II REVIEW OF LITERATURE

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CHAPTER II
REVIEW OF LITERATURE

This chapter presents a review of the available literature on the topic under study. While the literature is rich in the case of cooperative organizations in general, it is not so in the case of viability aspects of PACS. There have been only a limited number of studies that look into the parameters determining the viability of PACS. PACS form the grassroots level cooperative institution and differ from other forms of cooperative organisations at different levels. Hence the parameters to be considered for performance evaluation also differ. The very objectives of PACS are distinct and a set of new evaluation criteria may evolve as a result of the present study. In this context it is necessary to look into the existing literature for examining the PACS in order to ascertain the factors that influence their performance.

The literature pertaining to various evaluative aspects of the cooperatives in general and PACS in particular has been reviewed in this chapter under the following sections.

2.1 Growth and Growth Rate of PACS
2.2 Factors determining Performance of PACS
2.3 Causes for economic non-viability of PACS
2.4 Perceptions of members about functioning of PACS.
2.5 Viability Model
In a case study on District Cooperative Bank in Uttar Pradesh, Agarwal et al (1972) employed trend analysis in evaluating the growth of the institutions. Data for ten years were used in the linear trend analysis. Share capital, working capital borrowed funds, loans advanced and profits were considered as variables.

Growth and pattern of financial resources of the State and Central Cooperative Banks as well as Agriculture Credit Cooperative Societies in India was studied by Srinivasa Murthy (1973).

In order to compare the growth rates of agriculture, food grains as a whole and industrial output in India for the period 1949–53 to 1973–74, Dey (1975) used the exponential and Gompertz Growth curves, which were expressed explicitly.

Sridharan (1975) analysed the growth of Tudiyalur Cooperative Agricultural Credit Society in Tamil Nadu in terms of total membership, total assets, total owned funds, sales and average asset per member etc. Orthogonal polynomial function was fitted to the data from 1954 – 55 to top 1972 – 73. The growth rate was found out by taking the first order derivative of the function.

Angrish et al (1976) attempted to calculate the growth rate of the advances as well as the recoveries and loans outstanding in respect of Land Development Bank in the state of Gujarat using a linear equation $y=a+bx$, so as to assess the performance of the LDB during the period 1963-64 to 1975-76.
Fredrickes (1976) indicated the relevance of two different political regions to cooperative development in West Malaysia. The author used a linear trend equation $Y = a + bx$ to compute the growth of variables such as the number of societies, their membership and share capital.

Purushotham (1978) considered membership, share capital, deposits, working capital and loan business in the growth analysis of PACS in Andhra Pradesh for a period of fifteen years. He found that the growth of outstanding loans was faster as compared to the growth of recoveries and advances.

While examining the methodological issues in measuring the agricultural growth, Krishnaji (1980) observed that $R^2$ is not a very reliable guide for choosing the correct form of growth equation, the common procedure would be to choose the form of regression that gives the highest value of $R^2$ from among a set of pre-specified trend functions.

The growth of dairy cooperatives in India for the period 1963 – 64 to 1975 –76 was studied by Verma (1980) using linear regression equations. The variables considered in the study were, number of dairy cooperatives, membership, paid-up share capital and value of sales during the year. The annual growth rates were also estimated in order to study the comparative growth of the societies.

The year-wise growth rates of Arecanut Marketing Societies in India during the period 1967 to 1977 were studied by Bhaa Rao et al (1981). The study analyzed such variables as number of societies,
membership, share capital, working capital, reserve funds, deposits and per member average of these indicators.

Chamola and Hasija (1982) appraised the progress of PACS in India by employing trend analysis for the period 1966-67 to 1976-77. The results revealed the highest growth rate in overdues (14.6 percent). The number of societies decreased by 20% while the membership increased by 50 percent. The share capital showed 148 percent increase and member deposits rose by 180 percent. The share capital and loans advanced recorded the same rate of growth as that of member deposits indicating that whatever was deposited by members was given out as loan. The regression analysis also indicated that one-percent increase in membership was associated with 2.13 percent increase in advances and 1.73 percent increase in deposits.

Mitra and Sain (1982) examined the stability of Burdwan Central Cooperative Bank, West Bengal, in financing agriculture during the period 1960-61 to 1980-81. Both tabular analysis and simple statistical analysis of linear and compound growth rates were attempted in the study.

Bhattta and Rao (1982) evaluated the growth of PACS in Karnataka during 1965–78. They reported that the number of societies decreased by about 40 percent while the membership increased by 110 percent. Total advances registered five-fold increase and overdues recorded highest increase (7 times). The study concluded that in
qualitative terms the progress of cooperatives was not remarkable because of increase in overdues. The per member overdues increased from Rs. 57 in 1963 to Rs. 203 in 1978. Average deposits per member showed continuous increase from Rs. 11 in 1965 to Rs. 20 in 1978. They observed that the probable reasons for the poor performance of cooperatives were that the commercial banks emerged as the major source of agricultural finance after nationalization.

Commenting on the suitability of different functional forms of growth and the basis for selection of a model and method of measuring growth rates, Chandrakanth (1983) opined that in any time series study R² value alone would not determine the goodness of the fit. The computation of Durbin–Waston statistic (DW) was suggested to know the extent of autocorrelation so that some corrections can be made in the raw data to reduce the same.

Winfred (1985) analyzed the operational growth of LDB's by measuring the rate of growth of operations like membership, resources, government support, floating of debentures, investments, loan operations, overdues, cost of management and profits for ten years from 1969–70 to 1978–79. The compound growth rate was calculated by using the formula: \( Y_t = Y_0(1+r/100)^t \) where \( Y_0 = \) base year value, \( Y_t = t^{th} \) year value, \( t = \) number of years and \( r = \) the compound growth rate. It was found that banks with limited loan transactions, non-diversification of
their lending programs and mounting overdues could not make any marked impact in the field of agricultural credit.

Shankarmurthy (1986) used compound growth rate function analysis of the exponential form for studying the performance of Karnataka State Cooperative Marketing Federation Limited. The important physical indicators considered were membership, branches, deposits, and total number of employees. The indicators related to share capital, owned funds, fixed assets, total assets, long term investments, total working capital, total liabilities, inventory, total sales, sale of fertilizers, sale of other commodities and establishment expenses. In the case of financial indicators constant prices were used for the sub-periods as well as for the aggregate period to account for the inflationary trends in economy in order to get real picture of the situation.

