

**PERFORMANCE EVALUATION OF
PRIMARY CO-OPERATIVE AGRICULTURAL AND RURAL
DEVELOPMENT BANKS IN CENTRAL KERALA**

By

**Niranjana Chandran
(2016-15-001)**

THESIS

Submitted in partial fulfilment of the requirement for the degree of

Master of Science in Co-operation & Banking
(Co-operative Management)

**Faculty of Agriculture
Kerala Agricultural University**



**Department of Co-operative Management
College of Co-operation, Banking & Management
Vellanikkara, Thrissur - 680656
Kerala, India**

2019

Declaration

DECLARATION

I hereby declare that the thesis entitled "Performance evaluation of primary co-operative agricultural and rural development banks in central Kerala" is a bonafide record of research work done by me during the course of research and the thesis has not previously formed the basis for the award to me of any degree, diploma, associateship, fellowship or other similar title, of any other university or society.

Vellanikkara

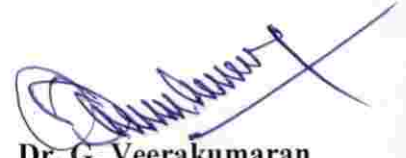


Niranjana Chandran
(2016-15-001)

Certificates

CERTIFICATE

Certified that this thesis entitled "Performance evaluation of primary co-operative agricultural and rural development banks in central Kerala" is a record of research work done independently by Ms. Niranjana Chandran (2016-15-001) under my guidance and supervision and that it has not previously formed the basis for the award of any degree, diploma, fellowship or associateship to her.



Dr. G. Veerakumaran

(Major Advisor, Advisory Committee)

Professor

Dept. of Cooperative Management

College of Co-operation, Banking and Management

Vellanikkara, Thrissur

Vellanikkara

Date:

CERTIFICATE

We, the undersigned members of the advisory committee of Ms. Niranjana Chandran (2016-15-001), a candidate for the degree of Master of Science in Co-operation and Banking with major in Co-operative Management, agree that the thesis entitled "Performance evaluation of primary co-operative agricultural and rural development banks in central Kerala" may be submitted by Ms. Niranjana Chandran in partial fulfilment of the requirement for the degree.



Dr. G. Veerakumaran
Professor
Dept. of Cooperative Management
College of Co-operation,
Banking and Management
Vellanikkara, Thrissur
(Major Advisor, Advisory Committee)



Dr. P. Shaheena
Professor and Head
Dept. of Development Economics
College of Co-operation,
Banking and Management
Vellanikkara, Thrissur
(Member, Advisory Committee)



Dr. E. Vinaikumar
Professor and Head
Dept. of Cooperative
College of Co-operation,
Banking and Management
Vellanikkara, Thrissur
(Advisory Committee)



Dr. K. N. Ushadevi
Professor and Head
Dept. of Rural Marketing
Management
College of Co-operation,
Banking and Management (Member,
Vellanikkara, Thrissur
(Member, Advisory Committee)



External Examiner

Dr. C. Pitchai, M.A.(Co-op.Mgmt), M.B.A., Ph.D.,
Professor F.D.P.M.(IIMA);
Department of Cooperation
Gandhigram Rural Institute Deemed University
Gandhigram-624 302.

Acknowledgement

ACKNOWLEDGEMENT

I unassumingly bow before the feet of the Almighty whose grace awarded me the internal strength and buoyancy and consecrated me on all instances and endeavors in my life through known, unknown, visible and invisible means.

This study is not the outcome exclusively of my efforts. I had received benevolent care, support and prayers from many, that an ample acknowledgement is almost impossible. However, I still would like to reckon with love and reverence from the bottom of my heart my deep sense of gratitude and fervent indebtedness to all those personalities who had helped me to complete this study successfully. This is an embodiment of my endless and courteous thanks to the supreme genius and abiding relations in this sacred temple of edification.

*I bestow my abyssal indebtedness and gratefulness to my supervising guide **Dr. G. Veerakumaran**, Professor, Dept. of Co-operative Management for his uncompromising guidance, constant encouragement and effort for completing the thesis.*

*I am highly obliged to **Dr. P. Shaheena**, Associate Dean, Professor and Head, Dept. of Development Economics, **Dr. E. Vinaikumar**, Professor and Head, Dept. of Co-operative Management and **Dr. K. N. Ushadevi**, Professor and Head, Dept. of Rural Marketing Management, the members of my Advisory Committee for the enduring patronage, encouragement, and whole-hearted cooperation extended to me during my research work. I express my profound sense of gratitude and solemn indebtedness for the personal attention, consideration and dedication showered on me.*

*I would specially like to express my sincere thanks to **Dr. C. Pitchai**, Professor, Gandhigram Rural Institute for the critical and sincere examination and valuable comments for my thesis as an external examiner.*

*I remain grateful to **Dr. Ajitha T. K.** Associate Professor, Dept. of Agricultural Statistics, College of Horticulture, KAU for her expertise, tremendous support and valueless patience in carrying out and completing the statistical analysis of my research with utmost precision and perfection.*

No words in vocabulary would express my gratefulness to **Dr. E. G. Ranjit Kumar**, Professor and Director, MBA (ABM) for the initiative, inspiration and exuberance support for me to complete the research. Though words cannot express my utmost gratefulness, I place my boundless gratitude unreserved for him always. I am immensely indebted for the keen interest he has shown in my work, with lot of valuable corrections and suggestions, positive encouragement, advice and love.

I remember in tears **Dr. R. Sendilkumar (late)**, Professor (Agricultural Extension) for the support, invaluable advice and personal care given by him.

I am respectfully thankful to **Dr. Molly Joseph**, Professor and Head (Retd.), Dept. of Rural Banking and Finance Management, for her valuable suggestions and support for my thesis work.

I would like to place a deep sense of gratitude to **Dr. K. Sunandha**, Professor, Dept. of Development Economics and **Dr. P. J. Boniface**, Associate Professor (Computer Science) for the advice, kind concern and support throughout the study.

I remember with gratitude for the support given by **Dr. A. M. Jose**, Professor, Dept. of Cooperative Management (Retd.), **Dr. Philip Thomas**, Associate Professor, Dept. of Cooperative Management (Retd.) and **Sri. M. Mohanan**, Associate Professor, Dept. of Rural Marketing Management (Retd.) for the motivation during the entire period of my study.

During my research work, I had drawn heavily upon various works of eminent scholars spread over a number of books and journals. No word of thanks will ever repay my debt to them.

I acknowledge my sincere gratitude to **Mr. Sajikumar**, Senior Auditor, Dept. of Cooperation, Govt. of Kerala, **Mr. Sunny V. K.**, Secretary, Alathur PCARDB, **Mr. Lenis Louis**, Secretary, Irinjalakkuda PCARDB, **Mrs. Liji**, Secretary, Aluva PCARDB, all the employees and Board of Directors of the selected PCARDBs and all the respondent farmers who cooperated with me during the survey. I extend a special thanks to **Mr. Adarsh C Soori** for his support and help during the collection of data.

I am placing my deep sense of gratitude to all other teachers and non-teaching staff of the College of Cooperation, Banking and Management for their cooperation and timely support. I am placing my thankfulness to all office staff of College of Cooperation, Banking and Management for their timely help.

I place my sincere gratitude to Kerala Agricultural University for extending the assistance in the form of KAU grants fellowship.

*I reckon with love and affection, the support extended to me by my companions **Sree, Shilpa, Haritha, Divya Chechi, Anagha, Prasanth, Sajith** and all other friends for their generous help and whole-hearted cooperation extended for me.*

*No words can explain fully my affection and gratitude towards my beloved **Achan, Amma, Ammachi, Jose Uncle, Ambili Chechi, KP, Renjil, Raaji Aunty and Papploo** who have always stood by me as a constant source of inspiration in all walks of my life.*

Niranjana Chandran

Contents

CONTENTS

Chapter	Title	Page No.
I	Introduction	1-8
II	Review of Literature	9-42
III	Materials and Methods	43-54
IV	Results and Discussion	55-185
V	Summary of findings and Conclusion	186-205
	Bibliography	
	Abstract	
	Appendices	

List of Tables

LIST OF TABLES

Table No.	Title	Page No.
4.1	Progress of the selected banks up to the year 2017-18	57
4.2	Owned fund to Working capital ratio from 2008-09 to 2017-18	60
4.3	Borrowed fund to Working capital ratio from 2008-09 to 2017-18	63
4.4	Owned fund to borrowed fund ratio from 2008-09 to 2017-18	65
4.5	Loans outstanding to total fund ratio from 2008-09 to 2017-18	67
4.6	Investment to Total fund ratio from 2008-09 to 2017-18	70
4.7	Loans outstanding to borrowed fund ratio from 2008-09 to 2017-18	72
4.8	Loans outstanding to working capital ratio from 2008-09 to 2017-18	75
4.9	Investment to working capital ratio from 2008-09 to 2017-18	77
4.10	Interest income to loans outstanding ratio from 2008-09 to 2017-18	80
4.11	Interest expense to borrowed fund ratio from 2008-09 to 2017-18	82
4.12	Interest expense to interest income ratio from 2008-09 to 2017-18	85
4.13	Manpower expenses to total expenses ratio from 2008-09 to 2017-18	87
4.14	Total expense to total income ratio from 2008-09 to 2017-18	90
4.15	Net profit to working capital ratio from 2008-09 to 2017-18	92
4.16	Net profit to interest income ratio from 2008-09 to 2017-18	95
4.17	Spread ratio from 2008-09 to 2017-18	97
4.18	Burden ratio from 2008-09 to 2017-18	100
4.19	Profitability ratio from 2008-09 to 2017-18	102
4.20	Socio- economic profile of Board of Directors	105
4.21	Administrative problems related with Board meeting perceived by Board of Directors	112
4.22	Classification of administrative problems related with Board meeting perceived by Board of Directors based on intensity	113
4.23	Administrative Problems related with General Body perceived by Board of Directors	116
4.24	Classification of administrative problems related with General Body perceived by Board of Directors based on intensity	117
4.25	Administrative problems related with audit perceived by Board of Directors	119

4.26	Classification of administrative problems related with audit perceived by Board of Directors based on intensity	120
4.27	Functional problems, perceived by Board of Directors	122
4.28	Classification of functional problems perceived by Board of Directors based on intensity	123
4.29	Structural problems perceived by Board of Directors	126
4.30	Classification of structural problems perceived by Board of Directors based on intensity	127
4.31	Human Resource related problems perceived by Board of Directors	130
4.32	Classification of human resource related problems perceived by Board of Directors based on intensity	131
4.33	Socio- economic profile of the employees	133
4.34	Professional details of employees	136
4.35	Administrative problems perceived by employees	139
4.36	Classification of administrative problems perceived by employees based on intensity	140
4.37	Functional Problems of the banks perceived by employees	143
4.38	Classification of functional problems perceived by employees based on intensity	144
4.39	Structural Problems of the banks perceived by employees	148
4.40	Classification of structural problems perceived by employees based on intensity	149
4.41	Human resource related problems perceived by employees	152
4.42	Classification of human resource related problems perceived by employees based on intensity	153
4.43	Socio-economic profile of the borrower farmers	156
4.44	Type of loans availed by the borrower farmers	162
4.45	Farmers' opinion on structure and characteristics of loan availed	163
4.46	Comparison of estimated cost and loan sanctioned	165
4.47	Sufficiency of loan sanctioned to the borrowers	166
4.48	Alternate sources of borrowings of the respondents	167
4.49	Amount of loan availed by the borrower farmers under various categories	168
4.50	Utilisation of loan for designated purpose by borrower farmers	168
4.51	Pattern of utilisation of loan by borrower farmers	170
4.52	Loan amount utilised under various categories	171
4.53	Factors affecting loan utilisation by borrower farmers	174

4.54	Classification of factors affecting loan utilisation by borrower farmers based on intensity	175
4.55	Reasons for loan default by borrower farmers	180
4.56	Classification of reasons for loan default by borrower farmers based on intensity	181
4.57	Suggestions for reducing loan default by the borrower farmers	184

List of Figures

LIST OF FIGURES

Figure No.	Title	Page No.
4.1	Owned fund to Working capital ratio from 2008-09 to 2017-18	61
4.2	Borrowed fund to Working capital ratio from 2008-09 to 2017-18	63
4.3	Owned fund to borrowed fund ratio from 2008-09 to 2017-18	65
4.4	Loans outstanding to total fund ratio from 2008-09 to 2017-18	68
4.5	Loans outstanding to borrowed fund ratio from 2008-09 to 2017-18	70
4.6	Investment to working capital ratio from 2008-09 to 2017-18	73
4.7	Loans outstanding to working capital ratio from 2008-09 to 2017-18	75
4.8	Investment to Total fund ratio from 2008-09 to 2017-18	78
4.9	Interest income to loans outstanding ratio from 2008-09 to 2017-18	80
4.10	Net profit to working capital ratio from 2008-09 to 2017-18	83
4.11	Interest expense to interest income ratio from 2008-09 to 2017-18	85
4.12	Interest expense to borrowed fund ratio from 2008-09 to 2017-18	88
4.13	Manpower expenses to total expenses ratio from 2008-09 to 2017-18	91
4.14	Total expenditure to total income ratio from 2008-09 to 2017-18	93
4.15	Net profit to interest income ratio from 2008-09 to 2017-18	95
4.16	Spread ratio from 2008-09 to 2017-18	98
4.17	Burden ratio from 2008-09 to 2017-18	101
4.18	Profitability ratio from 2008-09 to 2017-18	103

List of Abbreviations

LIST OF ABBREVIATIONS

PCARDB	: Primary Cooperative Agricultural and Rural Development Bank
KSCARDB	: Kerala State Cooperative Agricultural and Rural Development Bank
RBI	: Reserve Bank of India
NABARD	: National Bank for Agricultural and Rural Development
ALY	: Aluva
ALT	: Alathur
IJK	: Irinjalakkuda
NP/NL	: Net Profit/ Net Loss
CD	: Cash Deposit
CAR	: Capital Adequacy Ratio
CRR	: Cash Reserve Ratio
DCCB	: District Central Cooperative Bank
CAGR	: Compound Annual Growth Rate
NAFSCOB	: National Federation of State Cooperative Banks
ANOVA	: Analysis of One-Way Variance
CAMEL	: Capital Adequacy, Asset Quality, Management, Earnings and Liquidity
NPA	: Non-Performing Assets
EPS	: Earnings Per Share
OLS	: Ordinary Least Square
PAN	: Permanent Account Number
TDS	: Tax Deduction Source
ARDB	: Agricultural and Rural Development Bank

Chapter-I

INTRODUCTION

Chapter I

INTRODUCTION

Agriculture in India has shared the thought, outlook and culture of the people of India for centuries and constitutes the backbone of Indian economy. Over 58 per cent of rural households depend on agriculture as their principal means of livelihood (Annual Report, RBI, 2016). Agriculture, in spite of being the largest employer contributes only 17.4 percent of GDP which is said to be declining over the years (Economic Survey, 2015-16). Agriculture as an occupation includes cultivation of land, raising and rearing of animals for the purpose of production of food for man, animals and raw materials for industries. It involves and comprises crop production, livestock, forestry, fishery, processing and marketing of agricultural products. Indian agriculture mainly depends on the availability of resources and inputs of which credit is vital component. Agriculture scenario in India is dominated by small and marginal farmers which aggravates the problem of availability and accessibility of these farming community to sources of institutional credit. This forces the farmers to resort to non-institutional credit sources like money lenders, traders, land lords etc. Taking advantage of the situation, they exploit the farmers by charging high interest rate and adopting fraudulent practices in lending.

Credit is an accelerator in the agricultural development and is a temporary arrangement for bridging the gap between the requirement of resources and the stock of resources available with the farmers for investment. F. A. Nicholson in 1895 rightly pointed out that "Agriculturists must and will borrow. The necessity is due to the fact that agriculturist's capital is locked up in his land and stock, and must be temporarily mobilised, hence credit is neither objectionable, nor is borrowing necessarily a sign of weakness". This stands true even today. Not only small and marginal farmers, even large farmers need credit for purchase of off farm inputs like hybrid seed, agricultural implements, fertilizers, plant protection chemicals, etc.

1.1 Significance of the study

Credit is a prospective tool in the hands of financial institutions, as it plays dynamic role in the cause of agricultural development. Well-timed, ample and accurate type of credit penetrates into agriculture. The traditional source of agriculture credit in India had been the village money lenders. The farmers find it convenient and advantageous to approach the money lenders because of their simple procedure of financing. However, the cost of finance was very high, not only in terms of the high rate of interest but also because of fraudulent practices. It was in this context it was felt that the government should come forward in the support of the deprived agriculturists.

The first attempt made by the government to help the agriculturists was in the form of Taccavi loans viz., Land Improvement Loans Act, 1883, and the Agriculturist's Loan Act, 1884. The Taccavi loans were granted either in the period of famine or distress or for development purposes. The farmers require loans for their current farm and consumption expenditures, which are not considered under Taccavi loans.

The slow tempo of agricultural production was causing concern to the government and after much discussion and deliberations; a new agency for providing credit to farmers came into existence in 1904 in the form of co-operatives when the Co-operative Credit Societies Act, 1904 was passed. The small, local, locally worked institutions, cooperative in form, which would satisfy the postulates of proximity, security and facility for providing credit, were seen as the answer to this situation. Later, to address the deficiencies of the 1904 Act, the Cooperative Societies Act, 1912 was enacted. Subsequently, events during both pre and post-independence period led to accelerated growth of cooperatives covering various sectors of the Indian economy. "The Rural Banking Enquiry Committee" (1950) headed by Purushottam Thakur Das in his report took the note about the machinery for rural credit and recommended that attention should be concentrated on building up the institutional machinery for rural credit. The establishment of single agency to cover the entire field of rural credit would not be feasible in existing conditions. The committee also

emphasized for setting up a separate structure for long term and short term agricultural credit.

The cooperatives were the sole agency in the area of institutional agricultural credit (as a matter of the government policy, until the introduction of social control (1968) and nationalization of 14 major commercial banks in 1969. Since nationalisation, the commercial banks entered into the field of agricultural finance along with the cooperatives. In 1968, the Agricultural Finance Corporation was also set up, for formulation of project and consultancy services on a consortium basis. The Small Farmers Development Agency (SFDA), Marginal Farmers and Agricultural Labourers (MFAL) and Integrated Rural Development Programme (IRDP) were also started by the government of India for providing agricultural credit and subsidies in their respective area during the fifth plan. The establishment of Regional Rural Banks in 1975 was specifically meant for catering to the credit need of small farmers and other weaker sections of the society and also to strengthen the rural credit system. The establishment of NABARD by merging the Agricultural Credit Development Corporation and Agricultural Credit Department in 1982 was another landmark in the history of rural credit system. In fact, this triggered the cooperative credit movement to gain momentum for the development of agriculture in India and also created new hopes and inspirations in the minds of rural community. This also helped in curbing the activities of village moneylenders at least to some extent by providing credit to farmers at cheaper rate of interest.

