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INTRODUCTION & REVIEW OF LITERATURE

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1.1 Introduction

The cooperative credit structure in India, as an integral part of banking system in the country, is longstanding and the largest network in the world in terms of its numerous constituents. The contribution of credit cooperatives is crucial not only for financial inclusion and inclusive growth, but it is also a pioneering driving force for agricultural promotion and rural development in the country. In the prevailing global and contemporary economic order, it is strongly believed that the outreach of any financial services and government schemes are possible chiefly through the cooperative network, especially the cooperative credit system. As local contenders, the wide-spread arrangement of cooperative credit institutions is playing a remarkable role in rural banking. Cooperative credit structure is indispensable for supplying agricultural and rural credit. Objectives of inclusive growth through a well-conceived strategy of financial inclusion could be achieved only through active involvement of Rural Cooperative Credit Delivery in the prevailing Indian socio-economic scenario for building a better world.

Cooperative Credit movement in India has been envisaged as a mechanism for pooling the resources of people with small means and providing them with access to different financial services. Democratic in features, the movement was also an effective instrument for development of degraded waste lands, increasing productivity, providing food security, generating employment opportunities in rural areas and ensuring social and economic justice to the poor and vulnerable.

The history of the cooperative credit movement in India can be divided in four phases. In the First Phase (1900-30), the Cooperative Societies Act was passed (1904) and "cooperation" became a provincial subject by 1919. The major development during the Second Phase (1930-50) was the pioneering role played by RBI in guiding and supporting the cooperatives. However, even during this phase, signs of sickness in the Indian rural cooperative movement were becoming evident. The 1945 Cooperative Planning Committee had discerned these signs in the movement, finding that a large
number of cooperatives were "saddled with the problem of frozen assets because of heavy overdues in repayment." Even so, also in the Third Phase (1950-90), the way forward was seen to lie in cooperative credit societies. The All India Rural Credit Survey was set up which not only recommended state partnership in terms of equity but also partnership in terms of governance and management. NABARD was also created during this phase. The Fourth Phase from 1990s onwards saw an increasing realization of the disruptive effects of intrusive state patronage and politicization of the cooperatives, especially financial cooperatives, which resulted in poor governance and management and the consequent impairment of their financial health. A number of Committees were therefore set up to suggest reforms in the sector.

Of high relevance for financial inclusion of lower income people is especially the Short-term Rural Cooperative Credit Structure (STCCS) providing mainly short and medium-term credit besides other financial services. At present (March 2013), the three tier STCCS consists, according to statistics of the National Federation of State Cooperative Banks (NAFSCOB), of nearly 368 District Central Cooperative Banks (DCCB) with 12,858 branches and 30 State Cooperative Banks (SCB) with 953 branches, 21 State Cooperative Agriculture and Rural Development Banks with their 8000 branches and at grass root level 1.12 lakh Primary Agricultural Credit Societies (PACS) or a total of 131000 service outlets of cooperative credit societies are working for the agriculture loans only. This figure does not include the urban cooperative banks and urban cooperative credit societies which comes to around 30000 branches all over the India. Thus the cooperative credit structure is the biggest credit network in India. Being the organizations working with lesser means and in risk prone area of financing, they are bound to have several problems. Therefore, it is imperative to study the role and problems of cooperative credit structure time to time, so that necessary corrective action can be suggested for the improvement of cooperative structure.
1.2 Statement of problem

Through this research the researcher has tried to draw attention on following questions.

i. Whether the cooperative banks in Gujarat have succeeded in the fulfillment of their objectives of socio economic development of the poor?

ii. Whether the cooperative banks are being managed professionally so that while doing banking business they earn reasonable surplus?

iii. Whether the cooperative banks are fulfilling its objectives to mobilize rural surplus and inculcate the habits of savings and thrifts among the rural people?

iv. Whether the cooperative banks have been supporting the government policies especially the objective of financial inclusion to all sections of the society in formal banking system?

v. What is the contribution of cooperative banks in financing to agriculture and rural sector?

vi. What are the strength, weaknesses, opportunities and threats for cooperative banks?

The research has also thrown lights on some important weakness or problems of cooperative banks such as low resource base, high dependence on upper financial agencies for external sources of funding, excessive governmental control, dual control by government as well as RBI and NABARD, huge accumulated losses, imbalances, poor business diversification, low recovery, high level of NPAs etc.

Thus, there is a need to find ways for strengthening the cooperative banks in Gujarat in particular and in India in general and making them a well-managed and vibrant medium to serve the credit needs of rural people, especially the small and marginal farmers.

State Cooperative Bank is an apex cooperative bank of any state and it is providing financial and policy support to the cooperative societies and cooperative banks in the state. The Gujarat State Cooperative Bank was established in year 1960 and registered under the Gujarat State Cooperative Societies Act 1961. The Bank has a status of a
Scheduled Bank and having requisite Banking License. Nearly 28 Lac farmers of 8100 PACS affiliated with GSCB through 18 DCCBs and a cooperative banking union are enjoying credit facilities.

At district level the District Co-operative Banks, occupy a cardinal position in the co-operative credit structure. They constitute an important link between the Apex State Co-operative Bank and the Primary Agricultural Cooperative Credit Societies. District Central Co-operative Banks are in fact a federation of Primary Agricultural Credit Societies and other types of cooperative societies working within their jurisdiction. District Central Co-operative Banks (DCCBs) act as the leader of the co-operative movement in a district and play an effective role in the all-round growth of the co-operative movement. It has to undertake various promotional and developmental activities also. Being the social banker, it has to take banking facilities to the rural areas and unbanked centers. It is the spokesman for not only the primary agricultural credit societies, but also for other kinds of co-operative institutions in the district. The DCCBs are also doing personal banking along with the financing of primary credit societies.

The District Central Co-operative Banks (DCCBs) are nodal centers of financial institutions in the co-operative sector in a district. They have to mobilize the available resources and utilize them in the most efficient and profitable manner. They have played a vital role in the agriculture lending for short term and medium purpose and contributed a significant share in mobilization of surplus funds from the farmers and rural population and also they have major role in distribution of agriculture credit. After the liberalization the commercial banks have also been entered into the business of agriculture credit and consequently the share of DCCBs in agriculture lending have drastically come down. Hence it is necessary to study and quantify the role of DCCBs in agriculture and rural development.
1.3 Relevance of the study

The role and contribution of cooperative banks who are involved in Agriculture and Rural Development namely The State Cooperative Bank, The State Cooperative Agriculture and Rural Development Bank and District Central Co-operative Banks of India in general and Gujarat state in particular is significant. This has been brought out in the review of literature presented in the next chapter. But due greater attention today especially because of the growth of competitive banking and the liberalized economic policies the share of credit by these banks in the field of agriculture and rural development has come down, which are likely to affect the business of these banks. The present study is an attempt to bring out the various facets in the working of The Gujarat State Cooperative Bank, The Gujarat State Cooperative Agriculture and Rural Development Bank and District Central Co-operative Banks and their role in the rural development through financing to agriculture and rural sector of Gujarat State.

1.4 Objectives of the study

The present study has tried to examine the efficiency of The Gujarat State Cooperative Bank, The Gujarat State Cooperative Agriculture and Rural Development Bank and District Central Co-operative Banks of Gujarat and their role in agriculture and rural development. The major objectives of the study are:

1. To Study the functioning of Cooperative Credit System in India in general and in Gujarat state in particular.
3. To study the role and contribution of The Gujarat State Cooperative Bank, the Gujarat State Cooperative Agriculture and Rural Development Bank and District Central Co-operative Banks in the fields of agriculture and rural development.
4. To study the problems of Co-operative Banks in Gujarat.
5. To suggest various measures to improve the health of cooperative Banks in Gujarat

1.5 Scope of the study

The present study is limited to the financial performance and role of The Gujarat State Cooperative Agriculture and Rural Development Bank and District Central Co-operative Banks of Gujarat. Though role and contribution is a very broad concept, the present study explores only the role of cooperative banks namely GSCB, GSCARDB and selected DCCBs in financing to the farmers and rural people and find out the reasons for success or failure in fulfillment of the objectives of these banks. However, the concept of role and contribution is relative and hence precise and direct measurement is difficult. The study does not cover the non-financial parameters such as human resource management, management tools, techniques, etc.

