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Full length research paper

Effects of Rural Banking Scheme on the Investment Potentials of Rural Farmers in Ebonyi State

Mbam, B. N.
E-mail: bonymbam@yahoo.com
Department of Agricultural Economics, Management and Extension, Ebonyi State University, PMB 053, Abakaliki, Ebonyi State, Nigeria.

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The study determined the effect of rural banking scheme on the investment potentials of rural farmers in Ebonyi State. A total of 218 farmers and 6 banks were selected using multi-stage random and purposive sampling techniques respectively. Data collected were analyzed using both descriptive and inferential statistics. Results showed that most (90.8%) of the respondents accessed loans from NACRDB Ltd and also there was an increase in the volume of loan disbursed to farmers between 2003 and 2004 and a continuous decrease between 2005 and 2007. Bureaucracy (61.9%), distance to the bank (55.5%), level of collateral (54.1%), size of farm (49.1%) and credit worthiness (39.4%) (Table 2) affected significantly the amount of loan demanded by farmers. The results of regression analysis showed that the amount of loan borrowed had a significant (P<0.05) effect on investments on various farm inputs. Also, correlation coefficient showed that there was a significant (P<0.01) and positive relationship between amount borrowed and saved by farmers. Similarly, there was a positive and significant difference in the level of investment before and after obtaining loans when tested at 1% level. Credit worthiness, collateral, farm size, interest rate and the number of times a farmer has benefited from the bank were the most important factors that determine the amount of loan granted by banks to farmers (Table 4). Among the recommendations made were the establishment of more branches of rural banks and reduction of some of the administrative bottlenecks that hinders farmers' access to rural banks.

KEYWORDS: Effects, Rural, Banking, Scheme, Investment, Potentials, Farmers.

INTRODUCTION

Farming is the main occupations of the people of Ebonyi state especially those that live in the rural area who has no other sources of income for their livelihood. Thus, agriculture remains the mainstay of any developing country's economy as it serves as the means of livelihood to a good proportion of the populace thereby serving as a stepping stone for the growth of all other sectors of the economy (Ohale. 2004; Rweyemamu, Kimaro and Urassa, 2003; Okunade, 2007) This was the situation in Nigeria during the pre and post independence of 1960, until the discovery of the crude oil in the 1970, which led to Agriculture ranking third in its contribution to the nation's Gross Domestic Product (GDP) (Faborade, 2008). Again, the sector is said to be the largest employer of labour, employing about 70% of the active labour force directly and indirectly (FMRD, 2000; Sanni, 2003). As a primary production sector, agriculture needs to be modernized in order to achieve the much needed increase in the sectoral productivity. In actualizing this, the rural areas need to be developed as over 90% of the food productions come from the holdings of resource–poor peasant farmers mainly from the rural areas (Oladele, 2004). In Nigeria today, the general level of funding and investment in agriculture is found not only to be grossly inadequate but also irregular as there are generally poor sources of credit (Oni, Oladele and Oyewole, 2008). Thus, about 80% of Nigerians living in the rural areas had no access to banking facilities; yet they are still expected to provide most of the fund and agricultural materials needed for industrial expansion (Eboh, Okoye and Ayichi, 1995). It is in a bid to tackle the problems of agricultural credit over the years, the Federal Government embarked on the establishment of credit institutions and scheme among which is the rural banking scheme which was launched in 1977. The aim of this scheme was not only to make banking facilities in form of credits available to the farmers at the right time but also

to inculcate banking habits into the lives of rural dwellers (Okorie, 1988).

However, the question is; how far has this scheme gone in achieving the set objectives *vis-a-vis* enhancing the farmers' potential for investment in the sector in Nigeria and the study area in particular? Nevertheless, since the launching of the scheme in 1977 more than two decades ago, there seem not be much empirical studies on the issue at stake in the study area so as to evaluate effects of the scheme on the rural dwellers and the entire economy.

It was therefore in a bid to find solutions to the aforementioned problems that this study was embarked upon. The study specifically analyzed the trend in volume of loans granted to rural farmers by the selected banks; analyzed the factors affecting the amount of loan demanded by the farmers and amount granted by the rural banks; determined the effect of level of investment on amount borrowed from rural banks; and ascertained the relationship between the amount of loan borrowed and the level of saving of farmers.

