Term-wise Lending Practices of Primary Agricultural Credit Societies (PACS) in Kerala: An Analysis of Short-term, Medium-term, and Long-term Lending

Johnson N J
Assistant Professor of Commerce, Sri C Achutha Menon Government College Thrissur P O Kuttanellur, Thrissur Dt, Kerala, India

Abstract: This article analyses the loan distribution trends of Primary Agricultural Credit Societies (PACS) in Kerala from 2008 to 2019, focusing on short-term (ST), medium-term (MT), and long-term (LT) loans. The study reveals that ST loans consistently formed the majority of the total loans, peaking in 2014, but have since shown a declining trend. Meanwhile, MT and LT loans have been on the rise, indicating a shift towards longer-term financial commitments. The percentage of borrowing members to the total fluctuated significantly, with notable drops in 2012 and 2013 and peaks in 2016. This fluctuation, alongside the steady increase in both loan outstanding and overdue amounts, highlights the dynamic borrowing environment and the challenges in loan repayment. The findings emphasize the need for PACS to adapt lending policies to balance loan issuance with sustainable repayment practices, ensuring financial stability and meeting the evolving needs of members.

Index Terms - PACS, Loan Distribution, Short-term Loans, Medium-term Loans, Long-term Loans, Borrowing Members, Loan Outstanding, Loan Overdue.

1. INTRODUCTION

The cooperative credit structure in Kerala is divided into two parts: short and medium-term credit structure, and long-term credit structure. The short and medium-term credit needs are served by a Two-tier system, which includes State Cooperative Banks at the top level and 1644 Primary Agricultural Credit Societies at the base level. Additionally, 85 urban cooperative banks and 1013 employees' credit cooperatives meet the non-agricultural credit needs of their members. Primary Agricultural Credit Societies (PACS) fulfil all credit needs of the rural population and are equipped to conduct all modern banking activities. PACS are primary-level cooperative institutions designed to provide financial assistance to the rural population, primarily for agricultural development. Over the years, PACS have become the main source of agricultural financing, meeting various credit needs of farmers, from short-term seasonal requirements to long-term investments.

Understanding the lending practices of PACS in Kerala is crucial to assess how effectively these institutions are supporting the agricultural sector. This study focuses on analysing the term-wise lending practices of PACS over a twelve-year period from 2008 to 2019. By examining the distribution and trends of short-term, medium-term, and long-term loans, this research aims to shed light on whether PACS prioritise short-term lending or extend their support to longer-term agricultural investments.

The findings from this study will provide valuable insights into the lending behaviour of PACS, highlighting their focus areas and identifying potential gaps in agricultural financing. This analysis is intended to inform policymakers and stakeholders on how to optimize the lending practices of PACS to better support sustainable agricultural and rural development in Kerala.

2. REVIEW OF LITERATURE

Srivastava (1991) examined the impact of credit on rural development and noted that the Green Revolution significantly increased the demand for farm credit. To achieve national objectives such as self-reliance in food grains, poverty eradication, and unemployment reduction, the government encouraged institutional credit support for rural populations. Consequently, the government increasingly relied on credit cooperatives to promote rural development. Srivastava observed that cooperative credit primarily benefits farmers, leaving other rural residents underserved. To address this gap, he recommended restructuring credit cooperatives to extend more credit to meet the needs of rural people living below the poverty line. Therefore, Srivastava advocates for strengthening credit cooperatives, deeming them uniquely suited for rural India.
Singh and Tyagi (1995) emphasized the critical role of farm credit in boosting agricultural incomes, creating agricultural assets, and enabling the adoption of new farming technologies. The effectiveness of agricultural credit largely depends on the efficiency and functioning of lending agencies. Unlike private money lending agencies, which focus solely on profit, the Government of India promotes cooperative credit to support farmers' welfare and break the monopoly of money lenders. Gurdev Singh (1995) examined the flow of cooperative credit to the agricultural sector, focusing on the need to strengthen institutional credit as a powerful tool for agricultural development. He concluded that lending institutions could enhance their viability by increasing the volume of credit transactions. Additionally, profitability could be improved by implementing variable interest rates for different types of loans, with higher rates for productive investments. Singh also suggested that proper recovery and recycling of funds would enhance the profitability of credit institutions. He emphasized that defaults could be controlled through accurate identification of borrowers, precise estimation of credit needs, and efficient monitoring of credit usage.