1.6 Hypotheses

i. H₁ Inspite of several limitations and constraints, the cooperative banks have made significant growth and progress, in terms of all financial parameters.

ii. H₂ The Coop Banks have played vital role in advances & recovery of loan over the period.

iii. H₃ Management practices followed by Coop Banks contribute to the efficiency in funds management.

iv. H₄ The major parameters of business performance of Coop Banks like share capital, reserves and other funds, deposits, loans and advances and investments are presumed to be an increasing function over time and the magnitude of their change is proportional.

v. H₅ The Cooperative Banks in Gujarat state have played a significant role in providing agriculture credit and credit for rural development.
vi. H6 Cooperative banks have several problems such as low resource base, high cost of funds, increasing bad debts, low profitability, deteriorating customer services etc.

1.7 Methodology

a. Sample Selection

The Cooperative Banks involved in the agriculture and Rural Development are The Gujarat State Cooperative Bank (GSCB), The Gujarat State Cooperative Agriculture and Rural Development Bank (GSCARDB) and District Central Co-operative Banks. The GSCB did not have branches till 2013 and it has opened new 7 Branches from the last two years, The GSCARDB has 144 Branches spread across the state and there are total 18 DCCBs in Gujarat state. Out of the total the study cover GSCB, GSCARDB, and six DCCBs. Out of 18 DCCBs, six DCCBs are having huge volume of business and excellent financial parameters, another six DCCBs are having medium strength and another six DCCBs are considered to be weak DCCBs. Hence to give proper representation to the entire state total one third DCCBs (33%) sample size have been selected. While selecting the sample the care has been taken to selected 2 DCCBs from each of the above mentioned categories i.e strong, medium and weak.

For the study the stratified cluster convenient sampling method for data collection has been used. Since we have three different categories / stratas like GSCB, GSCARDB and six DCCBs, the sample size was conveniently selected from the different branches of DCCBs located in various areas of Gujarat State.

Also the DCCBs were selected from all the regions like Saurashtra Region, Central Gujarat, South Gujarat and North Gujarat region. Also the DCCBs were selected on the basis of performance and geographically locations,

In order to select the sample banks, three common indicators of performance, viz., the averages of working capital, volume of business and profit for seven year period from
2006-07 to 2012-13 for these banks were computed and they were arranged in order of magnitude and ranked. The ranks for each bank in terms of the above mentioned three variables were integrated. The selected DCCBs are of Ahmedabad, Rajkot, Surat, Vadodara, Mehsana and Sabarkantha.

b. Data Collection and Procedure

The study is mainly based on the secondary data with the support of primary data. For analyzing the trend and pattern of financial performance, financial data were collected from annual reports of these selected banks starting from 2006-07 to 2012-13. The data for analyzing the efficiency in funds management were taken from the records of GSCB, GSCARDB and DCCBs for seven years from 2006-07 to 2012-13. The detailed study was confined to seven years from the base year of 2006-07 and the base year has been selected as 2006-07 because the implementation of Vaidyanathan Committee’s recommendations really started from the year 2006 and therefore, the research has taken the base year as 2006-07. To analyze the management practices for harnessing the sources and uses of funds, details were collected from the CEOs, Managers and section heads of GSCB, GSCARDB and selected six DCCBs. Also the information were collected from the 30 branch managers of DCCBs and 10 Managers of GSCBs and GSCARDB each respectively. Five branch managers of each DCCB from the selected six DCCBs and 6 managers of GSCB and GSCARDB each were interviewed with the help of pre-structured schedules.

c. Tools for Analysis

In order to analyze the trend and pattern of sources and uses of funds, compound growth rates have been worked out. For studying the efficiency in funds management trend analysis and ratio analysis tool have been used.
1.8 Scheme of the study

The study is organized under six chapters. The first chapter is for Introduction and Research Methodology. The second part of this chapter, reviews the literature on cooperative banking.

Second chapter of the thesis is devoted to present the evolution and growth of Cooperative movement of India in general and Gujarat in particular.

Chapter three is devoted for origin, growth and overview of co-operative credit in Gujarat.

The chapter four is devoted to examine the financial performance of the selected Cooperative Banks. This chapter contents the analysis of all financial parameters and also the performance and role of cooperative banks in financing to agriculture and rural sector of Gujarat from 2006-07 to 2012-13. The major objective of the study - to examine the role of cooperative banks in rural development with special reference to agriculture development - has been analyzed and presented in this chapter.

The theoretical frame work of management practices have been discussed in the chapter number five. This chapter outlines the rationale behind the management structure, methods and practices of management of banking operation in cooperative banks, which includes the system of planning for fund mobilization and deployment of funds in professional manner so as to achieve the goals of the bank.

The last chapter number six summarizes the conclusions of the study and presents the problems of cooperative banks and their solutions.
1.10 Review of Literature

Literature relating to banking institutions encompasses literature on commercial banks, co-operative banks & cooperative credit societies, and other national and international financial institutions. However, the present review is limited to literature on commercial banks and co-operative banks. Literature on commercial banks are included as the operational details of these banks are almost the same and they are controlled within the broad framework of Banking Regulation Act, 1949.

The review of literature is presented in two major sections, viz., those relating to commercial banks and those relating to co-operative banks. These two sections are further classified into review relating to:-

(1) General performance, viability, profitability, and operational efficiency.

(2) Cash management, statutory requirements and reserve management and

(3) Mobilization and deployment of funds, cost of banking, collection and recovery of overdue and professionalization of management.

1.10.1 Commercial Banks

a.) Studies relating to role and contribution of banks with reference to Performance, Viability, Profitability and Operational efficiency:

Some of the notable studies relating to performance and viability of commercial banks were made by Gupta (1981), Ashok Kumar (1990), Pandey (1990), Agarwal (1990), BalRam Singh Yadav (1990), Vipin Kumar Agarwal (1990) and Rajat Khater & Sanjay Kumar Arora (1994). They evaluated the performance of commercial banks, trends in banking after nationalization and the extent of deprivation of banking facilities in India to rural and remote areas. Their major suggestions include the necessity to regulate the
service charges including interest rates which are not uniform even in the nationalized banks, need of developing a suitable model of performance budget in these banks covering all major banking functions, necessity of taking measures to prevent qualitative deterioration in standards of customer services, professionalization of management and measures to improve recovery performance and a complete shift in the current system of profit planning in banks.

The profitability of commercial banks was examined in detail by Varsha and Sampat (1979), Joshy (1986), Ojha (1987), Muralidharan (1987), Angadi (1987), JayanthaKumar (1987), Bharot (1988), Voore (1991), SubhashBhujbal (1991), Vijayakumar and Nazar Krishnan Bakshi (1993). They observed that; the efforts to improve profitability should include simple and practically workable strategy, profit planning at the national level, and the volume of funds pre-empted in the form of cash reserve ratio and statutory liquidity ratio need to be seriously viewed.

