

## A STUDY OF BLOCK-WISE AGRICULTURAL CREDIT PERFORMANCE FROM 2001 TO 2021 IN THE THOOTHUKUDI DISTRICT OF TAMIL NADU STATE

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### Abstract

Over 70% of our nation's population depends on agriculture, which is the foundation of our nation and contributes significantly to our GDP. The district's agricultural economy is maintained in large part by the Lead Bank Scheme, one of several innovative, novel, and planned schemes and programs that have been developed and put into action. The study looks at the development and trend of agricultural credit performance in Tamilnadu state's Thoothukudi District from 2001 to 2021. Alwarthirunagari, Kayathar, Kovilpatti, Thoothukudi, and Thiruchendur blocks' agricultural credits and total loans given were, on average, 31.9 percent, 23.8 percent, 83.7 percent, 38.2 percent, 29.4 percent, and 35.1 percent, according to the trend coefficient. Kovilpatti block has the fastest growth rate, followed by Thoothukudi block. At the five percent level, it was determined that the trend coefficient of agricultural credits for the Alwarthirunagari, Kovilpatti, Thoothukudi, and Thiruchendur blocks was statistically significant. The trend coefficient was shown to be statistically not significant in the Kayathar block. According to the  $R^2$  value, the time variable accounts for between 27% and 91% of the variances in the independent variables. The table shows that the mean values of agricultural credits granted in the blocks of Alwarthirunagari, Kayathar, Kovilpatti, Thoothukudi, and Thiruchendur varied significantly from one another. The financial institution, State Bank of India, the Lead Bank in the study region, offered a significant number of agricultural loans to fulfil the increasing financial demands of the farmers in the study area, according to the analysis. Additionally, it was determined that the research area's agricultural credit performance was satisfactory.

**Keywords:** agricultural credit, financial institution, poverty alleviation, employment generation, small-scale industries.

### INTRODUCTION

One important area of the Indian economy is agriculture. New agricultural production technology confirms the end of the traditional farming age and the beginning of a new one. Personal savings cannot cover all of the additional financial input required for modern farming (Acharya, V.V.; Hasan, I. and Saunders, A., 2002).

In India, the multiagency method has been acknowledged for giving farmers credit for meeting their needs (Amutha D, 2019). Compared to other sectors, agriculture is still mostly ignored despite having a significant economic impact on our nation. The Indian banking industry contributes significantly to the growth of the agriculture sector by providing funding for it.

Prior to banks being nationalised, only the industrial sector benefited from banks and their services; the agricultural sector was mostly ignored, and the nation's rural economy was not improved (Amutha D, 2019). Since agriculture is the most crucial industry for reducing poverty and creating jobs, it is assuming a high rate of relevance in India (Amutha D, 2016).

The development of agriculture is accelerated by the timely and adequate availability of less expensive organisational financing (Belshaw 1931, Galbrath 1952). Credit is not just a vital agricultural input but also a powerful tool for rural economies to change. Farmers' financial needs have grown as a result of growing commercialisation, diversification, and capitalisation through the use of contemporary technology, which is primarily pushed by the forces of globalisation (Khan Tewari and Shukla 2007).

With the district serving as the fundamental unit, the lead bank takes the lead in organising the activities and endeavours of all credit institutions in the designated districts to boost the flow of credit to small-scale industries, agriculture, and other economic activities that are part of the priority sector in rural and semi-urban areas. The study looks at the rise and trend of agricultural credit performance in Tamilnadu state's Thoothukudi District block-by-block from 2001 to 2021.

## OBJECTIVES

The following goals guided the current study's endeavour.

1. To assess the credit performance of the agriculture sector in Thoothukudi District on a block-by-block basis.
2. To investigate the pattern and expansion of block-by-block agricultural credit performance from 2001–02 to 2020–21.

## METHODOLOGY

The goal of the current study was to examine the agricultural credit performance of Thoothukudi District's primary bank for 20 years, from 2001–2002 to 2020–21. By conducting a personal visit to the lead bank, the necessary data was gathered to cover the many study components and meet the objectives. Secondary data on the main bank's agricultural lending performance throughout 20 years, from 2001–02 to 2020–21, was gathered with a number of goals in mind. The secondary data was gathered between 2001–2002 and 2020–21 via the Internet, books, newspapers, journals, records, and brochures. The lead bank of Thoothukudi District's agricultural loan performance has been analysed using percentage approaches, the coefficient of variations, ANOVA, linear trend, and compound growth rate over time.

## REVIEW OF LITERATURE

According to Vyas and Somani (2019), the most crucial factor in implementing agricultural development initiatives is an efficient supply of agricultural finance and credit. Given the financial situation of Indian farmers, a sufficient supply of agricultural financing is needed.

In this research, Mr. Sathik Sayyed, Prof. Noorbasha Abdul, and Dr. S. Anitha Devi (2017) examine the performance of Lead Bank initiatives in Andhra Pradesh, one of the Indian states.

