CHAPTER - 2

REVIEW OF LITERATURE

This chapter includes a review of past literature on various aspects of agricultural credit relevant for the present study and studies carried out either exclusively on viability of primary agricultural co-operative societies or which have dealt with the issue.

Co-operative credit system has been regarded as an old and time-honored institution in the country and therefore, the policy makers and academicians have always paid a great deal of attention to its functioning and performance. To quote Khushro Committee “No credit system has been subjected to as much experimentation at the dictates of those outside the system as the co-operative credit system has been. Each time the system has been subjected to review by a committee or a working up, it has been made to follow newer prescriptions. The history of co-operative credit system has thus been the history of alternating periods of growth. Stagnation and reorganization and yet quantitatively the achievements of the co-operative system have by no means been insignificant. These pertain not only to the credit sector in the system, but others as well.”

Therefore, literature on co-operative credit system exists in abundance, especially in the form of reports of different committees, working groups and commissions appointed to examine and recommend for better functioning of co-operative credit institutions.

To review such vast material of literature in one chapter is an utter impossible task. Therefore, the chapter will focus on the concepts of the standards of viability that have emerged over the years, those which can be either inferred from the recommendations of different committees or from specific standards suggested by some committees.

Past literature reviewed is grouped in three parts -

1. Reports of important committees / working groups and commission which have relate with issue of viability and agricultural financing.
2. Books on agricultural financing.
3. Research articles in journals and other publications related to the study.

2.1 Reports of committees, working groups and commission

1. The Reserve Bank of India (1936)

Soon after its establishment it studied the existing set up of co-operative organization. The R.B.I. in its report in 1936 made certain recommendations in respect of co-operative movement. It favored conversion of credit societies into multi-purpose societies.

2. The Vijayaranghayacharya Committee on Co-operation (1940)

The committee appointed by the Govt. of Madras state it examined the effects of depression on co-operative movement while making suggestions for their reconstruction. The committee recommended the expansion of rural credit movement, to form large size societies etc.

3. Gadgil D.R. (1944)

The chairman of agricultural finance sub-committee reported in his studies in 1945 that the co-operative developments were not uniform in different provinces and recommended the establishment of agricultural credit corporation for each province.

4. The report of the co-operative panning committee (1946)

(Under the chairmanship of R.G. Sereiya) The report pointed out that, “The main cause of the limited progress of the movement was the fact that it did not especially in its initial stage, take the life of the individual as a whole.” The chairman recommended that the primary credit societies should be so reformed and reorganized so as to serve centers for the general economic development of their members.

5. The report of all India rural credit survey committee (1954)

The committee appointed under the chairmanship of Shri. Gorwala is generally considered as an enlightening document on the real nature of appropriating and managing rural
credit including co-operative credit in India what should be the size and purpose of a primary society has been an important issue. The idea of “one village-one society -one purpose” was handed over by raiffeisen system of co-operatives generally followed in India. The Maclagan committee, 1915 conceptualized the policy of one village and one village to one society. However the issue of size and purpose has been be hated a lot as is evident from the following discussion.

“Over the years two views have alternated or co-existed as to whether a co-operative credit society should do the singular function of purveying credit or it should be multipurpose for proper discharges of their main function as a provider of credit. The royal commission on agriculture in its abridged report while upholding the idea of single purpose society says.

“ As a matter of principle single purpose society seems to be the best line of development. One thing at a time should be the policy”.

The main reasons given by the commission while supporting its view are as follows:

1. The single purpose society has proved easy to manage. Its principles are readily understood and it’s requirements are within the capacity of the villages to provide.
2. If business activities are involved it is difficult to find the business management skill amongst the members of the society and where it exists it will work for private gain rather than for the society.
3. The royal commission further elaborates that where the secondary objective i.e. the multi-purpose activity is of minor importance the single purpose societies have been undertaking these additional duties for ex. distribution of seeds once or twice a year.

Contrary to the views of royal commission on agriculture, the RBI in its bulletin issued by it’s agriculture credit department favored the multi-purpose idea and put forth following reasons to justify its views.

1. Where separate societies have been established for different functions, it is generally found that the co-operation is lacking in these societies. Where these kinds of societies exist with
different members, no single member gets all the benefits, which are required to put him on a surplus economy.

2. Organizing separate societies for different function would mean wastage and duplication of effort.

3. Considering the pattern of Indian agriculture and other social factors it would be difficult for an Indian farmer to join number of organizations for different services, he would be happy if all his requirements are satisfied at a single place.