A few detailed studies of trend and operational efficiency of commercial banks were made by Desai (1979), Anunannya (1986), Srikrishna (1989), PeeyushKumar (1990), SreeRamaMurthy and VarshaChattre (1990), Toor (1993) and JayanthiLal Jain &Balachandran (1996). The important observations of these studies include:-

(1) Improved cash management is necessary to eliminate avoidable loss of interest on surplus cash holdings
(2) After nationalization, banking has not taken roots in our rural and remote areas in comparison with semi-urban and urban areas
(3) Investors are sensitive to interest rates
(4) The business-mix in the nationalized banks is of a highly varying nature
(5) The factors involved in the operations of banks in India today face various kinds of risks such as those relating to non-paying and non-performing assets, interest rate risk, exchange risk, liquidity risk, technology risk etc.
b.) Studies Relating to Cash Management:

Some of the early studies to evaluate cash management and reserve management were done by Narasimhan (1984), Anil Kishora (1987), Kuttur (1987), Pandey (1987), Shankar (1991) and Bhole (1993). All these studies agreed that the ideal objective before all banks would be to achieve zero excess reserve, in terms of both cash reserve ratio and statutory liquidity ratio. They considered resource management in banks to be very important because deposits in excess of the stipulated levels of cash reserves brought no returns and hence heavy reserves lead to resource crunch. They also pointed out that the operational efficiency in cash management is very much dependent on the efficiency and effectiveness of the system of planning and control at macro and micro levels.

c.) Studies Relating to Mobilization and Deployment of Funds, Cost of Banking, Collection and Recovery of Overdues and Professionalization in Management:

Mobilization and deployment of funds have been studied by Rangarajan and Gupta (1973), Babathosh Banerjee (1974), Bharat Metha (1981), Agarwal (1987), Natarajan (1988), Syed Sharafat Hussain (1990), Sengupta (1991), Rajendra Naidu (1992) and Subramaniam (1993). They were of the opinion that too much funds may lead to deterioration in funds management efficiency. They also suggested introduction of cost control and cost reduction measures.

Cost of banking was examined in detail by Thakker (1974), Shanker (1994) and Vijayakumar (1995) and they found that total cost of banks can be classified into cost of deposits, cost of advances, cost of inter-branch transactions and head office relations and cost of bills department. They opined that a substantial reduction in expenditure can be achieved if banks alter their deposit mix to include a large percentage of low cost deposits. For better working of scheduled commercial banks in India, reduction in operating cost, ensuring high quality service, greater degree of supervision and infusion of high degree of morale among the employees were suggested by these authors.
A few studies on the collection and recovery of overdues in commercial banks were made by SatyaSundaram (1991), Bhagwan Rao and Sakariya (1994) and Gurumoorthy (1995). These studies noted that lack of effective credit appraisal mechanisms and follow-up strategies were highly responsible for overdues. The Governments' policy of compelling the nationalized banks to write-off these loans was questioned by these authors. They noted that unless the course of action like "waiver" is halted and if possible reversed, it would result in much sharper fall in the banks' profitability.

The necessity of professionalization and training in banks was studied by Bhatnagar (1991), Rajeswari (1992), SudhirBhave (1993) and Mishra (1994). These authors felt that the survival and success of the training system in banks will depend upon its ability to adapt to the demands of future. They noted that the training should provide a brigade of well trained and experienced officers to main bank branches at district level. So also it was pointed out that a proper research work can go a long way in redesigning human resource management strategies for the future and to improve the quality of work through productivity gains and better employer(employee relations in the banking industry.

1.10.2 Co-operative Banks & Cooperative Credit Societies

a) Studies Relating to Performance, Viability, Profitability, Trend and Operational Efficiency:

One of the earliest studies in this direction was made by the All India Rural Credit Survey Committee (1954). The Committee found that the system of crop finance has assumed new significance by 1948-49 when the co-operative credit in the Bombay state was re-organized with the active support of the co-operators of the state. The Committee noted that under the new arrangements, the reorganized Bombay State Cooperative bank and the central financing agencies together with the primary credit societies were expected to provide short-term finance to all creditworthy agriculturists. Instead of fixing credit limits on the basis of landed securities, special attempts were made to provide short-term
finance on the basis of crop acreages and to link the time of repayment on the harvesting season, as was suggested by the Committee.

Venkatesan (1984) measured the extent of achievement of Primary Agricultural Credit Societies (PACS) in credit disbursement and other related aspects. He also studied short-term agricultural loans and its impact on agricultural production in Gujarat. His study revealed that PACS working on profit had a strong resource base, high rate of deposit mobilization, low borrowings, high distribution of agricultural advances and high rate of loan recovery, compared to those incurring losses. The study also identified the major factors contributing to the resources of the PACS, such as live-cropping pattern and occupational structure of the members, saving habits of the people, satisfaction to the beneficiaries arising from simplified loaning procedures and active participation of members in the affairs of the society.

Savaraiah and Thirupal (1984), tried to make an inter-comparison of financial performance of Prakasam District Central Co-operative Bank (DCCB) and Nellore DCCBs with the help of statistical tools. They also evaluated the financial soundness of these two banks. The study noted that the DCCBs should acquire permanent capital of its own as speedily as possible and should aim at mobilizing deposits from the public to the maximum possible extent so as to make these operations viable.

Sharma (1985), conducted a case study of the short-term agricultural credit of Rajastan Central Co-operative bank (CCB). He brought out the case that with regard to short term credit the CCBs should re-orient their loan policies and procedures on the basis of crop loan system. The study noted that loans should be given in installments and there should be a proper link between advancing and repayment of loans with sowing and harvesting season.

Varma (1985) in his study observed that the overall performance of the Central Co-operative banks in Maharashtra is, amixe done. In his opinion, their weaknesses are - overdues, poor recoveries, insufficient management, inadequate and untrained staff, lack
of supervision, poor deposits, defective loan policies, defective book adjustments, inadequate bad and doubtful reserves - etc.

Shah (1986), in his study called for the establishment of Research and Development cells in co-operative banks as the need of the hour essential for survival, especially in view of the competitive multi-agency banking concept which has come in the field of rural finance. He mentioned that the present profile of the functioning of the co-operative credit institutions, amply establish the rule of thumb as a modus operandi at all levels of management. Planning in co-operative banks is also asked to be more systematic without losing the sense of flexibility and entrepreneurial flair. He opined that co-operative banks have to be more imaginative on their approach in marketing and selling of banking services.

Narayanaswamy and Ramachandran (1987), studied the impact of income and expenditure on profitability with the help of key ratios developed by Varsha S. Varda and Sampat P. Singh. The study revealed that the profit of the bank has increased due to the rise in the volume of business over a decade; and it can be attributed to higher rate of decline in spread ratio, a consequence in interest received. According to them, there is vast scope of increase in profit and profitability, if proper attention is paid on areas like recovery, deposit mobilization, branch expansion, reduction in power and operating expenses, building up of more owned funds and scientific management of funds.

Khusro Committee Report (1989), pointed out that DCCBs, besides exercising supervisory functions over the PACS, should extend them legal and other help when needed. It was suggested that DCCBs will continue to function as the liquidity reservoir and balancing center of PACS and at the same time perform the task of operating as a bank for other co-operative societies in the district. According to the Committee, the linking of share capital to borrowings at the DCCB level for PACS may be fixed at 5 percent, so that they are able to retain with them a part of the share capital received from their members. The ratio of cash credit to PACS was advised to be reduced from 2.50 percent to 1 percent.
Abdul Majeed (1989), conducted a study of Malappuram DCCB in order to find out its credit operations. He examined the change in composition of loans issued by Malappuram DCCB on the basis of priority, period and purpose. The section wise classification of loans was low and was declining over the period under the study of loans from 1980-81 to 1987-88.

Dhanarajan (1989), made an attempt to study the trend in the profitability of Rajkot DCCB (1977-78 to 1986-87) and to evaluate the impact of primary and secondary factors on spread and burden of Rajkot DCCB. He found that the profitability of the bank showed a decreasing trend throughout the period as burden increased continuously.

Salimuddin (1990), evaluated the working and impact of various co-operative financing institutions in Haryana State. He suggested that the professionalization of co-operative management is the need of the hour and a well-defined code of conduct for managers is also needed. The author also recommended that for the success of the movement, the central co-operative banks should have a balanced board of directors with diverse talents, sound policies and commitment for proper implementation. He also suggested that the cost of administration should be reduced and various new practices be introduced for the sound functioning of the banks.

Sukumaran and Shaheena (1991), analyzed the efficiency of the Rajkot DCCB in managing the interest, spread, burden and profitability of the bank with the help of secondary data from annual reports. They observed that the excess reserves kept by the bank are an indication of ineffective management of funds within the bank.