In a study on growth of inputs in Karnataka's agricultural sector by 2000 AD, Arunakumar et al (1987) estimated the requirements of major agricultural inputs, viz., fertilizers, pesticides, credit and investment in irrigation. They estimated the total agricultural credit availability to be Rs. 8577.5 million by 2000 AD.

Pandey and Ashok Kumar (1988) examined the structure and growth of cooperative credit in different states and investigated the factors responsible for the flow of credit covering the period 1977-78 to 1983-84. The analysis indicated that the compound growth rate was maximum in Punjab. The factors such as fertilizer consumption, area
under high yielding varieties and area under cash crops were identified as responsible for causing variation in the flow of credit.

Jitendrakumar (1990) analyzed the performance of dairy cooperatives in Chittoor District, Andhra Pradesh computing compound growth rate of various physical and financial indicators.

Bhat (1991) studied the agricultural credit absorption in Karnataka for the period 1975-76 to 1988-89. He found that the growth of per-hectare short-term credit absorption is attributed to irrigation (10.28%), HYV (6%), fertilizer consumption (37.7%) and term agricultural credit (27.82%). Branch expansion and deposits were found to contribute negatively to the growth of short-term agricultural credit. He further showed that the contribution of commercial crops was insignificant as farmers used to obtain credit from indirect sources.

In their study on the operational growth of Primary Cooperative Agricultural and Rural Development Banks (PCARD’s) in Karnataka, Reddy and Changappa (1995) assessed the performance of PCARDB’s in terms of growth in selected parameters like total membership, share capital, working capital, deposits, loans advanced, loans recovered and overdues etc. The study showed that the membership increased steadily over the years. The financial resources such as share capital, working capital and deposits have recorded impressive growth rates. However, the overall growth of overdues was higher than that of loans advanced,
thus highlighting the problem of mounting overdues that calls for appropriate policy measures.

Singh (1996) reviewed the trends in the expansion of the network of credit institutions at the national level and found that the share of cooperatives in the credit disbursement, which had been high in the earlier decades, exhibited a declining trend after 1989-90 mainly due to expansion in the branch network of commercial banks and RRBs. Further more, the high level of overdues had adversely affected the eligibility of cooperatives and in turn their lending programmes.

Singh (1997) has stated that the growth of institutional credit overtime has reduced the dependence of rural population on private sources of credit. The share of private sources that formed 93 percent of the total debt of the rural households in 1951 declined to about 44 percent in 1987. Small and marginal farmers with land holdings of less than two hectares and operating about 25 percent of the net sown area have received about 42 percent of the total institutional credit. It is still a matter of concern that medium farmers commanding a large (50.9 percent) portion of operated area had relatively poor access (24.5 percent) to institutional credit.

In a study on Growth of Orissa Cooperative and Rural Development Bank, Mishra (1998) found that the CARD Bank has incurred losses due to poor recovery of loans. The study called for
managing credit business efficiently to accomplish the given objectives of credit cooperatives.

Examining the growth of agricultural advances during 1990-96, Puhazhendhi and Jayaraman (1999) pointed out that despite the phenomenal growth in absolute terms, the proportion of outstanding advances to the priority sector showed a declining trend from 16.9 percent in June 1990 to 14.3 percent in March 1996. A reversal of the trend was observed in 1996-97 when loans issued for agriculture constituted 16.3 percent of the net bank advances. The share of priority sector lending at all India level, which had declined from peak of 42.9 percent in 1985, marginally improved to 41.7 percent in March 1997.

2.2 Factors determining Performance of PACS

Mehta (1963) observed that the ratio of deposits to working capital and the ratio of overdues to outstanding loans were two crucial ratios to be considered in evaluating the performance of cooperative credit societies.

Patwardhan and Dharamrao (1966) compared the performance of PACS in different states of India and found that the percentage of coverage of population by PACS increased in all the states between 1959 and 1962. The quantum of credit provided by the PACS registered an increase in all the states except in Assam and Rajasthan. But the per-member loan amount decreased from 1959 to 1962. The working capital increased over the years in all the states except in Assam. The deposit
per member was the highest in Punjab, while some states had less than Rs. 5 as deposits per member.

Reserve Bank of India (1966) observed that the percentage of overdues to loans outstanding is an important indicator of effectiveness of agricultural credit. The ratio of deposits to working capital, percentage of borrowing members to total members, loan amount per member and deposits per member constituted other criteria.

In their macro study of PACS in southern states during 1961-62 to 1964-65, Das and Hanumappa (1967) a state-wise variation in the number of societies over the years. The highest increase of 8 percent was found in Andhra Pradesh, while Kerala and Tamil Nadu had a 4 percent increase in the number of societies. Karnataka had 7 percent reduction in the number of societies in 1964-65. The membership of PACS in all the states had increased over the study period except in the case of Karnataka. The share capital, total loans advanced and the overdue position were on the increase over the years in all the southern states.

Kuttapan (1969) studied the performance of Coconut Processing and Marketing Cooperatives in Kerala with respect to membership, share capital, storage facility, working capital, processing and marketing operations. The study concluded that even though the overall performance of the societies was unsatisfactory, they have succeeded in providing marketing opportunities to the farmers in rural Kerala.
While studying the performance of cooperative societies between 1950-51 and 1964-65, Rangachar (1969) found that the volume of cooperative credit had been increasing over the years in different states and the increase has been uneven. About 25 percent of the societies were found to be dormant. In terms of overdues, the highest percentage (74%) was found in Assam and the lowest was in Rajasthan.

Tiwari (1969) analysed the working of the Agricultural credit cooperatives between 1951-52 and 1965-66 with 1960-61 as the base year. He found that the working capital was the highest (Rs.122 crone) in Maharashtra followed by Gujarat and Uttar Pradesh (Rs.67 crore), and the least was in Assam (Rs.2 crore). Inequality was also observed between states in the case of loan amount and deposits per member. He suggested deposit mobilization drive for better working of the Agricultural Credit Cooperatives.