Writing in the context of reorganization of co-operatives Shri. Manilal B. Nanavati advocates the idea of multipurpose societies when he quotes the formula of better farming, better business and better living by Sir Horace Plunkett. Based on this formula he goes on to describe the advantages of primary agricultural co-operative societies over single purpose societies. He feels that single purpose societies seldom get loyalty of the members and their full co-operation. They remain with the society as long as they get credit whereas a primary agricultural co-operative societies will command a greater loyalty of the contact is continuous and the benefits are more tangible than mere saving of few rupees by way of lower interest charges. According to him the co-operative movement should be oriented to accommodate the basic formula mentioned above.

The co-operative movement should be a real rehabilitation movement which will try to set individuals on a secure economic footing by increasing the sources of income as also by reducing the wasteful expenditure. AIRCSC report was the first major attempt to inquire into the working of agricultural credit co-operative after independence. In its view the formula ‘one society one village and one village rural credit’.

The AIRCS committee recommended for future line of development establishment of primary societies (and whenever necessary, and as and when suitable, existing one reorganized) so as to cover according to local conditions, a group of village with reasonably large membership and reasonably adequate share capital.

Another important recommendation of AIRCS committee was linking primary agricultural co-operative societies with marketing societies. It endorsed cooperative planning
committees view of primary agricultural co-operative societies acting as agents of nearest marketing society for the sale of produce of its members.

The committee recommended that primary agricultural co-operative societies would assemble the produce of its members, supervise and if necessary arrange for the transportation of the produce.

To summaries AIRCS committee inter alia recommended:

1. Organization of large size societies
2. Each society to have minimum share capital base.
3. Linking PACs with marketing societies.

The committee on co-operative credit, which submitted its report in 1960 next dealt with the question of appropriate size. It was of the view that as a general rule co-operative society was to be organized on the basis of village community as a primary unit but the number of village to be served by the society might be increased in the interest of viability wherever the village were too small.

The committee recommended that the membership should not be too large and population covered should not exceed 3000 and no village in the society jurisdiction should be more than 3 or 4 miles from its headquarters.

It was expected that these societies would give reasonable return on share capital. It was recommended that a survey to be undertaken of existing societies and amalgamate societies which had no prospect of becoming viable and liquidate the bad and defunct societies. It also suggested extension of jurisdiction of existing societies so that only viable societies would exist in few years.

In pursuance of this approach, at the conference of state of ministers of co-operation held at Hyderabad in 1964 spelt out clearly line of reorganization based on a defined standard of viability.

The state of ministers formulated certain standards for determining the primary credit co-operative society. They are follows:
1. Appoint a full-time paid secretary.
2. Set up a regular office in a building owned or hired.
3. Contribute to statutory and other reserves on the scales considered necessary.
4. Pay reasonable dividend.

The conference further chalked out the program of reorganization on the following lines.

1. Area wise standard of quantum of business, credit as well as non-credit necessary for a society to attain viability have to be worked out.
2. Conducting a survey to locate viable or potentially viable units with reference to these criteria, demarcation of areas to ensure that a society has adequate business potential and drawing up a program of action to enable the potentially viable units to become viable within shortest possible time.
3. Amalgamation or liquidation of weak societies.
4. In a delimited area where there is more than one society only one such society is to be selected for promotion and development as local society of the area and efforts should be made to amalgamate/merge all other societies in the area with it.
5. All governmental assistance for development should be restricted to the societies chosen for development.

6. The Food and Agricultural Organization (1966)

On its agricultural studies particularly on co-operative credit in India is worth study. It is more appropriate to quote here the observations of its study “The farmer who needs long term credit is very often also in need of short term and medium term credit since his paying capacity is one. All institutions providing loans to him must depend on his one and only repayment capacity”

7. The report of the rural credit review committee (1969)

This committee is another landmark in the history of Rural credit in India. The committee suggested that technical feasibility and financial viability should be regarded as primary considerations for giving investment credit to agriculture. The period of loan should be
fixed on the basis of the repaying capacity of the borrower and the incremental income from the investment.

It suggested project approach in investment credit to agriculture in order to ensure proper end use of credit. The lending policies and procedures followed by land development banks were reviewed and revised on the basis of the recommendations of this review committee, and it is seen that the working of land development bank is by and large based on the recommendations of this review committee even today.


Valuable statistical document which have furnished data regarding the share of various institutional agencies in meeting the short, medium and long term credit needs of the rural people. The surveys revealed that in spite of tremendous efforts to institutionalize agricultural credit, they could meet only 50 percent of the farmer’s credit requirement while non-institutional agencies still occupied a dominant place, though their share had considerably declined. However, the survey found that there has been a tendency of institutions credit to flow mainly to large farmers.