During its primitive stage, the necessity of long term credit for agriculture was not felt. However, the innovations in agricultural technologies paved way for vast potentialities for agricultural development. Currently, the long term credit has been viewed as essentially a vigorous credit in such a way that it supports the farmer to create assets on land, thereby augmenting his output which subsequently adds to the agricultural production of the country. The demand for long term credit has been increasing since the introduction of green revolution. This was due to the increase in awareness of the farmers that agriculture should be persuaded more as a commercial business by putting more capital

investment on land. The most important agency that lends long term investment credit to farmers are the Cooperative Land Mortgage Banks currently known as Cooperative Agricultural and Rural Development Banks.

The Cooperative Agricultural and Rural Development Banks were the pioneers in providing investment credit for agriculture and were started primarily for this purpose. However, recently the banks have been expanding their activities and diversified their lending portfolio not only for agriculture based activities but also for non-agricultural activities and housing sectors. Large number of institutions are also providing credit for agriculture in the country along with these banks such as commercial banks and regional rural banks. However, the long term cooperative credit structure still endure to conquer an important position among the competitors and finance the investment credit requirements of the farmers. Further, these banks have been assigned a vital role in agricultural development in the state.

Cooperative banking in Kerala has a twofold structure. Urban areas served by the Urban Cooperative Banks and rural areas served by two wings of Cooperative Banks viz., one that extends the short-term production credit and the other extending the long-term investment credit. The short-term cooperative credit structure have a three tier structure comprising State Cooperative Banks at the apex level, District Cooperative Banks at the district level and Primary Agricultural Credit Societies at the grass root level. The long term cooperative credit structure have a two tier structure comprising of the State Cooperative Agricultural and Rural Development Bank (SCARDB) at the state level and Primary Cooperative Agricultural and Rural Development Banks (PCARDBs) at the Taluk level.

Presently, the PCARDBs in the state are confronted with number of problems and constraints which are highlighted by previous research studies. It was found that these constraints include mounting overdue, poor recovery management, differential rate of interest when compared to commercial banks and private banks, large area of operation entailing high transaction cost, restriction on mobilisation of funds, restrictions on

investments, lack of professionalisation etc. In this context, a study on the financial performance of these banks particularly in Central Kerala would be of contemporary significance and will be a milestone for the policy makers in re-structuring and re-engineering the long term cooperative credit structure to face the various onslaughts of agricultural credit scenario and to ensure the sustainability of the long term co-operative credit structure.

1.2 Statement of the problem

In the present economic environment characterised by deregulation and global competition, the crucial role of cooperative banks in satisfying the socio economic necessities of the farming community has been duly recognised and accepted. Long term cooperative credit structure is the main agency for providing credit both for crop production and investment in agriculture. As such, strengthening and promoting the cooperative banks assumes greater significance.

PCARDBs have been assigned a vital role in agricultural development of our country. It is through the branches of these banks that various programmes of the government are being implemented in the agricultural sector. The basic task of these banks is to develop agriculture sector, which is the main occupation of the majority of people in our country and a major contributor to national income. The PCARDB's in Kerala are passing through a critical stage of their growth. A good number of them are incurring loss and their overdue are mounting over the years (Annual Report, RBI, 2015). The PCARDB's mobilise major portion of their funds from share capital, borrowings from KSCARDB and other institutions. Recently, the banks have started mobilising deposits from members and others as an agency of the apex bank.

Report of the Task Force on Revival of Rural Co-operative Credit Institutions (Long-term) (Vaidyanathan, 2006) pointed out various reasons behind the impairment in long-term co-operative credit structure. These banks usually had an ageing staff profile characterised by inadequate professional qualifications and low levels of training. Further,

poor housekeeping, weak internal controls and systems, absence of asset-liability management also hampered effective management. Limited membership owing to limited investment credit needs of farmers, large area of operation entailing high transaction costs, difficulties faced by existing borrowers to meet their credit needs from a single point etc. were some of the operational issues faced by these banks. The declining agricultural operations in the state and the lack of demand for agricultural credit made the PCARDBs to lend for non- agricultural operations though it was not their mandatory function. Among the co-operative credit institutions, PCARDB's were enjoying the monopoly status in long-term agricultural lending till recently. However, at present, the short-term co-operative credit institutions have started lending for long-term credit requirements for agricultural and rural development. Moreover, the interest rates charged by the PCARDBs are not at all competitive and results in dwindling demands for long-term loans. Even in the case of existing loans, the bank faces the threat of takeover by the other lending agencies. Besides, these banks are also facing stiff competition from commercial banks and Regional Rural Banks, the new entrants in the field of long term agricultural credit. However, the need for survival and growth of PCARDBs are vital for the sustained development of agricultural sector in Kerala. In this backdrop, the study was undertaken with the following objectives:

1.3 Objectives of the study

The objectives of the study are:

- (i) To evaluate the financial performance of Primary Co-operative Agricultural and Rural Development Banks.
- (ii) To identify the operational and managerial problems, and
- (iii) To study the loan utilization pattern and repayment behaviour of the farmers.

1.4 Utility, scope and limitations of the study

Theoretically, the study enabled to evaluate the financial performance of selected Primary Cooperative Agricultural and Rural Development Banks in central Kerala. More importantly, the bank employees will have a better understanding of the various indicators

of financial performance of the banks which in turn will help the management in prudent decision making for improving financial viability and sustainability of the banks. The factors contributing to the strong and weak performance of the banks could be identified and will help to suggest measures for maintaining the performance as well as to devise methods to check malfunctioning. Further, the study will also help to understand the existing human resource environment of the banks and to suggest measures for improvement, if any. Moreover, the study will identify the operational and managerial issues associated with the functioning and management of the bank.

As in the case of any research studies, the present study is also not free from limitations. The study includes financial, non-financial, and quantitative and qualitative dimensions of performance of the banks. Due to the constraints of time and resources, the reference period of the study was limited to ten years and was confined to three banks of central Kerala. The qualitative dimension of the study includes the perception and opinion of the borrower farmers, members of board of directors and employees collected through structured interview schedules. As such the study also faced the limitations associated with recollection syndrome, absence of proper records and biasness. However, earnest efforts were made to nullify such issues. Due to the special feature of sample banks, the ratio analysis was limited to certain selected financial ratios. Further, a comparison of the performance of the sample banks could not be attempted due to non-availability of standards of financial performance of cooperative banks. Finally, the impact of the economic and environmental factors affecting the performance of the bank was also not studied.

1.5 Organisation of the thesis

The thesis has been organised in five chapters. The first chapter discusses the significance of the study, statement of the problem, objectives, utility, scope and limitations of the study. The second chapter reviews the available literature on the topic and provides theoretical and conceptual orientation. The third chapter describes in detail the

methodology adopted for the study. The results and discussions of the study are presented in the fourth chapter. Finally, the fifth chapter summarises the findings, conclusions and suggestions of the study.

Chapter-II

REVIEW OF LITERATURE

Chapter II

REVIEW OF LITERATURE

This chapter is intended to provide the available literature on the subject. With a view to evaluate the objectives of the study it was felt necessary to have an idea of the methodology and findings of the earlier research studies. Such a review of literature connected with the working performance of cooperative banks in India and abroad and the operational and managerial issues existing in the banks along with the reasons behind loan default were collected and presented in the following headings:

1. Financial performance of cooperative banks
2. Operational and managerial issues existing in the banks
3. Loan utilisation pattern and repayment behaviour of the borrower farmers

2.1 Financial performance of cooperative banks

Sapna (2003) in her study of Lending Pattern and Recovery Performance of Investment Credit in Agriculture through PCARDBs in Thiruvananthapuram District analyzed the recovery performance of PCARDBs and found that increase in overdue is higher in non-agricultural sector than in agricultural sector. Further, the study concluded that declining prices of agricultural products and defective government policies are reasons for mounting overdue.

Walia (2003) has observed in the study, "Funds management in central cooperative banks – A case study of the Jalandhar central cooperative bank Ltd" that due to stiff competition in the market, banks are under pressure to judiciously manage their funds. The main source of funds for the bank had been deposits with 91 per cent of the funds coming from this source only. The loan portfolio of the bank was found unsound, and so a major chunk (60 per cent) was deployed in investments instead of loans. The loan portfolio contained a share of 34 percent of total funds and CD ratio was less than 39 per cent. The solvency position and recovery position of the bank were found to be sound with CAR at

12 per cent and recovery at 97 per cent. However, the liquidity position of the bank was found to be unsatisfactory as the bank had always maintained surplus CRR.

Singh *et al.* (2007) in their study observed the performance of District Central Cooperative Bank, Raipur and its Mandir Hasaud branch by estimating the growth rate performance indicators with the help of time series data from 1991-92 to 1998-99. In absolute term, linear trend value of performance indicators have increased considerably and correspondingly the overdue also increased, which is not a good symptom for co-operative loan operations during the period of study. The estimated compound growth rate for number of borrowers (2 percent), amount advanced as crop loan (12 percent), recovery (5 percent), outstanding (15 percent) and over dues (16 percent) was noticed at 1 per cent level of significance. The situation is alarming for co-operative banks because the increase in rate of over dues is quite high as compared to the other indicators. The study recommended to improve the recovery performance in order to check the over dues because it is not a good indication for the healthy economy of co-operatives.

Singh (2008) appraised the financial performance of the Rohtak central cooperative bank Ltd. (Haryana). The study was conducted for a period of 5 years from 2003 to 2007. The deposits, advances and profitability position the bank were analysed and found that the aggregate deposits of the bank increased with low growth rate and bank did not exhibit good performance in terms of credit advanced to the beneficiaries. The study also concluded that the performance of the bank in terms of profits earned was not good in the year 2006 and 2007.

Sakthivel and Aranganathan (2010) in their study entitled "Salem and Cuddalore District Central Co-operative Banks" examined the working funds, loans portfolio, recovery performance and solvency position of the Salem and Cuddalore District Central Cooperative Banks. They used Altman Model (Z score) to study the solvency position of these two banks. It was found that there was no much difference in the extent of volatility

in short term loans. The study concluded that the banks should increase deposit mobilisation by adopting better deposits mix, increase in loan deployment by judicious loan mix. The analysis of loans issued and outstanding, interest wise and purpose wise inferred that the bank management should ensure prudential loan mix.

Rajiv and Jasmindeep (2010) carried out financial appraisal of Haryana State Cooperative Apex Bank for the period of five years from 2002-03 to 2006-07. The financial performance was analysed using the various parameters for the appraisal of banks like number of offices, membership, paid up capital, reserves and other funds, deposit mobilisation, deposit type wise, demand, collection, loans issued, loans outstanding, cost of management and profit & loss and number of branches in profit and those incurring loss. The study concluded that quality of deposit, loan mix, efficiency in maintenance of reserves and the overdue status of the Bank were the most influential parameters that determine the financial stability and soundness of the Bank.

Raveesha *et al.* (2010) in their Growth Rate Analysis of Primary Co-operative Agricultural and Rural Development Banks (PCARDBs) in Karnataka has stated that the problem of overdue was acute in the banks and it requires bilateral attention on the part of the government in implementing policies and greater skills on the part of the management for loan recovery to provide sustainable services to the farmers. Further, the study suggested that the bank should increase the loan amount advanced.

Sharma and Pathania (2010) in their study of the Ratio Analysis aspects of the H.P. State Co-operative Agricultural and Rural Development Bank found that the financial position of the bank was not sound. The liabilities of the bank were on a higher side in comparison to owner's equity. The current liabilities of the bank has increased sharply and therefore, it was suggested that in order to improve the financial health of the bank, efforts are to be made to increase the volume of the business and the management should also curtail unnecessary expenditure.

Singh and Singh (2010) in their study entitled, "Technical and Scale Efficiency in District Central Co-operative Banks of Punjab –A Non- Parametric Analysis" had attempted to investigate the extent of technical efficiency across twenty District Central Cooperative Banks (DCCBs) of Punjab with the help of Data Envelopment Analysis. The study observed that the size of DCCBs and profits had been affecting the measures of technical efficiency significantly. The study further revealed that DCCBs of Punjab were suffering from the problems of managerial irregularities and improper production scale. Finally, the study had suggested bringing in appropriate policy interventions by state government, RBI and NABARD.

Rachana (2011) in her study "Financial inclusion and performance of rural cooperative banks in Gujarat" with the objective of assessing the performance of banks working in rural areas conducted her study in Gujarat. Chi-square test, ANOVA and Tabulation were used to analyze the data and hypothesis testing. The study found that as deposit mobilisation by PCARDBs banks are quite low, they depend heavily on borrowings for their resources. Deposits constituted only a small percentage of total liabilities of PCARDBs, while borrowings constituted a major chunk of the total liabilities. Also deposits of both SCARDBs and PCARDBs were very low as compared with their borrowings. This indicates that long-term cooperative credit institutions need to improve their deposit mobilisation efforts.

Velu (2011) in his study on Product Profitability of the Pondicherry Co-operative Central Land Development Bank stated that, the bank has been slowly diverting its business operations mainly from farm sector loans. It has contributed to the profitability of the bank. Therefore, it is strongly suggested that the bank should find business activities in the non- farm sector or such identical portfolios to improve the profitability of the bank.

Hooda (2011) in his study "An Evaluation of Financial Indicators of District Central Cooperative Banks in India" aimed at exploring and evaluating the growth and progress made by all District Central Cooperative banks (DCCBs) in India. The study period covered 15 years from 1994-95 to 2008-09 and selected the following parameters to evaluate the performance of DCCBs such as share capital, reserves, deposits, loans and advances (outstanding) demand, collection, and loan overdue. It was found that all the financial variables (capital, reserves, deposits, advances, demand, collection and overdue) increased with higher growth rate during 1995-1999 followed by the phase 1995-2009, 2000-2004 and 2005-2009 respectively on the basis of CAGR. The study had also recommended the management of DCCBs and policy makers to focus on the corporate governance, professionalism, better outlook of branches, various attractive schemes of deposits and speeding up of the procedure of computerisation etc.

Ganesh and Basavaraja (2012) in their conference paper "The Role of Primary Co-operative Agriculture and Rural Development bank in the context of Inclusive Growth -A Special study of Sagar Taluk in Shimoga Dist in Karnataka" which was carried out in Sagar Taluk of Shimoga district, Karnataka collected both primary and secondary data that aimed at evaluating the financial performance of PCARDBs. It was found that the banks, which engaged in diversified activities was in the forefront of advancing loans to farmers who utilized the funds productively, especially for agriculture development purposes. Further, insufficient funds granted by the bank as well as improper records produced by farmers were the major hitches faced while lending credit to farmers. As the bank cannot lend credit to the people on any other basis other than agricultural land, the directors opined that the bank charges very high rate of interest for the credit borrowed for the purposes other than direct agricultural development.

Jyoti and Suman (2012) in their study "A study on Cooperative Banks in India with special reference to Lending Practices" examined the performance and lending practices of the bank by considering some successful co-operative banks in Delhi. It was found that

the financial performances of long term cooperatives were found to be weaker than their short term counterparts. Limited ability to mobilize resources, low level of recovery, high transaction cost, administered rate of interest structure etc. were some among the problems that the cooperative banks face which have restricted their ability to ensure smooth flow of credit. Moreover, it was observed that the branch network of cooperatives, though widespread across the country, continued to be concentrated in certain regions. The study suggested that efforts should be initiated to ensure banking penetration in the country along with reinforcing the financial health of the grassroot level cooperative institutions. The study had also suggested the banks to adopt the modern methods of banking like internet banking, credit cards, ATM and also to introduce new schemes/service packages for attracting new customers and satisfying the existing customers.

Rajni and Dhaliwal (2013) have done a research on the “Growth of loans and advances and recovery performance of State Agricultural Development Banks in Punjab” to analyze the growth of total loans and advances issued by Punjab State Agricultural Development Bank (PSADB). The study applied statistical tools over the period of twelve years (1999-2000 to 2010-2011). They found that the growth rate of total loans advanced by the bank during the study period was inconsistent due to chronic overdues, government waiver and increase in the willful defaulters’ loan outstanding. The study resulted a positive correlation between recovery of loans, loans disbursed and loans outstanding. The study also recommended that heed must be given to increase in collection of loans and advances by the Punjab state cooperative agricultural and rural Development Bank.

Rajiv and Jasmindeep (2013) in their study entitled “A Study of Cooperative Banking in Haryana” focused to analyse the short and medium-term rural cooperative banking structure in Haryana. The study covered ten year period from 2002-03 to 2010-2011 and Exponential Growth Rate (EGR) was used as a statistical tool for evaluating and interpreting the data. It was observed that the operational performance of the banks were not satisfactory as it is evident from the operational results of these banks during the period

2002-03 to 2011-12. With regard to the financial position of the Central Cooperative Banks (CCBs), it was found that CCBs suffered losses during the study period. The study also suggested the need to improve the profitability positions of these banks. The banks should focus on the Customer Relationship Management and should try to fill the vacant posts immediately so that operational performance could be enhanced.

Rajur and Prasad (2014) conducted “Analysis of Primary Co-operative Agricultural and Rural Development Banks in Tumkur District of Karnataka”, with a view to study the financial performance of the bank during the year 2009-10. Financial ratio analyses were used to analyze the bank performance in the study area. The results were explained under the categories of liquidity, solvency, efficiency and profitability ratios. And the overall result was found as that even though PCARDBs are not promptly deposit oriented, the results of their study clearly showed that deposits have major role in ensuring good performance. Hence the author has suggested focusing on the deposit mobilisation within the purview of the banks’ operation by providing reasonable interest for deposit and also to make dent in lending to more non land based activities in future.

Ganesh and Rajur (2014) in their analysis of Primary Co-operative Agricultural and Rural Development Banks in Tumkur district of Karnataka concluded that the PCARDBs were not having sound liquidity position for long-term sustainability. The study also revealed that even though PCARDBs are not deposit oriented, deposits have a major role in ensuring good performance. Therefore, the study has suggested giving more focus on the deposit mobilisation by providing reasonable interest for deposits.

