

## Do Peasant Farmers Save and Invest? Evidence from Cassava Farmers in Benue State, Nigeria

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### ABSTRACT

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*The study assessed determinants of amount saved and invested by cassava farmers in Benue State, Nigeria using multi-stage random sampling. Data collected from primary source were analysed using descriptive statistics and multiple regressions. Results showed that 35.0% of the respondents were 48 years and above with mean age of 43.2 years, highly educated, 76.67% of them had one form of education or the other, predominantly married (73.33%) and mostly males (55.83%). Most (68.33%) of the respondents have farming as the major source of income, mean farming experience was 7.25 years and mean household size was 5 persons with average annual farming income of N398,775.00. Mostly small scale farmers, mean farm size 2.33 hectares and 93.33% do not have contact with extension agent. Multiple regression analysis results reveal the adjusted coefficient of multiple determination (R-2) value to be 0.71 with F-value of 51.53 for factors that influenced the amount saved. The variables marital status, education and income have positive coefficients and were significant at 5%, 1% and 1% respectively as important variables that affect the amount saved. The amount invested by cassava farmers were influenced by variables age, farm size and education with positive coefficients and significant at 10%, 10% and 1% respectively while interest rate with negative coefficient was significant at 5% level with R-2 value of 0.65. The study therefore, concludes that cassava farmers do participate in savings and investment irrespective of their low income and earnings and have a high potential for contribution to overall growth of national domestic savings and investment in Nigeria. The study recommend government enhanced accessibility to extension services as it is critical in improving cassava production, savings and investment among cassava farmers, farmers should form cooperative societies to enhance their chances of getting credit and stimulate their interest to save and invest.*

### 1.0 Introduction

Cassava (*Manihot spp.*) is one of the most widely grown food crops in Benue State Nigeria. Cassava is a crop with a wide range of uses. Cassava root can be processed into granulated substances known as "garri," which are widely consumed in Nigeria. Cassava is processed to produce starch and Ethanol. Cassava is significant not only as a food crop, but also as a significant source of income for rural households. Cassava is traditionally processed to produce a variety of shelf-stable intermediate and final products for a variety of use.

Savings is the act of keeping something that should have been used in the present for use in the

future. Investment is the act of ploughing money into a business, project, with an expected future outcome. Both terms are important for growth and development of an individual, community, State and a nation at large. Money can be saved by the farmers for future use. Increased saving is necessary but not a sufficient condition for investment. Savings and investment play a very significant role in economic development and it can be described as a driving force necessary for economic growth and development.

In a developing economy like Nigeria, saving is extremely important. This is due to the fact that it has a direct impact on the country's level of economic activity. Similarly, the amount of progress made in the agricultural sector will be



largely determined by what farmers do with the extra income generated from their farming activities year after year (Ogheneruemu *et al* 2014). This is because the rate of growth in the farming economy is largely determined by the stock of capital built up in a farm organization and the plowing back of such stocks in the form of investment for further farm organization improvement (Akerle *et al* 2012). The nation's future economic development will be hampered if these increases are spent on household expenditures without the necessary infrastructure being built. The ability, willingness and opportunity of households to save and invest over time can therefore significantly influence the rate and sustainability of capital accumulation and economic growth in developing countries (Oluwakemi, 2012).

Savings, according to Aqdas (1993), is defined as the difference between disposable income and consumption, i.e.  $S = Y - C$ , where S represents savings, Y represents income, and C represents consumption. The saving ability of an individual therefore, depends on his or her Marginal propensity to save.

Ajayi (2018) as cited by Wilcox *et al* (2022) noted that investment is the act of putting money aside now in exchange for a future financial reward or the sacrifice of something now in exchange for the possibility of later benefits. Many Nigerian farmers have become increasingly unable to invest adequately in their farming activities over the years. As a result, cooperative movements have been formed in order to achieve a common goal through democratically controlled business organizations (Wilcox *et al.*, 2022).