Financial performance of Surat DCCB was examined in detail by Bobby C. John (1991), with the objective of measuring the profitability. He was of the opinion that the operating profit ratio of the bank was not satisfactory. The study showed that non-interest income increased fivefold whereas the non-interest expense increased sixfold. The increase in manpower expenses was the main reason for increase in the non-interest expense and the
resulting declining trend in profitability. He suggested that the bank should take effective steps to reduce the cost of management and design its assets and liabilities mix to reduce the cost of funds and raise the return on funds.

Viswanathan and Radhakrishnan (1991), analyzed the overall performance of DCCBs in Gujarat by examining the different sources of funds, the costs associated with raising these funds, different channels of flow of funds, revenue realized and their growth over the years. They suggested the reorganization of the various activities by which the DCCBs can augment their income. Subscription of maximum reserve funds, lower level of fixed deposits, higher level of savings bank and current deposits and a moderate level of borrowings were some of the emerging suggestions on the source of funds.

The performance and economic viability of PACS in Gujarat were studied by Suresh and Vinaikumar (1993). They also analyzed the performance of PACS in general at the All India level and remarked that only a few states satisfied the norms stipulated by the RBI and NABARD. However, all the PACS in Gujarat satisfied the five quantifiable norms of NABARD on an average. On the basis of the index of viability constructed considering eleven variables, the authors found that PACS in only five districts in Gujarat were viable, five potentially viable, while the remaining four less viable. To promote economic viability of PACS, it was suggested that auditors should be trained, procedures should be streamlined to detect misappropriations and effective actions should be taken to curb them. The loans & advances and business policies ought to be revamped to suit member needs to increase the user members. They further suggested the professionalization of co-operatives, in-service training to inculcate managerial skill and the establishment of state level Recruitment Board for co-operatives, and the transformation of the present status of PACS as Government extension agencies to peoples' organization.

Junare S O (1994) discussed and evaluated the operational efficiency of Ahmedabad DCCB and was of the opinion that the bank was efficient in the mobilization of funds which is evident from owned funds to borrowed funds ratio and the borrowed funds to working capital ratio. It was however found to be inefficient in the deployment of funds.
Again the ratio of net profit to own funds ratio showed a declining trend due to lack of efficient utilization of funds. The liquidity position of the bank was reported to be very sound. He was of the opinion that the bank can improve its position by finding out new avenues for investment, better cash management and by taking all efforts to curtail the overdue position of the bank and by forming an extension wing to study the problems of its member societies.

Junare S. O. (1999) conducted a study on the overall performance of Surendranagar District Central Co-operative Bank. He noted that the success of Surendranagar DCCB in future will depend not only upon the development of primary societies and the growth of the co-operative spirit among the members but also upon the extent to which they are able to mobilize deposits and savings and make recoveries of bad debts. He further pointed out that the bank will have to encourage agricultural development and will have to come up regarding the standard of supervision of the societies under their charge.

Tiwari T. D. (2004), in his study noted that Human Resource Development (HRD) has a definite role to play in improving productivity in co-operatives banks.

Junare S. O. (2004), examined the funds management of the Gujarat Agricultural and Rural Development Bank and found that the growth rates of cost components were high compared to income factors. The cost of management was also high in the bank and it was found to adversely affect the profitability. He further opined that because of mounting overdues, profitability was deteriorating year after year and the operational efficiency and overall return were very low in the institutions. The margins received by primary banks were not sufficient for the profitable running. In his opinion, major reasons for heavy overdues were high family expenditure, willful neglect, modification of subsidy system, misutilization of income from the project and inappropriate Government policy.
b.) Review of Literature related to the Studies on Reserves, Statutory Requirements and Reserve Management:

Unnikrishnan (1985), examined the details of cash reserve management of Trichur DCCB and highlighted the need for reducing the cash reserves of the bank. He also suggested that for better deployment of funds, technologically feasible and economically viable schemes may be undertaken.

Shaheena and Kannan (1989), made an attempt to measure the excess reserves kept and the opportunity cost of excess reserves for Rajkot DCCB for the period 1978-79 to 1987-88. They recommended that the bank should try to reduce the excess amount kept under CRR. If at all the bank is keeping an excess, they suggested that it should be under SLR, which can be utilized by the bank for short-term investments - preferably in the Security Market. With this, their liquidity position is expected to be protected and they can resort to interbank deposits on a larger scale.

Mani and Letha (1990), in their study found that the Trichur DCCB used to keep excess reserves under cash reserve ratio (CRR) and statutory liquidity ratio (SLR). The magnitude of excess reserves under CRR was reported to be high. This was due to lack of scientific portfolio management techniques in the bank.

Rajan (1990), conducted a study on reserve management of Vadodara DCCB in order to assess the excess reserves kept by the bank and to estimate the opportunity cost of excess reserves for the period 1979-80 to 1988-89. He found that this bank was keeping excess reserves under the regulations of CRR and SLR. The magnitude of excess reserves under CRR was reported to be very high mainly due to non-availability of scientific portfolio management techniques. The bank was however, said to have achieved efficiency in the management of SLR. He, further, recommended the improvement of branch information system in order to minimize the loss due to the practice of keeping excess reserves in the branches of the bank. Other alternative suggested are investment in call money market and inter-bank deposits.
c.) Studies Relating to Mobilization of Funds, Deployment of Funds, Cost of Banking, Recovery and Overdues:

An early study in this area was made by the Study Team appointed by Reserve Bank of India (1972). They went into the problems of overdues of the co-operative credit institutions in the country. The team found that the overdues in backward and undeveloped districts were quite high. It was also reported that the members of the managing committee of societies and the directors of the central co-operative banks were showing general apathy in the matter of recovery of loans.

John Winfred (1974), while analyzing overdues in co-operatives in India noted that for prompt recovery of loans, a well-coordinated and energetic drive for recoveries in each DCCB around harvest time with supervisory staff and non-official leaderships should be mobilized. He also recommended a member education programme to make them understand the implications of prudent use of credit, a programme to generate additional income - through subsidiary occupation to farmers and to organize marketing through marketing societies which can recover the loans from sales proceeds.

Subhash Chandra Sarkar (1974), examined the overdues of co-operative banks in India and found that the heavy overdues at the level of DCCBs are said to impair their capacity to borrow from the higher financial institutions. He was of the opinion that the reasons for the rise in the level of overdues were the failure of the DBCs to recover their dues and not due to any inherent inability of the borrowers to repay. The failure of the executives of the co-operative in situations to adopt appropriate measures, political patronage to defaulters, defective lending policy pursued by the DCCBs and Primary Agricultural Credit Societies and administrative weaknesses were the other reasons cited for higher overdues in co-operative financial institutions.

Kanakasabhai (1976), made an attempt to study the credit planning and financial management in co-operative banks in Orissa and observed that the success of a co-
operative society will be judged from the way it deals with the management of funds, increases the profitability and thereby improves the image of the institution.

Varkey (1976), found that the main problem faced by co-operative societies is in the raising of resources. The ratio of deposits between commercial and co-operative banks was 88.19:11.81 in 1970-71 and the same has deteriorated to 89.05:10.95 during 1973-74. The author noted that the co-operatives have to concentrate more on the deposit mobilization aspect instead of depending on government contribution.

Pandey and Muralidharan (1977), observed that the size of loan and consumption expenditures were the major factors influencing overdues in co-operative credit societies at the farmers level irrespective of the categories. They reported that the loans issued were without keeping the repayment capacity of the borrower in mind and were not properly supervised, resulting into diversion of loan either for consumption purposes or for non-stated capital investments.

According to the Report prepared by the Co-operative Training College, Trivandrum (1977), an all-out effort was made in 1976 by the Gujarat State Co-operative Bank, DCCBs, PACS and urban banks for mobilizing deposits. It noted that the results of the programme had surpassed even the best expectations of its sponsors with an additional amount of 85 percent. Most of the districts surpassed their targets.