Tewari and George (1970) conducted an opinion survey on marketing of agricultural produce through cooperative marketing societies in Punjab and Haryana states regarding the factors influencing the farmer’s choice of agencies. The survey revealed that: (1) Private traders have an edge over cooperative marketing societies, (2) Producers did not sell their products through cooperatives even though they were members, (3) Private traders were successful entrepreneurs compared to cooperatives because of the absence of complicated and legal procedures in their transactions and the additional facilities provided by them to
their customers such as liberal loans, free storage, transport, supply of consumer goods and farm inputs on credit, personal relations and hospitality.

Chauhan (1971) assessed the extent of cooperative borrowings by small, medium, and large farmers in one of the cooperatively advanced districts of Maharashtra. About 78 percent of the small, 84 percent of the medium and 26.7 percent of the large farmers borrowed from cooperatives during 1971-72. The proportion of overdues of borrower farmers was the highest in the case of medium (84.2 percent) followed by large (35 percent) and small farmers (16.3 percent). However, the quantum of loan realized by the large farmer borrower was seven times higher (Rs.7070) than that of the small farmer borrower (Rs.1040).

Galagalikar and Bhole (1972) observed that the success of cooperative credit societies depends not only on the extent of advances but also on the position of recoveries effected. They considered share capital as an important indicator of growth.

The National Cooperative Union of India (1972) used several financial ratios such as current ratio, working capital turnover ratio, closing stock turnover ratio, cash velocity ratio, activity ratio, ratio of net profit to total investment and ratio of owned funds to investment in order to evaluate the working of Cooperatives.
Singh (1972) appraised the progress and functioning of six cooperative credit societies in Punjab and found that 37.5 percent of the working capital of those societies was derived from the members as deposits.

Krishnaswamy (1973) observed that a high deposit mobilization could bring about a high level of responsibility and efficiency in the management of cooperative credit societies in India.

Thakur (1973) tried to probe into the generally conceived hypotheses that: (1) cooperatives are biased towards big farmers in granting loans and (2) big farmers are mostly responsible for mounting overdues of cooperative societies compared to small farmers. On the basis of an empirical test it was pointed out that neither of the hypotheses could be accepted.

With the help of share capital and deposit mobilization of Central Cooperative Bank in the district of Ludhiana, was able to improve its working capital structure according to the study conducted by Das and Singh (1974). The study points out that there is a need for serious consideration to the problem of overdues, which is rather unexpected in such a highly agriculturally potential district of Ludhiana.

Mariyanathan (1974) found that cooperatives in Kerala had the highest average share capital (Rs. 36,806) and West Bengal the minimum (Rs.2,769) during 1970-71. Gujarat had the maximum per-member share capital (Rs.182) followed by Maharashtra, Bihar and Jammu and Kashmir,
while Assam recorded the minimum (Rs.18). Kerala cooperatives had the highest average working capital (Rs. 193287) followed by Gujarat and Bihar. The minimum was recorded by West Bengal (Rs. 16328). He found that the defaults, inefficient management and dormancy all of which were interlinked, as the important problems faced by cooperatives.

Bahaddur (1976) did the trend analysis of all three types of Cooperative Credit in Andhra Pradesh during 1958 – 59 to 1969 – 70. He found that the number of societies was declining over the years due to their reorganization. The share capital and deposits showed an increasing trend. The increase in membership was found to be associated with an increase in advances, membership and working capital. The short-term and medium-term credit also registered an increasing trend over the years despite a decrease in the number of societies.

Bhuyan and Mohanty (1975) attempted to examine the working of the primary cooperative societies in India on the basis of their bad debts and overdues. They found that the highest percentage of overdues was in West Bengal (16.2 percent), while the lowest was in Andhra Pradesh (0.14 percent) during 1957-58. The situation however improved by 1960-61 in all the states except in Assam. Bad debts decreased from 6.12 percent in 1957 to 1.81 percent in 1960-61 in West Bengal. It was also observed that Jammu and Kashmir had the highest percentage increase in bad debts during 1961-62(0.04 percent to 3.32 percent)
Venkataram (1975) studied short term financing by institutions and non-institutional agencies in Mandya district of Karnataka. He found that 50 percent increase in the loan limits of the cooperatives and commercial banks would provide a favourable situation for adoption of new technology and would provide about 52 percent increase in net returns.

In a case study of a District Cooperative Bank in Uttar Pradesh, Agarwal et al (1976) employed trend analysis for evaluating the growth of the institution for 10-year period. The items considered in the analysis were share capital, owned and working capital, borrowed capital, loans advanced and profits. Linear trend equations were fitted for the above variables and the trend coefficient for all variables were found to be positive and except profits and all of them were significant. Because of heavy expense on management and huge outstanding loans, profits did not keep pace with the physical progress. The recovery percentage was high ranging from 80 to 90 percent of the total advances.

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and medium-term credit also registered an increasing trend over the years despite a decrease in the number of societies.

While recommending Multipurpose Primary Cooperative Societies for the tribal areas, Reserve Bank of India (1976) suggested that the area of operation should be identical with 'nat' covering a population of 1000 or 2000 families. For the viability of the existing Primary Cooperatives, it recommended an increase in the quantum of business to Rs. 2 lakh. It suggested extension of credit to those belonging to SC/ST. The team recommended for strict collection of willful overdues and suggested that the government bear the liability on account of non-willful overdues.

Sridharam et al (1976) evaluated the working of 15 PACS in a Taluk of Tamil Nadu. A linear multiple regression model was used in the analysis. The main findings were that the average deposits per member significantly contributed to the net profits of the credit cooperative societies, the other factors such as average owned funds, average amount of loan per member and percentage of borrower members to total membership, though important, did not influence the net profit significantly.

Choubey (1977) observes that in spite of spectacular growth of cooperative credit during the plans, the rural credit gap continues and it is widening as development gathers momentum. Hence there is need for
cooperative credit planning. He suggests that cooperative credit societies have to be multipurpose and viable.

Desigaraoo (1977) evaluated the cooperative movement in Andhra Pradesh in terms of membership, capital resources, lending operations, facilities and service provided by the society, overdues, audit classification loans issued and outstanding, management and it cost. He has observed that the cooperatives had grown at a phenomenal rate in quantitative dimensions but they lagged behind in qualitative terms.