The committee headed by Shri. Madhava Das described the banks’ performance the chairman pointing out several operational limitation the existing structure by setting up of regional / divisional offices of the central land development bank with adequate technical and other staff to provide necessary support to the base level structure in the matter of formulating schemes and implementing them. The committee felt that the banks should take prompt and effective measures against the defaulters.

10. The Hazari Committee (1975)

The committee strongly recommended for the integration of short, medium and long term co-operative credit institutions. This integration would be to (1) avoid splitting up of security, (2) ensure a single contact point for farmers and (3) enhance the profitability of the primaries. However, no consensus could be arrived at over the recommendations of this committee.
11. The committee to review arrangements for institutional credit for agriculture and rural development

The committee was established by National Bank for Agriculture and Rural Development (NABARD) under the control of RBI to decentralize its functions. It made several suggestions for improving the rural credit system in the country like: (1) identification of target groups like small/marginal farmers, rural artisans, scheduled caste and schedule tribe, (2) simplification of terms and procedures of credit (3) updating of land-records and (4) project lending.

In the matter of dispensing long term credit, the committee strongly urged that the primary agricultural credit societies (PACS) should act as agents of land development banks.

The report of the committee to review arrangements for institutional credit for agricultural and rural development (Hereafter CAFICARD), 1981 while discussing the concept of viability and reorganization point out that during the period of its study, the basis of reorganization that was being implemented was as per the suggesting of the working, the process of reorganization was in progress expect in States of Jammu & Kashmir, Maharashtra and Gujrath.

Therefore at least those societies, which have already achieved the minimum standards sets, should aim at expansion of loan operation and diversifying into other business AIRCRC hopes that in near future these primaries will grow beyond the stipulated minimum standards of viability and that in the process there will be not only expansion and diversification in their loaning operation but also an increase in their deposits.

It was hoped by AIRCRC views that these primaries will eventually develop into rural banks which will accept all types of deposits, render banking services and offer different types of credit facilities. Further AIRCRC points out an important fact that through agricultural credit primaries are expected to cater to the needs of all sections of rural population. They have in practice restricted their credit operations to farmers alone. AIRCRC committee expects that in near future credit needs of non-cultivators will also be met by these agricultural credit societies.
Therefore, the primaries have to build up in terms of resources, loan business and organizational sufficiency to assume the character of rural banking institutions.

The report of the committee to review arrangements for institutional credit for agricultural and rural development 1981 while discussing the concept of viability and reorganization points out that during the period of its study, The basis of reorganization that was being implemented was as Craficard points out that the Maharashtra state, which had sought to reorganize societies in 1973 and again in 1975 has not implemented the decisions or reorganization.

The decision of the Maharashtra state government not to go ahead with reorganization was reportedly due to its apprehension that it would give rise to discontent in village leadership. Craficard sees no convincing justification for any further delay in reorganization by the aforementioned three states. It observes that economics have to prevail over parochialism. It is very critical of the Maharashtra governments policy of appointing group secretary and points out that such a policy would only result in slack supervision and rise in overdue.

12. Report by the agricultural credit review committee (1989)

The committee constituted by RBI in consultation with government of India under the chairmanship of Sir A.M. Khusro, had made a comprehensive review of the agricultural credit system in the country. Examining the long term co-operative credit structure, the country observed that land development banks experienced a declining trend in the total lending from 80 percent in 1974 primary banks were under rehabilitations programmer.

Increasing over dues resulting in restricted eligibility for lending, low interest margin, reduced scope for irrigation financing high cost of raising ordinary debentures, uneconomic cost of interim finance, external and government inference in its working, absence of professional management etc. had been identified as some of the major problems affecting the long term co-operative credit structure. The committee recommended that unless the banks are enabled to diversify their activities and broad-base their operations, it will be difficult for them to compete with other rural credit agencies particularly the commercial banks.

2.2 Books on agriculture financing
In this section the books and studies reviewed which have related with agricultural finance and either dealt exclusively with the issue of viability of primary agriculture co-operative credit society or related issues like profitability, efficiency and performance of co-operative credit institutions.


Agricultural credit has assumed special importance in India in the wake of financial sector reforms.

The book is divided into six chapters. The first chapter gives in brief the general information on the importance of agriculture, role of agricultural credit, rural indebtedness and genesis of NABARD. The second chapter though titled as “Agricultural finance and agricultural development”, the discussion in this chapter centers around farm mechanization. The third chapter deals with institutional and non-institutional credit agencies.

The fourth chapter focuses on the organizational structure and management of NABARD. The fifth chapter is devoted to refinance operation of NABARD. The main findings and suggestions are summarized in chapter six.