Naqvi (2014) in his doctoral thesis “An Assessment of Cooperative Banking in India with Special Reference to Uttar Pradesh” analyzed the financial performance of cooperative banks in Uttar Pradesh. Objective of the study was to assess and analyze the performance with regard to profit and efficiency of cooperative banks. Data for the purpose were collected from Annual reports of cooperative banks published by NABARD and Basic Data on Performance of DCBs published by NAFSCOB for the period from

2002-03 to 2010-11. Analysis of financial statement of selected DCBs has been done by applying the tools and techniques of accounting such as ratio analysis and trend analysis. The author revealed that there was an excess of funds in the form of liquid assets. He added, credit to deposit ratio, borrowings to deposits ratio, current and savings deposit to total deposits ratio, owned funds to working funds ratio, deposits to working funds ratio, borrowings to loans ratio, investments to deposits ratio were as per the required standards except owned funds to borrowed funds ratio, liquid asset to demand and time liabilities ratio and term deposits to total deposits ratio. Further, author suggested the banks that the management should ensure vital matters having substantial bearing on the proper functioning and working of the banks such as mobilisation of deposits targets, advance- specially priority sector advance, liquid assets, investment, over dues and recoveries. It is suggested that the management of the DCBs should try to reduce operating cost by exercising efficient control over their cost of external funds and increasing operating income by utilizing funds to their full capacity with a view to improve profitability.

Bharthi (2014) in her study about the financial performance of cooperative banks in the Muddebihal Taluk of Bijapur district examined financial performance of all the cooperative banks in Muddebihal taluk, Bijapur district, Karnataka. The study attempted to judge the profitability of the selected cooperative banks through profitability ratios such as Operating Profit Margin Ratio (OPMR), Interest Earned To Total Funds Ratio (IETFR), Interest expense To Total Funds Ratio (IPTFR), Return on Total Funds Ratio (RTFR), Return on Capital Employed Ratio (RCER), Cost of External Funds Ratio (CEFR) and Net Profit to Total Assets Ratio (NPTAR). It was found that the CBs are facing problems of high cost of business operations, low capital base, inadequate loan appraisal and credit planning, poor recovery performance, dual control, mounting overdue, high level of nonperforming assets, political influence, lack of professional skills and relatively low level of customer satisfaction, etc.

Chunilal (2014) in his study entitled “Financial Performance of Co- operative Societies: A Comparative Study” was carried out with the objectives of understanding the operation of co-operative societies; to analyse the financial performance and to make comparative study among the selected co-operatives. Ratio analysis and trend analysis were the tools used for the study. It was concluded that the values of liquidity ratios such as quick ratio, net working capital ratio and financial activity ratios were observed to be above the standard. This indicates that the banks seem to be sound enough to meet its current obligations. However, the current ratio, absolute liquid ratio and cash ratio of the banks were below the average standards of Cooperative Societies, which indicates that the financial position of the banks was not satisfactory to meet its short-term obligations. The study suggested improvement of the liquidity position by maintaining adequate cash reserves from operating activities.

Rao *et al.* (2014) in their Comparative Analysis of Institutional Credit in Punjab and Kerala examined the source wise institutional credit in Punjab and Kerala and found that the commercial banks replaced the co-operatives to become the main source of institutional agricultural credit in Punjab and Kerala after the mid-nineties. The shift was mainly due to the increase in number of rural branches of the commercial banks due to stronger priority sector lending rules and also due to the fall of co-operative lending institutions because of the lack of adequate financial resources.

Bharthi (2015) conducted a study entitled “Analysis of the financial performance of co-operative banks in Bijapur District (Karnataka State): A comparative study” with the objective of examining the financial efficiency and to suggest measures for improving the efficiency of co-operative banks of Bijapur district in Karnataka. The study was based on the annual reports for a period of 5 years from 2008-09 to 2012-13 and applied financial ratios and statistical technique ANOVA for analyzing the data. The study inferred that banks are facing problems of high cost of business operations, low capital base, inadequate loan appraisal and credit planning, poor recovery performance, dual control, mounting

overdue, high level of non-performing assets, political influence, lack of professional skills and relatively low level of customer satisfaction. Further, it was found that some challenges are external; for example, the phenomenal growth in volume of financial institution. The test of ANOVA concluded that there was statistically significant difference in the financial performance of the co-operative banks and suggested for the overall improvement in the banks to make their position solid in the competitive market.

Meenakadevi and Tamilvani (2015) in their study entitled “A Study on Financial Performance Analysis of Selected Cooperative Urban Banks in Tamilnadu” analysed the financial performance of the sample banks with secondary collected for a period of ten years from 2003-2013. Growth index and ratios analysis were administered to analyse the collected data. The study inferred that in the urban co-operative banks occupies a significant position in the Indian bank scenario, therefore in the present competitive and globalised business environment, there is an urgent need of professionalisation of management for successfully managing the affairs of urban co-operative banks. Further, the study also highlighted the need for improving and the operational dimensions of the banks by adopting foolproof practices for improving management of deposits, restricting the number of employee besides meticulously and judiciously planning loans, advances and investment operations of the bank. The study also suggested the banks to achieve efficiency in resource utilization too.

Jyoti (2016) in her study “Assessment of Managerial Effectiveness in Cooperative Banks of India” aimed at assessing the effectiveness of management in co-operative banks in India. The data was analysed using the “Role Efficacy Scale” described by Dr. Udai Pareek which includes six dimensions for measuring the managerial effectiveness of managers in co-operative banks. Those dimensions were integration vs. distance, proactivity vs. reactivity, creativity vs. routinely, confrontation vs. avoidance, influences vs. powerlessness and helping attitude Vs. Hostility. The effectiveness of managers or managerial effectiveness calls for urgent attention and it can be better judged in terms of certain behavioural attitude of managers regarding their respective role in the cooperative

functions. People management is more sensitive, personalised, context- dependent and cannot be managed through a set of predefined techniques. People management is no longer just a support function but a strategic tool for competitive advantage. If a manager perceives his role as creative, proactive, problem facing, integrated and influencing, he will be more effective in his role.

Shivakumara and Manjunath (2016) in their study of Performance of Primary Co-operative Agriculture and Rural Development banks in Karnataka was to know the number of branches, membership and share capital of Karnataka State Co-operative Agricultural and Rural Development Bank and also to study its demand, collection and balance. The study depended on secondary data and used growth rate analysis in order to arrive at the conclusion. It was found that these banks faced certain problems such as verification of documents and ensuring proper use of funds, timely recovery of sanctioned loans, growing non-performing assets, increased demand for credit and falling deposits. They added that the major problems were due to the poor recovery of loans which had differential rate of interests when compared to commercial and private banks and high transaction costs as well as the traditional policy of undiversified lending.

Soni and Saluja (2016) conducted a study about the financial ratio analysis of DCC bank ltd. Rajnandgaon for the year from 2008-2011. Authors applied financial ratio analysis including different categories of ratios such as liquidity, solvency, profitability and efficiency with the objective of evaluating the ratios contributing to the financial performance of the bank. It is found that bank maintained a reasonable solvency position and so as the liquidity position but efficiency ratios showed an average level of the expenditure over the gross income. Moreover, profitability of the bank was very low due to the heavy over dues and low recovery rate. It was observed that the Bank plays a major role in rural credit delivery of Rajnandgaon district as it is awarded for its excellence service and contribution in cooperative development for the year 2011 by Chhattisgarh government.

Vishwanath (2016) in his study entitled “Financial Performance of DCC Bank with Special Reference to Vijayapur District” attempted to examine the financial performance of DCC Bank of Vijayapur district based on selected indicators for a period of five years from 2010-11 to 2014-15. The study observed that financial performance of the Bank was favourable with respect to indicators viz., investment, working capital, Shares, Loan Distribution and Profit during the study period. However, the study also found that there was wide gap between target and achievement due to problems such improper management of funds, delay in loan distribution, and problems in recovery of loan and difficulties in generation of funds.

Venkatesh and Gnanammal (2016) in their study entitled “A Study on Financial Performance in Primary Agriculture Co-operative Bank Ltd in Dharmapuri” used ratio analysis, trend analysis and comparative statement. It was seen that return on investments ratio, net profit ratio, cash to current liability position, proprietary ratio, fixed assets ratio and debt-equity ratio was satisfactory during the study period whereas, the return on total assets ratio, gross profit ratio, fixed assets turnover ratio, debtors to current asset ratio, current asset to total asset ratio and cash position of the bank were not satisfactory. The study revealed that the bank had huge retained earnings and hence was self-reliant for its short term and medium term financial requirements. Moreover, one of major reason for banks’ achievements can be attributed to its efficient human resources. The Bank should some special steps for reducing their expenses related with different needs and utilize all available assets more effectively and efficiency to earn more profit.

Sentamilselvan and Delecta (2016) in their study entitled “A Study on Financial Performance of District Central Co-operative Bank, Cuddalore” examined the overall financial position of District Central Co-operative Bank, Cuddalore. The study was confined to five year period from 2006-2011 and used statistical tools such as mean, standard deviation, correlation and financial ratios such as current ratio, net profit ratio,

return on assets ratio and return on equity ratio for analysing the data. It is found that the bank had a favorable condition in capital adequacy, solvency position, current assets and liabilities position. The study suggested the bank to increase the volume of credit disbursement in order to increase the yield on advances and also to improve the credit deposit ratio.

Prabina and Vini (2017) in their study entitled “Study on Financial Performance of The Kozhikode District Cooperative Bank Ltd. Using Camels Rating Scale” analysed the financial performance of the bank by examining data for period of 5 financial years from 2011-2012 to 2015-2016. The study had evaluated the capital adequacy, asset quality, management efficiency, earning quality and liquidity position of the bank. CAMEL rating system and financial ratios like CRAR ratio, Total advance to Total asset ratio, Net NPA ratio, Return on Net profit, EPS, Spread, liquid asset to total deposit ratio, and Liquid asset to total asset ratio were used to measure the financial performance of the bank. The study found that the CRAR ratio of KDC Bank showed an increasing trend over last five years, which indicated satisfactory capital adequacy ratio. The Asset quality had increased due to decreasing trend in net NPA to total assets. As profitability of the bank was directly related with efficiency of the management, branch profitability, profit per employee and other parameters indicated that the quality of management was in favourable. Moreover, spread of the bank showed an increasing trend which means the interest income was above the interest expense during the entire period, and thereby the study revealed that the banks earning quality was satisfactory. Moreover, the liquidity position of the bank was good and stable indicating that the bank was able to meet its liabilities on time.

Pramendra *et al.* (2017) in their study “Financial Performance of The Hisar District Central Co-operative Bank” analysed the financial performance of District Central Co-operative Bank in the Hisar with statistical tools CAGR and OLS method. The study concluded that the number of membership, borrowings, working capital, loan outstanding, loan advanced, overdues and cost of management had increased over the study period

whereas, the amount of share capital decreased. Similarly, the unit transaction cost increased over time due to increase in cost of management

Swain and Sahoo (2017) in their study “An Analysis on Effects of Demonetization on Cooperative Banks” focused on the effect of demonitisation in the banking industry. The study brought out that the new norm for most people after demonetization is cash crunch and the worst affected are customers of co-operative institutions. Since these banks are structured with multiple regulators including BoD, RBI and politicians, investors need to be very careful about their banking practices. Deposits of the customers are at risk, as these banks grant loans very easily without insisting on giving PAN number or does not deduct TDS on interest etc. the study has also recommended the customers to do stress on due diligence instead of avoiding co-operative banks altogether.

Shanthi and Anandan (2017) in their study “Financial Performance of Co-operative Bank in Tamil Nadu” aimed at evaluating the financial performance and operational efficiency of Urban Co-operative banks in Tamil Nadu. The study period ranging from 2003-2015 was based on the on secondary data from the publications by Government of Tamil Nadu, and Economic Appraisal Reports on various publications. It was found that the Compound Annual Growth rate of the bank during the study period is negative. Bank maintains a better liquidity position, has efficient utilization of funds and satisfactory net profit.

Gopalakrishna and Pramod (2018) in their study “Functioning of Karnataka State Cooperative Agricultural and Rural Development Bank in the Economic Development of Farming Community” (A Study with reference to Karnataka) attempted to explain the role of the Bank in helping the economic development of farming community and to analyse the trends in fiscal growth and performance of the bank over the years. Though these banks are striving hard in the forefront of socio-economic upliftment of farmers, they suffer from lot of defects too. It was found that loans given by the bank was predominantly for

discharging of prior debts and not for any productive purposes associated with land improvements. Similarly, the banks does not have the necessary specialised staff for assessing the technical soundness of scheme, banks failed to raise sufficient funds although its debentures are guaranteed by the State Governments, lack of coordination between the activities of these banks and State Cooperative Bank etc. Therefore, the study suggested that, before sanctioning loans, the purpose for which loan is borrowed is to be studied by the bank, should seek technical expert opinion, make sure to provide education to farmers regarding various loans and finally steps must be taken to raise funds for the disbursement of loans.

Harisha (2018) in her research “Performance of primary co-operative agriculture and rural development banks in Karnataka” intended to analyze the financial performance of PCARDBs in Karnataka. The secondary data which was extracted from various journals, books, reports and research articles were used to interpret that the financial activities and banking sector reforms are very well functioning in Karnataka when compared to other state in recent years. And the PCARDBs have made a commendable progress in quantitative terms i.e., loans recovery. However, as they are suffering from high over dues due to poor recovery and heavy accumulated losses over the years, the need to increase the recovery to improve the financial strength of the banks and to render good services to rural people in a country like India is questionable.

2.2 Operational and managerial issues existing in the bank

Report of the Task Force on Revival of Rural Co-operative Credit Institutions (Long-term) (Vaidyanathan, 2006) pointed out reasons behind the impairment in Long-Term Co-operative Credit Structure. The banks usually have an ageing staff profile characterized by inadequate professional qualifications and low levels of training. Further, poor housekeeping, weak internal controls and systems, absence of asset-liability

management techniques also hamper the effective management. Limited membership, owing to limited investment credit needs of farmers, large area of operation entailing high transaction costs, the difficulties faced by existing borrowers to meet their credit needs from a single point etc are some of the operational issues faced by these banks.

Selvaraj and Sankaravadivoo (2007) in their study of Obstacles and Options before Co-operative Agricultural and Rural Development Banks stated that the major obstacles affecting the performance of the banks are high lending interest rate, improper management of NPAs, prudential norms introduced in the banking sector, guarantee fee charged from ARDB by State and Central government, poor loan repayments, lack of professional management and restrictions in co-operative law.

Amin (2008) conducted a study entitled "Some Reflections on Cooperative Credit Institutions". It was inferred that cooperatives should make a change in their focus, attitude and their approach to ensure sustainability. These institutions should focus on advancing and improving their technological capabilities, bringing in computerisation of their operations coupled with the creation of congenial atmosphere for the clientele including depositors and loanees. Correspondingly the bank should plan their future approach to concentrate more on to the moving fast tracks of efficiency parameters and productivity mainly by incorporating and promoting professionalism, strengthening financial resources base and stakeholders interest. Finally, this could help the cooperative banks to develop their competitive edge and reap the evolving openings emerging from the processes of globalisation and liberalisation.

Pathania and Batra (2008) has made a study on "Non-Performing Assets Management in Cooperative Banks: Perceptions of Bank Officials" to identify the effect and impact of NPA on bank profitability. The study stated the observation of the Committee on Non-Performing Assets of Public Sector Banks (1998), that NPA is a double-edged knife that determines bank's profitability. On the one hand, banks cannot

realise income (interest) on NPA accounts and on the other, it is drain on bank's profitability due to funding cost. The Narasimham Committee Report 1998 rightly pointed out that NPA constitute a real economic cause to the nation in that they reflect the application of scarce capital and credit funds to unproductive uses. The money locked up in NPAs is not available for productive use and to the extent that the banks seek to make provision for NPAs, it is charge on the profit. High NPAs in the banks have devastating effects not only on the banks but also on the economy as a whole. The formulation of the good policy will be of no use unless it is implemented in true spirit.

Agarwal and Solanke (2012) conducted a study entitled "Problems faced by co-operative banks and perspectives in the Indian Economy" to draw out the problems, difficulties and suggest remedies in the cooperative banking sector. The study was confined to overall co-operative banking sectors and no statistical tools were used. It was mentioned that cooperative banks are too small to operate properly and some are existing only on the paper. They are having higher NPAs to assets ratio compared to that of commercial banks followed by unethical management practices, heavy dependency on government capital rather than shareholders contributions, lesser worker participation, infrastructural weaknesses & structural laws, bad recovery of loans, political and government interference, existence of multiple regulations, limited area of operation and lack of modern practices of banking. Further, authors suggested the cooperatives to improve themselves through the principles of cooperation.

Prabhu (2012) in his study "Agricultural Credit Cooperatives; Problems and Prospects" outlined the impediments of structure, operations, viability and credibility of cooperative banks. He opined that cooperatives as such are passing through a critical stage and their growth is threatened. He figured out certain reasons behind his statement which includes lack of professional management, undiversified businesses, weak member participation, inadequacy of resources for business growth, mounting overdues, absence of technological up-gradation, corruption and corrupt practices and lack of financial

discipline. Further he found that cooperative law is restrictive and obstructive for its healthy growth.

Ravindran (2013) in his study “Rural Financial System in India and Challenges before Cooperative Long Term Credit Structure” analyzed the overall development of cooperatives. He pointed out the relevancy of the statement mentioned by All India Rural Credit Survey Committee that agricultural credit fell short of the right quantity, was not of the right type, did not serve the right purpose and failed to go to the right people. He added, the complete dependence of long term cooperative credit structure on external funds has affected considerably their ability to meet the growing credit needs of members. Similarly, due to their restrictions in the statute as well as resource constraint, the structure is not able to enhance the working capital or production credit to investment credit. Author had also suggested that the resource base of the cooperatives need to be strengthened to improve credit availability to poorer sections of farmers.

Babitha *et al.* (2013) in their study “Comparative Study of the Challenges faced by Public Sector Banks and Urban Cooperative Banks and Strategies to Overcome with Special Reference to Mangalore City” examined the problems faced by bankers in marketing. The paper highlighted some of major problems faced by banks today, strategies they have formulated and implemented as well as innovative suggestions to overcome problems by considering that banks are a part of service industry component. The problems faced by the cooperative banks which were figured out by the study included inconsistency in quality, lack of customer orientation, employee overburden, inefficiency and dullness in the system, over aged staff, illiteracy and fear of bank environment, competition from private banks, investment option from share and commodity as well as gold and real estates. The study has suggested to tackle these problems effectively by giving energy boosters like training and development, motivation of employees and by creating super ordinate goals viz., survival, for which the study suggested the banks to undertake target-

market approach in service, device real customer need banking, adopt integrated banking and to aim for profitability through customer satisfaction.