Bhaskar Rao (1978), observed that the growth in investment is not adequately supplemented by satisfactory recovery performance both in DCCBs and Primary Agricultural Credit Societies.

Desai and Narayana Rao (1978), are of the view that the default rate in co-operative credit is very high. It is relatively high for short-term loans than for long term loans. Excepting a few states like Tamilnadu, Andhra Pradesh, Gujarat, Punjab and Haryana all the other states have more than 30 to 35 percent default rate. The analysis revealed that inappropriate loan terms and administration were the most important reasons. It also
revealed that these factors were inter related. For solving these problems, the study emphasized the need for reorientation of the credit projects with better economic analysis.

Pancras (1978), studied the funds management in co-operative banks and came to the conclusion that the co-operative banks in the far-flung areas are forced to keep more cash/liquid assets due to their far away location from apex banks. He opined that profitability in co-operative banks is a factor of efficient management of funds-mobilization and deployment of funds. Further, he stressed that it should be the objective of a bank to increase profitability by efficient control of costs associated with funds management.

A study on the performance of Trichur District Co-operative Bank in deposit mobilization scheme by; Jose, et al.(1984), revealed that the total deposits of the Trichur DCCB increased from Rs.635.19 lakhs in 1976-77 to Rs.1763.63 lakhs in 1981-82, making an annual average increase of 35.53 per cent. The share of fixed deposits showed a decline during the period 1976-77 to 1978-79, which increased considerably during the deposit mobilization campaign in 1981-82.

Sharma (1985), conducted a case study of short-term agricultural credit of Rajasthan Central Co-operative Bank. The study brought out the case that with regard to short-term credit, the central co-operative banks should re-orient their loan policies and procedures on the basis of crop loan system. He suggested that loans should be given in instalments and there should be a proper linkage between advancing and repayment of loans in the sowing and harvesting seasons.

John Winfred (1986), made an attempt to discuss the funds management of Central Co-operative Banks (CCBs) in India and found that mobilization of resources is one of the core functions of CCBs. He noted that they have to tap the rural resources not only to keep the credit system in an efficient order, but also to reduce their dependence on outside borrowings. He opined that co-operative capital should be employed judiciously
and in the most economical and fruitful manner so as to derive maximum benefits with minimum expenditure.

Again, efficient utilization of resources for developmental purpose in the diversified direction should be ensured without sacrificing the main principles of banking—i.e., liquidity, safety and profitability. Lastly, he reported that better deployment of funds not only improves the image and income earning capacity of the banks but also reduces regional and functional imbalances.

Naidu and Prasad (1987), analyzed the utilization pattern of co-operative short-term production credit with the help of cross tabular analysis and regression analysis. They found that the proportion of co-operative short-term credit used for production purpose was inversely related to farm size and the amount diverted was mostly used for consumption purpose by marginal and small farmers while it was used for other non-agricultural purpose by medium and large farmers. They further opined that regular follow-up visits are necessary to assure the use of loan amount for stipulated purposes.

According to Rajeev Kumar Saxena (1987), Central Co-operative Bank at district level form an important link between the state co-operative bank and the primary agricultural credit societies at the base. He noted that in the case of central co-operative banks, overdue was the main problem and the recovery of the same was urgently needed, to make the central co-operative banks financially and administratively strong and viable units. Effective supervision over the end use and close contact of higher officials with the farmers was further highlighted by the author.

Arulanandam and Namasivayam (1987), were of the opinion that the level of deposits mobilized by any co-operative bank depends on the efforts made by the bank to identify the savings potential of the target group and their effective channelization into its system, the overall image of the bank, the quality of the service offered, the type of deposit schemes introduced and their attractiveness and branch network. They mentioned that deposit mobilization can be very well understood by comparing the ratio of bank deposits
to the national income of various countries and to increase this ratio, the motto of co-operative banks should be "no place is too insignificant and no deposit is too small".

Vaikuntha (1988), made an attempt to study the reasons for non-recovery of loans of the Dharward DCCB, in Karnataka, with the help of a survey of 180 borrower farmers' households belonging to - big 60, medium 60 and small farmers 60 – during 1984-85. He opined that the causes of overdues were natural calamities, unsound lending policies, inadequate supervision, unsatisfactory management and lack of right type of leadership. He suggested that the overdue problem can be checked by imposing abnormal interest penalties and effective recovery policies.

John Winfred (1988), made another attempt to study the funds management in DCCBs in India and found that the sources of funds consisted of internal sources (share capital from banks, members and reserves created by banks) and external sources (deposits from individuals, co-operatives, other institutions and loans and advances from apex financing banks, government and commercial banks). He also noted that there is an imperative need to analyze the cost and returns of funds to understand the margin available to a bank in its resource mobilization and utilization effort. He further highlighted the necessity to know whether the margin available is adequate to run a bank viably. The author pointed out that the cost of deposits varied from bank to bank depending upon their composition - the higher the level of current and savings deposits (which are much less costlier) the lower will be the average deposits rate and vice-versa.

Bhoslae and Dangat (1989), conducted a study on co-operative societies in Kolhapur district. The study probed into the extent of medium term borrowings of farmers from co-operative societies, repayment position of the loan borrowed and the factors responsible for overdues. The main reason for overdues stated was misutilisation of loan. The authors noted that the total amount borrowed had a direct relationship with the amount of overdues and it calls for a very careful scrutiny of the loan application by the financing institution. This study suggested an appropriate policy with regard to supervision of credit at the farm level.
Bhatt et al. (1989), analyzed credit-deposit ratio and its inter-relationship with other components contributing towards credit of DCCBs with the help of correlation coefficient and 'T' test. The study revealed that effective credit-deposit ratio reflects the real picture of management of deposits and credit. The researchers stressed that the effective credit-deposit ratio should be used for judging performance efficiency, in relation to credit and deposits of banking sector function in rural area.

Cheriyakoya (1989), analyzed the extent and composition of additional deposits mobilized during deposit mobilization campaign and the impact of these additional deposits on the lending pattern of the Trichur DCCB for the period 1978-79 to 1987-88. He observed that the credit-deposit ratio, which is an indicator of banks' efficiency in the deployment of funds, was lower during the deposit mobilization campaign than in normal months. This was said to be due to the undue pre-occupation of the staff for mobilization of deposits and the total disregard for lending during this period. The April-May period was seen to be more appropriate for the deposit mobilization campaign as the increase in deposits found was significant in all years during this period.

Ranga Reddy (1989), studied the working of corrective and preventive measures taken for reducing farm co-operative overdues in the Guntur District Central Co-operative Bank and the sample PACS. Measures taken for reducing overdues noted in the study are the streamlining of management, strengthening of the supervisory staff, restructuring of the working capital by raising the share of owned resources and prompt legal and executive action covering all delinquents.

Mohandas (1990), tried to examine the effect of additional deposits on the resource base of Trichur DCCB in terms of the extent of incremental deposits, proportion of various types of deposits, share of deposits to working capital and ratio of deposits to loans and advances. Further, the effect of resources on lending is examined in terms of the composition of loans, credit-deposit ratio, incremental credit-deposit ratio and relative efficiency in resource management. The study revealed that deposit mobilization
campaigns have helped the bank to increase appreciably the quantum of working capital as well as the proportion of deposits in the working capital. The main weakness of the programme noted was the obsession of the staff with the targets and achievement in deposit mobilization and the neglect of corresponding expansion in lending activities. Another problem noted was the lower incremental credit-deposit ratio because of the tendency of the depositors to withdraw a sizeable part of the new deposits immediately. Notwithstanding the few weaknesses, the study noted that the state patronage deposit mobilization campaigns have enhanced the credibility and social acceptance of the working of co-operative credit institutions in Gujarat, even though the security of their deposits is not yet guaranteed by any form of deposit insurance. It concluded that there is still scope for refinement of the scheme in the DCCBs with a 'project approach' which can ensure better results from the campaigns both quantitatively and qualitatively.