Though the book under review was published in 2003, most of the information is up to the year 1998-1999. The data relating to all India debt and investment survey (AIDIS) for credit agency-wise cash loans owned by the farmers were for the year 1981-82, whereas the results of AIDIS 1991-92 were published right in the year 1999-2000. The inclusion of the result of AIDIS 1991-92 would have made a significance in the analysis. Further, the authors have covered the operations of agricultural finance co-operation (AFC) but its relevance has not been examined critically. While AFC is mainly engaged in consultancy assignments, NABARD has recently started providing consultancy services.

There is hardly any justification for two separate organizations in the public sector competing with each other with public money. This is high time that AFC is merged with the NABARD in the public interest. While examining the performance of regional rural banks
the authors observed that RRBs have failed to fulfill the expectations and endorsed the recommendations of the agricultural credit review committee.


In this book, chapter one aspect of rural development, namely, institutional finance. The book runs chapters. After making a sketchy introduction to the subject, the author has provided details of the book in the first chapter. The second chapter contains the review of literature but fails to identify the gaps in the existing literature, after a cursory survey of rural development are briefly discussed in the third chapter. However, the data used in the chapter are only up to 1993-94, an in-depth study of rural scenario using the latest data would have been useful for policy framing. The fourth chapter discusses the progress of various financial institutions in India and Kerala. It also provides information about the flow of direct institutional credit and outstanding credit for agriculture from 1974 to 1998 in India.

The authors showed that institutional credit to agriculture has increased from 7.3 percent in 1951 to 66.4 percent in 1991. The fifth chapter is divided into four sections. The author fails to present the sampling method adopted for the study. Obviously, the study loses its significance.

After culling the data for credit requirement and credit obtained, the authors worked out the mean aggregate credit gap in the sample area in the second section. The credit gap was found to be 36.7 percent and was further classified into region, institution, sector, and scheme-wise credit gap. In the third section, the authors provide an estimation of 1.6 percent as the cost of borrowing. Apart from this, the authors also worked out the loss of earnings on account of number also worked days lost in obtaining the credit in the last section.

Further, the authors also worked out that each borrower on an average has to wait for 43 days to obtain the loan from the institutions. However, variations in the cost of borrowings and loss of earnings were observed across the regions, institutions, sectors, and schemes. But the authors fail to explain the rationally of borrowing, and reasons for variations in the cost of borrowing. Attempts should have been made at least to correlate loss
of wage, loss of time and cost of borrowing. The data provided in the tables 5.21 to 5.24 fail to capture the intentions of the authors.

The sixth chapter deals with the problems faced by borrowers in getting loans. The problems in obtaining loans were identified and classified under three heads viz. (1) problems connected with the credit institutions (2) Financial problems and (3) Problems relating to security. Under each major head, five variables were identified and ranked in accordance with their priority. Weights of 5, 4, 3, 2 and 1 were assigned to these problems (p.145). According to the authors, ‘demand for land as security’ and ‘personal security’ figured as important problems faced by the borrowers of assigning the weights by the authors for the problems fails to understand the rationality of assigning the weights by the authors for the problems faced by the borrower. Hence the results are not very much useful for policy purpose.

Utilization of loans, repayment performance of the borrowers and reasons for over dues is discussed in chapter 7. The authors find that 11.1 percent of the loan was misused and the predominant reasons for such misuse was insufficient loan amount (p. 175).

Further, they found that the over dues was 23 percent of the loan extended in the sample frame, however, it is not known how the authors arrived at the conclusion. “It is observed that borrowers in rural industries sector have plenty of investment opportunities.

So that they take greater interest in investing more and more than in repaying the borrowed funds” (p. 185) Although the authors pointed out that 44 percent of the borrowers repaid the loan from the income of their activity for which borrowing was made, they failed to explain the extent of repayment from such and other activities. And 41.5 percent of the borrowers did not repay the loan on account of inadequate of income.

The impact of credit on income generation, asset positions and on the standard of living in the study area forms the subject of the eighth chapter. The study showed that there has been an increase in net income, employment and assets of the borrower by 76 percent, 54 percent and 22 percent respectively, there has been a general improvement in the standard of living of the borrowers after utilizations on credit according to the authors.

Krishnakumari has made a study of CARD banks in Andhra Pradesh. She found that Andhra Pradesh awaits as a pioneer of agricultural development banking and a comparison of the CARD Bank in the state with other CARD banks in the country revealed that the bank in Andhra Pradesh secured four first ranks in the matter of loan disbursements, loan outstanding.

