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Farmers Credit Reserve and the Success of Microfinance Institutions in Cross River State, Nigeria

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Abstract: This study assesses credit reserve of crop farmers in Cross River state and the determinants of its use in obtaining loans from the microfinance institutions. The study reveals that the crop farmers use only about 9.0% of their reserves on the average in obtaining loans. However, farm size and education are the most important determinants of the extent that the crop farmers allocate more credit to loans. For the microfinance institutions to improve outreach and performance, farm size and education enhancing programs must be introduced to compel the farmers to allocate more credit in reserve to loan.

Key words: Microfinance, credit reserve, crop farmers, microfinance banks, loans, education

INTRODUCTION

In Nigeria, the agricultural sector has been invaluable in supporting economic growth and development since, 1960. Although, the contribution of the sector to the Gross Domestic Product (GDP) reduced from 70% in 1960 to about 19% in 1980, it received a boost since 1986 when the Structural Adjustment Program (SAP) was embraced such that the contribution fluctuated to as much as 40% in the year 2009.

Before, the SAP policies of 1986, the need to increase the sectoral allocation of credit in favour of the agricultural sector resulted in the increase in the number of universal banks lending to the sector and the introduction of the Nigeria Agricultural and Cooperative Bank in 1973. However, the SAP called for financial liberalization and in 1987 reforms were carried out in the areas of fixed credit allocation as well as subsidized and regulated interest for priority sectors. In 1988, the portfolio problems were addressed and steps were taken to strengthen bank supervision. By 1989, government deposits were removed from the commercial banks to the Central bank and in 1990, new banking standards were introduced, minimum capital was increased, special interest on agricultural loans was abolished and subsidy on agricultural inputs was removed.

These financial reforms exposed the ineffectiveness of many commercial banks and had severe consequences on lending to the agricultural sector. First, commercial banks began to ignore lending under the Agricultural Credit Guarantee Fund Scheme (ACGFS) and requested adequate collateral security on agricultural loans. Second, lending under the ACGFS declined due to poor performance of loan. In fact, the commercial banks were consistently giving loans below the prescribed limit, under the ACGFS. For this reason, the people bank was introduced in 1989 as well as the community banks and the NACB activities established branches in all the states of the federation in 1990. On the whole, several financial market innovations have been tried with the Nigerian agriculture, the most recent is the micro finance option.

The history of acceptance of the micro-finance option can be traced to 1991 when the Central Bank of Nigeria embraced the self help groups linkage with universal banks for savings mobilization and credit delivery under the ACGFS. This was due to the need to encourage the universal banks to continue to extend credit facilities to the operators of the Nigerian agricultural sector. Today, the microfinance option is widely accepted as the most satisfactory medium of extending loan able funds to the operations of the micro enterprises that are responsible for the production of the bulk of the agricultural outputs in Nigeria.

In fact, independent promoters have floated micro finance banks to exploit the glaring critical mass at the bottom of the pyramid (Onuuka, 2007). The proliferation of these micro finance schemes culminated in the launching of the micro finance policy regulatory and supervisory framework in the year 2005 by the Apex bank and the subsequent recapitalization; the lunching of a 20 billion Naira microfinance fund by the President of the Federal Republic of Nigeria on February 12, 2008 to complement the poverty and microcredit intervention efforts of government at all levels as well as the micro finance banks and the inauguration of the committee on Microfinance banks on May 28, 2008 by the Apex bank to

