

AN ANALYSIS OF LEAD BANK CREDIT AND
INVESTMENT PATTERN WITH REFERENCE TO
PADDY CULTIVATION IN MADURAI DISTRICT,
TAMILNADU

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ABSTRACT

The Indian government and the Reserve Bank of India (RBI) have played a remarkable role in the agricultural development to create a broad-based institutional framework for catering to the increasing credit requirements to the agricultural sector. Lead Bank finance is the best and the cheapest source of agricultural credit to the farmers because at very low rates of interest that pale into insignificance when compared to those charged by the money lenders and various other institutions. Lead Bank provides loans to the farmers for the preparation of land and for the purchase of seeds, fertilizers, and the like in rural areas.

KEY WORDS: agriculture sector, money lenders, reserve bank of India, lead bank

INTRODUCTION

In the developing countries, and more particularly in India, sustained efforts have been taken to increase the production of food as also of the other agricultural products. But Indian farmers, being poor in general, were in dire need of money to modernize agriculture. The adoption of the new agricultural technology more popularly known as the Green Revolution was also capital intensive in its nature. Hence, in order to restructure the agricultural activities to cope with the adoption of modern technology for improving production as well as productivity, there was a great need for more

and more of capital which could be obtained through agricultural credit. The lead banks play an important role in helping the farming communities by making credit facilities available to them with low interest at the appropriate time.

The main focus of this paper is to analyse the volume of agricultural credit in terms of the amounts issued, recoveries made, outstanding debts and overdues. Further, it studies the investment pattern in capital formation of the sample beneficiaries in the study area.

PROFILE OF AGRICULTURE SECTOR IN MADURAI DISTRICT

The geographical extent of Madurai is 3741.73 sq.km., accounting for 2.9% of the geographical area of Tamil Nadu State. There are 2 Revenue Divisions; 13 Blocks and 596 villages in the district. There are 252 Bank Branches in the district and the average annual rainfall in the district is 835.3 mm. The major sources of irrigation are canals and wells.

The district has a total population about 25.62 lakhs comprising of 12.95 lakh males and 12.67 lakh females as per 2001 census. The district is basically agrarian and agriculture is the main occupation.

Land under forest (50452 hec); Gross Cropped Area (138055 hec); pasture land (2032 hec), gross irrigated area to gross cropped area (48%) and number of tanks stood at 13616 and gross area that was irrigated accountant for 69690 hec. Important Food crops are Paddy, Chulam,Ragi,Pulses and important non food crops are Cotton,Gingelly, Coconut, Groundnut and Sugarcane. Out of 2.48 lakh dairy animals in the district, white and black cattle stood at 2.15 lakh and 0.03 lakh respectively

LEAD BANK SCHEME

Prior to nationalization of 14 Commercial Banks, agriculture got only a meager share of about 2 per cent of total bank credit. It was felt that banking facilities should be extended to rural areas to promote agricultural development.

The Lead Bank Scheme, introduced towards the end of 1969, envisages assignment of lead roles to individual banks (both public and private sector) for the districts allotted to them. A bank having a relatively large network of branches in the rural areas of a given district and endowed with adequate financial and manpower resources has generally been entrusted with the lead responsibility for the district.

The major objective of lead bank scheme is to extend the banking facilities to enable the rural people to enjoy the benefits of economic development through the adoption of production raising technology, subsidiary occupations and

rural industrialization. The lead bank is responsible for the all round development of the district allotted to it.

STATEMENT OF THE PROBLEM

The present study proposes to highlight the Lead Bank Credit extended by the lead bank in Madurai District. The Canara Bank is performing the role of the lead bank, for the whole district. It provides directions and guidelines to all the commercial banks for granting financial assistance to agriculture sector.

OBJECTIVES

To study is set to meet the following objectives:

- i)To analysis the Trend and growth of the lead bank (Canara Bank) credit
- ii)To analysis the Impact of Lead Bank Credit on Capital Formation

REVIEW OF LITERATURE

Chowdhery had discovered that the credit requirements of the farmers were of different types and were for different purposes. For example the seasonal credit needs were for meeting the various current input requirements such as for the purchase of seeds, fertilizers and pesticides; medium term credit requirements were for the purchase of seeds, drills, sprayers and the like and long term credit needs were for purchases such as leveling of land for the construction of cattle sheds and the like.