METHODOLOGY

Study Area

The Study Area is Ebonyi State of Nigeria. It is located between latitude $5^0 45^1$N and $6^0 45^1$N and longitudes $7^0 30^1$E and $8^0 30^1$ E (NBS, 2006). The state is partly located in the rain forest and derived Savanna regions of Nigeria. It has a total land area of 5935km^2, with a population of 2,173,501 people and a population density of 366 person per km^2 (NPC, 2006). The State is endowed with abundant natural resources and as such, the population is predominantly farmers. Among the staple food produced in the area are arable crops such as rice, yam, cassava, sweet potatoes, vegetables to mention but few. The people are also engaged in tree plantation, livestock, fish and animal production.

Data collection and Analysis

A multi-stage sampling involving purposive and random sampling technique was used to select the 218 respondents used for the study. Primary data were collected using two sets of structured questionnaire administered to both the farmer respondents and all the officers in charge of agricultural loans in the selected banks. Secondary data were mainly sourced from rural banks and other related institutions involved in credit administration in the study area. Data collected were analyzed using descriptive statistics and multiple regression analysis.

The multiple regression models used for the study are as specified hereunder.

$Y = f(x_1,x_2,x_3,x_4,x_5,x_6,x_7)$……..implicit function

$Y= a_o +a_1+a_2 + a_3+a_4+a_5+a_6+a_7+et$……explicit function

Where;

Y	=	Amount borrowed (Naira)
i	=	1-7
x_1	=	Farm building
x_2	=	Farm machinery
x_3	=	Agricultural land
x_4	=	Fertilizer/Feeds
x_5	=	Labour
x_6	=	Agro-chemical/Medication
x_7	=	Improved varieties/Breeds
$a_o – a_7$	=	Parameters of regression
et	=	Error term

(II) Log AS = f (AB) …….. implicit function

Log AS = $b_0 + b_1$ log AB + et …… explicit function

Where,

AS	=	Amount saved (Naira)
AB	=	Amount borrowed (Naira)
Log AS	=	Natural logarithm of Amount saved
b_0	=	Constant
b_1	=	Parameter of regression
et	=	Stochastic disturbance (error term).

RESULTS AND DISCUSSION

Result of the analysis of Table 1, showed that majority of the respondents (90.8%) obtained loans from NACRDB Ltd, while only 86.6% accessed loans from all other banks. The implication of this is that it could be easier to access credits from the former, which is a specialized agricultural bank than the commercial and micro-finance banking institutions. This conforms to the findings of Wadhwa (2004), and CBN (2004) that credits from commercial banks accounted for only a small proportion of the farmers using credit currently. Meanwhile, result of the analysis on figure 1 showed that there was a drastic increase in the loan disbursed to farmer-beneficiaries from about ₦20m in 2003 to ₦80m in 2004. This was followed by a continuous decrease in the volume of loan disbursed by banks to ₦57m in 2005, ₦46m in 2006 and ₦33m in 2007.The drastic up and down changes in the trends of disbursements could be attributed to the incidence of some political elements. This is because in Nigeria, many projects which usually require credits are guided more by political leaning than economic motives (Ijere, 1998; Agu, 1998). Again, the continued and persistent fall in loan disbursed to farmers by banks since 2004 till date suggests that the mechanism for implementing and monitoring of the loans was not well developed (Obi, 2007).

Table 1: Type of Banks Operating in the Study Area

Banks	Frequency	Percentage
NACRDB Ltd	198	90.8
Union Bank PLC	45	20.6
First Bank PLC	38	17.4
United Bank for Africa PLC	29	13.3
Micro- Finance Banks	77	35.3
Total	387*	