Inadequate savings and investment by farm households in Nigeria is one of the basic problems limiting the development of agricultural sector in Nigeria. Some of the problems inhibiting savings include poor banking service, attitude of banks to small savers, poor orientation, low income, corrupt taxation system, absence of banks in rural areas, instability in banking system and lack of trust to save in formal financial units (Onuoha, 2013). In Nigeria, there is basically lack of incentives for farm households to save which had adversely affected savings. Despite these problems, policy makers have not drawn up adequate and comprehensive rural savings scheme that will encourage farmers to save and

invest their capital productively (Odoemenem *et al.*, 2013; Sunday *et al.*, 2011)

World Bank (2018) noted that the level of domestic savings and investment in Nigeria are inadequate to fuel the growth needed to raise living standards and generate sufficient productive employment. This has resulted in high rate of poverty and poor standards of living among Nigerians mostly the rural households. These reasons have made it of utmost importance to study the savings and investment of farmers particularly cassava farmers since understanding of these concepts will help improve economic life of cassava farmers.

Existing literature on savings and investment behavior in Benue State (Odoenemem *et al* 2013) focused mainly on small scale farmers in Makurdi and not specifically on farmers of cassava. This makes it important to undergo a research on savings and investment of cassava farmers with particular emphasis to Ohimini local government area of Benue State, Nigeria.

Additionally, previous studies on financial behavior of farmers like 'Effect of credit to farmers and agricultural productivity in Nigeria (Adewale *et al* 2022)' focused more on identifying the effect of interest rate on credit to farmers on agricultural productivity rather than examining in specific savings and investment pattern used by farmers. This study will provide an in-depth analysis of the factors that influenced the amount saved and invested by cassava farmers in Benue State and their effectiveness in achieving financial goals. The objectives of the study were to describe the socio-economic characteristics of cassava farmers that engage in saving and investment and to determine the factors that influenced the amount saved and invested. It was hypothesized that socio-economic characteristics of cassava farmers do not have influence on the amount saved and invested. This research study help give a better understanding of savings and investment among farmers with particular emphasis to cassava farmers.

This work is supported by the theory of life-cycle hypothesis of savings and Neoclassical investment theory. The life-cycle hypothesis of savings was developed by Modigliani and Brumberg (1954) and further extended by Ando and Modigliani (1963), this posits that individuals



aim to maintain a relatively stable consumption level throughout lifetime. According to this theory, individuals save during their working years to accumulate wealth for smooth consumption during retirement. An individual's savings will be peak in his or her prime earning years and fall as the savings are drawn down to finance consumption during retirement years. Theoretically speaking, the marginal utility of consumption at a time of lower income is higher than that at a time of higher income.

The Neoclassical investment theory, rooted in the work of Jorgenson (1963) and Tobin (1967), posits that firms make investment decisions based on their expected profitability of capital investments. This theory suggests that firm compare the expected returns from investment projects with the cost of capital, considering factors such as interest rates, expected future cash flows, and depreciation costs. Neoclassical theory of investment is the appropriate theory that discusses the relationship between savings, investment and economic growth. Its view on investment is built on the premise of domestic investment climate, where the growth rate of real output is positively related to investment. This means, when inputs and outputs in production are allocated efficiently, they stimulate economic growth. Investment therefore, is likely to be important to some extent for any country's economic prosperity.

## 2.0 Methodology

The study was conducted in Ohimini Local Government Area of Benue State, Nigeria. Benue State is located in the north-central part of Nigeria within latitudes 6°25'N and 8°8'N as well as longitudes 7°47'E and 10°E and has total land area of about 33706km (NPC, 2006) with a projected population of 6,141,300 in 2022 (NPC, 2006). It lies between the Northern and Southern States of Nigeria. It shares boundary with Nassarawa, Kogi, Enugu and Taraba States. The State Benue is situated in the guinea savannah vegetation zone with River Benue being a very important feature of the State. The River enters Nigeria from Cameroon Republic, flowing South-West and meets the River Niger at Lokoja in Kogi state. It has an extensive flood plain for a distance of 187km. Makurdi is the state capital. Ohimini local government area is domiciled in Benue State, North central geopolitical zone of Nigeria, with latitude of 7.3290°N and longitude 7.9313°E. The LGA was created on the 5<sup>th</sup>