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provide a platform for regulators to meet with operators of the Micro Finance Banks (MFB). As a consequence of these, universal banks have established microfinance subsidiaries to expand their markets and by the end of the year 2008 as many as 768 MFB were licensed to operation in Nigeria (Fabamuo, 2008). The new structure of MFB makes one skeptical if these microfinance outfits can empower the poor while at the same time remaining economically sustainable (Lawson, 2008). However, one common feature of some of these microfinance schemes is that it adopts group approach in reaching out to their clients. This is perhaps because informal groups are widely acclaimed (Adams, 1990; Aryeety and Udry, 1997; Besley *et al*., 1993; Stiglitz, 1990; Udry, 1990) for being able to utilize group pressure to ensure compliance of member. Unfortunately, the high repayment rate that endears many to the microfinance option seldom translates to profit (Morduch, 1999). And yet profitability of the microfinance schemes is central to the sustainability of the MFB. The sustainability of the MFB is particularly worrying because the majority of them are donor driven and are only provided with start up fund with which to make the initial loans. This is particularly so because in an event of withdrawal of financial support by donor agencies, only viable microfinance schemes with sustainable financial services can achieve self sustainability (Mckeman, 1996; Siebel and Parhusip, 1998). One way that a microfinance scheme can attain self sustainability is to increase viability by improving outreach (Yaron and Piprek, 1996).

In fact, the viability and sustainability of the MFB depend in part on the value of internal resources that the MFB can generate which is a function of the level of their level of outreach. One major reason why governments embark on financial reforms is to strengthen and improve financial services to support growth and development. In Nigeria such reforms were elaborately embarked upon during the Structural Adjustment Programme (SAP) of 1986 and during the banking sector reforms announced by the Apex bank in the year 2004. In the reforms of 2004 minimum capitalization of banks was increased to 25 billion Naira and efforts were made to consolidate the Nigerian banking industry through mergers and acquisitions. However, Soludo (2006) observed that these reforms were aimed at ensuring a sound, responsive, transparent and competitive banking system.

More so, it enhanced proper pricing of agricultural loans and made agricultural credit more widely available to the farmers (Faruqee, 1994). In particular, commercial bank lending to the agricultural sector enhanced received more boost. As shown in Table 1 the mean commercial bank lending to the agricultural sector recorded consistent significant increases after 1986 with a mean positive growth rate of 220.88 in 1986-90, 338.95 in 1991-1995, 436.18 in 1996-2000, 236.18 in 2001-2005 and only 19.62 in 2006-2007. Similarly, the mean number of loans guaranteed under the ACGFS increased steadily over the period considered (Table 1).

Table 1: Commercial bank loan to the agricultural sector

Years	Mean loan (N) million	Growth rate	No. of loanguaranteed by ACGFS
1971-1975	22.94	-	-
1976-1980	247.90	980.65	797(1978-1980)
1981-1985	935.90	277.53	1736.6
1986-1990	3003.16	220.88	22234.4
1991-1996	13182.42	338.95	18914.0
1997-2000	70681.38	436.18	17113.4
2001-2005	238844.74	236.18	29592.4
2006-2007	284299.95	19.62	43092.0

CBN statistical bulletin (various issues)

Table 2: Loans guaranteed in Cross River state

Years	Portion of total no. of loans guaranteed for Cross River state under the ACGFS (%)	Proportion of farm families that benefit (%)
1990-1992	1.52	0.08
1993-1995	2.11	0.05
1996-1998	2.51	0.09
1999-2001	1.67	0.05
2002-2004	2.15	0.10
2005-2007	2.67	0.23

CBN statistical bulletin (various issues)

Unfortunately, farmers in cross River state have not fared well in obtaining loans from formal lending institutions. According to the CRSPC (2004), only 5% of the farmers benefited from the loan scheme designed to boost rice, cassava and pineapple production in the state. Also an assessment of the total number of loans guaranteed for farmers in Cross River state confirms consistently low values between 1990 and 2007. Table 2 shows the portion of the number of loans guaranteed and the proportion of farm families that benefited from such loans in Cross River state. According to Table 2, between 1990 and 1992 an average of 1.52% of the number of loans guaranteed by the ACGFS was for Cross River state farmers. This number increased steadily to 2.51% by 1996-1998 and later decreased to 1.67% by 1999-2001.