Small farmer financing and in diversifying the credit to allied activities of agriculture. However, the author found that the recovery performance had deteriorated to seventh rank. She further stressed the need for reducing the interest rate rank and in simplifying the loaning procedures and policies of the CARD Bank. She strongly recommended for the setting up of ‘Recovery Cells’ by every CARD Bank to monitor the recovery operations.


While analyzing performance of co-operative credit structure including primary agriculture co-operative credit societies have inter alia dealt with viability and unit transaction cost time series of 21 years from 1962-62 to 1981-82. The unit profit or loss and unit transaction costs are calculated each as percent of total assets plus liabilities excluding contra items. In the period under reference the unit profit has slowly declined ultimately turning into loss. However the transaction costs have increased over the period.

The authors point out that since transaction costs have increased and since primary agriculture co-operative credit societies did not reap scale economics in them, low and declining unit profit could be due to this. As for the transaction costs the authors have found that primary agriculture co-operative credit societies had diseconomies in their transaction cost.

When the scale of operations increased by 1 percent the transactions cost of primary agriculture co-operative credit societies increased by more than 1 percent and the reason for this, given by authors is that primary agriculture co-operative credit societies have not achieved multi-functional role.

Their study revealed that multi functional primary agriculture co-operative credit societies experienced scale economics in transaction costs though this was not the case with un-
functional primary agriculture co-operative credit societies. To achieve better viability authors suggest improving the density of primary agriculture co-operative credit societies by increasing the number, as that would improve accessibility and involvement of villagers besides intensifying their credit and non-credit operations. Utilizing their borrowing for crop loans in kind itself to obtain inputs against such loans instead of borrowing separately for this purpose. Utilizing these separate borrowing to procure farm inputs to sell them on cash. Reducing overdue. Enhancing share capital and deposits. Enlarging borrowing from central financing agencies.

Thus what the authors emphasize is the rationalization of same of their borrowing, improving primary agriculture co-operative credit societies earnings from assets related to credit and input sales operations.

These changes the authors feel, will improve explicit and implicit viability of primary agriculture co-operative credit societies and contribute to the progress of agriculture by strengthening backward linkages of agriculture.

5. K.A. Suresh and E. Vinai Kumar,( 1993)

The authors studied primary agriculture co-operative credit societies in Kerala. They have tried to formulate a conceptual frame work for analyzing the problem of economic viability of societies.

One of the main objectives of their study is to develop as many methods as possible to iterate the determinates of viability/ non viability. The basic approach of the authors is no measure viability in terms of positive net worth i.e. excess of assets over liabilities of primary agriculture co-operative credit societies. Since net-worth is the criterion, all the sub-components of assets and liability such as loans advanced / outstanding, share capital, deposits, investments etc. are relevant under the study.

Among the various variables considered the most important are low overdue to loans outstanding followed by proportion of borrowers to total members. The least important factor identified is share of agricultural loans to total loans. At micro level organizational viability was estimated on the basis of response/ behavior of the members directors and employees.
The attributes studied were members participation, adequacy of service, democratic values etc. Among these various attributes which caused for higher organizational viability, the most important were directors commitment followed by loyalty of members. Lowest scores were for democratic values and members participation. In this analysis also it was found that organizational viability and economic viability move in the same direction.

6. Desai B.M. and mellor J.W.

They have inter alia discussed (1) Importance of issue of the transaction costs involved in lending to farmers vis-s-vis all other activities of rural financial institutions Henceforth RFIs (2) Definition and concepts regarding transaction costs and their relations to the viability of RFIs. (3) Cross national comparison of transactions costs on a comparable basis and (4) Transaction cost of selected RFIs, scale relationship and viability and development accomplishments of RFIs in various countries.

While discussing the literature on transaction costs and viability of RFIs of some critics who have exclusively dealt with the transaction costs involved when RFIs lend to farmers, the authors identify the following limitations in the past approaches.

They are - (1) These approaches are inconsistent with the policy concern about viability and transaction costs of an institution rather than consideration of the single product such as lending (2) It assumes that all transaction costs can be attributed to lending which cannot be done without borrowing from somewhere (3) It does not recognize that product of financial institution are multiple and joint (4) Transaction costs are common to all their activities and hence their allocation to various activities is arbitrary and difficult (5) Some studies define average transaction cost as a percentage of outstanding balance of farmer loans (6) Estimation of these costs and scale economies in them is highly sensitive to the definition of the output of a RFI.

An above conclusion the authors draw here is that the issue of transaction costs of institutional lender must be conceptualized and measured for all activities of RFIs, rather than only one activity such as making farm loan or collecting deposits. The authors define the output of RFIs as all assets plus liabilities and site two reasons for this. First asset items such as loans as investments are obviously the outputs of a RFIs and secondly, liabilities are also an output
because of joint nature of assets and liabilities of an institution such as a financial intermediary.

