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Determinants of Demand for Credit in Agriculture

DR. S. GANDHIMATHI — Associate Professor Of Economics, Avinashilingam Institute For Home Science And Higher Education For Women, Coimbatore

Dr. P. AMBIGADEVI — Professor Of Economics, Avinashilingam Institute For Home Science And Higher Education For Women, Coimbatore

ABSTRACT

The present three-tier system of co-operative institutional structure for short and medium term loans and a separate co-operative institutional set up for long term loan came to be permanently established in the late thirties. But the co-operatives could not meet even one-tenth of the credit needed by the farmers in 1951-52 as estimated by All India Rural Credit Survey Committee (1951 52). This led to the intensification of the co-operatives' credit activities during the first three five year plans. Despite intensive efforts, the institutional sources met only 18.70 per cent (co-operatives 15.5 per cent) of credit needs of farmers in 1961 62. In 1969, the government made a significant shift away from a single agency approach to the multi-agency approach involving commercial banks on a large scale in the provision of institutional agricultural credit. Commercial banks, which were following urban – centered lending policy, were to involve in the process of rural development through their lending to the priority sector. A mandate to this effect was given by the nationalization of 14 major commercial banks in July 1969 and another six banks in April 1980. Subsequently, the regional rural banks were established in 1975 to focus special attention on the marginal and small farmers, agricultural labourers and rural artisans.

Further the National Bank for Agriculture and Rural Development (NABARD) was set up in 1982 to refinance all institutional agencies such as commercial banks, Regional Rural Banks and co-operative banks. To strengthen the existing rural credit delivery system, the Service Area Approach (SAA) to rural lending was accepted as the National Policy in 1989. The kisan credit card system was introduced in 1997 to increase the flow of agricultural credit to the farmers. Due to the above policy measures, the institutional credit had increased considerably. The formal sector consisting of co-operatives, commercial banks and the Regional Rural Banks is the main conduit for providing agricultural credit. To conclude, higher amount of crop loan demand was noticed for small farmers. The marginal farmers had demanded for higher amount of investment loan. Hence the size of land holding had negative relationship with the demand for credit. The higher the size of land had reduced the demand credit.

KEYWORDS :

I. INTRODUCTION

In India, the development of institutional system of rural credit began with the government lending to the farmers through the land Improvement Loans Act of 1883 and Agriculturists Loans Act of 1884. However, a more formal, and permanent institutional system of agricultural credit came into being in India with the enactment of the Co-operative Credit Societies Act of 1904. As the Royal Commission on Agriculture (1926) observed, "the salvation of the rural masses from their crushing burden of debt rests in the growth and spread of healthy and well-organized movement . . . Co-operative credit provides the only statisfactory means of financing agriculture on sound lines". This was also highlighted by the All India Rural Credit Survey Committee (195152) when it recommended the co-operative society as the suitable credit agency for villages. This marked the beginning of institutional credit to farmers.

The present three-tier system of co-operative institutional structure for short and medium term loans and a separate co-operative institutional set up for long term loan came to be permanently established in the late thirties. But the co-operatives could not meet even one-tenth of the credit needed by the farmers in 1951-52 as estimated by All India Rural Credit Survey Committee (195152). This led to the intensification of the co-operatives' credit activities during the first three five year plans. Despite intensive efforts, the institutional sources met only 18.70 per cent (co-operatives 15.5 per cent) of credit needs of farmers in 196162.

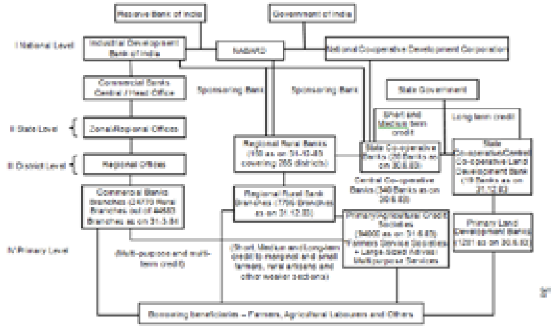
In 1969, the government made a significant shift away from a single agency approach to the multi-agency approach involving commercial banks on a large scale in the provision of institutional agricultural credit. Commercial banks, which were following urban – centered lending policy, were to involve in the process of rural development through their lending to the priority sector. A mandate to this effect was given by the nationalization of 14 major commercial banks in July 1969 and another six banks in April 1980. Subsequently, the regional rural banks were established in 1975 to focus special attention on the marginal and small farmers, agricultural labourers and rural artisans.