By 2002-2004 and 2005-2007 the proportion of total number of loans guaranteed for Cross River state farmers were only 2.15 and 2.17%, respectively of the total number of loans guaranteed by the ACGFS.

When one compares this number with the number of farm families in Cross River state, it is clear that borrowing from the formal financial market by the operators of the agricultural sector of Cross River state was consistently low. In fact, between 1990 and the year 2007, only 480 loans of the formal financial market were guaranteed under the ACGFS in Cross River state. Of this population, 0.08% benefited between 1990 and 1992, 0.05% benefited between 1993 and 1995 as well as between 1999 and 2001,

0.09% benefited between 1996 and 1998, 0.10% benefited between 2002 and 2004 and 0.23% benefited between 2005 and 2007 (Table 2).

On the other hand, in this era of microfinance, one would have expected a state like Cross River to compete favourably with other states of the federation in terms of number of MFB. Unfortunately, total of 768 MFB licensed to operate in Nigeria only 15 were licensed in Cross River state. This scenario suggests that most of the farm families in Cross River state are not obtaining loans from the formal financial market and yet, the formal financial market provides loans in larger amounts and the lending terms as well as lending practices are in recent time's farmers friendly.

One factor that is known to be responsible for farmer's inability to obtain external financing is the nature of credit reserve at the farmer's disposal. A farmer with adequate credit reserve can obtain loans freely up to the limit specified by the financiers while those without reserve cannot borrow. The question are what is the nature of credit reserve of the farmers; how can the farmers be made to use more of the reserve in obtaining loans so that the emerging MFB can increase outreach in Cross River state. This study assesses credit reserve of Cross River state farmers. Specifically, the study assesses the volume of credit reserve, its extent of use and analyses the determinants of its use in obtaining loans.

On the concept of credit reserve: Liquidity is the life wire of any farm business and the theory of liquidity management provides the basis by which farmers cope with variation in cash flows. This has been the basis for embracing agricultural insurance; embracing options that favor liquid assets and maintaining a reasonable level of credit (capacity to borrow funds). Like insurance where the farmer pays to increase liquidity periodically; the farmer's credit must be built to grow to strengthen the level of liquidity of the farm (Baker, 1968). Once a satisfactory level of credit is accumulated, sourcing for and obtaining loans becomes easy. The unused credit constitutes a reserve of liquidity which can be used in cases of uncertainty.

The credit reserve concept describes the individual's unused borrowing capacity. Credit play two important roles in farm business; namely the traditional role of using credit to acquire assets which can be equated to the loans farmers acquire and the more subtle and not frequently recognized role of credit in reserve which is not used but could be available if needed for loan purposes (Lee *et al*., 1983). Invariably for farmers to be able to obtain loans, they must have enough credit (the capacity to borrow) and this depends on the volume of credit they keep in reserve. Invariably, availability of credit reserve not only permits a farmer to make loan request but it determines the volume of loan that the farmer can obtain from any financier. However, Barry and Willmann (1976) observed that credit is reduced by loan financing in the purchase year and is further modified in the following years as asset equity is increased by debt repayments and by appreciation as well as depreciation of asset values.

Consequently, credit kept in reserve provides an immediate source of liquidity to the farmer but each time a farmer obtains loan the available credit reserve reduces and becomes more volatile in response to changes in asset values and income expectation. Where a farmer borrows up to its limit, he exhausts the available credit (credit reserve) and will automatically face the problem of external capital rationing. According to GustafSon (1989), credit reserve is the difference between maximum potential borrowing and the amount of money already loaned. However, Barry and Baker (1971) define its quantitative expression as the difference between capital limits imposed by external credit rationing and the amount actually borrowed by the farmer.

The size of the credit reserve depends on the outcome of the credit evaluation process which is guided by factors like assets available for loan security income and repayment expectation, personal characteristics, financial management practices and credit already used in borrowing (Barry *et al*., 1983) . However, Barry *et al*. (1981) observed that the size of credit reserve is positively correlated to net values of assets and net income expectation and negatively correlated with lower market values of crops, livestock, machines and land rates.