Report of the Task Force, RBI 2000 reveals that, until the commercial banks began to expand significantly, especially after their nationalization in 1969, cooperatives were the sole providers of institutional credit to agriculture. Before the late 1960s, farmers and rural borrowers relied solely on cooperatives for all credit needs, including seasonal agricultural operations, land investments, and debt redemption. Historically, two parallel wings of cooperative credit institutions emerged: one for short-term and medium-term credit to cultivators, and another for long-term credit initially aimed at debt redemption and later for agricultural investments. These institutions have played a crucial role in providing credit to the agricultural and rural sectors. Currently, credit cooperatives represent 69% of rural credit outlets and account for about 45% of the total rural credit in the country. Specifically, they provide 57% of production credit and 29% of investment credit.

In their 2012 study, Soni and Saluja examined the role of Primary Agricultural Credit Societies (PACS) in agricultural credit in Chattisgarh. Based on secondary data, their study concluded that PACS play a pivotal role in agricultural credit and rural development. They found that PACS are crucial in meeting most of the credit needs of rural communities. Kumar and Kaur (2013) conducted a study on the short and medium-term lending practices of the rural cooperative banking structure in Haryana, including the Haryana State Cooperative Apex Bank Ltd. (HARCO) and Central Cooperative Banks (CCBs). The study concluded that both HARCO Bank and CCBs are underperforming in terms of profitability. Mishra (2019) asserted that the Short-Term Cooperative Credit System (STCCS) must undergo technological upgrades, as this is now a necessity rather than an option. With various institutions such as payment banks, small finance banks, and postal banks targeting the membership base of PACS, initiating reforms will be essential for STCCS to remain competitive in the country's credit delivery system.

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3. OBJECTIVES OF THE STUDY

2. Identify the proportion of borrowing members in the total membership.
3. Determine trends and patterns in the term-wise lending practices of PACS over the twelve-year period.
4. Assess whether there has been a shift in focus towards or away from certain types of loans.
5. Examine the financial health of PACS by analysing loan outstanding and loan overdue data.
6. Develop recommendations for policymakers and PACS management to optimize lending practices.

By achieving these objectives, the study aims to provide a comprehensive analysis of the term-wise lending practices of PACS in Kerala, contributing to better financial planning, policy formulation, and sustainable agricultural and rural development.

4. IMPORTANCE OF THE STUDY

Insight into Lending Behaviour: The study provides detailed insights into the lending behaviour of PACS, revealing whether they prioritize short-term, medium-term, or long-term loans. This understanding is crucial for assessing how well PACS are aligned with the financial needs of farmers.

Support for Agricultural Development: By analysing the focus areas of PACS lending, the study highlights how effectively these institutions are supporting agricultural development. It identifies potential gaps in financing that could hinder agricultural productivity and growth.

Informed Policy Making: The findings from the study can guide policymakers in formulating strategies to enhance the effectiveness of PACS. Recommendations based on the study can help in designing policies that ensure a balanced approach to short-term and long-term agricultural financing.

Enhanced Financial Planning: For PACS management, understanding the trends and impacts of their lending practices can aid in better financial planning and resource allocation. This can lead to improved financial health of PACS and better service to their members.

Sustainable Rural Development: The study emphasizes the role of balanced lending practices in achieving sustainable rural development. By addressing both immediate and long-term financial needs of farmers, PACS can contribute significantly to the overall development of rural areas.