John Winfred (1990), made an attempt to measure the extent of overdues and causes of overdues of 16 DCCBs in Tamil Nadu for a period of 12 years (1970-1971 to 1981-1982) based on both primary and secondary data. He found that there had been slackness in recovery of loans resulting in mounting overdues and suggested that the directors of PACS should play an active and effective role in periodically reviewing the recovery performance of the societies followed by strict measures for recovery against the defaulters and launching of regular and timely recovery action. He also recommended that the tempo of recovery drives should be maintained by the societies throughout the year instead of initiating it towards the close of the year. The author suggested that the interest rate structure of the central banks may be so devised as to provide for interest rate rebate as a reward for prompt repayment of loans on scheduled dates. For improving recovery performance, the rate of interest should be initially fixed at somewhat higher level and a rebate of two or three percent may be granted to the borrowers on repayment of loans on the scheduled dates. He further pointed out that the State Government should ensure that there is strict observance of financial discipline by all concerned for sound and sustained growth of co-operative credit system.
Satendra Pal Singh (1990), made an attempt to identify the factors affecting overdues of agricultural loans. The four major variables identified by them were amount of loan borrowed, amount of loan put under non-productive uses, size of holding and repayment capacity. The authors noted that loans must be provided only to those farmers who satisfy the test of technical feasibility and financial viability. They also suggested that appropriate steps be taken to educate farmers for proper utilization of loans and avoiding excess expenditure at the cost of repayment of loans.

Lakshminarayana and Adinarayana (1990), conducted a study on borrowers of crop loans in Visakhapatnam District. They analyzed the nature and pattern of overdues and factors influencing overdues both under co-operatives and commercial banks and by farm size with the help of two stage stratified sampling. They observed that the repayment capacity of a borrower is a measure of his ability to ensure the return of funds acquired for purposes of investment and consumption. It was based on the analysis of productivity, i.e., the additional returns that would accrue due to borrowed funds and the anticipated income from all sources of the borrower during the year. Repayment capacity was worked out as a residual after meeting the requirements of family consumption needs, payment of other dues, debts outstanding and payments. Accordingly, the authors found that the repayment capacity of farmers who borrowed from co-operatives was less per farm for small, large and pooled farmers, compared to those who borrowed from commercial banks. Irrespective of farm size, all borrowers from commercial banks enjoyed better repayment capacity, particularly in the case of small farms. They found that the inadequacy of loan amount from co-operative banks has resulted in mounting overdues and suggested that the scale of finance and individual maximum borrowing powers should be increased keeping in view the present day costs of cultivation.

Obul Reddy and Malla Reddy (1990), made an attempt to identify the socio-economic factors influencing the borrowers in repaying the co-operative dues by collecting information from 150 borrowers under the Bhongir DCCB in Nalgonda district of Andhra Pradesh. The study revealed that the association between socio-economic factors and repayment of co-operative dues is not significant.
Abdul Noorbasha: (1990), studied the impact of certain selected variables on the mobilization of deposits, deployment of funds as advances and net profits of Vijayawada DCCB in order to identify factors of growth. It was found that the selected cogent variables explained more than 98 percent of variability in respect of deposits and advances. While time and share capital of societies were positively related to deposits of the bank, the number of shareholders was also found to have significant influence on the advances of the bank. However, the selected variables for identifying the “impact on net profits”, could not explain any significant influence. In short, this study showed that the deposits and advances of the banks have been influenced by certain well identified factors.

Mohandas and Indira (1991), observed that according to All India Debt and Investment Survey (1971-72), the deposits of DCCBs of Gujarat had increased from Rs.253.14 lakh in 1960-61 to Rs.3117.75 lakh by 1974-75. The increase was appreciable since 1971-72. In spite of the appreciable increase in the deposits of the co-operatives they noted that the co-operatives are still far behind the commercial banks.

James Hadlant Gunther (1992), made an attempt to study the extent of deposit mobilization, deployment and the profitability of Ahmedabad DCCB. He found that fixed deposits contributed to about 40 percent of the total deposits. The loan mix of the bank showed that short-term loans constituted the major portion of loans. The loans and advances disbursed were increasing over the years. Seasonality in lending was observed by the author in the months of May and June. He pointed out that the performance of Ahmedabad DCCB, especially relating to mobilization of resources, its deployment and profitability was fairly good.

Chinnappa (1992), tried to identify the problems of DCCBs in Andhra Pradesh and opined that the managing committees of the primary co-operatives and directors of DCCBs have shown a general apathy in the matter of recovery. The author found that a large number of members in the managing committees had themselves defaulted in the
repayment of dues and the managements were not prompt in initiating coercive action against recalcitrant members. He noted that the DCCBs were supposed to be autonomous in character, - they were more so in paper than in practice. It was also noted that no policy decisions were taken by the institutions at the base level and all the rules and regulations were framed from above and mostly they were ill-timed and unsuited to the varied circumstances that prevailed in various parts of the country.

Sivaprakasam (1993), discussed the personnel management in DCCBs and found that the employee turnover ratio of DCCBs was low when compared to those in Regional Rural Banks. He found that 'influence' was an important criterion for nearly 1/3 of the employees in getting appointment. The author suggested that the DCCBs should evolve a promotion policy in such a way that the base level employees are able to get at least two promotions in their entire career. According to him majority of the employees opposed deputation because of such reasons as lack of knowledge, lack of commitment on the part of the deputations, lack of banking knowledge, blocking the promotion of bank employees, delay in policy and decision making and frequent transfers since they are from the Government. The study also revealed that the employees were able to improve their work after undergoing training.

Thirupathi Rao (1995), while analyzing the financial management of Srikakulam DCCB, felt that the finance function of a DCCB is highly regulated by the Reserve Bank of India and the Registrar of Co-operatives. The borrowings, landings and investments are regulated and subjected to rigorous discipline in respect of several other financial operations. But, he found that this DCCB has failed to observe the financial discipline. The Bank has experienced a deficit in the maintenance of required cash reserves and liquid assets throughout the study period (1980-81 to 1992-93) and was responsible for its down grading.

Toomkuzhy (1995), made a review of the changing environment of co-operatives and examined the need for professionalization of management in co-operatives. He noted that the environment in which co-operatives operate has been changing very fast and it has
been characterized by rapidly growing size, complexity and ambiguity. To cope-up with the new tasks, he suggested that professional management has become an absolute necessity.

Now it is apparent from the review of literature that quite a lot of studies have been made on various aspects of funds management in DCCBs in different parts of the country. But only a very few studies have attempted a detailed analysis of mobilization, deployment and other aspects of funds management. Even such studies have limited themselves to either individual DCCBs or were limited to their scope. This was quite true of the few typical studies made in Gujarat on the DCCBs of Ahmedabad & Rajkot etc. They were lacking in depth as well as in coverage. The present study is suggested in this background.

Junare S O (2000), studied the role of urban cooperative banks on the development of weak sector of Gujarat. In his research he has founded that, the cooperative banks have played significant role in the development of small sector and weaker sector in particular. He has pointed out that the cooperative banks despite of 50% more target than the cooperative banks are able to achieve the target given by the reserve bank of India. On the other hand the commercial banks not able to complete their target even up to 50% of the target given to them. This shows the role of cooperative banks in the development of small people and weaker sector.

Patel R K (2010), made an attempt to study the extent of deposit mobilization, deployment and the profitability of Cooperative Banks of Gujarat state. In his research he found that fixed deposits contributed to about 40 percent of the total deposits. The loan mix of the bank showed that short-term loans constituted the major portion of loans. The loans and advances disbursed were increasing over the years. Seasonality in lending was observed by the author in the months of May and June. He pointed out that the performance of Urban Cooperative Banks is better than the DCCBs, in terms of mobilization of resources, its deployment and profitability.
Raval Lipsa (2014), studied the working of short term cooperative credit structure and the impact of Vaidyanathan committee on the STCC of Gujarat. In her study she has mentioned that, the package recommended by the Vaidyanathan committee could not make desire impact of STCC in Gujarat.