It is the responsibility of the farmer to decide to use or not to use credit reserve in borrowing. Usually such decisions must be guided by sound knowledge of the cost and benefits of maintaining a credit reserve. As would be expected more farmers would be encouraged to use more reserve in obtaining loans if the benefits outweigh the cost. In particular if the benefit of utilizing additional borrowed funds outweighs the foregone expected, net benefits of utilizing additional borrowed funds, the farmers are expected to willingly allocate more credit to loans than to reserve. However, several researchers (Barry *et al*., 1981; Eyo, 2006; Osuntogun, 1980) agree that factors such as outreach of the financial institution; collateral security, expected returns, repayment potentials, risk bearing ability, age, years of experience, knowledge of the sources and lending practices of lenders and management ability, net worth and farmers attitude towards the use of credit reserve affect how much a farmers reserve can be used to obtain loans.

Justification of study: The majority of farmers in Cross River state are small scale famers and they produce more of the food for the growing population of the state and beyond. Of late, there has been a growing concern on the need for farmers in the state to increase farm output and this can be achieved if farmers have sufficient cash to utilize improved technological package. In fact, several authors (Igben, 1977; Miller, 1975; Nwosu and Ogunfowora, 1977; Okorie, 1988) advocate the supply of more loans to small farmers since, loans is a constraint to increasing farm output.

According to these researchers, agricultural loans from formal lenders come in larger amounts and would provide adequate capital for the acquisition of improved production technologies without which, small scale farmers become greatly handicapped in adopting them. Unfortunately, existing data confirm that Cross River state farmers are not using formal loans as should be the case despite the better lending terms of the existing lenders. In fact, the lenders have become more resolute to give loans to farmers. Yet agricultural loans from formal financial institutions are invaluable in increasing farm output. If the level of output is to be increased there need to increase the number of Cross River state farmers that obtain loans from formal lenders.

This is particularly important now that the Cross River state Government has adopted the trust fund model of the agricultural credit guarantee fund scheme and has set aside N100 million in the year 2007 for on-lending to farmers. The state government has also pledged to increase the fund to N1billion in the near future, signed an agreement with the Central Bank of Nigeria, United Bank for Africa Plc, First Bank of Nigeria Plc and Union Bank of Nigeria Plc to ensure credit purveyance to the agricultural and rural sector of Cross River state.

For the Cross River state agricultural sector to effectively utilize and benefit from the trust fund more operators in the agricultural sector must access the fund. More so, several microfinance banks have emerged and are willing to extend outreach by establishing more branches in parts of Cross River state. These investors needs some form of assurance on the readiness of the farmers to use external finances. Some others seek strategies to adopt to ensure that more farmers in Cross River state use external finances. Ensuring that more farmers use external finances requires an understanding of the circumstances surrounding the farmers' use of debt capital. The central feature in the process of understanding the use of debt capital is the concept of credit reserve (Souka *et al*., 1980). In view of this, the only way to assist the investors in their efforts to strategize and ensure that farmers in Cross River state use formal loans is to investigate the nature of credit reserve and the variables that encourages the crop farmers in Cross River state to allocate more credit to loans than to reserve.

MATERIALS AND METHODS

The study area is Cross River state, a coastal state created in 1987 in the Niger Delta region of Nigeria. The state lies between latitude 4°28' and 6°55' North of the equator and longitude 7°50' and 9°28' East of the Greenwich Meridian and occupies an area of 20,156 km^2. It is bounded in the East by the republic of Cameroon in the North by Benue state in the West by Abia and Ebonyi states and in the South by the Atlantic ocean. The majority of the state has a tropical climate. It is only the Obudu polateau which is situated at an altitude of 1,595.79 m above sea level that enjoys a temperate climate. Rainfall is usually heavy and spans the months of April through November. Peculiarly, the state has at least 5 ecological zones; namely, the mangrove swamp forest towards the coast, tropical rain forest towards the hinterland and the savannah woodland of the Obudu Plateau which offer a Montana type of vegetation. Since, the favorable climate with fertile agricultural land support agricultural activities throughout the year, agriculture is the primary occupation of the people.