Takale (2013) conducted a study entitled “Role of Banking sector in Indian agricultural development” found that the growth rate of co-operative credit is the slowest among all institutional credits. The main objective was to determine the problems of agriculture credit in relation to banking sector throughout the analysis. He found out that the performance of cooperatives were not satisfactory as they suffer from high NPAs, low reserves, large overdues, poor management and excessive interference by the politicians. So that, the transaction of cooperative banks is lower as compared to other banks. Author made a comparison about Indian banking sector and concluded that cooperative banks should increase their branches in rural areas for providing rural credit facility.

Jannatul (2014) in his study “The Problems and Prospects of Co-operative Society: A case study on its evolution and future possibilities in context of Bangladesh” analysed the problems faced by cooperatives in Bangladesh. The study pointed out the problems faced by the cooperatives which includes, bureaucracy associated with the registration of cooperatives, dominance of male participation than female, predominance of vested interest of a particular person or class in the cooperatives, lack of professional management, political interference, limited supply of capital by the members creating financial problems which disable them to take advantages of new opportunities and lack of motivation by the higher level stakeholders to highlight the opportunities for starting cooperatives. Moreover, the study recommended government to ensure that the authority concerned is performing their role to develop cooperative sector.

Ashtankar (2015) in his study “Cooperative sector Banks in India: Problems & Prospects” analysed the problems & prospects of Indian cooperative banks and its relevance for Indian economy. The study observed that despite of its rapid growth, the overall progress of cooperative movement during 100 years of its existence was not very

impressive. Abusing power by the leadership, mismanagement and manipulation, government interference, lack of modern banking practices, lack of awareness, limited coverage, functional weakness, lack of professionalism, reorganization of societies were found to be the problems faced by cooperatives whereas, accountability, legislative reforms, complete transparency in working, value based education, and awareness campaign were the prospects of cooperative banks. The study mentioned that the failure of cooperatives would fail the best hope for rural India.

Kavitha (2015) in her study “Struggle for the Survival of long term cooperative credit institutions” attempted to study the financial health of long term cooperative credit institutions in the country for a period of seven years from 2005 to 2012. The study pointed out that the long term credit institutions plays an imperative role in rural development viz., agricultural growth. However, in spite of enormous requirement of long term credit, the condition of the banks were not satisfactory which can be attributed to misutilization of loans, political interference, writing off loans and interest, and dependence on refinance facility. The overall gist of the study inferred that growth of loans and advances were not satisfactory. The imperative findings of the study were higher NPA to loan ratio, persistent excess of expenditure over income i.e. declining net profit ratio, and increasing number of institutions incurring loss. Finally, the study concluded that it would be very difficult for banks to survive in this worst situation, though existence of long term credit cooperatives are essential for the revival of rural economy.

Preety *et al.* (2016) in their study “Benefits and Challenges Faced by the Cooperative Banks” focused on identifying the aids and encounters tackled by these banks. It was found that cooperative banks are facing severe challenges which have restricted their ability to ensure smooth flow of credit. Such challenges may include limited ability to mobilize resources, low Level of recovery, high transaction cost and administered rate of interest structure for a long time. Likewise, government interference in the day-to-day administration of the banks has become a regular feature which in turn adds up to the

challenges. It may include the deliberate government control of cooperatives, nomination of board of director, government participation of the nominated director, deputation of government officials etc.

Kannan and Somasundaram (2017) in their study entitled “The major problems faced by urban cooperative banks in Kollam District, Kerala” investigated the major problems faced by Urban Cooperative Banks in Kollam district of Kerala. One among such problems figured out by the study was duality of control by the State Government and the RBI. Though the area has the need for heavy industrial advances and trade finance for industrial units as well as for commercial enterprises, the UCBs were not able to meet with it as they have to function within restricted framework in the context of mobilisation of deposits. It was also found many Urban Co-operative Banks (UCBs) had violated norms governing advances i.e., top officials of the banks receive loans without documents. Another plagued area was the poor management in the banks due to this reasons that the UCBs directors are politician or illiterate. Moreover, the services of UCBs were not significant enough in terms of quality and have failed to attract deposits from individuals and institutions other than the co-operative sectors. Lack of modernisation, increasing overdue, political interference, staff problems and prospects, lack of transparency in financial statement and lack of planning and co-ordination were other problems depicted in the study.

2.3 Loan utilisation Pattern ad repayment behaviour of borrower farmers

Verma and Reddy (2000) conducted a study for analysing the causes of overdue in Cooperatives under SWOOD, to assess the recovery mechanism and to ascertain NPAs position in the selected banks. The results of the study categorically concluded that policy distortions in liberalized economy and inefficient management were identified as main reasons for poor recovery. Mis - utilisation of credit, political interference at every level, successive crop failures, non-remunerative prices of agriculture produce, inadequate income and natural calamities, were the other factors which affect the working culture of

co-operative banks considerably. The study suggested that available credit size should be need based and production-oriented. Effective supervision of loans to minimize mis-utilisation and close social relations with loanee members were two other suggestions put forth to improve profitability and productivity as well as the working of these banks.

Namasivayam and Ramachandriaiah (2000) conducted a study titled “End use of Credit and Repayment Performance of the Institutional Borrowers: An Integrated Analysis” with a view to examine the underlying causes for default in loan repayment. The study observed that the proportion of productive loan to total loan was higher for marginal farmers and they constituted the majority of defaulters. The marginal farmers and control groups were utilising loans predominantly for non- agricultural purposes including digging and deepening of wells. The crop loan which primarily aimed for the improvement in production and productivity of crops tended to be more often misused than term loans. The reason for the misuse is partly due to untimely issue of loans followed by procedural delays in loan issue caused due to red tapism, absence of post loan inquiry, government waiver schemes etc.

Ravichandran (2000) in his study “Crop Loan System and Overdues” in Tamil Nadu concentrated on scrutinizing the factors causing mounting overdues in banks. The study concluded that political exploitation contributed to be the major cause for delinquency in repayment of loans. While considering other major causes for overdues which included crop failures may or not addressing to natural calamities, increasing family expenditure and unavoidable social obligations. A significant portion of defaulters were of the opinion that different loan waiving schemes announced by the Government was also a major cause for delinquency from the borrowers, which can be viewed as willful default.

Michael (2004) in his doctoral thesis titled “A study on Non-Performing Assets in Cooperative Banks –With reference to Cuddalore District Central Cooperative Bank Ltd., Tamil Nadu” had made an investigation of NPA’s of Central Cooperative Banks. It was

described that the CCBs play a substantial role in the financial sector of Tamil Nadu. However, mounting gross NPAs were dampening the hike in the credit disbursed through CCBs and accumulation of NPAs has been detrimental to the financial health of the banks. The study inferred that sub-standard and doubtful assets occupied a major portion of NPAs in the Bank in which three- fourth of the NPAs were sub-standard assets indicating deterioration of asset quality. Likewise, when compared to the growth of medium and long-term loans, sub-standard, doubtful and loss assets were growing at a faster rate. The banks had a strong liquidity position while the profitability was rather low. The minimal effective recoveries and pending executions show the complacency in recovery through litigation. It can be attributed to the government's attitude in inhibiting coercion to recover dues. The study had identified factors like annual income, size of landholding, annual expenditure and over dues as significant in discriminating between willful and non-willful defaulters. Crop failure was found to be the primary reason for default. However, stringent measures to control and prevent NPAs besides effective credit monitoring and use of effective execution of decrees and other various avenues of recovery, especially compromise settlements would contain the problem of NPAs effectively.

Godquin (2004) analysed the performance of small financial institutions on repayment of micro loans. The probit model was administered for analysis and it was identified the ways to improve the collection of loans and showed that improvement in the rate of repayment, non-financial services, dynamic incentives, reduction in the cost of loan allocation, farmer education, proper selection of borrowers who did not have any overdue repayment had a positive effect in the collection of repayment performance.

Oni *et al.* (2005) in their study attempted to determine the factors influencing the default in loan repayment among poultry farmers in Ogun State of Nigeria by analysing data collected from hundred poultry farmers selected at random. The study administered the probit model to analyse the factors influencing the default in loan repayment, while descriptive statistics were employed to describe the socioeconomic characteristics of the

farmers. The study observed that majority (55 per cent) of the farmers borrowed loan from formal financial institutions and the majority belonged to educated category. The probit analysis revealed that, age of the borrower farmer and flock size significantly influenced the default in loan repayment at 10 per cent level of significance, while educational level and income of the farmers influenced at the 5 per cent level of significance. However, the flock size and interest had a negative coefficient indicating that there was an inverse relationship between flock size, interest and loan default. An increase in the flock size and interest by one unit was resulted in a decrease in the probability of defaulting in loan repayment. The loan size had a coefficient of positive sign which indicates that larger the loan size greater was the probability of borrower farmers defaulting in repayment.

Derban *et al.* (2005) conducted a study entitled “Loan repayment performance in community development finance institutions in United Kingdom” and concluded that the causes of non-repayment could be grouped into three main areas: firstly, the inherent characteristics of borrowers and their businesses that make it unlikely that the loan would be repaid. Secondly, the characteristics of lending institution and suitability of the loan product to the borrower, which make it unlikely that the loan would be repaid. Thirdly, is the systematic risk from the external factors such as the economic, political and business environment in which the borrower operates. Thus, this findings is a more comprehensive and vivid encompassing all vistas of procedure and administration of loans.

Singh and Banafar (2005) made a study on 120 crop loan borrowers (involved in rice production) in Raipur district, Chhattisgarh, India. The study had objectives to examine the extent of utilisation of crop loans and the adoption of improved technology by borrowers, to identify the correlation between adoption of improved technology and the recovery of the crop loan, and finally to study the causes of non-repayment of crop loan by the borrowers. The study concluded that majority of the farmers had borrowed short-term loans from cooperative banks for the purpose of buying inputs such as HYV seeds,

fertilizers, and pesticides. The study also highlighted that the major cause of non-repayment of loans was due to crop failures arising out of natural calamities.

Adegbite (2009) in his study entitled "Repayment performance of beneficiaries of Ogun State Agricultural and multi-purpose Credit Agency (Osamca) in Ogun State, Nigeria" focused on examining the repayment performance of loan beneficiaries under the Ogun State Agricultural and Multipurpose Credit Agency (OSAMCA), Ogun State, Nigeria, using primary and secondary data. The study adopted descriptive statistics, Logit and Tobit models and t-test to determine the factors that influence the repayment and to determine the significant differences in repayment on yearly basis. The study results indicated that the amount of the loan, delay in payment, distance between field of agriculture and bank, age, knowledge and experience in agriculture, natural damage, disease and pests had a significant effect on the repayment of loans. The study also stated that majority of the farmers complained of bureaucratic bottlenecks in loan processing which they asserted has adversely affected timely disbursement which resulted in loan diversion and finally resulting in loan defaults.

Rahji (2010) in his study entitled "Determinants of agricultural credit rationing by commercial Bank in South-Western Nigeria," focused on identifying factors influencing the decision of commercial banks to ration agricultural credits based on data collected from agricultural credit transactions of the banks. The study based on estimated logit model concluded that the size of farmers' field, farmers' income in the previous year, the type of enterprise, the net assets of the household, business level of agricultural family were significant but were negative factors influencing the decision of banks to ration credit. However, number of dependents in the farmer household was a reason that may increase the probability of banks rationing credit to the borrowers. Among important factors affecting the probability of delinquency in loans repayment by farmers based on the results obtained farmland redistribution, farm income improvement, gender specific and credit

allocation policies were recommended to contain the delinquency in loans repayment by farmers.

Isaac (2011) conducted a study to identify the factors influencing loan repayment behaviour in Community Banks in Tanzania. Descriptive analysis was administered to analyse data and regression analysis was used to test the relationship between factors influencing loan repayment. The loan repayment behavior was considered as the dependent variable and the factors influencing loan repayment was treated as the independent variables. The hypotheses formulated were tested through regression of significance coefficient. It was evident from the study that the overall repayment behaviour of the borrowers was influenced by several factors categorized as borrowers' characteristics viz., type of business of borrowers, institutional factors and environmental factors. However, other factors like location, other sources of credit, loan diversion, grace period and ownership structure were found to have no significant influence on loan repayment behaviour.

Sukhvir (2011) made an attempt to analyse the poverty and indebtedness among the farmers in rural Punjab. It is evident from the study that the majority of the marginal and small farmers had borrowed for the purpose of purchasing agricultural inputs. About 48 per cent of the loan was taken at the rate of 10-20 per cent interest rate and this was decreasing as farm-size goes up which implies that large farmers had access to cheaper loan. The study further revealed that about 83 per cent and 85 per cent of the marginal and small farmers respectively were indebted. The regression results implied that, there was a positive relationship between the indebted amount and landholding size because, investment on operating and fixed costs was imperative to increase the income. The regression coefficient for the education level was negative which indicates that, as the education level increases the indebtedness decreases. However, family size and expenditure on unproductive purposes had negative regression coefficients. This implies

that with the increase in expenditure on family maintenance and unproductive purposes the indebtedness was also increasing and may result in default of loan instalment.

Mondal *et al.* (2012) in their study entitled “Credit utilisation pattern and repayment behavior of the fish farmers in Mymensingh and Kishoreganj districts” of Bangladesh assessed the credit utilisation pattern and repayment behaviour of the fish farmers during the period from January to December, 2009. The data were compiled, tabulated and processed through SPSS package. The study inferred that farmers were of the opinion that installment system is one of the most important hindering factors. Of the three credit repayment systems viz., weekly, monthly and tri-monthly, weekly repayment system was the most limiting factors for the aquaculture farmers than other systems. The study showed that 95, 93 and 91 percent landless, marginal and better-off farmers respectively reported that weekly installment system is the major hindering factors of timely credit repayment in the study areas.

Mahmood *et al.* (2012) analysed the various factors affecting repayment of agricultural credit in Kasoor area in the Punjab province of Pakistan. The study adopted purposive sampling and sixty respondents were selected from the list of defaulters from respective branches of the selected banks. A well- structured questionnaire was administered to elicit necessary information from the defaulting farmers and the bank employees regarding the actual cause of delay in repayment of loans. It is obvious that the productive use of agricultural credit in Pakistan is quite limited, and it affects the repayments behaviour of the farmers and ultimately categorisation of loans into default stages and finally result in the auction of their lands. The collected data were analysed using descriptive statistics and found that trivial supervision by the bank employees, mis-utilisation of loans, high interest rate and change in business/residential place of the borrowers etc. caused delay in repayments of agricultural credit by borrowers in the study area.

Wongnaa and Awonyn-vitor (2013) in their study designed to investigate the factors contributing to default in loan repayment by potato growers in Ghana, found that factors like age, education, experience, lack of timely supervision, and the income outside farm were the influential factors contributing to default in loan repayment. However, gender and marital status had a negative effect on repayment. Thus, it could be inferred that the default in loan repayment was due to factors that could be controlled by the financing institution with meticulous loaning procedure and follow up.

Fahtollahi (2014) attempted to identify the factors contributing to repayment behaviour of micro loans by farmers who received loans from rural branches of Agricultural Bank in Meshkinshahr. According to the results of logistic regression analysis, loan supervision was found to be a good predictor of non-repayment. It was further observed that absence of loan supervision resulted in large-scale use of these agricultural loans in non-productive sectors. The occupational status of the borrowers was also found to be a significant predictor for overdue of loans. Natural hazards and calamities which are beyond the control of either the lender or the borrower is considered as one of the greatest impediments to loan repayment. Besides, the variable multiple loan sources like other banks was also found to be a significant predictor of non-repayment ($p=.00$). It appears that farmers who receive credit from other banks may encounter with difficulty in the repayment of the loans due to controllable and uncontrollable factors.

Arupillai and Paulina (2014) conducted a study titled "Farmers Characteristics and Its Influencing on Loans Resettlement Decision in Sri Lanka" with the objective of investigating the socio-economic characteristics of the farmers and its impact on their loans resettlement behavior in the People's Bank, Puttalam branch in Sri Lanka. The study was used descriptive statistics, Tobit model. Besides, elasticity of the loan repayment ratio was also measured. Further the study revealed that gender, age of the farmers, civil status, major crops cultivated, annual income, and higher education had no statistically significant influence on the farmers' loan repayment behavior. Whereas, number of family members,

amount of loans disbursement and secondary education were statistically significant influence on repayment behaviour. Descriptive statistics showed that only 10 per cent of the borrowers repaid their entire loans, whereas, 90 per cent had only effected partial repayment. The Tobit model results suggested that the female borrowers had better repayment performance than males.

Alexpandi and Rameshkumar (2014) in their study entitled "Utilisation and Repayment of Agricultural Credit - The Case of Madurai District, Tamil Nadu" attempted to examine and analyse the extent of utilisation and the repayment of agricultural credit by the farmers in Madurai district of Tamil Nadu. Percentage Analysis, Linear Trend Model, Semi-log Trend Model and the Factor Analysis Approach were employed to analyse the data. The study resulted that the Nationalised Banks have played a major role in lending to agriculture and allied sectors. Though full and proper utilisation of the loan was made by majority of the farmers, repayment was made only by less than 30 per cent of beneficiaries. The farmers revealed fall in income from agriculture as the primary reason for the partial repayment of loan. Among the various factors identified for non-repayment of the agricultural credit, high irrigational expenses, monsoon failures, crop failures, low price for agricultural produce, and the high cost of inputs have been the most influencing factors followed by the problems such as economic problems, family problems, problem of political interferences, diversion of loans and the institutional problems.

Robert (2014) in his study entitled "Factors affecting loan repayment behaviour in Tanzania: Empirical evidence from Dar es Salaam and Morogoro regions" examined the factors affecting loan repayment behaviour in Tanzania. The study was conducted on 100 business respondents selected using convenience sampling technique. Descriptive statistics was used for data analysis. The results showed that the borrowers' and business characters had a strong effect on loan repayment behaviour. Moreover, the study revealed that the prominent factors like interest rate, grace period, profitability, moral hazard, electricity rationing, and economic stability had strong effects in stimulating loan

repayment behaviour in Tanzania which all are mostly external business environment factors and as such government intervention is important to address these issues in favour of the borrowers of loans. The study further suggested that the financial institutions should assess credit risk management adequately using collateral, condition, character, capacity and capital measurement to control loan repayment delinquency rate. The study reiterated that the socio-economic characteristics of the borrowers should be appraised by the financial institutions before advancing loans to mitigate the proportion of willful defaulters.