Nair (1977) observed that the ability to mobilize deposits by the PACS continued to be poor. In 1974 the average amount of deposits per society was only Rupees 5,800/- as against an average working capital of Rupees 1,02,743/-. Among the states, Kerala stood first in per-society average deposits and which were lowest for West Bengal. The per-member average deposit was highest in Himachal Pradesh followed by Punjab, the least being in Assam.

Patel et al (1977) studied the performance of cooperative agricultural credit in Mahesana district of North Gujarat. They have found that there is no effective coverage of the population. Only the credit needs of selected borrowers are met. The savings of the community are not effectively mobilized in the form of deposits. Repayment of loans is not satisfactory as overdues accumulate and fresh loans are taken to repay the old ones. Farmers continue to resort to the
alternative sources of borrowing. There are also diversions in the utilization of loan.

Rao (1978) reviewed provisions of the Andhra Pradesh Cooperative Societies Act 1976, for reorganization of primary cooperative societies and to classify societies into viable, potentially viable and non-viable societies. Non-viable societies were to be merged or amalgamated with viable and potentially viable societies. If a society was either viable or potentially viable nor to be liquidated, then it was to be merged or amalgamated with a viable society.

Pandey and Muralidharan (1978) studied the socio-economic factors influencing overdues in cooperative credit societies. They have concluded that the amount of loan and consumption expenditure were responsible for the overdues. Loans were issued without keeping the repaying capacity of the borrower in mind and were not properly supervised.

Desai (1979) reviewed in aggregate terms the performance of the rural financial markets in India considering three different aspects namely: sectoral allocation of credit, sectoral mobilization of deposits and sectoral contribution to national income. Using time series data relating the rural banking system in India, the author discussed issues such as the long term structure of the rural market, extent of financial independence, default rate and distribution of rural credit and purchasing power of rural borrowers and the distribution of benefits
arising from the concessional lending rates among different categories of farmers. He highlighted the extent of achievements, various problems and suggestions for solving the problems.

Goyal (1979) studied deposit mobilization by Apex Cooperative Banks in India during the period 1971-77. He concluded that total deposit mobilization was considerable in all the State Cooperative Banks in India. The savings and fixed deposits recorded a steady growth during the period. The total deposits registered an increasing trend more than the own funds and total assets.

Mishra (1979) surveyed cooperatives in Dhar district of Madhya Pradesh to examine the position of overdues and causes for the same. He found that the outstanding overdues were only Rs. 173.41 lakhs during 1970-71 but they rose to Rs. 486.45 lakhs during 1975-76. A major portion of the overdues was observed where advances were made for minor irrigation purpose. Default was attributed to the willful non-repayment and misutilization of funds. The failure of crops due to drought and other natural calamities also contributed to the problem.

Venkateswaralu and Bhalerao (1980) examined the impact of cooperative finance on agriculture in Andhra Pradesh. The study showed that there is significant impact of cooperative credit on agriculture with regard to the cropping pattern, adoption of improved technology such as improved seeds, fertilizers and plant protection chemicals and in terms of the gross yields of major crops.
Jain and Mishra (1981) assessed the disbursement, impact and cost-benefit ratio of loans provided by the cooperative LDB's in Madhya Pradesh. It was observed that the bank had financed mainly for irrigation purpose followed by farm machinery. Due to many natural and socio-economic factors farmers were not able to repay the loans in the prescribed time limit.

Vargananavar (1981) discussed the importance of primary agricultural credit cooperatives in the disbursement of credit to the small and marginal farmers, agricultural labourers and to other weaker sections in India and in the creation of job opportunities for them. He highlighted the problem of overdues and lack of dedicated leaders at the village level and absence of good management as the causes for malfunctioning of these cooperatives.

Taking a sample of 20 cooperatives, Lasley (1982) studied how the organizational and structural dimensions influence levels of membership participation and financial performance. The study showed that as centralization increases, membership, participation decreases and the size of the cooperative was related positively to financial performance.

Phanalkar and Srinivasan (1985) identified certain parameters for the success of rural cooperatives. They maintained that the cooperatives should establish credibility with the members, have tight internal control, provide openness and accessibility to the members.
Maney (1986) studied the impact of sugar cooperatives on the farmers in the selected cooperatives in Maharashtra. He found that there was a considerable increase in the levels of their income, savings, investment employment and self-employment opportunity for their family members.

Attwood and Baviskar (1987) analyzed the factors that made a cooperative successful. They highlighted the common economic interest which underpins the alliance between large and small farmers. They argued that it was the volume of activity, which demanded a good capacity utilization, which in turn depended on a responsible membership that contributed to the collective good of the cooperative. They attributed the success to the nature and the location of cooperatives. They further emphasized the technical and social criteria on which a cooperative alliance could be based. Successful cooperatives, according to them, were those having responsive leadership, good technical and economic efficiency and the members who attend and vote in the Annual General Meetings of Cooperatives.

Paranjothi and Ushadavil (1988) analyzed the growth and extent of diversification of loans by Iriryalakuda Primary Cooperative Agricultural Development Bank in Kerala. Factors such as types of loans, rate of interest, percentage of borrowing members, average loan amount issued, trends in loan issued, loans to small farmers were analyzed. The sample bank was compared with the State averages. It
was concluded that the sample bank was ahead in the state not only in terms of growth of loans but also in keeping the overdues at a very low level.

Samiuddin et al (1989) dealt with the accounts and audit aspects of cooperatives. Cooperatives were classified under the categories A, B, C and D signifying good, fair, poor and bad respectively, on the basis of financial performance. The factors to be evaluated were assigned certain marks by the audit department. The factors identified for the purpose included capital structure, financial stability, loan and interest recovery, management, etc. On the basis of marks obtained, one of the four grades was assigned to the cooperatives. 'A' grade was accorded if the cumulative marks were greater than 59 percent, 'B' if it was between 50 to 59 percent, 'C' if it was between 35 percent and 50 percent and, 'D' grade to the cooperatives getting less than 35 percent subject to the condition that a loss making cooperative would never be given an 'A' or a 'B' grade. If the overdues of a cooperative were more than 50 percent then it was to be disqualified for an 'A' while an overdue of more than 25 percent would disqualify the cooperative from getting 'B' classification. Though the factors identified by the audit generally indicated the overall financial performance of the cooperatives, the classification was liable to be quite subjective in nature and was found to be conservative in some cases and liberal in others. As such it was not impossible that with the
same comparable standards of working, organizations did not get the same type of classification.