This study used primary data principally. The questionnaire was the main instrument of data collection. The stratified random sampling procedure was used to select 410 crop farmers for this study. Cross River state is categorized into 3 agricultural zones (Ogoja, Ikom and Calabar agricultural zones) by the Agricultural Development Project (ADP). These three categories formed the basis for the stratification of the state. Consequently, the study included 136 crop farmers from the Ogoja zone while 137 crop farmers were selected from the Calabar and Ikom zones, respectively. Data analysis involved the use of tables, means, percentages t-test and the logistic regression analytical techniques.

The empirical model: The empirical model assumes that the use of credit reserve in borrowing is a log linear function of some exogenous variables and is expressed explicitly as:

$$L_1 = (P)/(1-P_1) = Z = b_0 + b_1X_1 + b_2X_2 + b_3X_3 + b_4X_4 + b_5X_5 + b_6X_6 + u$$

Where:

$$P_i = E(Y = 1/X_i)$$

Y = 1 If the farmer uses credit reserve in borrowing and 0 if otherwise

X_1 = Age of farmers (in years)
X_2 = Years of farming experience
X_3 = Education index
X_4 = Farm size in hectares
X_5 = Capital
X_6 = Outstanding credit reserve
b_o = Intercept
b_1-b_6 = Coefficients
u = Stochastic term

The inclusion of age and farming experience in the model poses no threat of multicollinearity. This is particularly so because an older farmer can be least experienced in the technicalities of farming in an environment such as that studied where a good number of persons go into farming on retirement from public service while others take farming as the secondary occupation. However, existing literature confirm that multicollinearity is not harmful unless it causes extremely high standard error and lack of significance of the regression coefficients. The education index was measured in terms of the level of formal education attained. Consequently, a respondent with no formal education was graded 1, a respondent that attempted primary education was graded 2 and a respondent that had completed primary education was graded 3. Similarly, respondents that attempted secondary education were graded 4, those that completed secondary education graded 5 and those that attempted and completed tertiary education were graded 6 and 7, respectively.

Credit reserve was computed by subtracting credit used in borrowing from the farmer's credit capacity. In evaluating the farmer's credit capacity we adopted the method proposed by Baker (1968). Consequently, since asset credit and income credit make up the total credit of each farm we determined the credit capacity by computing and summing up these two variables. In calculating the asset credit (real estate and non real estate credit) we assessed the asset values, debt outstanding, equity in assets; calculated the debt to equity ratio and then we proceeded to compute the credit capacity of each farm by finding the product of the farmer's equity in asset and the leverage ratio. In evaluating the income credit we obtained the gross value per hectare and adopted 70% of the gross value per hectare as operating credit arising from profit projections.

RESULTS AND DISCUSSION

General characteristics of the respondents: The sampled population comprised farmers that cultivated cassava, cocoa and yam as their main crop but the majority of the respondents (68.3%) were male. The mean age of the farmers is 49 years. However, 3.9% of the mostly married and over 90% of them had acquired formal education. However, Table 3 confirms that only 3.0% of the population hand attempted primary education, 10.9% had completed primary education 5% had attempted secondary education and about 70% of the respondents passed have through some form of vocational training in agriculture having passed through secondary schools where agricultural science is part of the school curriculum. The mean family size is 7 persons and farming is the major occupation of about 42% of the respondents (Table 3). The mean farming experience of the respondents is 14 years but about 39% of the respondents have between one and 10 years of farming experience and about 40% have between 11 and 20 years of farming experience. The mean farm size of the respondents is 3.1 ha but the