Unit transaction costs therefore are defined as total transaction cost as a percentage of liabilities plus assets excluding contra items.

This approach, the authors point out is different from that used in accounting and financial management literature, which average transaction cost as a percentage of liabilities. But as the authors further point out that this can be derived from the estimate based on the approach used in their study by simply doubling the cost since liabilities equal assets. While discussing the profitability of the RFIs authors state that besides transaction costs any financial institution has to bear financial costs. These financial costs plus the transaction costs make up the total costs.

The authors reveal that the functioning and performance of multifunctional primary agriculture co-operative credit societies is distinctively better than the non multifunctional primary agriculture co-operative credit societies. The multifunctional primary agriculture co-operative credit societies fared better than the non-multifunctional primary agriculture co-operative credit societies in the following aspects:

1. Multifunctional primary agriculture co-operative credit societies reached a larger proportion of rural household and had higher percentage of borrowing members.
2. Multifunctional primary agriculture co-operative credit societies had larger share of deposits to liable funds.
3. It loaded larger average amount of loan per amber and had a larger share of loans in kind for short term loans.
4. It had larger share of non-financial operations which provided greater opportunities of revenue.
5. Delinquency rate was distinctively less in the multifunctional primary agriculture credit societies.
6. Average transaction costs as well as total costs were lower in multifunctional primary agriculture co-operative credit societies profitability and dividend rate were also higher.
Authors further point that the farmers in the area of multifunctional primary agriculture co-operative credit societies used more resources, used technology better, had more income per hectar and a higher rate of return to family capital, labor and land. The authors reveal that multifunctional primary agriculture co-operative credit societies had better leadership, the upper level federal organisation made more loan able available to it, including marketing credit which enabled it undertake input distribution.

Further it had larger storage facilities enabling it to undertaking input distribution and lastly the managing committee and the general membership was more committed to their organisation.

2.3 Research Articles

There are many journals dealing in various aspects of agricultural finance some of them are - The Co-operator, Co-operative perspectives, Co-operative Maharashtra, Indian Co-operative Review, Prajnan, Yojana, Kurukshetra, Indian Journal of Agricultural Economics, Agricultural Banker, Journal of various state co-operation unions etc. There are quite a large number of journals publishing various types of research articles, papers etc. too large for coverage. So a few important ones having relevance to the topic are reviewed here.

1. SourindraBhattachajee in his article “Factors influencing viability of primary agricultural credit society” used theory of firm to study the viability of primary agriculture co-operative credit societies. He point out that the market in which primary agriculture co-operative credit societies operate are imperfect as loan business involves dealing in future transaction and further the market is oligopolistic as only few financial institutions operate in rural sector. Under this context the author has developed a multi-variant econometric model to examine the relative influence of factors determining profitability of primary agriculture co-operative credit societies.

The authors in his model has identified four components of primary agriculture co-operative credit societies business viz. (1) Share of input sales (2) Share of credit disbursements (3) Share of consumer goods distribution. (4) Share of deposit mobilization. This he refers as volume of business of primary agriculture co-operative credit societies. The effect of the aforementioned components of VOB are supposed to have positive effects on profitability of
primary agriculture co-operative credit societies. The delinquency ratio (which is loans overdue as a percent of loans due for recovery or loan demand) is supposed to have negative effect on profitability.

The other important determinants of profitability identified are unit total gross margin i.e. total margin from all operations per Rs. 100 of VOB, the unit transaction cost per Rs. 100 of VOB and unit financial cost per Rs.100 of VOB. Increase in unit gross margin is supposed to increase profitability. The author point out that unit gross margin is supposed to capture the concern of policy makers, as this margin should be adequate to cover the transaction costs.

This approach to improve viability, the author, feels is non innovative as it is a conventional accounting approach. What the author suggests is usage of location specific knowledge of managers, head office and the field level staff for allocation of resources to reap the scale economics of costs. This would improve the profitability.

The author further point out that unit transaction cost and unit financial cost has inverse relation with profit.

1. Improving unit total gross margin is the most important route for increasing profitability. This does not necessarily mean interest rate on advances has to be increased.
2. There are scale economics in transaction cost total costs meaning these cost in unit terms are declining rather than increasing.
3. Services in primary agriculture co-operative credit societies are complimentary and total derived from the other services is equally important for improving viability.
4. Rural loans being interest elastic any increase in the lending rate would adversely affect the VOB and in turn the institutional and agricultural growth.