Rajagopalan had defined agricultural credit as the amount of investment funds that could be made available for farm production from sources outside that of the farm. He had also defined agricultural credit as the amount of investment funds that could be made available for the purpose of development and sustenance of farm production and productivity.

Srivastava had attempted to study the impact of farm credit with different levels of parameters. The study had disclosed a high positive marginal productivity of capital among all the groups of farmers who had utilised a less than optimum level of credit. The production of crops and the net profits had increased with every successive additional unit of credit.

METHODOLOGY

Designing a suitable methodology and the selection of proper analytical tools were important for a meaningful and useful analysis in any research undertaking.

PERIOD OF STUDY

In order to evaluate the performance of the lead bank in terms of the loans issued, recovery, outstanding loans and overdues, data were obtained for a period of 10 years from 1996-97 to 2007-08 from the Annual Credit Plans (ACPs) of the Lead Bank.

THE ANALYTICAL FRAMEWORK

In order to analyse the trend and growth of the amounts of credit issued, recoveries made, outstanding debts and overdues, the following semi-log trend equation was been fitted.

$$\text{Log } Y = a + bt \text{ ----- (4.1)}$$

Where,

Y - Variable

t - Time Period

To compute the compound growth rate, the following formula was used,

$$\text{Compound Growth Rate (CGR)} = [(Antilog b-1) \times 100] \dots (4.2)$$

To study the stability of the loan issued, recoveries made, outstanding loans and overdues over the periods (1996-97 to 2007-08), co-efficient of variation was computed.

TREND AND GROWTH OF LEAD BANK CREDIT

Table-1 exhibits the details regarding the amount of loans issued, recoveries made, outstanding dues and overdues for a period of twelve years from 1996-97 to 2007-08 by the Lead Banks in Madurai district.

Table - 1 Loans Issued, Recoveries, Outstanding Dues and Over dues during 1996-97 TO 2007-08 (Rs. in crores)

Year	Loan Issued	Recoveries	Outstandings	Overdues
1996-97	98.65	75.15	41.15	25.15
1997-98	99.36	86.39	21.23	36.43
1998-99	100.25	77.16	19.14	26.61
1999-00	115.41	95.21	20.15	38.41
2000-01	118.64	94.11	31.11	41.16
2001-02	116.41	77.36	24.61	57.64
2002-03	100.35	85.14	47.15	51.43
2003-04	101.11	69.24	50.15	58.49
2004-05	114.11	65.15	45.11	59.16
2005-06	96.15	76.16	33.13	64.25
2006-07	117.35	95.15	45.15	70.45
2007-08	113.15	96.26	46.26	79.64
qX	109.11	84.13	36.16	50.15
C.V.	5.16	11.25	25.45	30.65

X - Arithmetic Mean, C.V. - Coefficient of Variation.

Source: Annual Credit Plan, Canara Bank, Lead Bank, Reports from 1996-97 to 2007-08.

It could be inferred from Table that the loans issued by the lead bank during the period 1996-97 to 2007-08 had steadily increased.

The loans issued during the year 1996-97 were Rs.98.65 crores and they had increased to Rs.113.15 crores during the year 2007-08. Similarly, the recoveries, outstanding dues and overdues had also recorded an increasing trend during the entire period of 12 years.

It is revealed from Table that the average amount over a period from 1996-97 to 2007-08 issued the recovery, outstanding dues and overdues were found to be Rs.109.11 crores, Rs.84.13 crores, Rs.36.16 crores and Rs.50.15 crores respectively. A high fluctuation was found in overdues whereas less fluctuation was observed for the loan issued over a period. It is followed by recoveries.

The estimated results of Model (0.1) and (0.2) for the loans issued, recoveries made, outstanding dues and overdues are presented in table-2

Table-2 Trend and Growth of Loans Issued, Recoveries Made, Outstanding Dues and Over dues During 1996-97 to 2007-08

Variable	Trend Coefficient		qR2	Compound Growth Rate (%)
	a	b		
Loans Issued	4.1165	0.0039* (8.1161)	0.46	0.414
Recoveries	4.3961	0.00413* (2.3611)	0.44	0.421
Outstanding Dues	3.1621	0.0561 (0.0219)	0.38	6.120
Overdues	3.2868	0.0165 (0.0111)	0.44	9.990