Shahker (1990) observed that the indicators of sickness of cooperatives never centered only on the measurement of surpluses, though the creation of surplus was the bedrock of efficiency measurement in broad theory. He also stressed the inapplicability of earnings indicator to cooperatives since it was a matter of discretion as to how much of the revenues should be kept for use in business and how much should be distributed unlike in the corporate entities, where no such discretion could be applied ex-ante before the surplus figure was arrived at. The author suggested that the study of cooperatives be undertaken on the following lines: 1) Study of cooperatives with alternate organizational forms in the same industry and 2) Comparison over time, within the organization itself after allowing for inflation.

Shah (1990) attempted to explain what a successful cooperative meant. He deemed cooperative business is like any other business. Obviously its viability and financial growth formed two important indicators of its success, both of which depended on the patronage of the members. This in turn determined the usefulness of the services rendered to its members. Phansalkar and Srinivasan termed this as the intensity of affiliation.
Sidhu and Sidhu (1990) measured success or failure of cooperatives on the basis of a set of parameters such as: consistency and stability in the growth of membership; average lending per member; the pattern of overdues; capital formation reflected by the capital contributed by members and in the ratio of borrowings to the capital contributed by the members (i.e., Debt-Equity ratio); the business expansion pattern and the measures of income, expenditure and profits.

Rao (1991) studied the operations and performances of Cooperative Land Development Banks in India for the year 1989-90. The indicators such as membership, share capital, reserves and other funds loaning performance, purpose-wise lending, advances to weaker sections and recovery performance were considered in the analysis. In a similar study in Kerala, Venkateswaran and Palli (1991) assessed the utilization of long term loans by considering the variables mentioned above.

Multi Crops Association which works for the betterment of the Cooperatives in Andhra Pradesh also tried to identify the reasons why Primary Cooperatives failed. Its Major findings were: over dependence of the cooperatives on external finance, loan overdues, lack of support services and of trained personnel, lack of members' interest, and restrictive laws. These factors were regarded as general reasons for the failure of cooperatives. It may be observed that five of the six factors were relating to the internal management of the cooperative while the
last related to the state. The study revealed that the cooperatives which had overcome the above factors were generally successful. It is interesting to note that only two of the above factors relate to financial management, while the others relate to the general management of the cooperative. However, the above factors have not been substantiated with data and therefore need to be tested out.

Samakhya, a public trust for the promotion of cooperatives, has instituted an award for the best multi cooperative to be given every year. In identifying the most successful cooperative, they have quantified several factors of success in a cooperative. The factors have been broadly classified into five major areas. They are Funds, Services, Efficiency, Returns and Accountability. Each of these factors was assigned weights by the Trust to arrive at an ultimate score in order to measure the extent of success of the cooperatives.

Barman (1994) observed that priority sector lending by itself was not a drawback in the financial system. It was the appropriate system of selecting the borrowers, monitoring the loan and disbursement, use and repayment, which were the important issues confronting cooperative bank loans.

The report on trend and progress of banking in India showed that PACS formed the pivot of the short-term structure of cooperative credit institutions (Anonymous, 1997). During the last few years PACS continued to depend mainly on borrowings from financing agencies to
fund their operations. As most PACS were totally dependent on the finance provided by CCBs, resource mobilization was a weak spot in their growth due to the fact that most of the CCBs are not financially strong. This affects the credit expansion strategies of PACS. The total deposits of PACS in 1996 aggregated to Rs. 3,450.2 crore showing an increase of around 13.0 percent over the previous year. Besides Kerala, the other leading states that mobilized sizeable deposits were Tamil Nadu, Karnataka, Andhra Pradesh and Punjab for the period ended 1996. The total loans issued by PACS rose to Rs. 11,805 crore in 1996 from Rs.10,459 crore in 1995, a rise of 12 percent. The outstanding rose by 9.5 percent during 1996. Based on the criteria for viability determination of PACS, it had been estimated that by 1996, only 65 percent of the PACS were viable and another 28 percent were considered to be potentially viable.

Analyzing the problems of credit in the Indian agriculture, Jain (1998) pointed out that the big impediment in the way of credit flow to the farming sector was poor recoveries. The low rate of recoveries affected the economic viability of the credit institutions like cooperative societies. Hence, apart from strengthening the public credit channels, the government had to step in for credit enhancement and risk mitigation from the borrower side through self-help groups and other measures.
Tyagi and Singh (1998) observed poor recovery of loan to be a major problem in rural areas. The reasons offered to explain this problem included natural calamities, inadequacy of credit, fixation of unrealistic repayment schedules, poor loan supervision and follow-up, lack of timely action, lack of coordination among various government departments and financial institutions. More importantly the root cause of poor recoveries in rural credit was found to be the utilization of credit by the borrower for some unproductive purposes. The most serious problem was lack of awareness among the envisaged beneficiaries about the development opportunities through credit.

In a case study on non-performing assets management in Dharmapuri Town Cooperative Bank, Selvan and Lopoyetum (2000) found that the management of non-performing assets and improvement of recovery rate are extremely essential to revitalize the banking system. They stressed that ‘prevention’ should be the first agenda for which the banks need to ensure fool-proof project appraisals, formulate realistic repayment schedules and have continuous monitoring and follow-up of the use of borrowed funds. Banks should comply with the provisions of the Banking Regulation Act and adhere to the prudential norms to ensure profitability and viability.

2.3 Causes for economic non-viability of PACS

Patwardhan and Dharmaraj (1968) compared the performance of PACS in different states of India. They found that the percentage of
coverage of population increased in all the states between 1959 - 62, particularly in Gujarat, Tamil Nadu and Uttar Pradesh. The PACS covered entire population. The portion of the population and villages covered varied from state to state.