2. Dr. N.V. Narayana (1987) had examined the supply of investment credit and its utilization in the drought prone area, Anantpur district of Andhra Pradesh. The major or findings of the study were: (1) Average loan amount received by the small farmers was comparatively less (2) Non-interest charges outweighed the nominal rate of interest thereby making the cost of borrowing as high as 18 percent (3) 68 percent of the borrowers waited for nearly four months to get the loan sanctioned. (4) Investment credit gap was found to be more (32 percent) in the case of small farmers due to unrealistic estimation of cost of
proposed projects (5) Yield per acre of selected crops of non-borrowers was low as compared to borrowers who availed CARD Bank loan and (6) Net farm income in the post-investment period of small farmers was 55 percent while the percentage change in the income of large farmers was 58 percent.

3. Sharma and Prasad (1971) studied the credit needs at different stages of technological development in agriculture. They estimated the credit requirement of farmers and the impact of credit on cropping pattern income of the borrowers. The study revealed that irrigated farms and improved techniques would call for more long term credit. It found that adequate credit increased the income substantially even at the existing level of technology.

4. P. Satish and Gopalkrushna, have received the framework reading viability of banking and have examined the macro level components of financial structure of rural banking institutions, to see whether non-viability is structurally in built.

Their study is based on macro level proportion of assets and liabilities to the overall assets and liabilities of rural financial institutions. They reveal that margin between total cost of liabilities and total return on assets of various financial institutions is positive.

It ranges from 1.52 percent for SLDBs and high as 4.40 percent for RRBs for primary agriculture co-operative credit societies they reveal that margin is 2.05 percent. Within this margin the cost of management and risk cost has to be taken care of. Further, they argue that it would be futile to well upon the question whether these margins would be sufficient to meet the transaction and risk cost of the rural financial institution and state two reasons for this.

Firstly, any financial institution whether rural or non-rural is not interested in transaction cost per se but the cost of management as whole. Which includes both cost on advances and cost of servicing deposits. Secondly at the present level of expansion and diversification it would be worthwhile to focus on non assets based income of banking institution. Further the authors argue that margins between cost and returns is a function of
volume of business. As such even a minimum positive margin can meet cost of management, provided there is requisite level of volume of business in that institution.

As their study point out that the macro level proportion of assets and liabilities at the rates of interests prevailing during their course of study, are able to generate margin on resources mobilized and deployed, the authors argue that rural financial institutions are intrinsically viably. Intuitions which are un-viable, have scope for becoming viable.

The solution available of these institution is adjustment of their assets and liabilities proportion.

In their empirical study they authors have studied some sample branches. They reveal that interest spread available to these institutions is about 2.5 percent assuming that risk cost at 2 percent, net margin could be 0.5 percent.

The authors suggest that rural branches in their study are could be viable if (1) increasing business levels to reduce transaction cost (2) Improving recovery/NPA management to obtain higher yields from advance and reducing risk cost. In their cross section study of eight profitable RRBs carried out to analyze the profitability of RRBs and examine various strategies adopted by various profit making RRBs were because of (1) Mobilization of low cost resources either from deposits or borrowings (2) Deployment of resources in higher interest yielding avenues (3) Substantial portion of miscellaneous income as a percentage of working funds.

Based on their analysis the authors argue that there is noting intrinsically non-viable about rural banking operation and point out that excepts for the views expressed in Khushro committee that point out that none of the propositions regarding the non-viability of rural banking operation is based on detailed well studied grounds.

Further, the authors point out that “viability of banking institutions is a function of volume of business rather than of only margin available. The existence of scale economies in transaction/Administrative costs (per Rs. 100 of volume of business) are declining or constant.” This suggests that these institution would rather gain by expansion of business rather
than by increase in gross margin as suggested by Khushro committee. Thus expansion of business with the cost of management remaining the same, a unit of banking can be viable.

Therefore, the authors recommend expansion of volume of business as a major action plan presently non-viable rural banking institutions. Further, the authors state that viability is mainly related to business-related factors such as low level of deposits and unbalanced mix, low level of advances and unprofitable composition, inefficient management of cash and bank balance. Hence, the authors feel that any strategy to make rural banking operation viable should stress on the aforementioned business issues.

Another important factor which the authors point out, is the loan losses or the risk costs associated with rural banking operations, are related to business or the operational aspect of rural banking rather than the structure. Reduction in these will largely contribute to the viability of rural financial institutions.

5. **ManMohan & Johl (1989)** have concluded that there was a great need for heavy investments in order to take the advantages of modern techniques. As the farmers income is meager, they are enable to make these investment from their resources. The Indian farmers therefore need to be provided with adequate long term credit so as to enable them to reap the benefits of new innovations in agriculture.