Abdelateif and Sayed (2015) conducted a study entitled “Determinants of Loan Utilization and Repayment Behaviour among Small Farmers in North Kordofan of Sudan.” The paper aimed at investigating the interaction effect of loan use and repayment behaviour of farm households. The data gathered were analysed using descriptive statistics and bivariate probit model. The study revealed that the critical constraints faced by borrowers were trivial loan, high interest rates, long bureaucratic procedures, short repayment period, lack of business training, paucity of information, lack of grace period and poor follow up & supervision. However, the econometric analysis inferred that loan utilisation was significantly influenced by application fees, value of assets, repayment period, and group lending collateral and finally the locality. Whereas, variables such as punishment expected, application fees, value of assets and finally the locality were also found to be significant factors determining loan repayment performance. When the results of both loan utilisation and loan repayment performance were compared, it was found that lenders ignored the age and education level of borrowers as it had no significant effect on loan repayment behaviour of the borrowers. Moreover, variables such as frequency of repayments and group lending collateral were also ignored by lenders though they were found to be significant determinants of loan utilisation of the borrowers. Similarly, businesses with tight punishment expectations were discouraged during loan utilisation investigation. However it was found to be positively and significantly influential on loan repayment behaviour of the borrowers.

Kiran (2015) in her study “An Analysis of Agricultural Loan Repayment Performance of Regional Rural Bank: A case study of District Sirsa, India” The study analyzed the recovery performance of agricultural loan and problem faced by the respondents in repayment. The results of the study had been compiled by using average and percentage method. The study revealed that 40 per cent of the borrowers had repaid 25 to 50 per cent of the loan. Further among 20 per cent, 17.5 and 5 per cent of borrowers had repaid less than 2.5 per cent, 50 to 75 per cent and more than 75 per cent of the borrowed amount respectively. Rests (17.5 per cent) of borrowers were found to be defaulters. 60 per cent of the respondents attributed agriculture was their major difficulty to meet in their loan obligation. High level of crop failure among the respondents would translate to lower level of income and hence the high incidence of loan defaults.

Tanika and Arti (2015) conducted a study on loan repayment behaviour of Indian farmers with the objective to analyse the nature and extent of indebtedness of Indian households. Loan repayment and consumption data from the 2005 India Human Development Survey (IHDS) was used for the study. A nationally representative data of 16,900 households who had taken a loan constituted the sample for the study. To understand loan repayment behaviour, it is important to examine the purpose of borrowing, source of borrowing, interest rates and consumption details. It was evident from the study that repayment of loans depends on a number of factors, such as purpose for which loan is taken, tenure of the loan, interest rate and source of borrowing. Further, it was also found that, if a household borrows a loan for productive purpose and utilises it for the designated purpose it is likely to generate future income and will help the borrower farmer to repay loan instalment promptly without default. On contrary, the borrower farmer can fall in debt trap if he had borrowed money to settle a previous loan and obviously the economic status of the borrower household does not improve.

Ezihe *et al.* (2016) in their study “Accessibility and Repayment of Agricultural Loan among farmers in Benue State, Nigeria” attempted to determine the accessibility and

repayment behaviour of agricultural loans among small-scale farmers in Benue State, Nigeria. The data collected was analyzed using descriptive statistics, ordered logit regression and multiple regression analysis. The study revealed that informal sources and cooperatives constituted the major source of agricultural loan for farmers. The study observed differences in the factors influencing the repayment of formal agricultural loans and informal loans. In the case of formal loans, loan size, major occupation, marital status, number of installments and loan duration were the factors influencing repayment whereas for informal loans it was only loan size and number of installments. It was also evident that larger loan size strengthens the beneficiaries' confidence for adoption of more capital intensive technologies and improved farm management opportunities which would lead to higher productivity, reduced per unit cost and higher income which finally results in prompt repayment of loan. Moreover, the government should formulate and implement policies that will enhance farmer's accessibility to larger farm sizes which helps farmers to access formal loans which unlike informal source shall always be farmer friendly.

Grace (2018) in their study "Loan Repayment Behaviour among Member of Farmers Multipurpose Cooperative Societies in Anambra State" investigated the socio-economic factors affecting the farmers' credit repayment ability and ascertained major problems affecting the farmers in loan repayment using statistical tools such as t-test and a multiple econometric model of the Ordinary Least Square (OLS). The t-test concluded that the major factors that affected the farmers' credit repayment ability were viz., unprofitable scale of operations, defective management & shortage of skilled man power, inadequate and ill-time supplies of required production, inadequate storage and service inputs, administrative bottlenecks, corrupt and dishonest staff, poor educational status of member patron, low membership strength and financial problems. These factors were found to be significant at 0.05 per cent level. Moreover, the study suggested that an increase in the educational qualification of the farmers and an increase in the farmers farm size increases the farmers' repayment capacity. Similarly, increase in the farmers loan application cost and increase in the collateral value brings reduction in the farmers repayment ability.

Megha *et al.* (2018) in their study entitled “ Influence of Long Term Credit of Cooperative Agriculture And Rural Development Bank on the Income of the Borrowers” examined the economic effect (in term of net income) of long term credit from District Cooperative Agriculture and Rural Development Bank” (DCARDB), at Hoshangabad from 2005-06 to 2009-10. Paired t-test was used to compare the net income of the beneficiaries before and after utilization of long term credit. Borrowers were selected randomly and purpose wise which includes new well, electric & diesel pump set, tube well, submersible pump, sprinkler, pipe line, thresher and tractor. The study revealed that the “t” value for purchasing of electric & diesel pump and digging of tube well was 2.648 and 2.835, which were significant. For the purpose of submersible pump the t-calculated value was 0.857, which was not significant which implied that there is no significant difference between net income before and after taking loan of cooperative farmers. Similarly, for the purpose of sprinkler and pipe line, the t- calculated values were 3.091 and 3.500 the differences were significant. Paired t test showed that the t calculated value for thresher was 1.683, was not significant and t calculated for tractor purchasing was 2.220 which was significant. The study concluded that the long term credit had positive effect on net income of borrowers for electric & diesel pump, tube well, sprinkler, pipe line and tractor and negative effect on net income of borrowers for new well, submersible pump and thresher and credit could be an effective tool for development of agriculture if it is distributed with justice.

2.4 Research gap

The review of literature validates that majority of the earlier studies were related to the performance of cooperative banking in India and the problems and prospects faced by the cooperative banks in general. A few studies were focusing on the performance of long term cooperative credit structure in India. However, specific studies on the financial performance of primary cooperative agricultural and rural development banks in state Kerala were almost absent. Similarly, studies on the loan utilisation pattern and repayment behaviour of borrowers who availed loans from banks in India and abroad were common.

However, hardly a few or no studies had attempted to study the utilisation pattern and repayment behaviour of farmers who have availed loans from the primary cooperative agricultural and rural development banks, particularly in Kerala. Therefore, the present study was an endeavor to cover these lacuna.

Chapter-III

MATERIALS AND METHODS

Chapter III

MATERIALS AND METHODS

The study entitled “performance evaluation of primary cooperative agricultural and rural development banks in central Kerala” has been carried out with the objectives of evaluating the performance of primary cooperative agricultural and rural development banks, to identify the operational and managerial issues existing in the bank and also to examine the loan utilization pattern and repayment behaviour of farmers. This chapter elucidates the data, data sources and methodology adopted in conducting the study, which are presented in the below sequence:

3.1 Concepts used in the study

The major concepts used in the study are explained below:

3.1.1 Efficiency in mobilisation

It is the efficiency of primary cooperative agricultural and rural development banks in mobilising funds through various means which is an important pre- requisite for its sound financial and business transactions and requirements. The major source of finance of these banks constitute owned fund and borrowed fund. The former consist of share capital, reserves and undistributed profit whereas, the latter consist of only borrowings.

3.1.2 Efficiency in deployment

It is the efficiency of primary cooperative agricultural and rural development banks in appropriate distribution of funds mobilised so as to generate revenue for its functioning. The major source through which the funds are deployed is through the granting of loans and advances to the members of the bank.

3.1.3 Efficiency in operations

It is the efficiency of primary cooperative agricultural and rural development banks in sustaining profitability by adopting apposite banking practices. It is measured in terms of ratios that measure profitability.

3.1.4 Operational problems

A primary cooperative agricultural and rural development bank, being the financial entity that belongs to its members, who are both owners and customers of their bank play an important role in rural and urban financing. These banks by way of granting medium term & long term loans and advances to its members remain unique in its financial business transactions. While adopting appropriate banking practices in order to increase the services to their members and to keep them intact, these banks face certain problems before them, generally known as operational problems.

3.1.5 Managerial problems

The management of primary cooperative agricultural and rural development banks is its general body and the Board of Directors. The decision making along with the administration is in the hands of Board of Directors and the general body. Since cooperative banks follow a decentralised way of management, authority is not vested with a single person or two. Therefore, in order to undertake the decision making power as well as the administrative power, right management practices are adopted by these banks, where they face certain problems, generally known as managerial problems.

3.1.6 Loan utilisation pattern

It is the pattern showing different purposes for which the loan amount had been utilized by the farmers.

3.1.7 Repayment behaviour

It means the actions taken by the borrower farmers at the time when loan amount becomes due.

3.1.8 Loan

A loan is money, property or other material goods given to another party in exchange for future repayment of the loan value amount, along with interest or other finance charges.

3.1.9 Agricultural loan

An agricultural loan is an overdraft facility which could be used to meet the cost of farming, cultivation and working capital activities for agribusiness and associated activities.

3.1.10 Housing loan

A housing loan is a contract between a borrower and a lender that allows someone to borrow money to buy a house, apartment or other livable property. A housing loan is typically paid back over a term of 10, 15 or 30 years.

3.1.11 Commercial loan

A commercial loan is a debt – based funding arrangement between a business or a person and a bank. It is typically used to fund major capital expenditures or cover the operational costs that the person may otherwise be unable to afford.

3.1.12 Borrower farmer

A borrower farmer is a person who takes out a loan from a bank under an agreement to pay it back later, typically with interest.

3.2 Locale of the study

The study area covered the Thrissur, Ernakulam and Palakkad districts of Kerala.

3.3 Data source and methodology

3.3.1 Method of study

The present study is descriptive and analytical in nature both primary and secondary data for analysis of the objectives. The data collection techniques and methodology adopted is explained under specific headings for clarity and easy comprehension.

3.3.2 Data source

The study is based on both primary and secondary data. Secondary data for the analysis of financial performance of the PCARDBs was collected from Annual Reports of

the selected banks for a reference period of ten years, from 2008-09 to 2017-18. Likewise, the primary data for analysing the operational and managerial problems of the banks was collected from the survey of board of directors and employees of the PCARDBs. The loan utilisation pattern and repayment behaviour of the farmers was analysed with the help of primary data collected from the survey of the borrower farmers who have availed loan from the selected banks.

3.3.3 Data collection tool

Secondary data was collected from the Annual Reports of the banks after having a detailed discussion with the bank officials. Primary data were collected using a pre tested structure interview schedule. Both closed ended and open ended questions were included in the survey schedule. The survey schedule was framed with questions set separately for second and third objectives. The responses to certain questions were plotted on a five point Likert scale. The first scale used responses such as Strongly Agree, Agree, Moderately Agree, and Disagree and, Strongly Disagree. Whereas, the second scale used responses such as Most Relevant, Relevant, Moderately Relevant, Irrelevant, Most Irrelevant. However, the scores assigned to both these scales of rating were 5, 4, 3, 2 and, 1 respectively.

3.3.4 Period of study

The survey of the board of directors, employees and borrower farmers were conducted during the months of February – March 2019.

3.3.5 Selection of sample

a) Selection of zone

Government of Kerala on the basis of geographical, historical and cultural similarities, the state Kerala has been divided into North Kerala, Central Kerala and South Kerala among which Central Kerala was selected purposively.

b) Selection of district

Central Kerala comprises four districts viz, Palakkad, Thrissur, Ernakulum and Idukki. Out of the four districts, Thrissur, Palakkad and

Ernakulum districts were selected based on the highest number of PCARDBs functioning in a district.

c) Selection of banks

Form the districts, PCARDBs were selected based on the highest amount of loan disbursed during the year 2015-16. Correspondingly, Aluva PCARDB from Ernakulum district, Irinjalakkuda PCARDB from Thrissur district and Alathur PCARDB from Palakkad district was selected

d) Selection of farmers

Sixty farmers from each bank who availed loans prior to 2012 were randomly selected constituting a sample of 180.

e) Selection of board of directors

All members of the board of the sample banks were selected constituted a sample of 33.

f) Selection of employees

All employees of the selected banks except Class IV and drivers were selected constituting a sample of 50.

3.3.6 Variables and statistical tools used for the study

Objective-wise variables used for the study are listed below:

1) Financial performance of the PCARDBs

a) Owned fund :

- a. Share capital
- b. Reserves
- c. Undistributed profit
- d. Government contribution

b) Borrowed fund:

- a. Deposits
- b. Borrowings

c) Working capital

d) Loans outstanding

- e) Investment
- f) Interest expense
- g) Interest income
- h) Loans and advances
- i) Total expenditure
- j) Total income
- k) Manpower expenses
- l) Total expenses
- m) Non-interest expense
- n) Non-interest income

Variables were studied with the help of financial ratios, CAGR, simple growth rate and percentage analysis.

2) Operational and managerial problems of the PCARDBs

- a) Socio-economic profile of board of directors and employees
- b) Administrative problems
 - a. Related with Board meeting
 - b. Related with GB meeting
 - c. Related with audit
- c) Structural problems
- d) Functional problems
- e) Human Resource related problems

Variables were studied with the help of statistical tools percentage analysis, indices and Kruskal – Wallis H test.

3) Loan utilisation pattern and repayment behaviour of farmers

- a) Socio-economic profile of borrower farmers
- b) Loan utilisation pattern of farmers
- c) Factors affecting loan utilisation pattern

- d) Repayment behaviour of farmers
- e) Factors affecting repayment behaviour
- f) Reasons for overdue
- g) Suggestions for reducing loan default by the farmers

Variables were studied with the help of percentage analysis, indices, Kendall's coefficient of concordance and logistic regression analysis.

In order to get a detailed understanding about the statistical tools administered, each one of them are described below:

1) Financial Ratios

Sl.No	Name of the ratio	Formula
1.	Owned fund to Working capital ratio	$\frac{\text{Owned Fund}}{\text{Working Capital}} * 100$
2.	Borrowed fund to Working capital ratio	$\frac{\text{Borrowed Fund}}{\text{Working Capital}} * 100$
3.	Owned fund to borrowed fund ratio	$\frac{\text{Owned Fund}}{\text{Borrowed Fund}} * 100$
4.	Loans outstanding to total fund ratio	$\frac{\text{Loans outstanding}}{\text{Total Fund}} * 100$
5.	Loans outstanding to borrowed fund ratio	$\frac{\text{Loans O/S}}{\text{Borrowed Fund}} * 100$
6.	Investment to Working capital ratio	$\frac{\text{Investment}}{\text{Working Capital}} * 100$
7.	Loans outstanding to Working capital ratio	$\frac{\text{loans outstanding}}{\text{Working Capital}} * 100$
8.	Investment to total fund ratio	$\frac{\text{Investment}}{\text{Total fund}} * 100$
9.	Interest received to loans outstanding ratio	$\frac{\text{Interest recieved}}{\text{Loans outstanding}} * 100$
10.	Net profit to working capital ratio	$\frac{\text{Net profit}}{\text{Working capital}} * 100$

11.	Interest expense to interest received ratio	$\frac{\text{Interest paid}}{\text{Interest received}} * 100$
12.	Interest expense to borrowed fund ratio	$\frac{\text{Interest paid}}{\text{Borrowed fund}} * 100$
13.	Manpower expenses to total expenses ratio	$\frac{\text{Manpower expenses}}{\text{Total expenses}} * 100$
14.	Total expenditure to total income ratio	$\frac{\text{Total expenses}}{\text{Total income}} * 100$
15.	Net profit to interest received ratio	$\frac{\text{Net profit}}{\text{Interest received}} * 100$
16.	Spread ratio	$\frac{\text{Int.rec.} - \text{Int.exp}}{\text{Total fund}} * 100$
17.	Burden ratio	$\frac{\text{Non Int.exp} - \text{Non Int.inc}}{\text{Total fund}} * 100$
18.	Profitability	Spread ratio – Burden ratio

2) Percentage Analysis

Percentage distribution of respondents in different categories on all variables was worked out by dividing the frequency in each category with total number of respondents and multiplying it by 100.

3) Index

For the analysis of operational and managerial problems existing in the selected banks, problems/constraints indices were calculated based on five point Likert scale. The formula for calculation of index is presented below:

$$\text{Index} = \frac{\sum_{i=1} \sum_{j=1} S_{ij}}{\sum \text{Max } S_j}$$

i = farmers

j = problems/constraints

S_j = Score of the jth factor

S_{ij} = Total score of the jth factor of the ith respondent

Max.S_{ij} = Maximum score for the jth factor

Based on the index obtained, the results were compared to a standard derived:

Scores Obtained	Problems/Constraints Category	Colour classification
0 - 20	Negligible	Orange
21 - 40	Tolerable	Green
41 - 60	Risk	Blue
61 - 80	Severe	Yellow
81 - 100	Chronic	Red

4) Kendall's coefficient of concordance

To understand the concordance or agreement among the farmers in ranking the factors affecting loan utilisation pattern, reasons for loan default and suggestions for reducing loan default, Kendall's coefficient of concordance was used.

Kendal's coefficient of concordance (W) was calculated by using the formula:

$$W = \frac{12 S}{K^2 (N^3 - 1)}$$

Where,

N = Number of objects

K = Number of farmers

$$S = \sum_{i=1}^n (R_i - \bar{R})^2$$

5) Compound Annual Growth Rate (CAGR)

The year over the year growth rate in the financial performance of the selected banks is analysed using the formula:

$$\text{CAGR} = \left[\frac{\text{Ending Value}}{\text{Beginning Value}} \right]^{1/\text{no. of years}} - 1$$

6) Simple growth rate

Simple growth rate or the year –to – year growth rate calculates the percentage change during the past twelve months. Its formula is calculated as follows:

$$\frac{\text{Present value} - \text{Past value}}{\text{Past value}} * 100$$

7) Binary Logistic Regression

The logistic regression model is a type of predictive analysis used to describe data and to explain the relationship between one dependent binary variable and one or more nominal, ordinal, interval independent variables. It is a type of generalised linear model that extends the linear regression model by linking the range of real numbers to 0-1 range and also it predicts the significance of independent variables on the dependent variable. Since the probability of an event must lie between 0 and 1, it is impractical to model probabilities with linear regression techniques, because the linear regression model allows the dependent variable to values greater than 1 or less than 0. The logistic regression model is a type of generalized linear regression model by linking the range of real numbers to the 0 - 1 range.