In their report, M. J. Senthil Kumar and Dr. K. Sadeesh Kumar (2012) concluded that this study offered empirical ideas to the government and bank authorities in order to spread the advantages of the Lead Bank concept.

### TREND AND GROWTH OF THE LEAD BANK AGRICULTURAL CREDIT

The distribution of agricultural loans across five blocks in the Thoothukudi District is examined in this section. The lead bank's agricultural credit performance across five blocks in the district of Thoothukudi is displayed in Table 1.

**TABLE 1**  
**AGRICULTURE SECTOR CREDIT PERFORMANCE IN BLOCK WISE (Rs in lakh)**

| Years   | Alwarthirunagari | Kayathar | Kovilpatti | Thoothukudi | Thiruchendur | Total credit |
|---------|------------------|----------|------------|-------------|--------------|--------------|
| 2001-02 | 120449           | 71035    | 57157      | 65414       | 85085        | 399140       |
| 2002-03 | 116518           | 63970    | 108600     | 135220      | 97162        | 521470       |
| 2003-04 | 114045           | 113059   | 69936      | 117512      | 14948.9      | 429500.9     |
| 2004-05 | 142800           | 138637   | 60149      | 110170      | 185759       | 637515       |
| 2005-06 | 170396           | 225531   | 165047     | 181745      | 222662       | 965381       |
| 2006-07 | 296787           | 221052   | 388048     | 282781      | 432166       | 1620834      |
| 2007-08 | 462197           | 300490   | 417002     | 277226      | 279010       | 1735925      |
| 2008-09 | 390115           | 139256   | 325955     | 422759      | 212998       | 1491083      |
| 2009-10 | 390050           | 369324   | 580957     | 497679      | 519873       | 2357883      |
| 2010-11 | 842572           | 450772   | 665399     | 576211      | 623568       | 3158522      |
| 2011-12 | 723228           | 436185   | 816365     | 591352      | 155043.3     | 2722173.3    |
| 2012-13 | 882617           | 535300   | 845351     | 1015057     | 863450       | 4141775      |
| 2013-14 | 1356944          | 1097008  | 1409293    | 1367576     | 2101348      | 7332169      |
| 2014-15 | 1120771          | 961262   | 1913061    | 1489680     | 2399209      | 7883983      |

|         |         |         |         |         |         |          |
|---------|---------|---------|---------|---------|---------|----------|
| 2015-16 | 2016264 | 952882  | 1950029 | 1660195 | 2276371 | 8855741  |
| 2016-17 | 2806274 | 984528  | 2223577 | 1869128 | 2319545 | 10203052 |
| 2017-18 | 2993731 | 984675  | 3052347 | 1919512 | 2769284 | 11719549 |
| 2018-19 | 3370264 | 986232  | 3288760 | 2052311 | 293979  | 9991546  |
| 2019-20 | 3421678 | 1046277 | 3678915 | 2293218 | 295607  | 10735695 |
| 2020-21 | 3562062 | 1055873 | 3729572 | 2637481 | 298100  | 11283088 |

Source: Data compiled from the Annual credit plan reports of Thoothukudi District State Bank of India, Lead Bank Office from 2001-2002 to 2020-2021.

From Table 1, it was clear that the lead bank's agricultural credits issued between 2001–02 and 2020–21 had grown steadily. Table 1 revealed that there was a mixed trend in the agricultural credits that the State Bank office issued. Table 1 makes clear that the distribution of credits was significantly aided by the sample five blocks of Alwarthirunagari, Kayathar, Kovilpatti, Thoothukudi, and Thiruchendur. The Alwarthirunagari block granted a significant amount of credit, which climbed progressively from Rs. 12,0449 lakhs in 2001–02 to Rs. 3562062 lakhs in 2020–21. In the Kayathar block, loans totalling Rs. 71,035 lakhs were made in 2001–02; by 2020–21, that amount had grown to Rs. 1055873 lakhs. In a similar vein, loans of Rs. 57,157 lakhs, Rs. 65,414 lakhs, and Rs. 85,085 lakhs were made in the Kovilpatti, Thoothukudi, and Thiruchendur blocks in 2001–02, but in 2020–21, they climbed to Rs. 3729572 lakhs, Rs. 2637481 lakhs, and Rs. 298100 lakhs. During the research period, the total credit also rose from Rs. 3,99,140 lakhs to Rs. 11283088 lakhs.

In Alwarthirunagari, Kayathar, Kovilpatti, Thoothukudi, and Thiruchendur, the corresponding coefficient of variation for the block credit performance was 80.33 percent, 87.08 percent, 98.26 percent, 91.68 percent, 79.33 percent, and 80.38 percent. The Kovilpatti block had considerable volatility. The Thoothukudi block comes next, whereas the Thiruchendur block showed less variation over time.