1.11. Theme wise Review of Literature

A review of earlier researches on the role of NABARD in the field of rural development is essential in order to identify the areas already investigated and pinpoint the hitherto unexplored spheres for further study. Therefore, a review of relevant and important pieces of literature connection with the present study has been carried out under different heads viz. (1) Evaluation of the role of NABARD. (2) Loan disbursement. (3) Loan utilization. (4) Repayment behavior. (5) Impact of Loan. (6) Credit needs. (7) Supply of Credit. (8) Productivity of Credit. (9) Problem of policies related to credit use.

- **Evaluation of the role of NABARD**:

  (1) **R. Patel: "A decade of NABARD's performance"

     An analytical study on "A decade of NABARD's performance" carried out by Patel reveals that there was progressive increase in disbursement of refinance facilities and that modernization of agriculture received a high share of term-loans. The southern region and the central region received nearly 50% of the total refinance. Annual growth rate for seasonal agricultural operation has not kept pace with the country's needs to increase crop production whereas growth rate for investment credit has been very modest.

     *Financial Express, 1992, page-7*

  (2) **Leena Mathew: "Refinance operations of the NABARD - The Kerala Experience"

     An assessment of the refinance operation of NABARD attempted by Leena Mathew (1999), in three districts of Kerala revealed that the recovery percentage was better for rubber plantation than for minor irrigation. The gap in credit requirement per
unit of investment was higher for rubber plantation than for minor irrigation. The net incremental income generated via schemes was higher for rubber plantation than minor irrigation.


- Loan Disbursement:

(3) P. K. Panda: "Agriculture Indebtedness and Institutional finance (study in Orissa).

A study carried out by Panda (1985) on "Agriculture indebtedness and institutional finance" in Orissa revealed that the farmers of irrigated region benefitted more from institutional sources of credit and the farmers of non-irrigated region relied more on private sources of credit.


(4) Mehrotra S. R.: Institutional credit and agriculture growth.

An inter district analysis of "Institutional credit and agricultural growth in Rajasthan" conducted by Mehrotra (1987), pointed out that the rate of growth of institutional credit, agricultural and food grain output have been high in the green revolution period. Further the reliance of small farmers for their production credit needs on private agencies in all the regions of the state is much more as compared to that of the medium and large farmers.

Print well publishers, Jaipur, 1987, P-286.

(5) Shiyani: "cost of farm credit: A case study of commercial bank in Junagadh District of Gujarat state.

"Shiyani (1990) carried out a study on "cost of farm credit- A case study of commercial banks" in Junagadh district of Gujarat. The study revealed that total non-monitory transaction cost was higher in the case of loan granted for minor irrigation purpose followed by other agriculture loans and the lowest was found in the case of livestock advances. The breakup of average non-monitory transaction cost indicated that
the opportunity cost ranked first among all the items of this cost followed by traveling expenses and incidental cost.

Indian co-operative review, vol. 27, 1990.


A field study on "Institutional finance and rural poor" carried out by Singh (1993) in Sultanpur district of Uttar Pradesh reveals that though there had been rapid expansion of bank branches in the district, they were not interested to improve the credit facilities to the rural poor. The percentage of credit to priority sector is only 20% in the branches under study.


(7) M. K. Modit: "Credit utilization pattern on different categories of farms in district Kurukshetra, Harayana"

The study carried out by Modit (1993) with 120 sample farmers in two blocks of Kurukshetra district in Haryana state shows that the non-institutional sources dominated the crop production credit to small and medium farmers. PACBs provide more credit to large farmers. PLDBs advanced term credits in greater proportion to small and medium farmers where as commercial banks formed the largest source of credit for large farmers. The diversion of credit was found to be high in the case of small farmers.


• Loan Utilization

(8) Puhazhendhi P.: "Institutional credit in sericulture; A study in rural Tamil Nadu."

Puhazhendi (1999) in his study on "Institution credit in sericulture in two villages of Dharmapuri and Trichi districts of Tamil Nadu" observed that sericulture is considered less attractive for finance by the credit institutions and development of sericulture is obstructed due to lack of finance. The farmers are facing problems to avail credit from the credit institutions.

(9) Shaheena: "Utilization pattern and repayment performance of crop loan by co-operatives."

Assessing the utilization pattern and repayment performance of crop loan by co-operatives, Shaheena (1990) in Wayanad district of Kerala found that the influence of the large farmers with the Board of Directors, inadequate supervision and follow up on the part of the bank, expectation of write-off loans, illiteracy, lack of irrigation facilities and dearth of modern implements of production were responsible for the overdues.


(10) Hooda, A. S: "Utilization of crop loan by farmers."

A study undertaken by Hooda (1993) on "utilization of crop loan" by farmers in Dobh village of Haryana state reported that benefits accrued from crop loan enhanced agricultural production (51.7%) followed by enhanced repaying capacity. More than one fourth of the respondent's repaid the loan in time to avoid penal interest, 18.35% repaid the loan and avoided being defaulter and 10.09% repaid the loan to ensure loan facility in the future.


(11) Lal B. - "A critical study of misutilization of co-op. credit in agriculture."

A critical study on "misutilization of co-op. credit in agriculture" in two blocks of Agra districts carried out by Lal (1993) shows that utilization of loan amount under productive purposes increase with increased in size of farm and the use of loan amount for unproductive purposes increased with decrease in the size of farm. The maximum percentage of loan amount was misutilized by marginal farmers and small farmers.


- Repayment Behavior

(12) K. A. Patel: "Recovery performance of direct agricultural advances of scheduled commercial banks."
Evaluating the recovery performance of direct agricultural advances of scheduled commercial banks in Surendranagar district of Gujarat, Patel (1989) observed that good yield of borrower's farm product induced them to repay bank dues on time. Besides, the proportion of defaulters was reported to be larger in the case of farmers with un-irrigated farms and using hired private irrigation facilities than that in the case of those having either own or public irrigation facilities.


(13) Laksmi. S. "Characteristics of defaulters in agriculture credit-use: - A micro level analysis with reference kerala."

Analyzing "characteristics of defaulters in agricultural credit use in Kerala, Lakshmi (1998) concludes that market surplus, time of sowing and credit gap were the major characteristics which discriminated the borrowers of crop loans for paddy into defaulters and non-defaulters. The study suggests that the scale of finance is to be fixed separately for the service area of each bank, rather than for the district as a whole.


(14) D. Namasivayam: "End use of credit and repayment performance of the institutional borrowers. An integrated analysis."

A study on "End use of credit and repayment performance of the institutional borrowers" Carried out by Namasivayam (2000) in Chengalpattu district of Tamil Nadu revealed that the end use of credit was for productive purposes by all the three groups' defaulter, non-defaulters and control group. The crop loan tended to be more often misused than the term loan.


- **Impact of loan**

(15) J. P. Singh: "impact of institutional credit in agriculture with special references to Ballia district (U.P)."
A study titled "impact of institutional credit in agriculture with special reference to Ballia district (U.P.) carried out by Singh (1989) concludes that with the help of credit given by commercial banks, the borrowers adopted intensive cultivation and modern technology, which brought additional profit when compared to non-borrowers.


(16) NABARD: "financing of shallow tube wells under massive national programme in Haryana."

An ex post evaluation study of shallow tube wells financed under the massive national programme by land development bank in Haryana was carried out by NABARD regional office, Bombay (1990). The study revealed that the cropping pattern did undergo the desired change following the provision of irrigation from tube wells. Financial analysis showed that the investment in shallow tube well with pump set was viable with the financial rate of return being an average of 35%.


(17) UdumanMohideen: "institutional credit and agricultural development."

Assessing the impact of institutional credit and agriculture development in Coimbatore district of Tamil Nadu, UdumanMohideen (1991) points out that institutional credit substituting non-institutional credit resulted in more efficient use of credit by farmers and there was scope for improving gain from supply of credit to the farmers through changes in pattern and procedure of lending. The study also points out that efficient use of credit depends on availability of complementary inputs like technical advice, irrigation and marketing facilities.


