

EFFECT OF INSTITUTIONAL CREDIT IN CROP PRODUCTION AMONG SMALL-SCALE FARMERS IN LAPAI LOCAL GOVERNMENT AREA OF NIGER STATE, NIGERIA

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Abstract

The paper examines the effect of institutional credit in crop production among small-scale farmers in Lapai Local Government Area of Niger State, using Nigerian Agricultural Cooperative and Rural Development Bank (NACRDB) as a case study. A sample of thirty-five farmers from five different villages of Lapai Local Government were administered with the questionnaire. The data collected were analyzed using simple descriptive statistics and simple regression analysis. Results showed that majority of the farmers had no formal education, the result from simple regression analysis revealed that agricultural credit has a positive and statistical significant effect on crop output. It was recommended that the farmers should be enlighten to form co-operative societies, so as to have access to credit from the NACRDB.

Introduction

Nigerian Agriculture is characterized by low farm incomes, low level of capacity to satisfy the food and fibre needs of the country and primitive techniques of production (Abe, 1981). In recent times there is growing emphasis on the need for a rapid development of the Agricultural sector of the economy so as to break the vicious circle of poverty that is prevalent in the rural sector. On several occasions Nigerian government have initiated more encompassing credit and non-credit programmes for small-scale and large scale farmers. It is to this backdrop that this paper examined the effect of institutional credit in crop production among small-scale farmers in Lapai Local Government Area (LGA) of Niger State.

Methodology

The Study Area

The study was carried out in Lapai Local Government Area Niger State, Nigeria. Niger State lies between latitude 9°36' North and between longitude 6°22'. The state covers a total area of 83,266,779 square kilometers which represents 8% of the total land area of Nigeria. About 85% of the Land is arable. According to the 2006 population census, Niger State has a population of 3,421,581 people. There are two distinct seasons the rainy and the dry seasons respectively. The temperature range between 21°C – 37°C. The average annual rainfall is 1,100mm in the Northern part of the state to 1600mm in the Southern parts farming is the primary occupation.

Sampling design and Data collection: The purposive sampling technique was used to select a total of 35 farmers who had access agricultural credit through Nigerian Agricultural Cooperative and Rural Development Bank (NACRDB). Data were generated with the aid of well structured questionnaire administered in 2006. Information on the socio-economic characteristics of the respondents, input and output data were collected.

Data analysis: The data collected were analyzed using simple regression analysis and descriptive statistics.

Specification of the model: The effect that credit (x) has on crop output (y) can be observed by regression X against y and estimating the co-efficient: The estimated simple regression equation is specified as

$$u = f(x, e) \text{-----(1)}$$

Explicitly, it can be specified as

$$u = a + b x + e \text{ ----- (2)}$$

Where

u = Output of crops in (₦)

x = Volume of loan received (₦)

a = constant term

b = regression co-efficient

e = error term.

We expect that the co-efficient of credit (i.e, b) should be positive

i.e. $\frac{\partial u}{\partial x} = 0$ i.e positive

Results and Discussion

Socio-Economic characteristics of the respondents

The mean age of sampled respondents is 42.0 years, about 34.2% of the respondent had quaranic education while the average size family . The source of awareness of NACRDB credit is presented in Table 1.

Table 1: Source of awareness of NACRDB loan

Source of awareness of bank loan	Number of respondents	Percentage
Friends /Neighbour	5	14.28
Radio	5	14.28
Extension agents	25	71.42
Total	35	100.00

Source: Field survey, 2006.

Majority (71.42%) of the respondents got to know of the NACRDB loan scheme through the extension agents. Therefore in order to increase the level of awareness of the bank loan among farmers, extension contact should be enhanced. Twenty two percent (22.8%) of the farmers had benefited from NACRDB loan for 11 – 15 years. All the respondents used claim to personal & real property as collateral.

The effect of Agricultural Credit on the Farmers Output

The effect of Agricultural credit on the output of crops was observed by regressing output of crops (y) against volume of loan received (x) and estimating the co-efficient econometrically. The results of simple regression analysis are presented in table 2.

Results in table 2 reveals that the R^2 (coefficient of simple determination) is 0.402 which implies that 40.2% of the variation in crop output (y) is explained by agricultural loan (x) while the remaining 59.8% is as a result of other variables not included in the model. The F statistics is also significant at 5% which indicates that the volume of agricultural loan received influenced the level of crop output. The estimated coefficients for the intercept/constraint term is 52.76 and is statistically significant at 1% indicating that if no loan is used, the level of crop output will be 52.77. The coefficients for agricultural credit variable (x) is 0.604 and is positive and statistically significant at 5%. This indicates that agricultural credit (X) has a positive and statistical significant effect on crop output (y).

This is as a farmers access (volume) to credit increases, the output he/she realized from cropping activities also increase significantly. The result also imply that if access to agricultural credit (x_1) is increased by 1% holding other variables constant, the output realized by the farmer will also increase by 60.4%.

Table 2: Regression estimates of the effects of agricultural credit on output in Lapai Local Government Area.

Model	Unstandardized coefficient		Standardized coefficient		
	B	Std. Error	Beta	t	Sig.
Constraint	52.769	6.953	7.589 ^{xxx}	.000	
Loan Size	604	240	402	2.521 ^{**}	.017
$R^2 = 0.402$ $F = 6.355^{**}$					
Note xxx Represents Significant at 1% xx Represents Significant at 5% x " " at 10%					

a. Dependant variable: Output

Source: Survey data, 2006.

This is not far from the finding Oluwalana *et al.* (2004) who found that credit assistance led to about 50% returns on the farmers enterprises.

Conclusion and Recommendations

The study revealed that level of crop output access to agricultural credit has positive and significant influence on crop output. This tends to suggest that access to credit will lead to higher productivity in small-scale agriculture. It is therefore recommended that policies that would make credit available and accessible to the farmers should be put in place. Also, farmers should be enlightened to form cooperative societies, so as to enhance their access to credit from the NACRDB.

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