December, 1996 and derives its name from the beautiful Ohimini stream that flows in the area. It shares boundary with Otukpo and Okpokwu LGA and with parts of Kogi. Ohimini LGA has ten council wards namely; Agadagba, Awume Ehaje, Ehatokpe, Idekpa, Ochobo, Oglewu Icho, Oglewu Ehaje, Onyagede Icho and Onyagede Ehaje. It has its headquarter at Idekpa-Okpiko. The population of the area was projected to be 102,100 in 2022 (NPC, 2006). The local government is majorly inhabited by members of the Idoma ethnic group. Ohimini Local government area has a total land area 587.6km<sup>2</sup> and an average temperature of 29°C. It witnesses two seasons which are dry and rainy seasons with average humidity level of 52%. A number of mineral resources are found in the Local government area and these include; Bauxite, Coal and Bentonite. The natural spring water at Iyaya in Onyagede and Odelle in Okpiko which are yet to be developed will form a beautiful tourist attraction if fully tapped (Wikipedia.org).

Ohimini is an agrarian society with the farmers taking full advantages of the fertile, well drained arable land in the area. Farming is the major source of livelihood for the people in Ohimini LGA with crops such as maize, yam, cassava, rice, vegetables and a variety of fruits grown in large quantities. Trade also blossom in the area as it host several markets such as the Onyagede markets which is believed to be a major source of *garri* export to the neighboring States like Plateau, Kano, Rivers amongst others (Wikipedia. Org).

The population of the study comprises cassava farmers in Ohimini local government area of Benue State, Nigeria. Multistage random sampling technique was used to select the respondents of the study. In the first stage four (4) council wards notable for cassava production were purposively selected. The second stage involved the selection of three (3) cassava producing communities from each of the council wards by simple random sampling. The third and final stage involved a simple random selection of twelve (12) cassava farmers from each of the twelve communities giving a total of 144 respondents for the study. Data were collected from primary source with the use of questionnaire based on the objectives of the study to illicit the needed information. The data collected were analysed with the use of descriptive statistics like frequency distribution, percentages, mean, tables and the inferential statistics. The variables used in

the study were measured as follows: sex: was measured as a dummy 1= male and 0= female. Age was measured in years, farming experience was measured in years, educational level was measured by the number of years spent in school, marital status was measured as either married or single, if married=1 and single=0, farm size was measured in hectares, membership of organization was measured using 1 for those that are members and 0 for those that are not members. Contact with extension Agent was measured using feature variable one for contact and 0 for otherwise. Household size was measured as the number of persons in the household, Amount saved and invested was measured in Naira, savings and investment was measured in Naira, income level was measured in Naira, interest rate was measured in %, availability of financial facilities was measured with 1 for presence of savings facilities and 0 for absence of savings facilities, inflation rate was measured in % and access to credit was measured as 1 for those that have access and 0 for those that do not. It is expected that, age, income, marital status, experience, educational level, and farm size will positively influence amount of savings and investment while inflation rate, interest rate, household size are expected to negatively affect the amount of savings and investment.

## 2.1 Model specification

### Multiple regression analysis

Multiple regression model was used to analyse the factors that affect the amount saved and invested by respondents, the linear regression model used for estimation is specified thus;

$$S = \beta_0 + \beta_1 A_1 + \beta_2 E_2 + \beta_3 M_3 + \beta_4 HS_4 + \beta_5 EL_5 + \beta_6 AI_6 + \beta_7 INT_7 + \beta_8 INF_8 + e_i$$

Where; S= Amount saved in Naira, A=Age of the respondent, E=Experience, M=Marital status

HS=Household size, EL=Educational level

AI=Annual income, INT= Interest Rate

INF= Inflation Rate,  $\beta_0$ =Constant

$\beta_s$ =Coefficient of explanatory variables

$e_i$ =error term

and

$$I = \beta_0 + \beta_1 A_1 + \beta_2 MS_2 + \beta_3 HS_3 + \beta_4 EL_4 + \beta_5 EX_5 + \beta_6 AI_6 + \beta_7 INT_7 + \beta_8 INF_8 + e_i$$

Where; I=Amount invested in Naira, A=Age of the respondent, EX=Experience, MS=Marital status, HS=Household size, EL=Educational level AI=Income, INT= Interest Rate, INF= Inflation Rate,  $\beta_0$ =Constant,  $\beta_s$ =Coefficient,  $e_i$ =error term  $\beta_s$ =coefficient of explanatory variables

$\beta_s$  determine the gradient of the line and the constant term  $\beta_0$  determine the point at which the line crosses the y-axis otherwise known as the y-intercept.