6. **A case study by S. Ramamoorthi (1985)** on the long term credit required by betel vine cultivators of Aruvikkara Block in Kerala States in case of scheme loan was highly inadequate to raise the crop. The actual costs incurred for betel vine planting increased or changed in different regions of the country depending on topography, rainfall agricultural practices etc.

The author estimated an optimum scale of finance for one unit betel vine as Rs. 3557 so as to cover 852 percent of the plantation costs.

7. **Dr. Pawar and Bhuvanendran (1992)** conducted a study on the impact of long term finance of the tribal economy in the district of belonged in Madhys Pradesh where 85 percent of the population belonged to the tribal community. It was seen that more tribal were
coming forward year after year to utilize the available opportunities. The total farm production increased by 53 percent.

It was found that the impact of term loan on production and income was statistically significant. The impact was not that significant in the case of big and medium tribal farmers as compared to small farmers.

8. Smt. Dru. Sriwastawa and Vinodkumar (1989) evaluated the cost credit in three selected villages served by commercial banks and co-operative banks. Many of the respondent had to incur various invisible cost like statutory charges, legal charges, charges for pampering the Lending authority beside the nominal interest charged on loans. In commercial banks and co-operatives, costs incurred varied between Rs. 43 to Rs. 1200 while many lenders deducted only Rs. 15 from amount as legal charges. The researchers concluded that the cost associated with sanctioning of loan was absent when credit was availed from non-institutional agencies. The high invisible cost of credit coupled with the time consuming formalities forced them to borrow from money lenders, even though the interest rate was high. both resulted in high cost of credit in two different ways – 17.

9. M.M. Bhalerao and Ravindra Sigh (1990) had attempted to assess the trade in inter state inequality in the supply of long terms credit by land development banks in India for two periods 1968-1969 and 1980-81 in 17 major states. They found that inequality in the distribution of long term loans had increased during this period.

In order to avoid further regional imbalances, he emphasized the need for developing the co-operatively under developed states with more resources, trained manpower, efficient term credit management and more stringent measures to minimize the mounting over due -25

10. A study of the bapatla primary land development bank was undertaken by P. Raghuram (1990) and others to identify the factors influencing the profits obtained by the bank. The analysis revealed that the progress of PCARD bank was encouraging except in recent years when there has been losses. The multiple regression analysis showed that the cost of establishment and contingencies exhibited pronounced negative influence on the profits and had mainly led to the eroding of profits- 23
11. **Pandey and Ashok Kumar (1989)** had studied the growth rate of disbursement of short term, medium term and long term co-operative credit in their paper ‘Economic evaluation of co-operative credit in Indian agriculture’. The variations in co-operative credit on per hectare cropped area was analyzed and found that long term co-operative credit was statistically significant in almost all states. The maximum growth rate was observed in West Bengal (30 percent p.a.) followed by Kerala (28 percent p.a.). While it was almost 8 percent at the national level.

The author concluded that the national average farmers would have taken more long term credit for development of plantations and for integrated schemes like dairying, poultry etc. signifying high quality lending by CARD bank in these states.

12. **Dr. S.B. Patel (1990)** A comparative meeting study of co-operative and commercial financing agency in meeting long term credit needs of farmers in Maharashtra was undertaken during 1973-74 to 1984-85. There has been remarkable progress in the distribution of long term loans by the land development bank and State Bank of India. Though State Bank of India’s performance was more significant, a major share of its loans went to large farmers. From the trend of loan disbursed, it was found that both the financing agencies were mainly concentrating on less developed areas and ignored financing dry land and waste land development. The author had recommended for extending term loans in the form of schematic lending to develop particular backward areas - (24)

13. **Dr. K.A. Suresh (1989)** had studied about the declining importance of investment credit in Kerala economy after analyzing the problems of long term credit. He found that the states economy showed a shift in favor of commercial crops since the eighties. The analysis of the existing loan composition should that the share of production credit was increasing over the years while long term credit granted was declining - 26

14. **Negi (1990)** Presented a comprehensive analysis of various issues of agricultural co-operative credit in Grahawal Himalaya Region of Utter Pradesh in particular and the country in general. His study was related to the growth rate analysis of agricultural co-operative credit, recovery, over dues, outstanding etc. In Grahawal Himalaya during 1971-72 to 1980-81, the
utilization of agricultural co-operative credit has been assessed with the help of the survey. It was found that 49.25% of borrowers households did not utilize full part of the loan for intended purpose. To prevent the misuse and diversion of agricultural credit along with other remedies he suggested that the loans should be given not in one time but two installments should be allotted only if the earlier one is properly utilized.