Table 3: General characteristics of the respondents

Characteristics (n = 410)	Percentage
Sex	
Male	68.30
Female	31.70
Age (Mean = 49)	
21-30	3.90
31-40	22.80
41-50	22.80
51-60	36.60
61-70	13.90
Marital status	
Married	83.20
Single	5.90
Divorced	2.00
Widowed	8.90
Education	
Noformal education	9.90
Primary education attempted	3.00
Primary education completed	10.90
Secondary education attempted	5.00
Secondary education completed	18.80
Tertiary education attempted	28.70
Tertiary education completed	23.80
Family size (mean = 7)	
1-5	35.80
6-10	52.60
11-15	11.60
Major occupation	
Farming	41.60
Public/civilservant	42.60
Private business	14.90
Fishing	1.00
Farming experience (mean = 14 years)	
1-10	38.60
11-20	39.60
21-30	13.90
31-40	6.90
41-50	1.00
Cropping system	
Mixed cropping	70.30
Sole cropping	29.70
Farm size (mean = 3.1 ha)	
5 and below	96.00
6-10	1.98
11 and above	1.98
Source of credit	
Formal	42.60
Informal	57.40

Field survey

majority of the farmers (96.0%) operate with <6 ha of land. The most practiced cropping system as is mixed cropping and informal sources of finance satisfy the credit needs of about 57% of the farmers (Table 3).

The farmers generally operate on small scale and the common farm assets include land, machetes, hoe, shovel and basin. Table 4 shows the farm asset disposition of the farmers. According to this table, 96% of the farmers own Axe, 82% own rake about 28% own sickle, 17% own diggers and only 10% own wheel barrows on farmer.

Credit reserve of the farmers and its use in borrowing: Not all the crop farmers utilize their available credit capacity in obtaining loans. Table 5 shows that 52.44% of the framers do not use their available credit in obtaining loan and the majority of crop farmers that use their reserve to obtain loan utilize <100,000.00 Naira of their borrowing capacity.

This study reveals that most of the mean credit capacity of a typical crop farmer in Cross River state is about 400 and 35000 Naira (N435,332.89) of which only 9.0% is used in borrowing.

Determinants of use of credit reserve in borrowing: The results of the logistic regression is shown in Table 5. shows an L.R statistics of 12.57 with a probability of 0.01. This confirms that all the explanatory variables influence the farmer's use of their credit reserve to obtain loans. Although, only farm size; education index and age have significant effect on extent of use of credit reserve in obtain loans, all the variables included in the model relate positively with the logit. However, the B-coefficient for age is 0.062. Consequently, if age of the respondents increases by 1 year, the logit increases by 0.062. When one considers the odds ratio, it becomes clear that there's a likelihood that the use of credit reserve by farmers in borrowing increases by only 6.6% as age increase by one year. Similarly, the B-coefficient for farming experience is 0.021. This implies that if farming experience increases by 1 year, the estimated logit increases by 0.021.

However, the odds ratio also confirms that there no likelihood that allocation of reserves to loans would improve with increase in farming experience. In fact, increase in farming experience is only likely to bring about a very minimal (2.2%) effect on the allocation of credit reserve to loan.

The B-coefficient for education index is 0.44, implying that if the education index increases by one unit, the estimated logit increases by 0.44 units. However, the odds ratio shows that a unit increase in education index increases the use of credit reserve borrowing by 55%. Consequently, farmer that receives more education is >1 time likely to use more credit reserve in borrowing than a farmer that does not improve her education.

The B-coefficient for farm size is 0.818. If the farm size of the crop farmers increase by 1 ha, the logit increases by 0.818 units. The odds ratio confirms that a unit increase of farm size increase the chance of use of the farmer's credit reserve in borrowing by 127%. This result also suggests that a farmer who increases farm size is >2 times likely to use a good portion of available credit reserve to obtain loans than a farmer that do not increase farm size.