Consider the existence of an unobserved continuous variable z - the propensity towards the event of interest, here, the framer's propensity to default on a loan, with the larger values of z corresponding to greater probabilities of defaulting.

The relationship between z and the probability of the event of interest is given by the formula:

$$\pi_i = \frac{e^{z_i}}{1 + e^{z_i}}$$
$$= \frac{1}{1 + e^{-z_i}}$$

Where π_i is the probability of the i^{th} case experiences the event of interest, Z_i is the value of the unobserved continuous variable for the i^{th} case. The model also assumes that z is linearly related to the predictors. The model enables the selected bank officers to identify the factors that are indicative of the people who are likely to default on loans and use the characteristics to identify the good and bad credit risks.

Odds ratio: The meaning of logistic regression coefficient is not as straight forward as that of a linear regression coefficient. While B is convenient for testing the usefulness of predictor, $\text{Exp}(B)$ or odds ratio is easier to interpret. $\text{Exp}(B)$ represents the ratio change in the odds of the event of interest for a one unit change in the predictor. It represents the extent to which, raising the corresponding measure of independent variable by one unit influences the Odds ratio. If the value of $\text{Exp}(B)$ exceeds 1, then the odds of an outcome occurring increases while if it is less than 1, then any increase in the predictor leads to a drop in the odds of the outcome occurring.

8) Kruskal –Wallis H test

The Kruskal –Wallis one way analysis of variance by ranks is an extremely useful test for deciding whether the independent samples are from different populations. It will

explain whether the differences amongst samples signify genuine population differences or whether they represent merely random samples from the same population. The Kruskal-Wallis test statistic H was computed using the formula:

$$H = \left[\frac{12}{N(N+1)} \sum_{j=1}^k R_j/n_j \right] - 3(N+1)$$

H = Kruskal –Wallis H test

K = Number of comparison groups

N = Total sample size

n_j = Sample size in the j^{th} group

R_j = Sum of ranks in the j^{th} group

Having examined the methodology adopted, its application in the objectives and the results obtained are discussed in the up-coming chapters.

Chapter-IV

RESULTS AND DISCUSSION

Chapter IV

RESULTS AND DISCUSSION

The following section deals with the results and discussions on the topic "Performance evaluation of primary cooperative agricultural and rural development banks in central Kerala" undertaken with the following objectives:

- (iv) To evaluate the financial performance of Primary Co-operative Agricultural and Rural Development Banks.
- (v) To identify the operational and managerial problems, and
- (vi) To study the loan utilization pattern and repayment behaviour of the farmers.

As a prelude to study the financial performance of selected banks, brief profiles of Aluva, Alathur and Irinjalakkuda PCARDBs' are given below:

4.1 Profile of the selected PCARDBs

Aluva Cooperative Primary Cooperative Agricultural and Rural Development Bank is situated in Ernakulum district of Kerala state. With the objective of catering to the long term financial needs of the farmers of Ernakulum district, the PCARDB got registered in the year 1962 (19/1/1962). The bank started functioning on 7/4/1962. Then, area of operation of the bank covered Kanayannoor, Kochi, Kunnathunadu and Paravoor taluks. But later during the year 1975, the Kanayannoor and Kochi taluks were formed and as a result they started functioning as separate PCARDBs. Later in 2005, again Aluva PCARDB bifurcated and subsequently Kunnathunadu area was removed from the area of operation of Aluva PCARDB. Last bifurcation was occurred during the year 2011 and the area Paravoor had been removed from the area of operation of Aluva PCARDB which resulted in a considerable loss in their operations. However, the bank prospered after bifurcation and elevated its performance. Currently, the bank has a branch operating at Angamali. Both head office and the branch are successfully fulfilling the financial needs of the farmers efficiently and effectively. However, bank is having NPA of 28.9 percent.

Alathur Primary Agricultural and Rural Development Bank is located in Palakkad district of Kerala was registered in the year 1974 as “Palakkad Primary Cooperative Agricultural and Rural Development Bank”. However, the bank has started functioning only in the year 1989. During the same year, as per the Government order that every taluk should have a PCARDB and thus, Palakkad PCARDB was trifurcated and formed into Palakkad, Alathur and Chittur PCARDBs. Since then, the bank had never failed in accomplishing the investment credit needs of farmers in the remote areas which remain untouched by Commercial banks and other Cooperative banks. During the year 2018, the bank received best performance award for outstanding performance among the 75 PCARDBs functioning in Kerala. PCARDBs were assigned to mobilise deposits from members as an agent to KSCARDB from the year 2013 onwards. During the same year, the bank was also awarded for the second best deposits mobilised PCARDB in the state. Now, the bank has two branches at Kuzhalmannam and Vadakkancherry with head office at Alathur. However, due to the existence of willful defaulters, bank have an overdue of less than 3 percent.

Irinjalakkuda Primary Cooperative Agricultural and Rural Development Bank, located in Thrissur district of Kerala was registered in the year 1970. The then area of operation consists of Mukundapuram taluk, which was one of the biggest taluks in state of Kerala comprising of areas such as Irinjalakkuda, Kodungalloor and Chalakkudy. During the year 2012, the Mukundapuram taluk was bifurcated which necessitated the formation of Kodungalloor PCARDB and Mukundapuram PCARDB. During the year 2015, Chalakkudy taluk was formed and again the Mukundapuram PCARDB had been bifurcated into Irinjalakkuda PCARDB and Chalakkudy PCARDB. This resulted in decline in their operation and business and currently the bank is in loss with overdue of 7 percent. Currently the bank has a branch at Amballoor. The progress of the banks up to the year 2017-18 is shown in the table below:

Table 4.1 Progress of the selected banks up to the year 2017-18

(Amt. in Rs. Crores)

Sl. No	PCARDB	Membership	Share capital	Reserves	Working capital	Borrowings	Loan outstanding	NP/NL
1.	Aluva	43,945	9.16	141.6	203.75	196.11	194.73	-0.81
2.	Alathur	30,587	9.97	15.12	177.57	168	166.14	0.69
3.	Irinjalakkuda	2,112	2.12	19.1	40.8	36.17	35.06	-0.29

Source: Annual Report of the banks from 2008-9 to 2017-18

Having examined the historical perspective and profile of the selected banks, results and discussion were studied under three different heads as following:

- a) Financial performance of selected PCARDBs
- b) Operational and managerial problems existing in the banks
- c) Loan utilisation pattern and repayment behaviour of farmers

4.2 Financial performance of selected PCARDBs

Cooperative banks being financial intermediaries are one among the key institutional agencies providing production credit and investment credit for agricultural and allied activities. Cooperative bank is a financial entity which belongs to its members, who are at the same time the owners and the customers of their bank. The vital role of cooperative banks in satisfying the economic necessities of the farming community has been duly recognised and accepted. The short term production credit needs of the farmers are met by the three tier cooperative credit structure and the long term investment credit needs are satisfied by the two tier cooperative credit structure comprising of the Primary Cooperative Agricultural and Rural Development Banks (PCARDB) at the grass root level and the Kerala State Cooperative Agricultural and Rural Development Bank (KSCARDB) at the state level.

Financial analysis is largely a study of relationship among the various financial indicators in business as disclosed by financial statements. The financial and operating data in a financial statement is rearranged, compared and measured using various methods in order to know about its significance. One of the most powerful tools of financial analysis is ratio analysis. Ratio is defined as the “indicated quotient of two mathematical expressions and as the quantitative relationship between two numbers”. Ratio analysis is a quantitative method adopted to gain insight into an organisation’s liquidity, operational

efficiency and profitability by computing and comparing the information in its financial statements.

The present study examines the financial performance of the PCARDBs under the following three heads:

- a. Efficiency in mobilisation
- b. Efficiency in deployment
- c. Efficiency in operation

4.2.1 Efficiency in mobilisation

Mobilisation of funds is of utmost importance while considering a bank, and it has a vital role in building a sound financial structure. However, the Primary Cooperative Agricultural and Rural Development Banks (PCARDB) which are functioning in Kerala are individual autonomous bodies and members of Kerala State Cooperative Agricultural and Rural Development Bank (KSCARDB). These banks borrow funds from KSCARDB and lends directly to farmers. The major source of funds of these banks constitute owned fund and borrowed fund. The former consist of share capital, reserves and undistributed profit whereas, the latter consist of only borrowings because PCARDBs have restriction in mobilising funds from the members. However, these banks are permitted to mobilise deposits from the members as agent of KSCARDB. The present study deployed the following ratios for analysing the efficiency of the selected banks in mobilisation of funds.

4.2.1.1 Owned fund to Working capital ratio

This ratio highlights the share of owned funds in working capital. A higher ratio is indicative of higher share of owned funds in working capital and a lower ratio indicates the dominance of borrowed funds in the working capital. Owned fund act as a cushion to the external borrowings and cost free and hence is an indicator of good performance of cooperative credit institutions. However, for a cooperative bank generally the owned funds always remain low and borrowed funds dominates in composition of working capital.

The ratio is calculated using the formula

$$\text{Owned fund to Working capital ratio} = \frac{\text{Owned Fund}}{\text{Working Capital}} * 100$$

Owned fund = Share capital + reserves + undistributed profit

Working Capital = (Share capital + statutory funds and reserves + deposits+ borrowings) – investment in fixed assets.

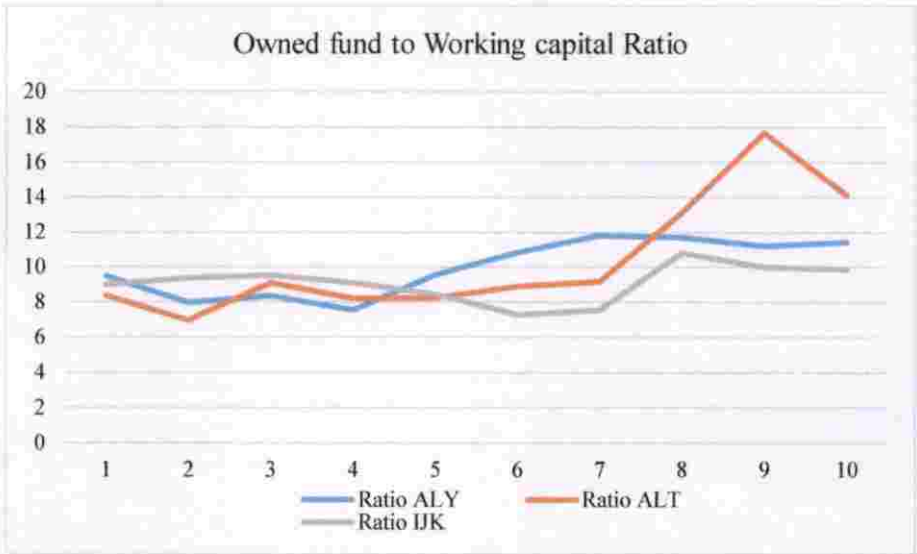
Table 4.2 Owned fund to Working capital ratio from 2008-09 to 2017-18.
(Amt. in Rs. Lakhs)

Year	Owned Fund			Working Capital			Ratio		
	ALY	ALT	IJK	ALY	ALT	IJK	ALY	ALT	IJK
2008-09	826.56	425.65	674.17	8710.76	5070.82	7471.24	9.49	8.39	9.02
2009-10	972.34 (18)	449.35 (6)	767.32 (14)	12214.99 (40)	6442.12 (27)	8160.04 (9)	7.96	6.98	9.40
2010-11	1328.90 (61)	729.47 (71)	805.18 (19)	15896.10 (82)	8010.01 (58)	8454.56 (13)	8.36	9.11	9.52
2011-12	1277.70 (55)	852.10 (100)	834.42 (24)	16902.58 (94)	10377.39 (105)	9159.50 (23)	7.56	8.21	9.11
2012-13	1264.81 (53)	1003.66 (136)	813.24 (21)	13231.25 (52)	12200.36 (141)	9605.00 (29)	9.56	8.23	8.47
2013-14	1610.26 (95)	1209.31 (184)	798.12 (18)	14848.21 (70)	13588.74 (168)	10997.84 (47)	10.84	8.90	7.26
2014-15	1873.01 (127)	1365.00 (221)	819.53 (22)	15864.30 (82)	14849.92 (193)	10866.23 (45)	11.81	9.19	7.54
2015-16	2015.40 (144)	2147.38 (404)	462.36 (-31)	17201.67 (97)	16346.00 (222)	4277.89 (-43)	11.72	13.14	10.81
2016-17	2159.42 (161)	2898.59 (581)	417.84 (-38)	19266.94 (121)	16407.37 (224)	4165.82 (-44)	11.21	17.67	10.03
2017-18	2332.65 (182)	2510.76 (490)	404.43 (-40)	20375.87 (134)	17757.57 (250)	4088.71 (-45)	11.45	14.14	9.89
CAGR	12.22	21.80	-5.52	9.90	14.94	-6.48			

Note: Figures in parentheses represents simple growth rate

Source: Audit reports of the banks from 2008-09 to 2017-18.

Fig 4.1 Owned fund to working capital ratio from 2008-09 to 2017-18



It is evident from table 4.2 that the ratio showed an increasing trend where both owned fund and working capital had increased in volume during the study period for all the selected banks except Irinjalakkuda bank. It was observed that the owned fund registered a CAGR of 12.22, 21.80 and -5.52 for Aluva, Alathur and Irinjalakkuda banks respectively during the study period. Correspondingly, the working capital registered a CAGR of 9.90, 14.94 and -6.48 for the sample banks. In absolute figures, both owned fund and working capital of Irinjalakkuda bank declined during the period of study and this can be attributed to the bifurcation of the bank in the year 2015. The simple growth rate of owned fund for Aluva, Alathur and Irinjalakkuda banks were 182, 490 and -40 respectively whereas, the growth rate for working capital was 134, 250 and -45 respectively for the banks during the study period. Further, the ratio ranged between 7.56 and 11.45 for Aluva bank, 6.98 and 14.14 for Alathur bank and 7.26 and 10.81 for Irinjalakkuda bank, which implies that the share of owned fund in the working capital is trivial and therefore the bank has to depend on external sources. However, this may not be viewed as a negative indicator which deter the performance of the banks, because banks are institutions which primarily

operate on borrowed funds. Both Aluva and Alathur bank displayed a progressive growth during the study period whereas, Irinjalakkuda bank, recorded a decline during the year 2014-15 which can be attributed to bifurcation of the bank. On an average the ratio for Aluva, Alathur and Irinjalakkuda bank was 10, 10.39 and 9.11 percent respectively where Alathur was ahead of the other two banks. Therefore, it could be concluded that 90 percent of the working capital of the sample banks were constituted by borrowed funds than owned funds.

4.2.1.2 Borrowed fund to Working capital ratio

This ratio gives an indication to what extent the working capital of the banks are funded by borrowed funds. Typically mobilisation of funds through borrowings is not promoted for the well-being of a bank. Since PCARDBs do not own deposits, they do business with the funds refinanced by NABARD channelised through the apex bank which is not a weakness. Borrowed fund comprises of deposits and borrowings, however the selected banks deposits does not constitute a component of borrowed fund as these banks transfers the mobilised deposits to the apex bank (KSCARDB) on the same day of acceptance. Therefore, borrowed fund consists of borrowings only. A higher ratio indicates higher composition of borrowed funds in the working capital and hence the ratio is significant in determining the efficiency of bank in mobilisation of funds.

The ratio is calculated using the formula:

$$\text{Borrowed fund to Working capital ratio} = \frac{\text{Borrowed Fund}}{\text{Working Capital}} * 100$$

Borrowed fund = Borrowings

Working Capital = (Share capital + statutory funds and reserves + deposits+ borrowings) – investment in fixed assets.

Table 4.3 Borrowed fund to Working capital ratio from 2008-09 to 2017-18.

(Amt. in Rs. Lakhs)

Year	Borrowed Fund			Working Capital			Ratio		
	ALY	ALT	IJK	ALY	ALT	IJK	ALY	ALT	IJK
2008-09	8029.88	4780.19	6645.5	8710.76	5070.82	7471.24	92.18	94.27	88.95
2009-10	11592.78 (44)	6069.47 (27)	7230.32 (9)	12214.99 (40)	6442.12 (27)	8160.04 (9)	94.91	94.22	88.61
2010-11	15170.51 (89)	7572.47 (58)	7471.9 (12)	15896.10 (82)	8010.01 (58)	8454.56 (13)	95.44	94.54	88.38
2011-12	16302.40 (103)	9836.64 (106)	8174.44 (23)	16902.58 (94)	10377.39 (105)	9159.50 (23)	96.45	94.79	89.25
2012-13	12879.11 (60)	11630.94 (143)	8700.42 (31)	13231.25 (52)	12200.36 (141)	9605.00 (29)	97.34	95.33	90.58
2013-14	14342.00 (79)	12914.78 (170)	10149.43 (53)	14848.21 (70)	13588.74 (168)	10997.84 (47)	96.59	95.04	92.29
2014-15	15275.50 (90)	14093.55 (195)	9976.26 (50)	15864.30 (82)	14849.92 (193)	10866.23 (45)	96.29	94.91	91.81
2015-16	16776.97 (109)	15563.05 (226)	3727.1 (-44)	17201.67 (97)	16346.00 (222)	4277.89 (-43)	97.53	95.21	87.13
2016-17	18810.66 (134)	15618.03 (227)	3699.68 (-44)	19266.94 (121)	16407.37 (224)	4165.82 (-44)	97.63	95.19	88.81
2017-18	19611.12 (144)	16800.39 (251)	3617.45 (-46)	20375.87 (134)	17757.57 (250)	4088.71 (-45)	96.25	94.61	88.47
CAGR	10.43	14.99	-6.53	9.90	14.94	-6.48			

Note: Figures in parentheses represents simple growth rate

Source: Audit reports of the banks from 2008-09 to 2017-18.

Fig 4.2 Borrowed fund to Working capital ratio from 2008-09 to 2017-18.