## 3.0 Results and Discussion

### 3.1 Socio-Economic Characteristics of the Respondents.

The result on the distribution of the respondents based on socioeconomic characteristics is presented in Table 1. The result revealed that population of cassava farmers is widely dominated by male respondents with 55.83% while 44.17% are female. This is in line with the findings of Abaojah *et al.* (2018) who revealed that 70% of cassava farmers in Benue State were male. This could be due to the fact that most agricultural production is male stereotyped due to its laborious nature while the females are usually involved in processing and marketing activities.

The distribution of cassava farmers according to age shows that most (35%) are 48 years and above, 25.83% are within the age bracket of 29-38 years, 25% are within the age of 39-48 years, 13.33% are within the age 19-28 years and 0.83% are within the age 0-18 years in the study area with a mean age of 43.20 years and standard deviation of 15.05. This agrees with the findings of Abaojah *et al.* (2018) whose report revealed that the mean age of cassava farmer was 48.3 years. This is an indication that cassava farming is dominated with agile workforce to produce the needed quantity of output if given enabling environment such as inputs support. Also, the youthful nature of most of the farmers may be advantageous to innovation. It is expected that this dominant active and productive population will encourage savings and investment in the study area.

Furthermore, the results in Table 1 revealed that majority (51.66%) of the respondents are married, 26.67% are single, 8.33% are divorced and 13.33% are widowed. This connotes with the findings of Angba & Iton (2020) who found that married couples dominate cassava production industry, thereby suggesting the chances of getting family labour in abundance for use in their production and processing activities. With this high percentage of the married, the expectation is that the respondents will save and invest for the future.

The analysis on the educational status of respondents in Table 1 revealed 30.83%, 25%,



20.83% and 23.33% had tertiary, secondary, primary and no formal education respectively. This implies that majority of the farmers has attained some level of education and could read and write. This agrees with the findings of Mgbakor (2017) whose report reveals that only a small percentage (16.5%) of cassava farmers in Enugu State, Nigeria do not have any formal education. This suggests that farmers in the study area are literate. This high level of literacy of farmers may have positively influenced their engagement and productive capacity on cassava farming as this will serve as a medium to a better managerial skills and adoption of innovation. This may also enable farmers to know the importance of savings and investments thus leading to increased savings and investment activities.

The household size depicted on Table 1 shows that 30.83%, 54.17% and 15% of the respondents has 1-3, 4-7 and above 8 household members respectively with mean of 5 persons in the study area. This agrees with the findings of Chen & Lu (2020), who revealed that 90% of farmers have six to above ten household members. The large household size indicates availability of free family labor, thus reducing the cost of labor. This may make more income available for savings and further investment and may also influence savings and investment since the members of household has to be catered for.

Table 1 revealed that 81.67% of farmers have no contact with extension agents while only 18.33% has contact with extension agents. This may be as a result of inadequate extension workers in the country and it suggest that there is need to spread extension services in the study area in order to disseminate information on the importance and means of savings and investment.

Further analysis from Table 1, indicates that most of the respondents (93.33%) do not belong to any cooperative society while only 6.67% are members of cooperatives. This result suggests the need for the establishment of cooperatives in the study area and the enlightenment of respondents to join. This is because cooperatives are very useful in terms of securing loans and acquiring inputs at low cost thus encouraging savings and profitable investments.

The result in Table 1 shows that most of the respondents (68.33%) depend solidly on farming as their major source of income, while 15.83%

and 15.83% chose trading and paid job as major source of income respectively. This implies that farmers in the study area engage in agriculture as their main occupation and means of livelihood. Therefore, programs and policies aimed at improving farm productivity will raise the income of respondents in the study area. This increased income may result in increased savings and investments.