(18) Jungale. V. C.: "Co-op. credits in Indian agriculture its socioeconomic and technological impact."

A study on the socio-economic and technological impact of coop, credit in Indian agriculture was carried out by Jungale (1992) in Kolhapur district of Maharashtra. The study revealed that the average yield of sugarcane increased due to the kind and cash
loans from PACS and a tractor earned about Rs. 35,000 annually after deducting all its maintenance cost. The study pointed out that PACS benefited only rich farmers and the majority of the respondents borrowed long-term credit for irrigation purposes, bringing about 22.40 hectares of additional land area under irrigation.

Mittal publications, New Delhi, 1992, Page-145.

(19) Neelam; "impact of institutional finance on income and employment of the selected households: A case study of ManjiraGramin Bank."

An attempt made by Neelam (1993) to evaluate the "impact of institutional finance on income and employment of the selected households in Medak district of Andhra Pradesh reveals that the average income per house hold of the marginal farmers and small farmers in non-beneficiary category was about Rs. 5687 and Rs. 9462 as against Rs. 7361 and Rs. 12932 for the respective category of beneficiary farmers. Employment generated in the case of beneficiaries was 204 days per annum as against 198 days in case of non-beneficiaries. The income of petty trader families improved substantially from Rs. 9600 to 18,000 and employment rose from 153 days to 180 days.


(20) Oudrat I Elahi : "Impact of institutional credit on paddy production in Bangladesh"

In the impact study of institution credit on paddy production in Bangladesh carried out by Qudrat I Elahi (1995) both time series and cross section models showed that institutional credit had substantial effect on paddy production. The impact of credit was higher on those crops where the cost of cultivation and the use of purchased inputs were higher.


• Credit Needs :

(21) N. Saha and P. L. Dutta: "The HYV programs and problems of finance for small farmers in Assam."
Saha and Dutta in their study on the high yielding variety program and problems of finance for small farmers in Assam have found that the cost of cultivation of paddy per hectare was estimated at Rs. 150-00 in the traditional method and Rs. 655-00 in the new technology. This indicates that for switching over to new technology an additional finance of Rs. 505-00 will be required by a farmer operating a hectare as short term loan.


(22) Subramaynam; "adoption of new technology on small farms: the role of credit and its requirements"

Subramaynam has assessed the quantum of credit requirements that would enable the small farmers to adopt the high yielding technology of paddy cultivation. Using linear programming technique and on the basis of data pertaining to a sample of small farms of west Godavari district in Andhra Pradesh, optimum plans are developed in limited capital and unlimited borrowed capital situations. It was observed that the provision of additional capital results in 12% of the total cropped area being brought under high yielding variety of paddy in the deltaic zone and as much as 100% in the case of the upland, the respective credit requirement for these two zones being 67% and 200% over the existing capital used on the farms in these zones.


(23) A. S. Saini and D. S. Sidhu: "Impact of improved technology on credit management and farm income."

Saini and Sidhu have concluded that introduction of improved technology on the normative cropping pattern leads to a tremendous increase in credit requirement. They have found that with investment of one rupee in small, medium and large farms, returns were Rs. 1-47,1-58 and 1-50 respectively. The total credit needs worked out at Rs. 1411-00, 2987-00, 8798-00 and Rs. 3836-00, 11,058-00 and 25719-00 at existing and improved technology on small, medium and large farm situations, respectively.

Financings agriculture, 1976, vol. VIII, 3: P.P-12
• Supply of credit:

(24) G. N. Singh: "Distribution and utilization of co-operative credit in district, Lucknow."

Singh have conducted a case study on distribution and utilization of co-op. credit in Lucknow district. They found that the farmers of small size groups through numerically more dominant, only a small fraction of them could receive loan from co-op. societies. Out of 491 member farmers of 0-1-5 hectares, only 164 farmers could get loan. As against their situation, out of 258 in the largest size groups, as much as 203 farmers received loan from co-op. societies. As regards the amount of loan advanced to the farmers of different size groups, it was observed that a lion share of the total advancement went to large sized farmers. "The study further shows that the large sized farmers utilized their borrowed money to a greater extent for productive purposes as compared to small farmers.


Sharma has concluded in his study that the availability of credit is associated with the level of assets. It was found that the commercial banks had supplied about half of the total supply of credit. Next important source of credit is co-op. In regard to the private moneylenders and village traders who are still the important agencies supplying loans to the farmers for different purposes, it was found that the loans were equally distributed among all the size groups of the area under study.


(26) S. C. Pati: "Financing agriculture by commercial banks in Cuttack Sadar Block."

Pati has conducted a study in Cuttack Sadar Block of Cuttack district Orissa, with a view to examining the extent of financing agriculture by commercial banks. He found
that on an average 85.7% of the credit to the farmers was met by commercial banks, where as 14.3% was met by other sources. The role played by the co-op. and other sources was not so prominent in the area.

Dept. of Agri.-economics College of agriculture, OUAT, Bhubaneswar, 1976.

- Productivity of credit:

(27) G. Sahu: "Credit needs in changing agriculture"

Sahu in his study found that the estimated marginal value product of working capital was more in irrigated farms (1.45) than in unirrigated farms (1.28). He concluded that the capital shortage was more observed in irrigated farms than in Unirrigated.

Dept. of agri.-economics University of agri. and technology, Orissa, 1977.

(28) B. M. Desai & D. K. Desai: "Farm production credit needs in changing agriculture."

Desai and Desai have examined the productivity of working capital in the selected farms of Baroda district, Gujarat by fitting cobb-Douglas type of production function. They found a general situation of shortage of working capital, compared to its optimum level. They have also compared the optimum level of working capital with the average owned funds plus the average credit use the study indicated that the average available credit was less than the credit required at the optimum level of working capital. Hence, they have suggested that the sample farmers had additional credit absorbing capacity.


Singh, Patel and Sirohi have estimated the marginal value productivity of farm inputs and examined the resource use efficiency on farms of different categories in Meerut district, Uttar Pradesh. The results indicated that the optimal allocation of existing fund showed an increase in return by about 17% and 8% over the existing one on small
and large farms respectively. However, on medium farms, the resources were almost optimally allocated.


(30) Wayne R. Thirsk: "Rural credit and income distribution in Columbia."

Thirsk has attempted to measure the productivity of credit use on 2900 small and medium sized Columbian farms which received the supervised credit in 1969. He has stated that the allocation of credit was closely linked to the distribution of intermediate inputs. He concluded that the marginal productivity of credit was significantly higher on smaller farms.

Programme one of development studies, Rice University, Houston, Texas, 1974.

- Problems and policies related to credit use

(31) S. Deo: "Problem of agricultural credit allocation."

Deo in his study on problems of agricultural credit allocation has emphasized that the problem of credit allocation in agriculture is immense and requires adequate attention. He has suggested that the financial experts, social scientists and a team of bank personnel have to work together and have to wed micro-level planning for expansion of credit. He has further said that only quantitative approach is not sufficient but the farflung impact is all the more significant.

Rural India agriculture, vol. 39:7, 1976, P.P.142-144

(32) B. K. Ganguly: "Evolving an activity oriented agricultural finance policy."

Ganguly has suggested that to prevent misuse of credit the loan could be advanced partly in kind. He has further suggested to prescribe low interest for low farm size group and high interest rates for the higher group to discourage any diversion of funds.

After reviewing the literature of reviews, it is found that there are several research as well as literature available on the analysis of cooperative credit system but they are either at macro level or are in the context of performance evaluation of cooperative credit system. No much research is done on the role of cooperative banks in rural development with special reference to agriculture development. Negligible research has been done in this respect so far as the cooperative credit system in Gujarat state is concerned. Therefore, it is tried to conduct the study on the role of cooperative banks in agriculture and rural development of Gujarat State.