Further the National Bank for Agriculture and Rural Development (NABARD) was set up in 1982 to refinance all institutional agencies such as commercial banks, Regional Rural Banks and co-operative banks. Since its inception, the NABARD is playing a central role in providing financial assistance, facilitating institutional development and encouraging promotional efforts in the area of rural credit.

To strengthen the existing rural credit delivery system, the Service Area Approach (SAA) to rural lending was accepted as the National Policy in 1989. The kisan credit card system was introduced in 1997 to increase the flow of agricultural credit to the farmers.

Due to the above policy measures, the institutional credit had increased considerably. The formal sector consisting of co-operatives, commercial banks and the Regional Rural Banks is the main conduit for providing agricultural credit. The various financial institutions which cater to the needs of the rural sector in India are described in Figure – 1.

FIGURE – 1 RURAL FINANCE-INSTITUTIONAL SET-UP



In this back drop, an attempt was made to analyse the demand for credit in agriculture with the following specific objectives.

II. OBJECTIVES

1. To assess the demand for credit in agriculture
2. To identify the factors determining the demand for credit in agriculture

III. METHODOLOGY

The study was conducted in Coimbatore district of Tamilnadu. Multi stage sampling technique was adopted to select 100 farm households to fulfill the objectives of the study. Primary data were collected through personal interview method from the sample borrowers of institutional credit. Interview schedules were used to collect details related to the study from the sample farmers. A pilot study was conducted to identify the gaps in the interview schedule on the basis of observation, during the pilot study. The schedule was modified and the final survey was conducted between August, 2010 – December, 2010.

Credit Demand Equation

To identify the factors determining demand for credit in the study area, multiple regression analysis was employed. The form of the equation used in the estimation was

Y = b0 X0 + b1 X1 + b2 X2 + b3 X3 + b4 X4 + b5 X5 + b6 X6
y = Demand for credit (in Rupees)
X1 = Land holding (in hectares)
X2 = Farming experience (in years)
X3 = Family Size (in number)
X4 = Non farm income (in Rupees)
X5 = Availability of own fund (in Rupees)

IV. RESULTS AND DISCUSSION
DEMAND FOR AGRICULTURAL CREDIT

The formulation of adequate policies largely depends upon the reliable estimation of the nature and magnitude of indebtedness in given sectors of the economy. The demand for rural credit is determined mainly by the extent of indebtedness on the one hand and additional financial requirements on the other. Inadequacy of credit arises because of low income, small and scattered holdings, high cost of inputs, improper fixation of scale of finance, etc. The demand for agricultural credit is discussed under the following heads.

1. Demand for crop loan
2. Demand for investment loan

1. DEMAND FOR CROP LOAN

Lack of capital is acknowledged as one of the limiting factors in the modernization of agriculture. Before extending credit facilities, the banks would like to have basic information about the potential of the credit needs. An effort was made to analyze the demand for credit in the study area.

TABLE – 1 FARMER CATEGORY WISE DEMAND FOR CROP LOAN

Farmer category	Demand for crop loan
Marginal	17958
Small	28156
Semi-medium	26722
Medium	18666
Large	25984

Source : Field Survey, 2007.