Based on the farm size distribution as shown in Table 1, most of the farmers (40.83%) have a farm size of 0.6-1 hectares, 22.50% have 0.1-0.5 hectares, and 21.67% have 1.1-1.5 hectares while 11.67% and 3.33% have 1.6-2 and 2+ hectares respectively. The mean farm size is 2.33 hectares. This implies that cassava farmers in the study area are small scale farmers. Small scale farmers have low productivity due to their scale of operation. This gives credence to the study of Agwu & Anyanwu (1999) who posited that cassava farmers were small scale farmers who produce mostly at subsistence level.

The result on the annual income of the respondents as indicated in Table 1 show that most respondents (72.50%) have an annual income of above ₦300,000, 17.50% have an annual income of ₦200,001-₦300,000, 10% have an annual income of ₦100,001-₦200,000 and no respondent earned below ₦100,000. The mean annual income is ₦398,775 naira implying that cassava farming is profitable and therefore an enterprise that can be invested on. This collaborates the findings of Olanrewaju et al (2022) who posited that cassava farming is profitable in Akoko district of Ondo state, Nigeria

The distribution of the respondents based on their farming experience revealed that most (37.50%) of the farmers have 11+ farming experience, 27.5% have 8-11 years farming experience, 22.50% have 4-7 years farming experience and 12.50% have 0-3 years farming experience. The mean farm experience is 7.28 years. This means that majority of the cassava farmers in the study area have sufficient experience in farming. Sufficient farming experience enables farmers to apply more efficient measures in their farming operations which lead to higher profitability. Experience here is a measure of management ability of the farmers. This finding is in line with Obi-Egbede and Gulak (2020) who stated that the Irish potato farmers in Plateau State were quite experienced in potato farming as over 80% had experience of above 10 years.

**Table 1: Distribution of Respondents According to their Socio-Economic Characteristics in the Study Area n=144**

Variable	Freq.	%	Mean
<b>Sex</b>			
Male	67	55.83	
Female	53	44.17	
<b>Age(years)</b>			43.208
0-18	1	0.83	
19-28	16	13.33	
29-38	31	25.83	
38-48	30	25.00	
48+	42	35.00	
<b>Marital status</b>			
Single	32	26.67	
Married	62	51.66	
Divorced	10	8.33	
Widowed	16	13.33	
<b>Educational Level</b>			
No formal education	28	23.33	
Primary Education	25	20.83	
Secondary education	30	25.00	
Tertiary education	37	30.83	
<b>Membership of coop</b>			
No	112	93.33	
Yes	8	6.67	
<b>Extension contact</b>			
No	98	81.67	
Yes	22	18.33	
<b>Annual income (₦)</b>			398775.00
100,000-200,000	12	10	
200,001-300,000	21	17.50	
300,000+	87	72.50	
<b>Farming exp (years)</b>			7.25
0-3	16	12.50	
4-7	27	22.5	
8-11	33	27.5	
11+	45	37.50	
<b>Farm size (hectares)</b>			2.33
0.1-0.5	27	22.50	
0.6-1.0	49	40.83	
1.1-1.5	26	21.67	
1.6-2.0	14	11.67	
2+	4	3.33	
<b>Income source</b>			
Farming	82	68.33	
Trading	19	15.83	
Paid job	19	15.83	
<b>Household Size</b>			5
1-3	37	30.83	
4-7	65	54.17	
8+	18	15	

Source: Field study, 2023

### 3.2 Factors that Influenced the Amount Saved by the Respondents in the Study Area

Table 2 shows the estimated factors influencing amount saved by the respondents in the study area. The significant variables confirmed their relative importance in savings amount by farmers. The adjusted coefficient of multiple determinations ( $R^2$ ) obtained is 0.71, this means 71% variation in the amount of money saved was captured by the explanatory variables. The coefficient of F-value obtained is 51.53 and statistically significant at 1% level. This implies that, the joint effect of the variables included in the model were significant in influencing amount saved.

The result in Table 2 shows that marital status has a positive coefficient and significant at 5% level of significant. This means that married cassava farmers saves better than their counterparts owing to the fact that couples at their productive stage of marriage will always put their resources together and save for the future.