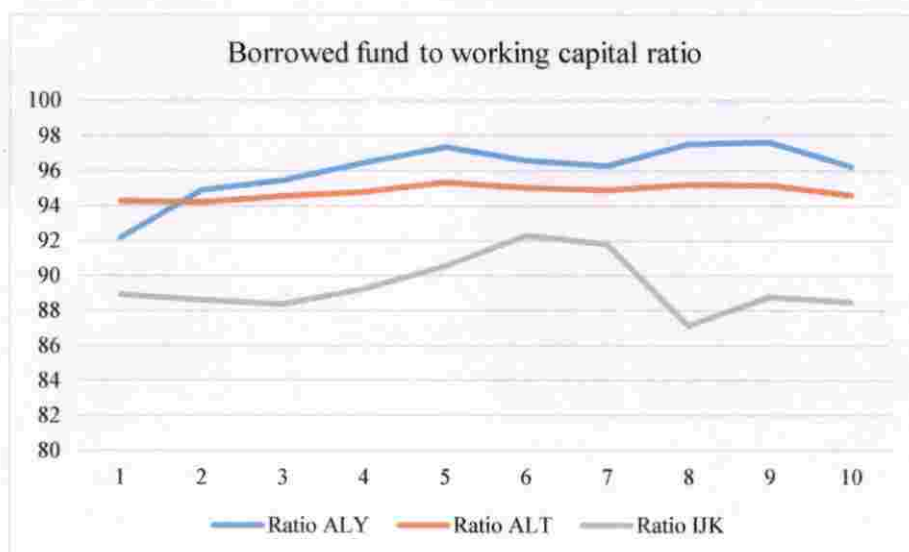


Table 4.3 shows the ratio of borrowed fund to working capital of the selected banks for ten years. The average ratio of Aluva, Alathur and Irinjalakkuda banks were 96.06, 94.81 and 89.43 respectively. It is clear that the ratios ranged between 92.18 and 97.63 percent for Aluva bank, 94.22 and 95.33 percent for Alathur bank and 87.13 and 92.29 percent for Irinjalakkuda bank. The CAGR of borrowed fund and working capital were 10.43 & 9.90, 14.99 & 14.94 and -6.53 & -6.48 for Aluva, Alathur and Irinjalakkuda banks respectively. Correspondingly, the simple growth rate of Aluva, Alathur and Irinjalakkuda banks were 144, 251 and -46 respectively for borrowed funds and for working capital those were 132, 250 and -45. The borrowed funds of Aluva and Alathur PCARDBs increased 1.6 and 3 times respectively from the year 2008-09 to 2017-18 but for Irinjalakkuda PCARDB it declined due to bifurcation during 2015. Thus, the higher ratios indicated the efficiency of the banks in mobilising funds for their operations and further that the major component of working capital was borrowed funds.

4.2.1.3 Owned fund to borrowed fund ratio

This ratio shows the proportionate share of owned funds to borrowed funds. A higher ratio indicates increased share of owned fund and a lower ratio indicates increased use of borrowed funds by the bank. Normally for a banking institution the proportion of owned fund to borrowed funds will be low.

The ratio is calculated using the formula

$$\text{Owned fund to borrowed fund ratio} = \frac{\text{Owned Fund}}{\text{Borrowed Fund}} * 100$$

Owned fund = Share capital + reserves + undistributed profit

Borrowed fund = Borrowings

Table 4.4 Owned fund to borrowed fund ratio from 2008-09 to 2017-18.

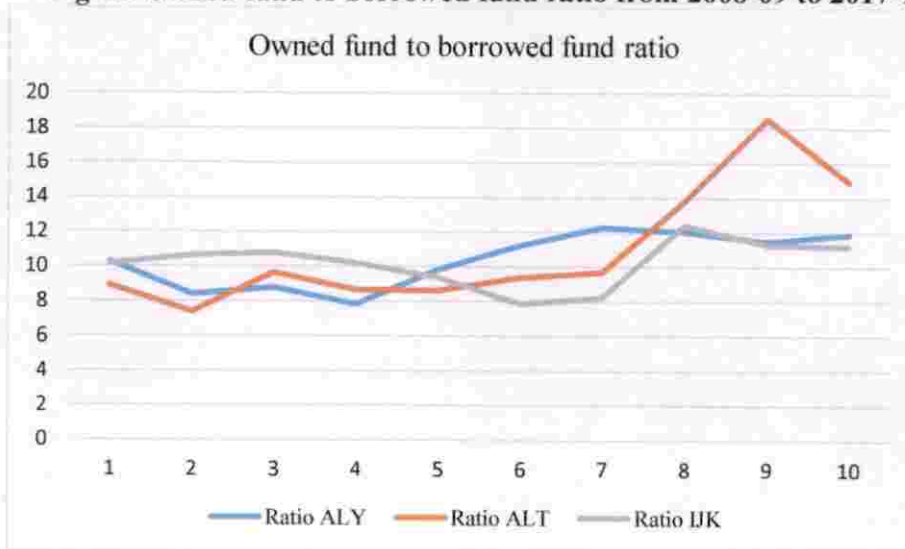
(Amt. in Rs. Lakhs)

Year	Owned Fund			Borrowed Fund			Ratio		
	ALY	ALT	IJK	ALY	ALT	IJK	ALY	ALT	IJK
2008-09	826.56	425.65	674.17	8029.88	4780.19	6645.5	10.29	8.90	10.14
2009-10	972.34 (18)	449.35 (6)	767.32 (14)	11592.78 (44)	6069.47 (27)	7230.32 (9)	8.39	7.40	10.61
2010-11	1328.90 (61)	729.47 (71)	805.18 (19)	15170.51 (89)	7572.47 (58)	7471.9 (12)	8.76	9.63	10.78
2011-12	1277.70 (55)	852.10 (100)	834.42 (24)	16302.40 (103)	9836.64 (106)	8174.44 (23)	7.84	8.66	10.21
2012-13	1264.81 (53)	1003.66 (136)	813.24 (21)	12879.11 (60)	11630.94 (143)	8700.42 (31)	9.82	8.63	9.35
2013-14	1610.26 (95)	1209.31 (184)	798.12 (18)	14342.00 (79)	12914.78 (170)	10149.43 (53)	11.23	9.36	7.86
2014-15	1873.01 (127)	1365.00 (221)	819.53 (22)	15275.50 (90)	14093.55 (195)	9976.26 (50)	12.26	9.69	8.21
2015-16	2015.40 (144)	2147.38 (404)	462.36 (-31)	16776.97 (109)	15563.05 (226)	3727.1 (-44)	12.01	13.80	12.41
2016-17	2159.42 (161)	2898.59 (581)	417.84 (-38)	18810.66 (134)	15618.03 (227)	3699.68 (-44)	11.48	18.56	11.29
2017-18	2332.65 (182)	2510.76 (490)	404.43 (-40)	19611.12 (144)	16800.39 (251)	3617.45 (-46)	11.89	14.94	11.18
CAGR	12.22	21.80	-5.52	10.43	14.99	-6.53			

Note: Figures in parentheses represents simple growth rate

Source: Audit reports of the banks from 2008-09 to 2017-18.

Fig 4.3 Owned fund to borrowed fund ratio from 2008-09 to 2017-18.



The table 4.4 shows owned fund to borrowed fund ratio of the sample banks during the study period. The CAGR for the Aluva, Alathur and Irinjalakkuda banks registered 12.22, 21.80, -5.52 for owned fund and 10.43, 14.99 and -6.53 for the borrowed fund which indicates a solid growth for the selected banks except Irinjalakkuda bank during the course of study. Likewise, the simple growth rate for owned fund and borrowed fund recorded 182 & 144 for Aluva bank, 490 & 251 for Alathur bank and -40 & -46 for Irinjalakkuda banks separately. The sample banks exhibits an increasing pattern of ratio over the study period among which Alathur bank had an average of 10.96 percent whereas, the average ratio for Aluva and Irinjalakkuda banks were 10.40 and 10.20 percent respectively. This illustrates that around 10 percent of the total fund of banks are comprised of owned funds and the rest by borrowed funds. Owned fund and borrowed fund increased for the selected banks during the study period except for Irinjalakkuda bank which was bifurcated during 2014-15. A two times increase in owned fund and borrowed funds was witnessed for Aluva bank, whereas it was 5 times for Alathur bank during the study period. However, Irinjalakkuda bank was an exception with negative growth due to bifurcation. Thus, the dominance of borrowed funds than the owned funds puts up added responsibility to the banks to deploy their funds effectively.

4.2.2 Efficiency in deployment

Deployment of funds is equally important or even more important than mobilisation of funds because revenue generation of any banking institution solely depends on deployment of funds, cooperative banks are also not an exception to this. As such, long term sustainability of PCARDBs too largely depends on the effective and efficient utilisation of funds. The PCARDBs deploy funds by means of loan and advances, investment in shares of other cooperatives, investment in fixed and other assets etc. In the present study, the efficiency in deployment of funds was examined with the help of following ratios.

4.2.2.1 Loans outstanding to Total fund ratio

This ratio is the prime ratio significant in measuring the efficiency of banks in deployment of its funds. Moreover, this ratio highlights the quantum of loan outstanding to total funds. A higher ratio implies that most of the funds was delivered as loans and advances and hence it is favourable to the bank whereas, a lower ratio indicates idle funds and hence unfavourable. The ratio is calculated using the formula:

$$\text{Loans outstanding to total fund ratio} = \frac{\text{Loans outstanding}}{\text{Total Fund}} * 100$$

Total fund = Share capital + reserves + undistributed profit + borrowed fund

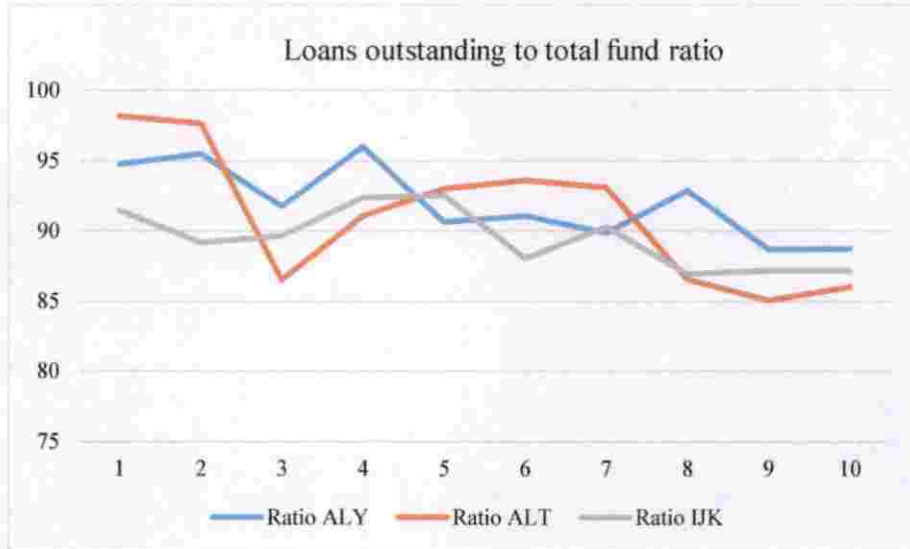
Loans Outstanding = Opening balance of loans + loans issued during the year –
loans repaid during the year

Table 4.5 Loans outstanding to total fund ratio from 2008-09 to 2017-18
(Amt. in Rs. Lakhs)

Year	Loans Outstanding			Total Fund			Ratio		
	ALY	ALT	IJK	ALY	ALT	IJK	ALY	ALT	IJK
2008-09	8393.52	5411.88	6696.23	8856.44	5205.84	7319.67	94.77	98.20	91.48
2009-10	11999.63 (43)	6367.65 (25)	7131.16 (6)	12565.12 (42)	6518.82 (25)	7997.64 (9)	95.50	97.68	89.17
2010-11	15144.24 (80)	7710.08 (51)	7422.78 (11)	16499.41 (86)	8908.40 (71)	8277.08 (13)	91.79	86.55	89.68
2011-12	16878.25 (101)	9734.58 (90)	8322.20 (24)	17580.10 (99)	10688.74 (105)	9008.86 (23)	96.01	91.07	92.38
2012-13	12824.42 (53)	11756.41 (130)	8808.16 (32)	14143.92 (60)	12634.60 (143)	9513.66 (30)	90.67	93.05	92.58
2013-14	14534.72 (73)	13228.50 (159)	9642.22 (44)	15952.25 (80)	14124.09 (171)	10947.55 (50)	91.11	93.66	88.08
2014-15	15413.38 (84)	14397.29 (182)	9752.16 (46)	17148.51 (94)	15458.55 (197)	10795.79 (47)	89.88	93.13	90.33
2015-16	17460.20 (108)	15335.57 (200)	3643.67 (-46)	18792.37 (112)	17710.43 (240)	4189.49 (-43)	92.91	86.59	86.97
2016-17	18600.03 (122)	15750.00 (208)	3590.61 (-46)	20970.09 (137)	18516.62 (256)	4117.52 (-44)	88.70	85.06	87.20
2017-18	19473.55 (132)	16614.08 (225)	3506.89 (-48)	21943.78 (148)	19311.15 (271)	4021.88 (-45)	88.74	86.03	87.20
CAGR	9.80	13.99	-6.93	10.61	15.68	-6.44			

Note: Figures in parentheses represents simple growth rate
Source: Audit reports of the banks from 2008-09 to 2017-18.

Fig 4.4 Loans outstanding to total fund ratio from 2008-09 to 2017-18.



An examination of the ratios prima facie reveals that, for all the three banks a decreasing trend is observed during the study period, which is not a cause of concern. The average ratio of Aluva, Alathur and Irinjalakkuda banks were 92.01, 91.10 and 89.51 respectively. The ratio ranged between 88.70 & 96.01 for Aluva bank, 85.06 & 98.20 for Alathur bank and 86.97 & 92.58 for Irinjalakkuda banks respectively. Further, the simple growth rate for Aluva, Alathur and Irinjalakkuda banks were at 132, 225 and -48 for loans outstanding and 148, 271 and -45 for total funds. It is understood that the growth rate was better for Aluva and Alathur bank whereas Irinjalakkuda bank showed a negative growth which was due to bifurcation. Further, it is evident from the table that both components viz., loans outstanding and total fund had shown an increasing trend throughout the study period except for Irinjalakkuda bank wherein a decline was witnessed in 2015-16, the year of bifurcation. It is obvious from the table that in absolute figures the loan outstanding for Alathur bank increased thrice over the base year, whereas for Aluva bank the increase was 1.6 times. Meanwhile, during the year 2011, the Aluva PCARDB was also bifurcated which resulted in the decline in loan outstanding and total funds of the Bank. However, the bank succeeded in withstanding the shock of bifurcation and fought back to maintain their performance level in the succeeding years. It is further observed that, there exists no

major variation in the ratios between the banks which means the sample banks were equally efficient and prudential in deployment of funds. Thus, it could be safely concluded that the sample banks were effective and sagacious in deployment of funds.

4.2.2.2 Investment to total fund ratio

This ratio is a good indicator to evaluate the efficiency of the banks in deployment of the funds. Since idling of funds result in huge loss to the banks, investment is the second best option for deployment, first being loans and advances. It shows the amount of total funds set out as investments. Investment by the bank refers to the subscription to debentures floated by KSCARDB, subscription to shares of RAIDCO, KERAFED, Cooperative hospital, and investment in cooperative building complex and so on. A higher ratio always indicates better performance of the bank and vice-versa.

The ratio is calculated using the formula

$$\text{Investment to total fund ratio} = \frac{\text{Investment}}{\text{Total fund}} * 100$$

Total fund = share capital + reserves + Borrowed fund + undistributed profit

Table 4.6 Investment to Total fund ratio from 2008-09 to 2017-18.

(Amount in Rs. Lakhs)

Year	Investment			Total Fund			Ratio		
	ALY	ALT	IJK	ALY	ALT	IJK	ALY	ALT	IJK
2008-09	388.53	261.39	1180.28	8856.44	5205.84	7319.67	4.39	5.02	16.12
2009-10	571.44 (47)	304.49 (16)	1147.66 (-3)	12565.12 (42)	6518.82 (25)	7997.64 (9)	4.55	4.67	14.35
2010-11	1529.97 (294)	334.52 (28)	1236.3 (5)	16499.41 (86)	8908.40 (71)	8277.08 (13)	9.27	4.03	14.94
2011-12	833.75 (115)	432.48 (65)	1208.79 (2)	17580.10 (99)	10688.74 (105)	9008.86 (23)	4.74	4.05	13.42
2012-13	1350.87 (248)	760.03 (191)	1154.34 (-2)	14143.92 (60)	12634.60 (143)	9513.66 (30)	9.55	6.02	12.13
2013-14	1361.60 (250)	858.17 (228)	688.74 (-42)	15952.25 (80)	14124.09 (171)	10947.55 (50)	8.54	6.08	6.29
2014-15	1653.42 (326)	921.46 (253)	1369.62 (16)	17148.51 (94)	15458.55 (197)	10795.79 (47)	9.64	5.96	12.69
2015-16	2171.19 (459)	1571.37 (501)	918.29 (-22)	18792.37 (112)	17710.43 (240)	4189.49 (-43)	11.55	8.87	21.92
2016-17	1916.94 (393)	1523.56 (483)	571.24 (-52)	20970.09 (137)	18516.62 (256)	4117.52 (-44)	9.14	8.23	13.87
2017-18	2141.87 (451)	1624.08 (521)	842.58 (-29)	21943.78 (148)	19311.15 (271)	4021.88 (-45)	9.76	8.41	20.95
CAGR	20.89	22.50	-3.68	10.61	15.68	-6.44			

Note: Figures in parentheses represents simple growth rate

Source: Audit reports of the banks from 2008-09 to 2017-18.

Fig 4.5 Investment to Total fund ratio from 2008-09 to 2017-18.

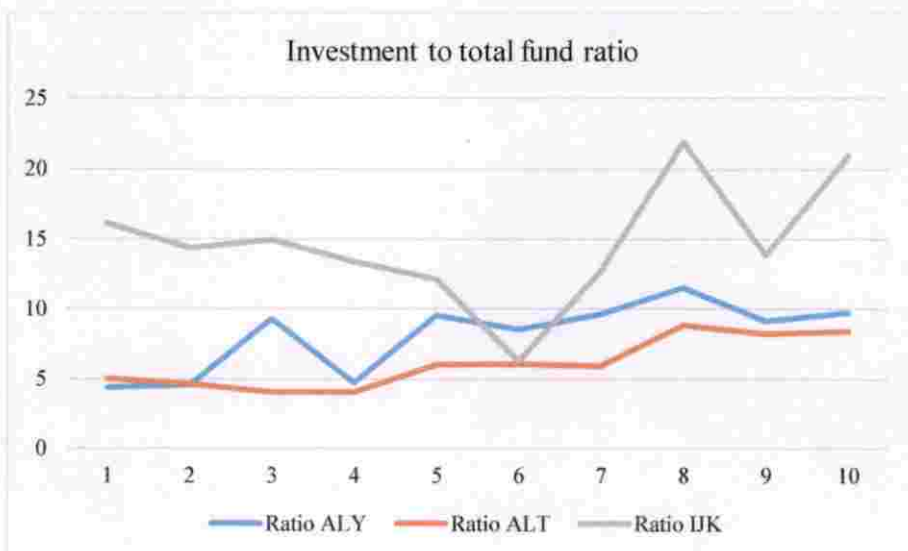


Table 4.6 presents the ratios of investment to total funds for ten years from 2008-09 to 2017-18. The average ratio for Aluva, Alathur and Irinjalakkuda banks were 8.11, 6.13 and 14.67 respectively. The investment showed a growth rate of 451, 521 and -29 percent with an CAGR of 20.89, 22.50 and -3.68 percent for Aluva, Alathur and Irinjalakkuda banks respectively. The total investments of the sample banks showed an increasing trend except for Irinjalakkuda. Aluva bank invested Rs.571 lakhs during 2009-10 which increased more than four times with an investment of Rs.2141 lakhs during 2017-18. Meanwhile, it was a five times steep increase for Alathur PCARDB with funds invested as debentures in KSCARDB and investments in other cooperative agencies. In case of Irinjalakkuda bank, which was subject to bifurcation, investment diminished from Rs.1180 lakhs during 2008-09 to Rs.842 lakhs during 2017-18. Further, the overall ratio depicted a smaller percentage which implies that only a small portion of the total funds were deployed as investment and a good portion was utilised for other purposes including loans and advances. But the inordinate increase of investment do not speak good health of the bank as it indirectly signals the inability of the banks to expand loan portfolio. The success of the bank lies in the expansion of loan portfolio rather than investments in other assets. However, investments are always better than idling of the funds.