Source: Field survey, 2009. *Multiple responses recorded

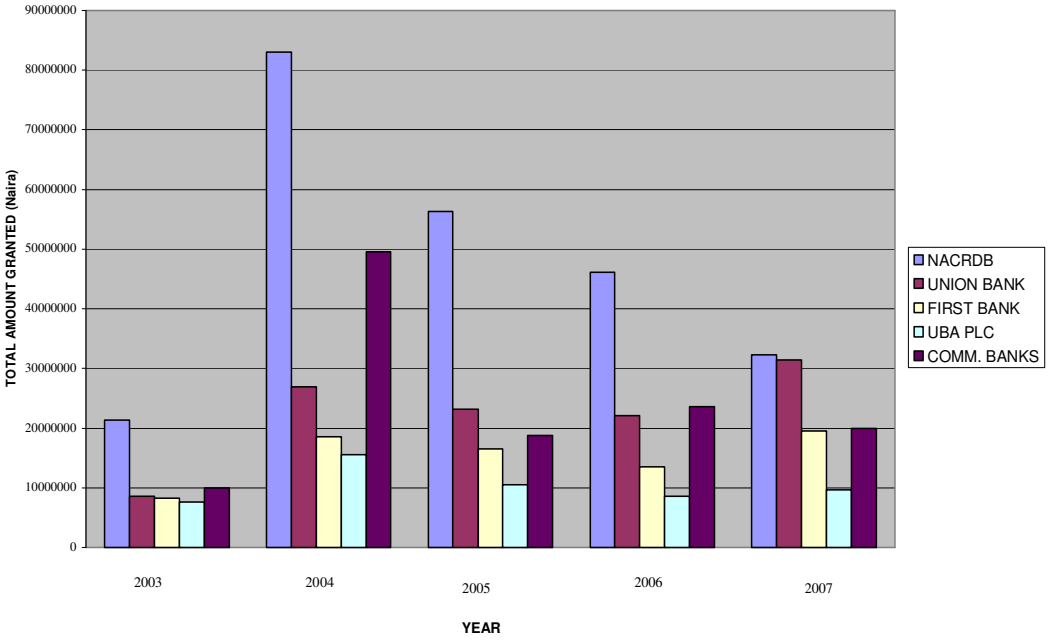

Figure. 1:Trends in Volume of Loans Disbursed to Rural Farmers by Selected Rural Bank in Ebonyi State from 2003 – 2007

Result of the analysis on Table 2 indicated that bureaucracy (61.9 %), distance to the banks (55.5%), level of collateral (54.1 %), size of farm (49.1%), and credit worthiness (39.4 %) were the significant factors that affects the amount of agricultural loan demanded and granted by banks while the level of education (17.9 %), interest rate (26.6 %), and repayment rate (30.3%) have been identified as not having strong effect on the amount of loan demanded and granted by rural banks in Ebonyi State, Nigeria. This finding justifies Adam (1995) who opined that bureaucracy, banks location, financial discipline and credit administration, among other factors affected farmers' demand for loans from banks.

Result of the regression analysis revealed that the coefficients of the amounts invested on farm building(x_1), farm machineries(x_2), fertilizer/feeds(x_4), and improved varieties/breeds(x_7) which were 0.160, 0.448, 0.225, and 0.037 respectively tested statistically significant at 1% level while the coefficients of the amount invested on labour(x_5) which was 0.252 was significant at 5% level. These were in line with the *apriori* expectation that most of the coefficients would be positively signed indicating a direct relationship between the dependent and independent variables. Also, the F-ratio was 3.3 which tested significant at 5% indicating the goodness of fit of the overall regression line. The result also showed that the R^2 was 0.562 indicating that about 56% of the included variables were explained by the combined effects of the explanatory variables. Meanwhile, the remaining 44% that were unexplained could be attributed to the non inclusion of some variables in the regression equation. From the analysis it can be deduced that the

Table 2: Factors that affected the Amount of Loan demanded by the Rural Farmers and Amount granted by the Rural Banks

Factors	Frequency	Percentage
Distance to the Banks	121	55.5
Level of collateral	118	54.1
Administrative costs	80	36.7
Size of farm	107	49.1
Credit worthiness	86	39.4
Bureaucracy	135	61.9
Source of information	54	24.8
Disbursable fund	75	34.4
Personnel	45	20.6
Interest rate	58	26.6
Repayment rate	66	30.3
Level of education	39	17.9
Total	984*	

Source: Field survey, 2007 *Multiple responses recorded

investment on various farm inputs could lead to increase in the amount of loan accessed by farmers. This is because '*cateris paribus'* more investments can improve savings *vis a vis* more asset base which could enhance access to loan facilities, thus, conforming to the findings of Obi (2007) that the amount invested in an economy is dependent on the amount saved by all the economic agents and vice visa. This is in consonance with the objectives behind the formulation of the rural banking scheme policy which among others is to ensure that farmers have access to bank credits which will enhance their productivity as more funds would be made available for higher investments in various farm inputs.The regression output is shown as follows:

$Y=1.975+0.160\ln x_1+0.448\ln x_2-0.103\ln x_3+0.225\ln x_4+0.252\ln x_5-0.023\ln x_6+0.037\ln x_7$

(0.795) *(13.334) *(2.905) *(0.400) *(8.765) ** (1.985) (- 0.103) *(2.643)

NB * Significant at 1%, ** Significant at 5%, F- Ratio =3.3, $R^2 = 0.562$,

Adjusted $R^2 = 0.392$, SEE = 051

Result of the correlation analysis between the amount of loan borrowed and amount saved by farmers showed a strong positive correlation coefficient of 0.743 at 1 % level. This means that the amount a farmer borrowed had a direct relationship with the amount he saved; hence, the *a priori* was met. The implication is that farmers should be encouraged to borrow by having more access to credit facilities. This is because if farmers have access to more credit facilities, it may lead to increase in their investment potentials to produce more. This is in line with the findings of Obi (2007) that the total savings (S) in the economy determine the total investment (I) that also abound in that same country. This negates the dualistic concept that has resulted in the general assumption that rural farmers are too poor to save or receive credit that will enable them invest in any meaningful agricultural production (Agu, 1998).

The result of the test of difference between means of investment in inputs before and after obtaining loans as shown in Table 3 indicated that there was a significant and positive difference between the means of investment in the selected farm inputs before and after obtaining loan when tested at 1% level of significance. The implication is that borrowing of loan encourages farmers' savings. Therefore, any policy intervention adopted by governments or banks to increase the amount of loan lent to farmers can lead to more savings *vis-a-vis* higher investments. This is in consonance with the basic economic principle that what is saved is in turn utilized for investment particularly in a closed economy (Awoke, Edeh, Iyiogwe & Oke, 2005).

Table 4 indicated that credit worthiness (100%), collateral, farm size, interest rate and the number of times a farmer has benefited from the bank each with 80% were the significant factors that determined the amount of loan granted by rural banks while the amount of loan demanded by the farmer (20%) and personality profile (40%) were the least important factors that determined the amount of loan granted by rural banks in the study area. This agrees with the findings of Agu (1998) who enumerated the criteria for loan evaluation in most developing countries of the world to include credit worthiness of the farmer, performance in the previous loans, availability of collaterals, purpose of loan among other factors.

Table 3: Test of Difference between Mean of Investments before and after obtaining loans for farming investments

Inputs	Mean score		SD		T-cal	Prob	Remark
	Before	After	Before	After			
IFB	18422.01	26844.79	31520.10	48201.75	-4.87	0.000	Significant
IFM	15792.62	22311.06	29463.38	40757.94	-6.20	0.000	,,
IAL	28477.98	35613.76	16603.67	17682.91	-7.04	0.000	,,
IFT	27389.45	38117.89	13597.23	14062.34	-15.40	0.000	,,
ILB	67311.92	111463.76	27801.53	44598.24	-18.52	0.000	,,
IAC	29807.34	37700.92	25254.15	13719.98	-4.99	0.000	,,
IIV	53190.83	67885.32	13719.98	37280.04	-8.68	0.000	,,

Sample size: 218 *Significant at 5% level

Table 4: Factors that Determined the Amount of Loan granted to Farmers by Rural Banks

Factor	Frequency	Percentage
Collaterals	4	80.0
Types of enterprise	3	60.0
Farm size	4	80.0
Personality profile	2	40.0
Performance of the farmer in the previous loans obtained	3	60.0
Credit worthiness	5	100.0
Interest rate	4	80.0
Disbursable fund	3	60.0
Number of times a farmer has benefited from the bank	4	80.0
The amount of loan demanded by the farmer	1	20.0
Total	33*	

Source: Field survey, 2007 *Multiple responses recorded

CONCLUSION

The result of the study showed that rural banking scheme affected positively the investment potential of rural farmers in the study area especially in the area of investments in some basic farm inputs. Nevertheless, some of the factors that influence the performance of the rural banks *vis a vis* granting of loans to the teeming rural farmers who are in dire of credits need to be addressed.

It is therefore recommended that Government and all stakeholders involved in the scheme should embark on sound fiscal policy geared towards proper improvement of the scheme. This can be achieved by encouraging more commercial banks to establish more networks of branches in the rural areas. This will invariably help to enhance farmers' easy access to bank facilities in the area thereby increasing their potentials to invest more in agricultural production in the area and Nigeria at large.

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