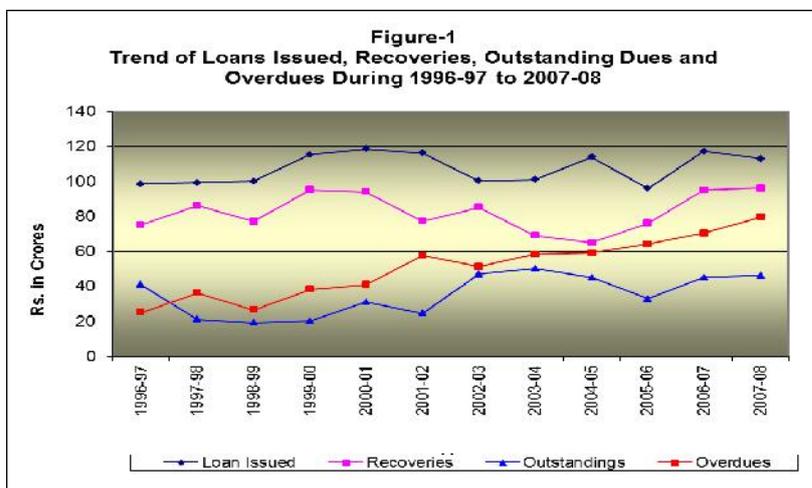
Note: Figures in brackets represent t-values.

*Indicates the statistically significant at 5 per cent level.

It could be seen from table-2 that the trend co-efficient of loans issued and recoveries was found to be statistically significant at the 5 per cent level. It implied that the loans issued and recoveries made had increased at the rate of 0.0039 per cent and 0.00413 per cent per annum. The compound growth rate of loans issued and recoveries made was only 0.414 per cent and 0.42 per cent. As regards the, outstanding dues and overdues the trend co-efficient were found to be statistically not significant. The compound growth rate was found

to be high in overdues amounts followed by the growth rate in outstanding dues. It could be inferred from this analysis that the financial institution, namely, Canara Bank, the Lead Bank in the study area, had issued considerable amounts of loans to meet the growing financial needs of the farmers in the study area. Further, the recovery performance was also found to be satisfactory in the study area.

The trend lines of the loans issued, recoveries made, outstanding dues and the overdues of the Lead Bank have been plotted in the form of a graph (Figure -1)



IMPACT OF AGRICULTURAL CREDIT ON CAPITAL FORMATION

This section analyses the collected data with reference to the various forms of farm investments in agriculture so as to understand the impact of agricultural credit on capital formation in agriculture. In the present study, the farm investments had been broadly classified into five categories of investments

- i) Investment on land and land improvements
- ii) Investment on farm buildings
- iii) Investment on irrigational structures
- iv) Investment on minor and major agricultural implements and
- v) Investments on livestock.

Average Value of Capital Formation in the Beneficiaries Group:-

The amount invested out of the agricultural credit for purposes of land and land improvements,

farm buildings, irrigational structures, purchase of agricultural implements and financial assets is presented in table -3

Table -3 Average Values of the Assets of the Borrowers' Group – Capital Formation (Per Farm in Rupees) In 2007-08

Size Group	Physical Assets					Financial Assets	Total Assts per Farm	Total Assets per Acre
	Land Improve-ments	Farm Build-ings	Irriga-tional Struct-ures	Agricul-tural Imple-ments	Live-stock			
Small	986.15 (11.06)	786.11 (8.81)	1549.11 (17.37)	1264.21 (14.18)	2341.10 (26.25)	1991.24 (22.33)	8917.92 (100)	2911.69
Large	675.23 (7.03)	1053.15 (10.96)	936.15 (9.74)	786.22 (8.18)	1768.11 (18.40)	4391.16 (45.69)	9610.02 (100)	1435.16
Overall	875.15 (9.73)	871.24 (9.69)	1332.15 (14.81)	1013.64 (11.27)	2142.15 (23.81)	2761.16 (30.69)	8995.49 (100)	2261.49

Source: Survey data.

Note : Figures in brackets represent percentages to the totals.

The above table depicts that the per farm value of assets added was the highest in the category of the financial assets followed by the physical assets added such as the livestock, irrigation structure, farm buildings, agricultural implements and land and land improvements. The per farm value of added assets was the least for land and land improvements.

