



## 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 satisfactory means of financing agriculture on sound lines". This was also highlighted by the All India Rural Credit Survey Committee (1951-52) 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 (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.

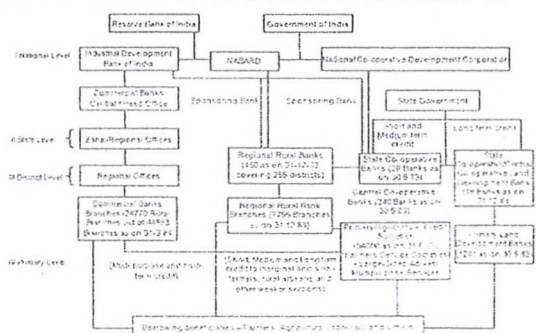
In 1969, the government made a significant shift away from a single agency approach to the multi-agency approach involving commercial banks on a large scale in the provision of institutional agricultural credit. Commercial banks, which were following urban - centered lending policy, were to involve in 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. 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.



**OBJECTIVES**

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

**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 agricultural credit. Interview schedules were used to collect details of the study from the sample farmers. A pilot study was conducted to identify the gaps in the interview schedule on the basis of the findings, during the pilot study. The schedule was modified and the final survey was conducted between August, 2010 – December, 2010.

**Demand Equation**

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

$$Y = b_0 + b_1 X_1 + b_2 X_2 + b_3 X_3 + b_4 X_4 + b_5 X_5 + b_6 X_6$$

- Y Demand for credit (in Rupees)
- X<sub>1</sub> Land holding (in hectares)
- X<sub>2</sub> Farming experience (in years)
- X<sub>3</sub> Family Size (in number)
- X<sub>4</sub> Non farm income (in Rupees)
- X<sub>5</sub> Availability of own fund (in Rupees)

**RESULTS AND DISCUSSION**

**DEMAND FOR AGRICULTURAL CREDIT**

The formulation of adequate policies largely depends upon the estimation of the nature and magnitude of indebtedness in given sectors of the economy. The demand for rural credit is determined 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 demand for credit is discussed under the following heads.

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

**DEMAND FOR CROP LOAN**

It is acknowledged as one of the limiting factors in the development of agriculture. Before extending credit facilities, the researcher has to have basic information about the potential of the sector. Effort was made to analyze the demand for credit in agriculture.

**DEMAND FOR CROP LOAN - 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.

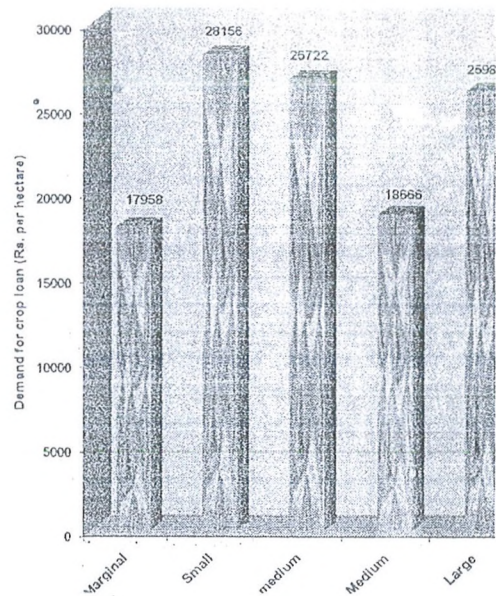


FIGURE - 3 FARMER CATEGORY WISE DEMAND FOR CROP LOAN

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** **DEMAND EQUATION OF SELECTED VARIABLES FOR CREDIT DEMAND**

Variable	Unit	Mean
Land holding	Hectares	1.064
Farming experience	Years	17.680
Family size	Number	4.960
Non-farm income	Rupees	1000
Own fund	Rupees	175
N		125

Source : Field Survey, 2007.

The total size of land holding of the farmers was 1.064 hectares. The farming experience of the farmers was 17.68 years in farming. On an average there were around four members in the family. The amount of non farm income of the farmers was Rs.1000. The amount of own fund available an amount of Rs.175.

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.

The estimated demand equation is shown in table – 4

**TABLE – 4** **ESTIMATED CREDIT DEMAND EQUATION**

Variable	Regression Co-efficient	't' value
Constant	80042.7771	1.571
Land holding	-73947.3107	-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 <sup>2</sup>	0.73050	
F	64.51**	

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

The Table 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 demand for credit

**REFERENCES**

Adams, R.W., (1969), Financial Structure and Development, Yale University Press, New Haven. | Iqbal, F., (1986), The Demand for Agricultural Households in India in Singh, I., Squire, L., and Strauss, J., (eds), Agricultural Household Models: Experiences, Baltimore. | Pischke, V., Adams, D. and Donald, G. (eds), (1983), Rural Financial Markets in Developing Countries, Donald, G. (eds), (1983), Rural Financial Markets in Developing Countries, The Johns Hopkins, Baltimore. | Saraf (1991), Regional Rural Banks and Development, Mittal Publication, New Delhi. | Journals | Journal of Institutional Credit – An estimation of credit gaps, Indian Co-operative Review, Vol. 25, No. 4, pp. 337-385. | Sindhu, S., (2006), "Agricultural Credit and Investment Survey, Reserve Bank of India, Bombay. | All India Rural Debt and Investment Survey, (2002), Reserve Bank of India, Bulletin, Mumbai. | Uddin, N., (2003), Regional Rural Banks and Development, Mittal Publication, New Delhi. | Khusro, A.M., (1989), "The Agricultural Credit Review Committee, Reserve Bank of India, Bombay. | Malhotra, R.N., (1991), Keynote Address at the Fourteenth Lok Sabha, Ministry of Finance, Department of Economic Affairs, Lok Sabha Secretariat, New Delhi. | Report of the Advisory Committee on flow of Credit to Agriculture and Related Activities from the Banking System, Reserve Bank of India, Mumbai. | Singh, A.K., (2006), Mantra for the New Millennium, Survey of Indian Agriculture, The Hindu, New Delhi. | Chinnathi, S., (2007), Impact of Institutional Finance on Farm Production, Income and Assets Holding in Selected Blocks of Karnataka, Unpublished Ph. D. thesis, Submitted to Avinashilingam University for Women, Coimbatore, Tamil Nadu, India. | Reserve Bank of India, Bombay, URL : www.rbi.org.in. | Report on Trends and Progress of Banking in India, 2005-2006, Reserve Bank of India, Mumbai, URL : www.rbi.org.in. |