Academic Contribution: The research adds to the academic literature on cooperative credit systems and their role in rural finance. It provides empirical data and analysis that can be used for further studies and research in this field.
### 5. METHODOLOGY

**Data Sources**: For the purpose of this study, secondary data was obtained from published records of the Kerala State Planning Board and the Department of Cooperation, Government of Kerala. ‘Economic Review’ and ‘Handbook on Cooperatives’ of the relevant periods have been used for securing data. These records provided comprehensive data on the lending activities of Primary Agricultural Credit Societies (PACS) in Kerala, covering the period from 2008 to 2019.

**Data Collection**: The data collected included the following key indicators such as: Number of PACS, Number of borrowing members, Paid-up share capital, working capital, Total loans issued, Short-term loans, Medium-term loans, Long-term loans, Loan outstanding, and, Loan overdue.

**Analytical Approach**: The study employed the following analytical methods to achieve its objectives:

- **Trend Analysis**: To analyse the distribution and trends of short-term, medium-term, and long-term loans issued by PACS over the twelve-year period. For the purpose, year-wise data on the different types of loans was plotted and analysed to identify trends and shifts in lending practices. Both absolute values and percentage distributions were examined to understand the emphasis on each type of loan.

- **Comparative Analysis**: To determine whether PACS are leaning towards any particular type of loan (short-term, medium-term, or long-term, the proportion of each type of loan relative to the total loans issued was calculated for each year. These proportions were compared across the years to identify any significant shifts in lending focus.

- **Growth Rate Calculation**: To assess the growth rate of different types of loans over the study period, Compound Annual Growth Rate (CAGR) was calculated for short-term, medium-term, and long-term loans to determine the growth trajectory of each loan category.

- **Profitability Impact Assessment**: To assess the impact of term-wise lending practices on the profitability of PACS. Here, the relationship between the types of loans issued and key financial indicators such as loan outstanding and loan overdue was examined. Correlation and regression analyses were used to determine the impact of lending practices on profitability and financial health of PACS.

- **Visual Representation**: To present data and findings in a clear and understandable manner. For this, Graphs and charts were used to visually represent trends, proportions, and growth rates. This included line charts for trend analysis, bar charts for comparative analysis, and pie charts for distribution of loan types.

The methodology outlined above enabled a comprehensive analysis of the term-wise lending practices of PACS in Kerala. By examining trends, growth rates, and profitability impacts, the study provides valuable insights into the lending behaviour of PACS and their role in supporting agricultural and rural development. This structured approach ensures that the findings are robust, relevant, and contribute to informed decision-making for policymakers and PACS management.