The variable, education has a positive coefficient (25.102) and statistically significant at 1% level of significance. This means that as the farmer's literacy level increases, they tend to save more and that literate cassava farmers can save better than illiterate ones. This suggests that they can access financial facilities; adopt improved technology in their farming activities including easy movement from one job to another to increase their aggregate monthly income. These have the tendency to increase savings, since income is positively related to savings. This consolidate the findings of Wilcox *et al* (2022) who revealed that savings is predominant among cassava processors who have some form of formal education.

Income as one of the major determinants of saving has a direct influence on the amount saved by cassava farmers. From Table 2, it can be seen that income is positively (0.027) related to amount saved and statistically significant at 5% level of significance. This implies that a ₦1 increase in the income of a farmer will lead to about ₦0.027 increase in amount saved. This confirms the *apriori* expectation that savings is a function of income and that the marginal propensity to save depends on the level of income, *ceteris paribus*. This concurred with economic theory where an increase in income is bound to lead to an increase in saving. This is justified as increase in income

level of a household will bring about increase in the saving as increasing income will result to surplus that will be saved after consumption expenditure has been made. This finding justified the Keynesian theory of consumption which posits a positive relationship between income and saving; and that household savings is directly and significantly affected by the income level. This result is in consonance with Osondu, et al (2015)

who posited that the farmer’s ability to save depends on their level of income. An increase in income of cassava farmers will stir up increased amount invested in farming. Farmers with higher levels of income have a higher tolerance for risk. Hence, they are most likely to save more. The null hypothesis that socio-economic variables of the respondents do not have significant effect on the amount saved is hereby rejected.

**Table 2: Regression Result of Factors Influencing Amount Saved by Respondents in the Study Area**

Variable	Coef.	Std. Err.	T	P> t	95%conf. interval	
Age	59.79533	140.4321	0.43	0.671	-218.3995	337.990
Marital status	4046.61	1825.949	2.22	0.029**	429.4188	7663.80
Education	4325.102	1168.5	3.70	0.000***	2010.312	6639.89
Household size	-679.4216	694.0604	-0.98	0.330	-2054.35	695.506
Experience	-39.4297	210.9393	-0.19	0.852	-457.2989	378.439
Income	0.0272497	0.0116613	2.34	0.021**	0.0041488	0.05035
R-squared	0.7306					
Adj R-squared	0.7164					
F-value	51.53	0.0000***				

Note: \*, \*\*and\*\*\* represent 10%,5% and 1% level of significance respectively

Source: Field survey 2023

### 3.3 Factors Influencing Amount Invested by the Respondents in the Study Area.

The study examined the different factors influencing amount invested by the respondents and identified variables such as age, interest rate, farm size and educational level as important and significant variables that influenced the amount invested by the respondents in the study area. The estimated factors that influence amount invested by cassava farmers in Ohimini Local government area are summarized and presented in Table 3. The adjusted coefficient of determination ( $R^2$ ) is 0.6578, implying that about 65.7% of total variation observed in the dependent variable (amount invested) is explained by the explanatory variables included in the model with the remaining 34.3% accounted for by random disturbance. The overall significance of the model is depicted by the F-statistics (39.44) which is significant at 1% level. The significance of F-ratio shows that the regression result is statistically reliable.

As shown in Table 3, the coefficient of age is positive (438.7) and statistically significant at 10% probability level, this means that an increase in the age of farmers by one year, will increase amount invested by 438.7 Naira. Implying that the amount invested by cassava farmers increases

with increasing age. Investment capacity is enhanced as age tends to rise; old people tend to be more prudent and economical. This finding is contrary to that of Nwibo *et al* (2013) who revealed that the coefficient of age of farming households exerted a negative influence on savings and investment capacities of the household. But consistent with the findings of Nwibo & Alimba (2013) who reported that age has a positive relationship with agribusiness investors’ decision to invest.