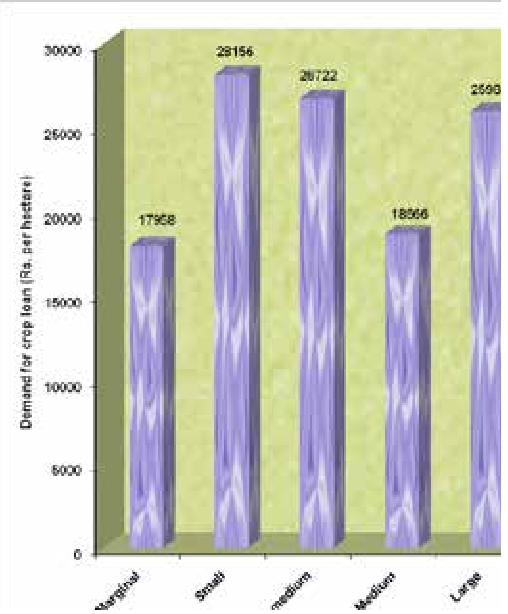


FIGURE – 3 FARMER CATEGORY WISE DEMAND FOR CROP LOAN

The Table – 6 and Figure – 3 reveal that higher amount of demand for crop loan was observed with small farmers (Rs.28156) compared to other categories of farmers. The demand for crop loan associated with semi medium farmers was Rs.26722 followed by large farmers (Rs.25984). Less amount of demand for crop loan was observed with marginal farmers (Rs.17958).

2. DEMAND FOR INVESTMENT LOAN

Demand for investment loan depends on investment need on farm machineries, minor irrigation projects, land reclamation and land development.

TABLE – 2
FARMER CATEGORY WISE DEMAND FOR INVESTMENT LOAN (Rs. per hectare)

Farmer category	Investment loan demand
Marginal	65625
Small	29616
Semi-medium	11220
Medium	18178
Large	20723

Source : Field Survey, 2007.

Among various categories of farmers, the marginal farmers had a demand for investment loan Rs.65625 followed by small farmers (Rs.29616), large farmers (Rs.20723), medium farmers (Rs.18178) and semi medium farmers (Rs.11220).

3. DETERMINANTS OF DEMAND FOR CREDIT – REGRESSION ANALYSIS

The formulation of adequate credit policies largely depends upon the reliable estimation of the nature and magnitude of indebtedness in given sectors of the economy. The demand for rural credit is determined mainly by the extent of indebtedness on the one hand and the additional financial requirements on the other. Inadequacy of credit arises because of low income, small and scattered holdings, high cost of inputs, improper fixation of scale of finance, etc.

The means of the variables selected for credit demand equation is shown in Table – 3.

TABLE – 3 MEANS OF SELECTED VARIABLES FOR CREDIT DEMAND EQUATION

Variable	Unit	Mean
Land holding	Hectares	3.0064
Farming experience	Years	26.7680
Family size	Number	3.8960
Non-farm income	Rupees	4440
Own fund	Rupees	57175
N	125	

Source : Field Survey, 2007.

The total size of land holding of the farmers was 3 hectares. The farming experience of the farmers was more than 25 years in farming. On an average, there were around four members in the family. The amount of non-farm income of the farmers was accounted to be Rs.4440. The farmers had availed an amount of own fund Rs.57175.

The estimated credit demand equation is shown in Table – 4

TABLE – 4
ESTIMATED CREDIT DEMAND EQUATION

Variable	Regression Co-efficients	't' value
Constant	80042.7771	1.571
Land holding	-73947.3105	-17.502**
Farming experience	- 1996.3407	- 1.683
Family size	20440.0792	- 2.002*
Non-farm income	0.4148	0.389
Own fund	- 0.6546	- 4.032**
R^2	0.73050	
F	64.51**	

Source : Estimates based on Field Survey, 2005-2006
*** Significant at 5 per cent level ; ** Significant at 1 per cent level**

The Table – 4 shows that size of land holding, family size and availability of own fund were statistically significant to determine the demand for credit. The co-efficient of land holding was negatively related with demand for credit. It revealed that the demand for credit had increased along with decrease in the size of land holding. The co-efficient of family size and availability of own fund were negatively related with credit demand. It showed that additional family size and availability of own fund could reduce additional demand for credit. The estimated model was statistically significant. It could be identified from the significant 'F' value (64.51).

CONCLUSION

To conclude, higher amount of crop loan demand was noticed for small farmers. The marginal farmers had demanded for higher amount of investment loan. Hence the size of land holding had negative relationship with the demand for credit. The higher the size of land had reduced the demand credit. The size of family and availability of own fund were negatively related with demand for credit. If the family size is small and the availability of own fund is less, the demand for credit is higher in the study area.

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