For the capital of the farmer and volume of existing credit reserve the B-Coefficients is 0.00. The odds ratio confirms that there is no likelihood that allocation of credit reserves to loans would improve with increase in the farmer's capital or increases in the volume of the existing credit reserve (Table 6).

Invariably, the farmer's capital, existing credit reserved and farming experience have little or no effect in reducing the farmer's liquidity value for unused credit.

Table 4: Farm asset disposition

Asset	Proportion of farmers owning asset (%)
Matchet	100.00
Hoe	100.00
Rake	82.00
Shovel	100.00
Basin	100.00
Axe	96.40
Headpan	10.70
Diggers	17.86
Sickle	28.57
Wheel barrow	10.70
Spaide	7.14
Chain saw	7.14
Land	100.00

Field survey

Table 5: Credit statistic of respondents

Credit statistic	Values in naira	Percentage
Mean credit used in borrowing (creditat located to loan)	42,805.12	9.83
Mean credit kept in reserve (credit allocated to reserve)	392527.77	90.17
Mean credit capacity	435,332.89	100.00

Field survey

Table 6: Logistic regression result

Variables	Coefficient (B)	Standard error	Z statistic	Significant	Exp (B)
Age (X_1)	0.062	0.036	1.72	0.060***	1.07
Farming experience (X_2)	0.021	0.038	0.55	0.570	1.02
Education index (X_3)	0.442	0.189	2.34	0.020**	1.55
Farm size (X_4)	0.818	0.243	3.37	0.001*	2.27
Capital (X_5)	0.000	0.000	0.00	0.376	1.00
Credit reserve (X_6)	0.000	0.000	0.00	0.610	1.00
Constant	-7.800	1.960	0.00	0.000	0.00

(Nagelkerke R^2 = 0.475; LR statistic (6df) = 12.572; *Significantat 1% two tailed test; **Significantat 5% two tailed test; ***Significantat 10% two tailed test)

Owning more capital, being more experienced and having more unused borrowing capacity does not encourage farmers to utilize the existing reserve in obtaining more loans.

CONCLUSION

Agricultural output growth is generally known to impact positively on the economic well being of any state. To encourage the Cross River state crop farmers increase output the state government has gone all out to tackle problems that militate against increase in food and cash crop production. One such effort has been ensuring that farmers have access to loans. Unfortunately, lenders particularly those of the formal sector have overtime found it difficult to have satisfactory levels of effective demand for agricultural loans from cross river state. However, this study reveals that more education, large farms and to a lesser extent increases in age are variables that reduce farmers liquidity value for unused credit in Cross River state and would compel the farmers to allocate more credit to loans than to reserve.

On the other hand, the odds ratio also confirms that there is no likelihood that allocation of reserves to loans would improve with increase in increase in farming experience, capital nor existing credit reserve of the crop farmers. This study also confirms that the educationally disadvantaged status of Cross River state is limiting the extent that farmers use credit reserve in obtaining loan. In this study about 20% of the respondents had little or no formal education where as only about 50% had either attempted or completed secondary education.

This level of formal education appears to be grossly inadequate in enhancing the use of external finances. In particular this study indicates that an increase in education index would be invaluable in making farmers allocate more to their available credit reserve to loans. Such, improvement must include efforts aiming at improving the farmers' awareness on the use of external finances. On the whole, farm size is the most important factor that encourages the farmers to allocate more credit reserve to loans.

In fact, at a mean farm size of 3.1 ha, the farmers allocate only 9% of their credit reserve to loans and 90% of their credit capacity to reserve. Besides, the study confirms that a 1 ha increase in farm size would trigger over a 100% increase in the use of credit reserve to obtain loans vis a vis demand for loan able funds. Crop farmers in Cross River state have about 90% of unused borrowing capacity. To improve their participation in credit Programs, efforts must be made to introduce education and farm size enhancing programs to enlighten and encourage the farmers to increase farm sizes. These would be invaluable in ensuring that farmers allocate more credit to loan than to reserve.

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