-economic environment that will increase the rural women farm income through market creation for farm output and subsidy in the price of farm input.

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