Das and Hanumappa (1967) in their macro study of PACS in southern states during 1961-62 to 1964-65 observed variation in the number of societies over the years. The membership of PACS had increased over the years in all the states except Karnataka. The share capital, total loans advanced and the overdues were on the increase over the years in Tamil Nadu, Kerala, Andhra Pradesh and Karnataka. Based on the basic indicators such as borrowing, membership, member of dormant societies, percentage of kind loan, increase in advance as per borrower member, the authors concluded that, the management had not been able to follow the balanced approach in the development of PACS in southern states.

In a study of the performances of cooperative societies between 1950-51 and 1964-65, Rangachar (1968) found that the volume of cooperative credit had been increasing over the years in different states and the increase has been uneven. The results indicated that a large proportion of cooperative credit was appropriated by large and well-to-do farmers. An analysis of the working of the PACS indicated that about 25 percent of the societies in the country were dormant. The dormancy was highest in the eastern states as well as in Rajasthan and Andhra
Pradesh. In terms of overdues, the highest percentage (74 percent) was found in Assam followed by Bihar (44.5 percent), Karnataka (34 percent), West Bengal (33 percent), and Rajasthan (30.6 percent), though the position improved a little over the years.

The working of the Agricultural Credit Cooperatives between 1951–52 and 1960-61 was analyzed by Tiwari (1969). The study found that the working capital was highest (Rs. 122 crore) in Maharashtra and least was in case of Assam (Rs. 2 crore). The inequality was also observed between states in the case of loan amount and deposits per member. The author suggested deposit mobilisation drive for better working of the Agricultural Credit Cooperatives.

Chauhan (1971) assessed the extent of cooperative borrowings by small, medium and large farmers in one of the cooperatively advanced districts of Maharashtra.

Dhakar (1971) evaluated the performance of cooperative bank in Rajasthan in terms of owned funds, deposits, savings, borrowings, government grants, loans and advances, investments and other service facilities provided by bank to its customers. He suggested that the cooperative banks should adopt progressive attitude in their functions, diversify the activities and offer a wide range of facilities to its members.

The progress and performances of six cooperative credit societies in Punjab was analysed by Gurubachan Singh (1972). He found that 37.5
percent of the working capital of these societies was derived from the deposits from members.

Reviewing the progress of cooperative movement in India, Dharia (1973) observes that cooperation is an important instrument to bring about the desired socio-economic changes in the context of the prevailing economic conditions of the nation.

Thakur (1973) tried to test the generally conceived hypothesis that cooperatives are biased towards big farmers in granting loans and the big farmers are mostly responsible for mounting overdues of the cooperative societies compared to small farmers. On the basis of an empirical test, he pointed out that neither hypothesis could be accepted.

Mariyanathan (1974) found in his study that Kerala had the highest average of share capital (Rs. 36,80) and West Bengal (Rs. 2,769) the minimum during 1970–71. Gujarat had the maximum per-member share capital (Rs. 182) followed by Maharashtra, Bihar and Jammu and Kashmir, while Assam recorded minimum (Rs. 18). Kerala had the highest average working capital (Rs. 1,92,287) followed by Gujarat and Bihar. The minimum was recorded by West Bengal (Rs. 16,238). He found that the default in repayment, inefficient management and dormancy were interlinked as the important problems of cooperatives.

Bhuyan and Mohanty (1976) made an attempt to examine the working of the Primary Cooperative Societies in India on the basis of their bad debts and overdues. They found that the highest percentage of
overdues was in West Bengal (6.12 percent) while the lowest was in Andhra Pradesh (0.14 percent) during 1957 – 58.

Sridharan et al (1976) evaluated the working of 15 PACS in a taluk of Tamil Nadu. A linear multiple regression model was used in the analysis. The main findings were that the average deposits per member significantly contributed to the net profits of the Credit Cooperatives. The other factors such as average owned funds, average amount of loans per member and percentage of borrower member to total membership, though important, did not influence the net profit significantly.

Rao (1977) evaluated the cooperative movement in Andhra Pradesh in terms of membership, capital resources, lending operations, facilities and services provided by the society, overdues, audit classification, loans outstanding, management and its cost.

Garg et al (1978) analysed the economic efficiency of long term financing by LDB's in Uttar Pradesh. The study showed that there was a steady and continuous progress of the banks in respect of membership, share capital, working capital, loans advanced, recovery position and net profit.

Rao (1978) reviewed provisions of Andhra Pradesh Cooperative Societies Act 1976, for reorganisation of Primary Cooperative Societies and to classify them into viable and non-viable societies. Non-viable societies are to be merged or amalgamated with viable and potentially viable societies. The author reviewed the criteria for liquidating a society.
They are bad debts and a society remaining dormant for three years. If a society is neither viable nor potentially viable, it is to be amalgamated with a viable society. Though an appropriate Act has been enacted, no measures have been taken to implement the programme of reorganisation.

Goyal (1979) examined the deposit mobilisation by Apex Cooperative Banks in India during the period 1971-77. He inferred that deposit mobilisation was quite considerable in all the state cooperative banks. The savings and fixed deposits registered an increasing trend more than the own funds and total assets.

Mishra (1979) surveyed cooperatives in Dhar district of Madhya Pradesh to examine the position of overdues and causes for the same. He found that the amount of overdues was only Rs. 173.41 lakhs during 1970-71 but rose to Rs. 485.45 lakhs during 1975-76. Heavy overdues were observed where advances were made for minor irrigation purposes. Defaults were attributed to the wilful non-repayment and misutilisation of funds by the borrowers. The failure of crops due to drought and natural calamities also contributed to the problem of overdues.

(1981) analysed the long-term credit and its supply through the LDB in Agra. The study revealed that in the lending operations the LDB laid emphasis on maintaining institutional viability.
which in turn resulted in the cooperative finance going into the hands of relatively rich farmers.

Bednarsk (1982) evaluated the qualitative and quantitative performance of agricultural credit by the LDB in Orissa. He observed a steady increase in the amount of loans advanced, huge amount of loans outstanding and mounting overdues. The ineffective collection drive by the field staff and weak repaying ability of the farmers in the state caused by low productivity contributed to the problem of overdues in the state.