Table 2 displays the pattern and expansion of agricultural credits granted in the blocks of Alwarthirunagari, Kayathar, Kovilpatti, Thoothukudi, and Thiruchendur between 2001–02 and 2020–21.

**TABLE 2**  
**TREND AND GROWTH OF AGRICULTURAL CREDIT PERFORMANCE IN BLOCK WISE DURING 2001-02 to 2020-21**

| Particulars | Trend Coefficient |   | R <sup>2</sup> | Compound Growth Rate in Percent |
|-------------|-------------------|---|----------------|---------------------------------|
|             | a                 | b |                |                                 |

|                  |       |               |      |       |
|------------------|-------|---------------|------|-------|
| Alwarthirunagari | 21.38 | 0.319*(15.67) | 0.91 | 18.54 |
| Kayathar         | 12.86 | 0.238 (11.82) | 0.83 | 21.37 |
| Kovilpatti       | 13.57 | 0.837*(12.75) | 0.86 | 29.64 |
| Thoothukudi      | 11.67 | 0.382*(20.46) | 0.94 | 26.75 |
| Thiruchendur     | 12.94 | 0.294*(3.51)  | 0.27 | 8.55  |
| Total Credit     | 13.73 | 0.351*(25.68) | 0.88 | 25.91 |

Figures in brackets represent 't' values

\*Significant at 5 percent level.

The trend coefficient shows that, on average, the total loans given and the agricultural credits of the Alwarthirunagari, Kayathar, Kovilpatti, Thoothukudi, and Thiruchendur blocks were 31.9 percent, 23.8 percent, 83.7 percent, 38.2 percent, 29.4 percent, and 35.1 percent, respectively, as shown in Table 2. Kovilpatti block has the fastest growth rate, followed by Thoothukudi block. At the five percent level, it was determined that the trend coefficient of agricultural credits for the Alwarthirunagari, Kovilpatti, Thoothukudi, and Thiruchendur blocks was statistically significant. The trend coefficient was shown to be statistically not significant in the Kayathar block. According to the  $R^2$  value, the time variable accounts for between 27% and 91% of the variances in the independent variables. The financial institution, State Bank of India, the Lead Bank in the study region, offered a significant number of agricultural loans to fulfil the increasing financial demands of the farmers in the study area, according to the analysis. Additionally, it was determined that the research area's agricultural credit performance was satisfactory.

**TABLE 3**  
**ANOVA (SINGLE FACTOR) FOR LOANS ISSUED FOR AGRICULTURAL ACTIVITIES**

| Source of Variation | SS        | df | MS       | F         |
|---------------------|-----------|----|----------|-----------|
| Between Groups      | 715384.2  | 3  | 328641.1 | 18.5109** |
| Within Groups       | 1864284   | 77 | 28349.7  |           |
| Total               | 2579668.2 | 80 |          |           |

\*\* Significant at 1 percent

The analysis of variance (single factor) results is shown in Table 3. The investigation was conducted using data pertaining to loans given for agricultural purposes between 2001–2002 and 2020–2021. The table shows that the mean values of agricultural credits granted in the blocks of Alwarthirunagari, Kayathar, Kovilpatti, Thoothukudi, and Thiruchendur varied significantly from one another. At the 1% level of significance, the F value (18.51) is significant. As a result, we support the alternative hypothesis and reject the null hypothesis ( $H_0$ ), which states that there is no discernible variation in the means of the blocks Alwarthirunagari, Kayathar, Kovilpatti, Thoothukudi, and Thiruchendur.

Table 4 provides structural equation modelling values.

**TABLE 4 STRUCTURAL EQUATION MODELING**

| Values        | RMR  | GFI  | AGFI | CFI  | NFI  | IFI  | RMSEA | Chi-square | CMIN/DF | P    |
|---------------|------|------|------|------|------|------|-------|------------|---------|------|
| Default Model | .215 | .913 | .827 | .836 | .707 | .815 | .131  | 432.5      | 3.11    | 0.00 |

By considering the comparative fit index, RMSEA, and chi square, which are independent of sample size, we can get around the fact that the sample size affects the Goodness of Fit. The overall study of the mode indicates that the model fits the data reasonably well.

## CONCLUSION

In conclusion, the lead bank should implement a realistic policy and take on a more responsible role to ensure a sufficient flow of money. The study shows that although the Lead Bank scheme's agricultural lending was initially modest, it has grown significantly over the years. The Lead Bank should raise awareness of borrower ethics in order to encourage loan repayment. When it came to funding the agriculture industry, the Lead Bank initiative performed admirably overall.

We may also conclude that lead banks' plans in India are highly effective. The development of farmers, small business owners, and others depends on the lead banks. It is discovered that after utilising the lead bank schemes, the economic, social, and personal development conditions have changed.

## Conflicts of Interest

The author does not have any conflict of interest.

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