Investment on Land and Land Improvements:-

The details of investments of credit on land improvements are presented in Table -4

Table- 4 Investments of Credit of Land Improvement by the Borrowers

(in Rupees)

Size Group	Average Land Holdings	Levelling		Irrigation Channels		Fencing		Total	
		Per Farm	Per Acre	Per Farm	Per Acre	Per Farm	Per Acre	Per Farm	Per Acre
Small	2.98	581.16 (66.08)	269.10	223.14 (25.37)	103.11	75.21 (8.55)	34.21	879.51 (100)	406.42
Large	6.31	1145.11 (60.09)	133.14	551.22 (28.93)	65.24	209.16 (10.98)	25.16	1905.49 (100)	223.54
Overall	4.05	809.21 (61.51)	195.16	353.17 (26.84)	85.19	153.21 (11.65)	37.22	1315.59 (100)	317.57

Source: Survey data.

It was evident from Table- 4 that the total investments on land improvements per farm were higher in the case of the large farmers, but the per acre value on land improvements, it was found to be lower for the large farmers when compared to the small farmers. The investments on leveling per farm were found to be Rs.581.16 and Rs.1145.11, respectively for the small and the large farmers. In the case of investments on irrigation channels, the large farmers had made a higher investment of Rs.551.22 per farm followed by the small farmers with an investment of Rs.223.14. The large farmers

were found to have a higher amount of Rs.209.16 on fencing compared to the investments made by the small farmers. It could be observed from an analysis of the per farm investment that total investments on leveling irrigation channels and fencing were found to be higher in the case of the large farmers when compared to the small farmers. But an analysis of the per acre investment had shown that the investments made on leveling, on irrigation channels and on fencing were found to be higher in the case of the small farmers compared to the large farmers.

Investments made on Minor and Major

Implements:-

The investments on minor and major implements included the investments on cultivator

disc ploughs, wood board ploughs and the like. Table-5 presents the data investments of credit on minor and major implements made by the sample farmers.

Table-5 Investments of Credit on Minor and Major Implements (Per Farm) By the Borrowers (in Rupees)

Size	Number of Farmers	Major Implements	Minor Implements	Total
Small	94	761.14 (68.37)	352.15 (31.62)	1113.29 (100)
Large	58	1669.25 (86.11)	269.24 (13.89)	1938.49 (100)
Overall	150	829.15 (67.12)	406.10 (32.88)	1235.25 (100)

Source: Survey data.

It is found from Table-5 that the investment of credit on minor and major implements per farm was higher in the case of the large farmers when compared to the small farmers. The investments made by the large farmers on major and minor implements were found to be Rs.1669.25 and Rs.269.24 respectively. In the case of the small farmers, it was of the order of Rs.761.14 and Rs.352.15 respectively. Thus, it could be inferred from the above analysis that the investments on

major implements were more in the two groups of farmers compared to their investments on minor implements.

Investments on Draught Cattle and Milch Animals:-

Farm livestock included drought cattle; milch animals namely cows, buffaloes calves and heifers. Investment on drought cattles and milch animals per farm during the period under study is presented in Table-6

Table -6 Investment of Credit on Drought Cattle and Milch Animals (Per Farm) By The Beneficiaries (in Rupees)

Size Group	Number of Farmers	Drought Cattle	Milch Animals		Total
			Cows	Buffaloes	
Small	92	1015.22 (43.86)	1299.24 (56.14)	--	2314.46 (100)
Large	58	1031.42 (32.63)	2121.61 (67.37)	--	3153.03 (100)
Overall	150	1035.24 (38.54)	1641.24 (61.46)	--	2676.48 (100)

Source: Survey data.

It could be seen from Table-6 that investments on draughts cattle and milch animals per farm were made on the basis of the size of the farms. The total investments made on draught and milch animals by the large farmers were found to be Rs.3153.03 which were higher when compared with the small farmers in the study area. Investments made on draught and milch animals by the large farmers were found to be Rs.1031.42 and Rs.2121.61 respectively. In the case of the small farmers, it worked out to Rs.1015.22 and Rs.1299.24 for the draught animals and the milch animals respectively.

CONCLUSION

An analysis of the trend and growth of loans issued and recompenses made by co-operative banks in the study area had shown that the loan issued and recovery performance were found to be a rising trend of annual growth. It could be inferred that the lead bank had issued sufficient and sizeable amounts of loans to the farmers to meet their growing financial needs in the study area. An analysis of the relationship between the farm size and the use of the agricultural credit had indicated that the small farmers had relatively availed

themselves of a greater share of credit compared to the large farmers. Further, there was found to be a positive relationship between the average size of the holding and the per farm credit. But a negative relationship was noticed between the average size of the holding and the per acre credit utilized by the farmers.

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