Bhist (1982) evaluated the existing system of providing long term finance by the State Cooperative Land Development Bank in Uttar Pradesh. The farmers were found to be hesitant to get loans from the LDB mainly due to the fear of auctioning of their lands, as they become defaulters. Moreover, there was delay in getting the loans and the quantum of loan was inadequate to meet the borrower's project costs.

Chamola and Hasija (1982) analysed the progress of PACS in India by employing trend analysis for the period 1966-67 to 1976-77. The results indicated the highest growth rate in overdues (14.6 percent). The number of societies decreased by 20 percent, while membership increased by 50 percent. The share capital showed 148 percent increase and members' deposits, 180 percent increase. The share capital and loan advances recorded same rate of growth as that of members' deposits
indicating that whatever was deposited by members was given out as loan.

**Mitra and Saha (1982)** examined the stability of Burdwan Central Cooperative Bank, West Bengal, in financing agriculture during the period 1960–61 to 1980–81. Both tabular analysis and statistical estimates of linear and compound growth rates of the desiderata were attempted.

**Naidu and Shankaralah (1984)** analysed the progress of LDB’s in Chittor district of Andhra Pradesh for the period 1971 to 1981. The study showed that the loans advanced by these banks had increased in terms of both and total per branch. The number of loans advanced and the loan amount given to small farmers also had increased over the years. The per head loan availability was higher in the case of small farmers than in the case of other categories of farmers.

**Rao (1985)** analysed the performance of Central Arecanut Marketing and Processing Cooperative Limited, Mangalore by using eight indicators namely, paid-p capital, membership, total assets, sales, purchases, working capital, owned funds and fixed assets. Exponential functions were fitted for the data for the period 1973–74 to 1980–81.

**Shankaramurthy (1986)** evaluated the performance of Karnataka State Cooperative Marketing Federation Limited, in terms of both physical and financial indicators. Various financial ratios were used to evaluate the financial performance. Substantial increase in physical and
financial indicators of the federation was observed over the period of study.

Thanulingam and Gurumurthy (1987) analysed the financial performance of thirty handloom cooperative societies in Paramakudi town, Tamil Nadu for the period (1980-84) using liquidity, profitability and turnover ratios. The study revealed that the financial performance of the societies was poor due to factors like accumulation of heavy stocks, very high gross output margin, heavy accumulation of inventory and large number of debtors.

Pathania and Verma (1992) observed that poor recovery performance and inefficient management of cooperatives are the main problems associated with cooperative credit. They observed that significant portion of the credit is diverted for purposes other than those stipulated.

In a study on financial base of the cooperative banks in Harayana, Taran (1992) has reported that the share of the government in the total share capital had declined over the years significantly. He further observed that the deposits of PACS had also declined from 6.19 percent in 1966-67 to 1.94 percent in 1987-88. The percentage of profits and availability of working capital needs have also declined substantially. The rate of return on capital investment had presented a gloomy picture. The compound growth rates of PACS during the period were reported to be the lowest.
In a study on the role of cooperatives in rural economy, Dwivedi (1996) has dealt with the origin, and progress of cooperatives in India, as also the regional imbalance in their growth, diversification, performance and management. He has attempted to examine the role of cooperatives under liberalised economy, sustainability of cooperatives, government support and measures to remove their weaknesses.

Pat and Pal (1997) reported that economic performance of the farming cooperatives in India was not all appreciable. The number of societies earning profits has fallen over the years. The number of viable societies has come down drastically.

In a study on the efficiency of the credit cycle of PACS in Karnataka, Shollapur (1997) found that owned funds should be an important source of funds for PACS, in the light of the growing preponderance of borrowings. He observed that the operational efficiency needs to be streamlined on scientific lines.

Evaluating the performance of Chittor DCCB in Andhra Pradesh, in terms of capital structure, loan operations, recovery and overdues, Verma and Reddy (1998) emphasised that a steady and sustained growth of equity is essential to strengthen the resource base of cooperatives and that deposit mobilisation needs even greater drive. They observed that the bulk of the outstanding loans was in the short-term category and concluded that recovery of loans has a direct bearing on the very survival of the cooperatives.
In a study on the performance of cooperative credit institutions in Haryana, Suhag et al (1998) examined the size of operations, pace of deposit mobilisation, functional structure of loans, loan delinquencies and unit transactions/administrative costs of these credit institutions. They observed that absolute number of PACS had declined over time and 90-98 percent of PACS were viable. Around 98–100 percent of villages were under PACS and 90–100 percent of the population were served by the PACS. Although cultivators dominated as members of PACS, only 34–61 percent of them were borrowers. Both flow and stock of loans in PACS were greater in the first loan group (i.e., upto Rs. 5000/-) as compared to second group during the years 1976–77 and 1986–87 while it was reverse in 1992–93.

2.4 Perceptions of members about functioning of PACS

Chand et al (1986) analysed the factors responsible for the success of the Lahaul Potato Growers Marketing-cum-processing Society in Himachal Pradesh, using the indicators, viz., types of sale, Structure of organization, provision of support price, fairness in dealing, honesty and sincerity of officials, nature of administration and management, availability of facilities, and efficiency of marketing system. They found that almost all members (96.7 percent) of the Lahaul Potato Growers Marketing-cum-processing Society were satisfied with its performance.
Singal (1988) interviewed 31 members of Dheena Cooperative Credit Society in Haryana to evaluate it. He found that 1) most of the members were satisfied with the adequacy of loans and repayment schedule, and only seven percent of the respondents complained of non-availability of credit at the time of their requirements, 2) about 12 percent of members were not satisfied with the quality and quantity of fertilizer supplied by society, 3) about 50 percent of the members were not happy about the grocery supplied by the society.

Mattigatti (1990) conducted a survey of 100 farmer-members and 36 policy makers and officials to elicit opinions on the performance of dairy cooperatives in Dharwad district of Karnataka. He considered indicators like supply of inputs, veterinary services, better prices, regularity of payments, linking of credit with membership, regularity of board meeting, working of the board, participation of directors, working of officials, transport facility and price received by the members, etc. He observed that the majority of the respondents were satisfied about their performance. In most of the cases the unsatisfactory opinions were negligible (less than 5 percent) except in cases like supply of inputs, price received, credit linking facility and transport facility. In these cases, the unsatisfactory score was more than 25 percent. The author suggested to the society to provide better-input service alongwith the better prices.