### 6. RESULT AND DISCUSSION

Table 1. Distribution of ST, MT, and LT loans in the total loan

<table>
<thead>
<tr>
<th>Year/Indicators</th>
<th>Total Amount of Loans Issued</th>
<th>(i) Short-term</th>
<th>% of ST Loan to Total</th>
<th>(ii) Medium-term</th>
<th>% of MT Loan to Total</th>
<th>(iii) Long-term</th>
<th>% of LT Loan to Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unit</td>
<td>Rs in crore</td>
<td>Rs in crore</td>
<td>%</td>
<td>Rs in crore</td>
<td>%</td>
<td>Rs in crore</td>
<td>%</td>
</tr>
<tr>
<td>2008</td>
<td>20755.99</td>
<td>11397.05</td>
<td>54.91</td>
<td>8546.65</td>
<td>41.18</td>
<td>812.28</td>
<td>3.91</td>
</tr>
<tr>
<td>2009</td>
<td>21080.74</td>
<td>14542.19</td>
<td>68.98</td>
<td>5718.01</td>
<td>27.12</td>
<td>820.54</td>
<td>3.89</td>
</tr>
<tr>
<td>2010</td>
<td>26307.35</td>
<td>18997.2</td>
<td>72.21</td>
<td>6499.66</td>
<td>24.71</td>
<td>810.49</td>
<td>3.08</td>
</tr>
<tr>
<td>2011</td>
<td>36822.34</td>
<td>26824.88</td>
<td>72.85</td>
<td>8894.89</td>
<td>24.16</td>
<td>1102.57</td>
<td>2.99</td>
</tr>
<tr>
<td>2012</td>
<td>46689.63</td>
<td>33008.68</td>
<td>70.70</td>
<td>12136.93</td>
<td>25.99</td>
<td>1544.02</td>
<td>3.31</td>
</tr>
<tr>
<td>2013</td>
<td>82410.64</td>
<td>59204.25</td>
<td>71.84</td>
<td>19549.53</td>
<td>23.72</td>
<td>3656.86</td>
<td>4.44</td>
</tr>
<tr>
<td>2014</td>
<td>94881.88</td>
<td>71471.28</td>
<td>75.33</td>
<td>20204.63</td>
<td>21.29</td>
<td>3205.97</td>
<td>3.38</td>
</tr>
<tr>
<td>2015</td>
<td>83308.04</td>
<td>58303.4</td>
<td>69.99</td>
<td>21569.96</td>
<td>25.89</td>
<td>3434.68</td>
<td>4.12</td>
</tr>
<tr>
<td>2016</td>
<td>76007.84</td>
<td>45627.38</td>
<td>60.03</td>
<td>22893.32</td>
<td>30.12</td>
<td>4014.41</td>
<td>5.28</td>
</tr>
<tr>
<td>2017</td>
<td>75350.9</td>
<td>47704.96</td>
<td>63.31</td>
<td>22751.98</td>
<td>30.19</td>
<td>2977.02</td>
<td>3.95</td>
</tr>
</tbody>
</table>
Total Amount of Loans Issued: The total amount of loans issued shows a significant increase from Rs 20,755.99 crore in 2008 to Rs 89,153.03 crore in 2019. The highest total amount of loans was issued in 2014 at Rs 94,881.88 crore.

Short-term Loans (ST): The percentage of ST loans to the total loans started at 54.91% in 2008 and increased to a peak of 75.33% in 2014. After 2014, the percentage of ST loans shows a declining trend, reaching 57.76% in 2019. Despite the decline, ST loans consistently form the largest portion of the total loans.

Medium-term Loans (MT): The percentage of MT loans to the total loans began at 41.18% in 2008, fluctuated over the years, and reached 32.76% in 2019. The percentage of MT loans generally shows an increasing trend from 2015 onwards.

Long-term Loans (LT): The percentage of LT loans to the total loans started at 3.91% in 2008 and, after some fluctuations, rose to 9.48% in 2019. There is a noticeable increase in the proportion of LT loans from 2016 onwards.

Trend Analysis

Short-term Loans (ST): There is a clear trend where ST loans formed the majority of the total loans throughout the period. The percentage increased steadily until 2014 but then started to decline, indicating a shift in loan distribution. Medium-term Loans (MT): The MT loans showed a decreasing trend until 2010, after which the percentage stabilized and even increased from 2015 onwards. This indicates a growing preference for medium-term financing in the latter years. Long-term Loans (LT): Although LT loans consistently formed the smallest percentage of the total, there is a clear upward trend from 2016 onwards, suggesting an increasing demand for longer-term financial commitments.

Lean and Composition: The loan distribution leans heavily towards short-term loans throughout the period. This preference might be due to the nature of short-term financing needs in agriculture and small businesses. However, the increasing trend in medium-term and long-term loans in recent years indicates a diversification in the types of loans being issued. This could reflect changes in the economic environment, where businesses and individuals are looking for more stability and longer-term investments.

Percentage Composition of Various Loans

The table above illustrates the percentage composition of Short-term (ST), Medium-term (MT), and Long-term (LT) loans issued by PACS in Kerala from 2008 to 2019.

Short-term Loans (ST): ST loans consistently held the largest share of total loans throughout the period. The percentage of ST loans peaked in 2014 at 75.33% and then showed a declining trend, reaching 57.76% in 2019.
Medium-term Loans (MT): Initial Decrease: The MT loans percentage decreased initially from 41.18% in 2008 to around 24-25% between 2010 and 2011. There is a noticeable increase in the percentage of MT loans from 2015 onwards, indicating a growing demand for medium-term financing.