Additionally, educational level of cassava farmers has a positive coefficient (35.558) and statistically significant at 1% level of significance as indicated in Table 3. This implies that the more years a farmer spends in school, the more money he may invest. This means that investment is predominant among cassava farmers who have some form of formal education. The respondents having some levels of formal education suggest that they can access financial facilities; adopt improved technology in their farming activities including easy movement from one job to another to increase their aggregate monthly income. These have the tendency to increase investment, since income is positively related to investment. This finding is in line with the *a priori* expectation that income is positively related to amount invested. This finding is consistent with the findings of Wilcox *et al* (2022) who posited that investment increases as cassava processors become more

literate. From Table 3, interest rate is found to have a negative coefficient (-1.820) and statistically significant at 5% level of significance. This implies a percentage increase in interest rate will decrease the tendency to investment by 1.820 Naira. That is, interest rate negates amount invested. This is in line with the general expectation and it confirms the fact that high interest rate tends to decrease investment. It can be concluded that the total value of interest rate charged on loan have effect on the amount of investments; it implies that, an increased interest rate charged to loan will cause a decrease in investments by the farmer. This finding is consistent with the findings of Ojima & Emerenini, (2015) who posited that interest rate negates investment as increase in interest rate by

1% will decrease investment by 14%. Also, the coefficient of farm size (1.004113) is positive and statistically significant at 10% level of significance. This indicates that an increase in farm size will lead to an increase in income of cassava farmers and then increase the probability of investment and savings. The sign of the coefficient conforms to a priori expectation. How large the farm is, determine the quantities of inputs that would be needed in the farm, hence greater investment expenditures and income. This result is expected because large farm size leads to gains known as economic of scale. This result is cycled with the findings of Babani (2015) who posited that an increase in farm size leads to an increase in income of the small holder farmers hence increased amount invested.

**Table 3: Regression Analysis of the Factors that Affect the Amount Invested**

Variable	Coef.	Std. Err.	T	P> t	[95%Conf.interval]
Age	438.73	246.53	1.78	0.078*	-49.6452 927.118
Marital status	-3290.67	3205.52	-1.03	0.307	-9640.79 3059.44
Education	35.558	2051.34	3.09	0.003***	2271.85 10399.2
Household size	1496.868	1218.45	1.23	0.222	-916.872 3910.60
Experience	-32.97151	370.3121	-0.09	0.929	-766.556 700.613
Annual income	0.0221859	0.0204718	1.08	0.281	-0.0183 0.06274
Interest Rate	-0.593290	0.2510003	-2.38	0.018**	
Farm size	2.531351	1.350989	1.87	0.061**	
R-squared	0.6749				
Adj R-squared	0.6578				
F-value	39.44	0.0000***			

Note:\*, \*\*and \*\*\* implies statistically significant at 10%, 5% and 1% significant levels respectively.

Source: Field survey, 2023

#### 4.0 Conclusion

The research on determinants of amount saved and invested by cassava farmers revealed that respondents in the study area is dominated by male (55.83%) who are still agile and industrious with mean age of 43.2 years. Majority of the respondents are married (50.83%) and have some level of formal education, with average farming experience of 7.48 years and average household size of 5 persons, with only 6.67% and 0.83% being a member of cooperative society and having contact with extension agents respectively. The important and significant variables that influenced the amount of money saved and invested for cassava farming are: age, education, interest rate, marital status, annual income and farm size. Age, annual income, marital status, farm size and education have positive influenced on the amount saved and invested while interest rate have negative influenced on the amount

invested. The study therefore, concludes that cassava farmers do participate in savings and investment irrespective of their low income and earnings and have a high potential for contribution to overall growth of national domestic savings and investment in Nigeria. This empirical study is contrary to the notion that the poor cannot save and invest. Based on these findings the study recommend: government enhanced accessibility to extension services in the study area as it is critical in improving cassava production, savings and investment among cassava farmers, farmers should form cooperative societies to enable them have access to farm inputs at low cost and also enhance their chances of getting credit and stimulate their interest to save and invest. Members of registered cooperatives are usually favored by financial institutions such as Bank of Agriculture (BOA). Given the worth of income influence in terms of both saving and investment, incentives such as improved technology, appropriate farm support



services, medium and long-term loans should be provided by the government and other actors to farmers in order to boost their income level. Only then can the savings being accumulated in the rural economy be transformed into productive investment that will uplift their present standard of living.

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