Shabeena and Rajitha (1991) analysed the utilisation and repayment of loans in Meenangadi Service Cooperative Bank in Kerala.
They interviewed 18 small farmers, 14 marginal farmers and 18 large farmers for this purpose and found that: 1) 35.71 percent of the marginal farmers had diverted the loans supplied by the society, 2) defaulters were more among large farmers, because of their clout with the Board of Directors, 3) the scheduled caste borrowers constituted a major portion of the borrower defaulters (66.66 percent) due to liberal policy of the government towards them.

2.5 Viability Model

Altman (1968), Gupttha (1983), and Panigrahi and Mishra (1993) have developed models based on financial ratios to indicate the health of industrial concerns. But, as the behaviour of ratios varies from sector to sector and from industry to industry, the applicability of these models cannot be generalised. Therefore, these models cannot be applied directly to the cooperative form of organizations.

Srikam (1991) has developed a model by applying multiple discriminant analysis using ratio indicators as the base to discriminate between sick and healthy cooperatives. The predictive power of the model is fairly accurate with cooperatives having trading activities and cooperatives with processing facilities, whereas it is not so accurate in predicting sickness of cooperatives specializing in credit.

Sidhu and Sidhu (1990) measured success or failure of cooperatives on the basis of membership, loan per member-borrower, owned capital per member, percentage of owned capital to total loan,
percentage of overdues to loan outstanding, income per member, and profit / loss per member. The study is, however, silent on the basis on which these variables were selected. There is, thus, a possibility that other variables may be more significant in discriminating between successful and unsuccessful cooperatives.

Desai and Namboodiri (1991) have done an evaluation of farmers' service societies and PACS at all India level using seven variables. While these factors may be appropriate for a comparative study at the macro level, a different set of criteria may have to be used for a micro level study.

In an evaluative study of cooperatives, Reddy (1992) used variables such as: membership and member – users, volume of business, class-wise loan, recovery of loans, cost of management. However, the study cautions that adequacy of these indicators varies from region to region based on socio-economic conditions in which the cooperatives function.

Suresh and Vinalkumar (1993) studied the economic viability of cooperatives using positive net worth as the criterion. Loans, cash balance, deposits, investments, consumption loan, recovery of loans, borrowing members and non-credit business were the significant variables found to influence the performance of societies.

Any model used to evaluate the performance of cooperatives is expected to include variables that indicate liquidity, profitability, and
long-term solvency of the business. But the evaluation methods developed in the studies reviewed above are deficient in one or the other aspect of development. Therefore, these models may not be fully relevant to the PACS and it is necessary to develop an alternative method which incorporates all the physical, financial and management factors to measure the efficiency of PACS. For PACS whose activities are a combination of trading and banking, such a need is felt now more than ever before in view of their poor performance in recent years. Hence, an attempt has been made in the present study to develop a model based on scaling technique as suggested by Rao, Bhat and Bhatta (1991).

The issue of viability is extensively discussed in various committee reports and studies of working groups (See for example, RBI, 1954; RBI, 1969 and RBI, 1981). The main reasons put forth for the poor performance of PACS is that they have been state- supported and state-patronized. With excessive government intervention in the affairs of the committees, this base-level institution has remained non-viable (ACRC, 1989). ACRC also pointed out that unhealthy political interference in the recovery of dues and in other financial matters on considerations other than financial returns have further aggravated the non-viability problem. According to ACRC, PACS are marred by high costs, low or negative profitability, inefficient service and lack of self-reliance. The solution to this malaise, according to ACRC, is rationalization of interest rate with

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concessional finance limited only to redefined priority sector, dynamic and motivated leadership and induction of professional management.

While endorsing most of these observations except on interest rates, some researchers maintain that non-viability of PACS is because of their being not truly multi-purpose, and efficient in undertaking loaning operations (Desai and Namboodiri, 1991; Desai and Mellor, 1993 and Desai, 1994). According to them these problems together with the politicization are endemic to cooperatives in general and PACS in particular. They further argue that PACS need to be depoliticized, debureaucratized and decentralized with better accountability to reap the economies scale as well as the economies of scope in their business. The evidence on the economies of scale in transaction costs suggests that the interest rates need not be raised. Nor does the interest rate policy need to be changed as lending rates of cooperatives have been positive in real terms in most of the past (Desai and Namboodiri, 1996).

Conclusion

On an analysis of the above literature pertaining to different facets of PACS functioning, it may be inferred that majority of studies focussed more on organisational analysis confined to be a case study which obviously throw very limited light on the larger area of operations of PACS in the face of implementation of Business Development Plan across the country.
Some studies concentrated heavily on profitability analysis making the study a piecemeal approach, while others selected only those parameters from the view point of academic interest but necessarily not based on practical orientation of field level experience gained over a period of time.

Many practicing cooperators time and again expressed the view that the primary level cooperative institution continues to be the beckon of hope for socio-economic transformation of the rural folk. As such any investigation aimed at studying the overall functioning must address such issues as members participation in different institutional environment, their attitude, perception about functioning, level of commitment etc. The past studies thus are either methodological specific or approach specific and thereby neglecting comprehensive practical problems.

The present study is undertaken with an intention to provide a proper direction for diagnostic investigation of the PACS functioning and more specifically tackling the problem with multi-thronged strategy based on field level observations.

This approach it is felt, necessary as the cooperative reforms in the country have already taken a definite shape keeping in view the much awaited National Cooperative Policy. The Policy, it is said *inter alia* has given top priority for repositioning the cooperatives in the light of the changing global scenario. It was therefore felt that there is need to have a
different kind of study which addresses the above issues that the past studies have failed to address successfully.

In the light of the above limitations it was felt necessary to evolve a new set of directions which may be peculiar to cooperatives but time-tested technique applicable to similar organisations outside the cooperative realm. Beaver et al. (1968: 682) comments about diagnostic study as:

“What is important is to know to what extent we can generalise across the purposes and the only hope of acquiring the knowledge is to conduct diagnostic studies”.

The present study, it is hoped to fill some of the serious limitations as revealed above and is expected to provide the systematic direction for further research in the field of cooperation.