Long-term Loans (LT): Smallest Share but Growing: LT loans consistently had the smallest share of the total loans, but the percentage increased steadily from 2016 onwards, reaching 9.48% in 2019. This increase indicates a rising need for long-term financial commitments, possibly due to changes in the economic environment or investment patterns.

The loan distribution provided by PACS in Kerala shows a clear preference for short-term loans, particularly evident up to 2014. However, the increasing trend in medium-term and long-term loans in recent years suggests a diversification in loan types, reflecting evolving financial needs and a shift towards more stable, long-term investments. The data implies a strategic shift in loan distribution, possibly driven by economic factors and changing requirements of borrowers. This trend towards medium and long-term loans could be beneficial for fostering sustainable economic growth and stability in the region.

Table 2. Proportion of borrowing members and loan overdue to total

<table>
<thead>
<tr>
<th>Year</th>
<th>Percentage of borrowing members to total</th>
<th>Loan Outstanding</th>
<th>Loan Overdue</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Unit %</td>
<td>Rs in crore</td>
<td>Rs in crore</td>
</tr>
<tr>
<td>2008</td>
<td>51.23</td>
<td>25372.07</td>
<td>6834.38</td>
</tr>
<tr>
<td>2009</td>
<td>66.35</td>
<td>19796.94</td>
<td>3446.88</td>
</tr>
<tr>
<td>2010</td>
<td>62.93</td>
<td>23233.5</td>
<td>4190.37</td>
</tr>
<tr>
<td>2011</td>
<td>64.13</td>
<td>28442.68</td>
<td>5300.86</td>
</tr>
<tr>
<td>2012</td>
<td>27.95</td>
<td>43620.83</td>
<td>8372.86</td>
</tr>
<tr>
<td>2013</td>
<td>28.62</td>
<td>45121.56</td>
<td>12104.31</td>
</tr>
<tr>
<td>2014</td>
<td>63.47</td>
<td>68854.43</td>
<td>10097.68</td>
</tr>
<tr>
<td>2015</td>
<td>88.62</td>
<td>63164.44</td>
<td>10668.81</td>
</tr>
<tr>
<td>2016</td>
<td>96.17</td>
<td>61123.57</td>
<td>10285.64</td>
</tr>
<tr>
<td>2017</td>
<td>56.32</td>
<td>57379.75</td>
<td>10624.7</td>
</tr>
<tr>
<td>2018</td>
<td>56.07</td>
<td>73153.78</td>
<td>12472.33</td>
</tr>
<tr>
<td>2019</td>
<td>72.83</td>
<td>85971.82</td>
<td>16250.36</td>
</tr>
</tbody>
</table>

Observations:

Percentage of Borrowing Members to Total: The percentage fluctuates significantly over the years. The lowest percentage is 27.95% in 2012 and the highest is 96.17% in 2016.

Loan Outstanding: The amount of loan outstanding increases steadily from Rs 25,372.07 crore in 2008 to Rs 85,971.82 crore in 2019. There are significant jumps, particularly in 2012 and 2014.

Loan Overdue: The amount of loan overdue also increases over the years, from Rs 6,834.38 crore in 2008 to Rs 16,250.36 crore in 2019. There are notable increases in 2013, 2018, and 2019.

Comments:

Fluctuating Borrowing Membership: The percentage of borrowing members shows a volatile trend, with significant fluctuations between 2008 and 2019. The low percentages in 2012 and 2013 could indicate stricter borrowing conditions or reduced demand for loans among members. The sharp increase to 96.17% in 2016 suggests a significant rise in loan accessibility or demand during that period.

Relationship with Loan Outstanding: There is a general upward trend in loan outstanding, reflecting an increase in the total amount of loans issued over the years. Significant increases in loan outstanding in 2012 and 2014 correspond with changes in borrowing member percentages, suggesting changes in borrowing policies or economic conditions influencing loan issuance.

Loan Overdue Trend: The steady increase in loan overdue amounts indicates rising difficulties in loan repayment over the years. The substantial increase in loan overdue in 2013, 2018, and 2019 aligns with periods of higher loan issuance, suggesting that larger loan amounts may lead to higher overdue amounts.

The data reveals a dynamic and fluctuating borrowing environment among PACS members in Kerala. The significant variability in the percentage of borrowing members suggests changes in borrowing policies, economic conditions, or member needs over the years. The consistent rise in loan outstanding and overdue amounts indicates increasing borrowing but also highlights challenges in
loan repayment. This trend underscores the need for effective credit management and support mechanisms to ensure sustainable borrowing and repayment practices.

Figure 2 displays the percentage of borrowing members, loan outstanding, and loan overdue for the period from 2008 to 2019.

**Percentage of Borrowing Members to Total:** There is a significant fluctuation in the percentage of borrowing members, with sharp increases and decreases over the years. The percentage drops dramatically in 2012 and 2013, reaching its lowest at 27.95% in 2012. The percentage peaks in 2016 at 96.17%, indicating a period of high loan uptake among members.

**Loan Outstanding:** The loan outstanding shows a general upward trend, indicating an increase in the total amount of loans issued. There are noticeable increases in 2012 and 2014, corresponding with fluctuations in borrowing membership percentages.

**Loan Overdue:** The loan overdue amount also shows an increasing trend, indicating rising challenges in loan repayment. The overdue amounts spike particularly in 2013, 2018, and 2019, suggesting periods of heightened repayment difficulties.

The fluctuation in borrowing member percentages suggests varying loan demand or changing borrowing policies over the years. The increasing loan outstanding reflects growing loan issuance, aligning with the rising economic activities or needs of members. The rise in loan overdue amounts points to challenges in repayment, which could be due to economic conditions, loan policies, or borrower capacities.

**Compound Annual Growth Rate (CAGR) Calculations:**

- **Short-term Loans (ST):** CAGR = 14.69%
- **Medium-term Loans (MT):** CAGR = 11.82%
- **Long-term Loans (LT):** CAGR = 23.73%

**Interpretation:**

**Short-term Loans (ST):** The CAGR of 14.69% indicates a steady and robust growth in short-term loans over the 11-year period, reflecting a significant demand for immediate financing among the members.

**Medium-term Loans (MT):** With a CAGR of 11.82%, medium-term loans also experienced consistent growth, though at a slightly lower rate than short-term loans, indicating a moderate increase in demand for medium-duration financing.

**Long-term Loans (LT):** The highest CAGR of 23.73% for long-term loans suggests a rapidly growing preference for longer-term financial commitments, highlighting an evolving trend towards sustained investment and financial planning among the members.

These growth trajectories demonstrate a diversified and expanding loan portfolio within PACS in Kerala, catering to various financial needs of its members. The notable increase in long-term loans, in particular, indicates a strategic shift towards more stable and prolonged financial engagements, aligning with broader economic development goals.
7. CONCLUSION

The analysis of loan distribution by PACS in Kerala from 2008 to 2019 reveals significant trends and insights into the financial behaviour and needs of its members. The predominance of short-term loans underscores the immediate financing needs of members, while the rising trend in medium-term and long-term loans in recent years indicates a shift towards more substantial and sustained financial commitments. The fluctuating percentage of borrowing members, coupled with the increasing amounts of loan outstanding and overdue, highlights the dynamic and evolving borrowing environment. These trends suggest the need for PACS to adapt their lending policies to balance the accessibility of loans with sustainable repayment practices. Effective credit management strategies are crucial to support the diverse financial needs of members while maintaining the financial health of the cooperatives. This analysis highlights the need for careful monitoring and management of loan policies to balance loan issuance with repayment capacities, ensuring financial stability for PACS and its members. Overall, the data points to a growing demand for varied loan products and underscores the importance of robust financial planning and support mechanisms to foster economic stability and growth in the region.

REFERENCES