4.2.2.3 Loans outstanding to Borrowed fund ratio

The ratio is indicative of the share of loans outstanding in the borrowed fund. As borrowed funds represents borrowings in the case of PCARDBs, the ratio helps in assessing the efficiency of these banks in turnover of borrowings into loans. Higher ratio represents better performance of the banks and vice-versa.

The ratio is calculated using the formula

$$\text{Loans outstanding to borrowed fund ratio} = \frac{\text{Loans O/S}}{\text{Borrowed Fund}} * 100$$

Borrowed fund = Borrowings

Loans Outstanding = Opening balance of loans + loans issued during the year – loans repaid during the yea

Table 4.7 Loans outstanding to borrowed fund ratio from 2008-09 to 2017-18.

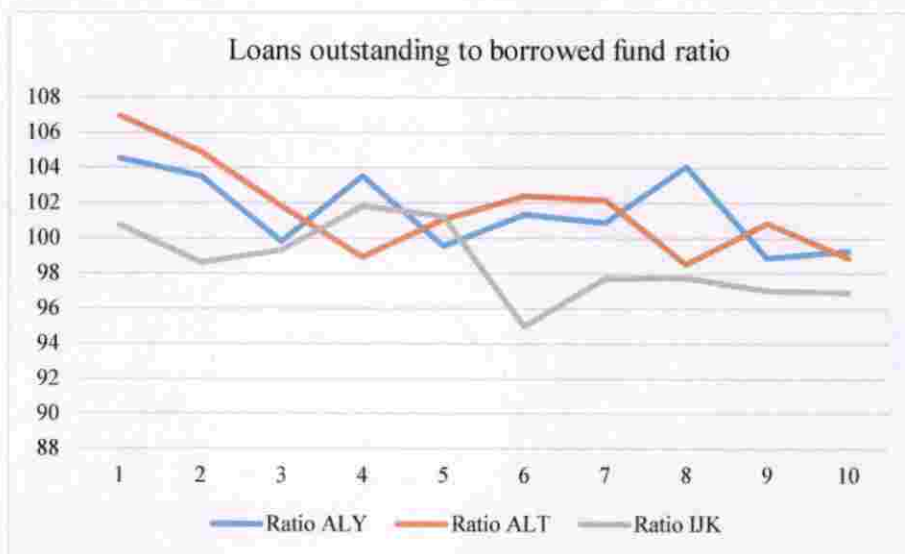
(Amt. in Rs. Lakhs)

Year	Loans Outstanding			Borrowed Fund			Ratio		
	ALY	ALT	IJK	ALY	ALT	IJK	ALY	ALT	IJK
2008-09	8393.52	5411.88	6696.23	8029.88	4780.19	6645.5	104.53	106.94	100.76
2009-10	11999.63 (43)	6367.65 (25)	7131.16 (6)	11592.78 (44)	6069.47 (27)	7230.32 (9)	103.51	104.91	98.63
2010-11	15144.24 (80)	7710.08 (51)	7422.78 (11)	15170.51 (89)	7572.47 (58)	7471.9 (12)	99.83	101.82	99.34
2011-12	16878.25 (101)	9734.58 (90)	8322.20 (24)	16302.40 (103)	9836.64 (106)	8174.44 (23)	103.53	98.96	101.81
2012-13	12824.42 (53)	11756.41 (130)	8808.16 (32)	12879.11 (60)	11630.94 (143)	8700.42 (31)	99.58	101.08	101.24
2013-14	14534.72 (73)	13228.50 (159)	9642.22 (44)	14342.00 (79)	12914.78 (170)	10149.43 (53)	101.34	102.43	95.00
2014-15	15413.38 (84)	14397.29 (182)	9752.16 (46)	15275.50 (90)	14093.55 (195)	9976.26 (50)	100.90	102.16	97.75
2015-16	17460.20 (108)	15335.57 (200)	3643.67 (-46)	16776.97 (109)	15563.05 (226)	3727.1 (-44)	104.07	98.54	97.76
2016-17	18600.03 (122)	15750.00 (208)	3590.61 (-46)	18810.66 (134)	15618.03 (227)	3699.68 (-44)	98.88	100.84	97.05
2017-18	19473.55 (132)	16614.08 (225)	3506.89 (-48)	19611.12 (144)	16800.39 (251)	3617.45 (-46)	99.30	98.89	96.94
CAGR	9.80	13.99	-6.93	10.43	14.99	-6.53			

Note: Figures in parentheses represents simple growth rate

Source: Audit reports of the banks from 2008-09 to 2017-18.

Fig 4.6 Loans outstanding to borrowed fund ratio from 2008-09 to 2017-18.



It is evident from table 4.7 that the average ratio was 101.55, 101.66 and 98.63 for Aluva, Alathur and Irinjalakkuda banks respectively. The CAGR of loans outstanding was 132, 225 and -48 for Aluva, Alathur and Irinjalakkuda banks and for borrowed funds it was, 144, 251 and -46 respectively. Similarly, the simple growth rate for loans outstanding and borrowed funds were 132 & 144 for Aluva bank, 225 & 251 for Alathur bank and -48 & -46 for Irinjalakkuda banks. Further, there was a hike in the ratios which was more than 90 percentage for all the selected banks which means all the selected banks were efficient in successfully deploying the funds mobilised. Loans outstanding and borrowings have increased about 1.6 times and 3 times for Aluva and Alathur PACRDBs while for Irinjalakkuda bank it had declined since 2015-16. Although Aluva bank was also bifurcated during the year 2011, it had not affected its performance except for the year 2012-13 wherein a slight decline in loan outstanding and borrowed fund was witnessed. The ratio was above 100 percentage in certain years which indicates that the bank had advanced loans from funds other than borrowings. The ratio ranged between 95 to 113 percent and the highest ratio was for Alathur bank (113.21%) during 2008-09 and lowest

for Irinjalakkuda bank (95%) during 2013-14. Since the ratio for the selected banks were more than 90 percent, it could be concluded that the selected banks were efficient in deployment of funds.

4.2.2.4 Loans Outstanding to working capital

This ratio shows the proportion of loans outstanding to working capital of the bank. The ratio substantiates the effectiveness of banks in deploying the funds. High ratio shows that bank is efficiency in deploying its working capital as loans and advances and a lower ratio implies poor performance of the banks.

The ratio is calculated using the formula

$$\text{Loans outstanding to Working capital ratio} = \frac{\text{loans outstanding}}{\text{Working Capital}} * 100$$

$$\text{Working Capital} = (\text{Share capital} + \text{statutory funds and reserves} + \text{deposits} + \text{borrowings}) - \text{investment in fixed assets.}$$

$$\text{Loans Outstanding} = \text{Opening balance of loans} + \text{loans issued during the year} - \text{loans repaid during the year}$$

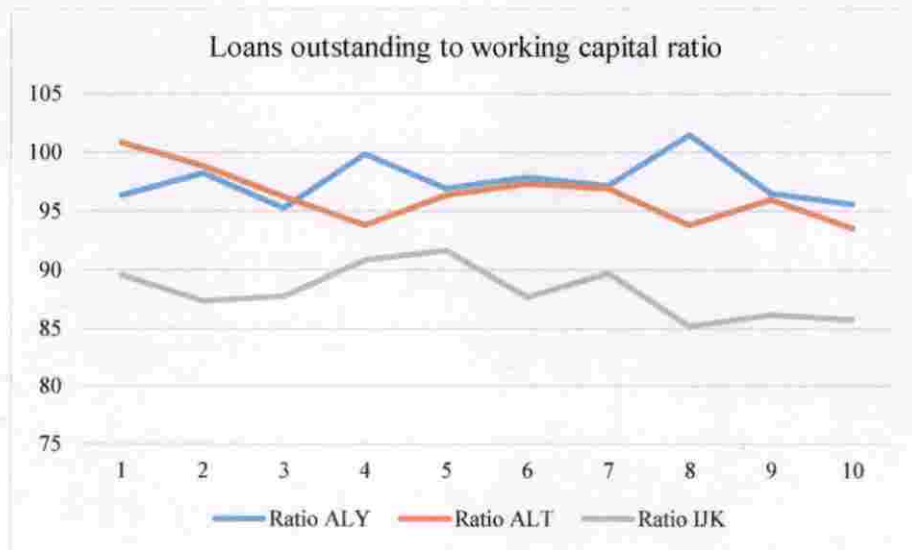
Table 4.8 Loans outstanding to working capital ratio from 2008-09 to 2017-18.
(Amount in Rs. Lakhs)

Year	Loans outstanding			Working Capital			Ratio		
	ALY	ALT	IJK	ALY	ALT	IJK	ALY	ALT	IJK
2008-09	8393.52	5411.88	6696.23	8710.76	5070.82	7471.24	96.36	100.81	89.63
2009-10	11999.63 (43)	6367.65 (25)	7131.16 (6)	12214.99 (40)	6442.12 (27)	8160.04 (9)	98.24	98.84	87.39
2010-11	15144.24 (80)	7710.08 (51)	7422.78 (11)	15896.10 (82)	8010.01 (58)	8454.56 (13)	95.27	96.26	87.80
2011-12	16878.25 (101)	9734.58 (90)	8322.20 (24)	16902.58 (94)	10377.39 (105)	9159.50 (23)	99.86	93.81	90.86
2012-13	12824.42 (53)	11756.41 (130)	8808.16 (32)	13231.25 (52)	12200.36 (141)	9605.00 (29)	96.93	96.36	91.70
2013-14	14534.72 (73)	13228.50 (159)	9642.22 (44)	14848.21 (70)	13588.74 (168)	10997.84 (47)	97.89	97.35	87.67
2014-15	15413.38 (84)	14397.29 (182)	9752.16 (46)	15864.30 (82)	14849.92 (193)	10866.23 (45)	97.16	96.95	89.75
2015-16	17460.20 (108)	15335.57 (200)	3643.67 (-46)	17201.67 (97)	16346.00 (222)	4277.89 (-43)	101.50	93.82	85.17
2016-17	18600.03 (122)	15750.00 (208)	3590.61 (-46)	19266.94 (121)	16407.37 (224)	4165.82 (-44)	96.54	95.99	86.19
2017-18	19473.55 (132)	16614.08 (225)	3506.89 (-48)	20375.87 (134)	17757.57 (250)	4088.71 (-45)	95.57	93.56	85.77
CAGR	9.80	13.99	-6.93	9.90	14.94	-6.48			

Note: Figures in parentheses represents simple growth rate

Source: Audit reports of the banks from 2008-09 to 2017-18.

Fig 4.7 Loans outstanding to working capital ratio from 2008-09 to 2017-18.



It is evident from the table 4.8 that the simple growth rate of loan outstanding and working capital for Aluva, Alathur and Irinjalakkuda banks were 132 & 134, 225 & 250 and -48 & -45 respectively. The CAGR was registered at 9.80, 13.99 and -6.93 for loan outstanding and for working capital it was 9.90, 14.94 and -6.48 for Aluva, Alathur and Irinjalakkuda banks respectively. The ratio for Aluva, Alathur and Irinjalakkuda banks were 97.53, 96.37 and 88.19 respectively which shows that more than 90 percent of the working capital were deployed as loans to the members of the bank which in turn shows their productivity and capability in deployment of funds. Irinjalakkuda bank was an exceptional case where it showed an average ratio of 88.19 percent which was low compared to the other two banks. Further, the table reveals an increasing trend of the loans outstanding and working capital of the banks except Irinjalakkuda bank which had bifurcated during the year 2014-15. Among the sample banks, loans issued to the members stands highest for Aluva bank as they are having more than 30,000 members. During the year 2012-13 the Aluva bank was subjected to bifurcation which caused a slight reduction in their loans and advances, but the bank made it up in the succeeding years. Alathur PCARDB showed a three times increase in loans issue during the study period. The ratio of the sample banks ranged between 85 to 106 percent, where the Alathur bank had the highest ratio of 106 percent during 2008-09 and the lowest ratio of 85 percent was recorded for Irinjalakkuda bank during the year 2017-18. Though the ratio for Alathur bank declined from 106 percent to 93 percent, it is observed that the ratio is almost steady for all the three banks during the period of study.

4.2.2.5 Investment to working capital ratio

This ratio is significant in measuring the efficiency of the selected banks in deployment of funds as it indicates what percentage of working capital is deployed by the banks in sources other than loans and advances. Investment refers to subscription in debentures floated by KSCARDB, subscription to shares of RAIDCO, KERAFED, Cooperative hospital, District Co-operative Banks, investment in co-operative building complex etc.

Working capital refers to that capital needed for the day to day business of the banks. A higher ratio is an indicator of efficiency in deployment and lower ratio marks inefficiency.

The ratio is calculated using the formula

$$\text{Investment to Working capital ratio} = \frac{\text{Investment}}{\text{Working Capital}} * 100$$

Investment = Cash at bank + shares of cooperatives + other investments

Working Capital = (Share capital + statutory funds and reserves + deposits+ borrowings) – investment in fixed assets.

Table 4.9 Investment to working capital ratio from 2008-09 to 2017-18.

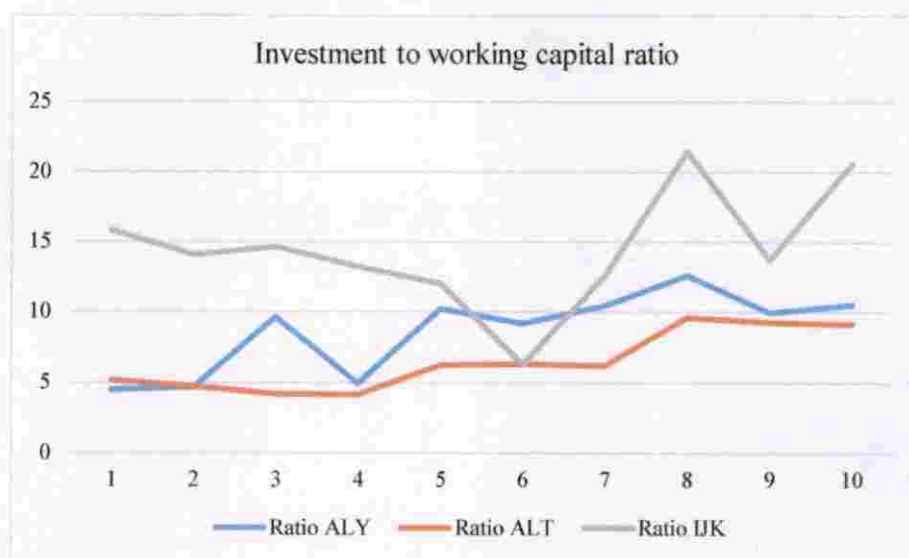
(Amt. in Rs. Lakhs)

Year	Investment			Working Capital			Ratio		
	ALY	ALT	IJK	ALY	ALT	IJK	ALY	ALT	IJK
2008-09	388.53	261.39	1180.28	8710.76	5070.82	7471.24	4.46	5.15	15.80
2009-10	571.44 (47)	304.49 (16)	1147.66 (-3)	12214.99 (40)	6442.12 (27)	8160.04 (9)	4.68	4.73	14.06
2010-11	1529.97 (294)	334.52 (28)	1236.3 (5)	15896.10 (82)	8010.01 (58)	8454.56 (13)	9.62	4.18	14.62
2011-12	833.75 (115)	432.48 (65)	1208.79 (2)	16902.58 (94)	10377.39 (105)	9159.50 (23)	4.93	4.17	13.20
2012-13	1350.87 (248)	760.03 (191)	1154.34 (-2)	13231.25 (52)	12200.36 (141)	9605.00 (29)	10.21	6.23	12.02
2013-14	1361.60 (250)	858.17 (228)	688.74 (-42)	14848.21 (70)	13588.74 (168)	10997.84 (47)	9.17	6.32	6.26
2014-15	1653.42 (326)	921.46 (253)	1369.62 (16)	15864.30 (82)	14849.92 (193)	10866.23 (45)	10.42	6.21	12.60
2015-16	2171.19 (459)	1571.37 (501)	918.29 (-22)	17201.67 (97)	16346.00 (222)	4277.89 (-43)	12.62	9.61	21.47
2016-17	1916.94 (393)	1523.56 (483)	571.24 (-52)	19266.94 (121)	16407.37 (224)	4165.82 (-44)	9.95	9.29	13.71
2017-18	2141.87 (451)	1624.08 (521)	842.58 (-29)	20375.87 (134)	17757.57 (250)	4088.71 (-45)	10.51	9.15	20.61
CAGR	20.89	22.50	-3.68	9.90	14.94	-6.48			

Note: Figures in parentheses represents simple growth rate

Source: Audit reports of the banks from 2008-09 to 2017-18.

Fig 4.8 Investment to working capital ratio from 2008-09 to 2017-18.



It is evident from Table 4.9 that Aluva, Alathur and Irinjalakkuda PCARDBs registered a CAGR of 20.89, 22.50 and -3.68 for investment and 9.90, 14.94 and -6.48 for working capital respectively. The Alathur PCARDB showed a better performance than the other two banks. The simple growth rate for the investments by Aluva, Alathur and Irinjalakkuda PCARDBs were 451, 521 and -29 and for working capital were 134, 250 and -45 for respectively. The average ratio were 8.66, 6.50 and 14.44 for Aluva, Alathur and Irinjalakkuda banks. It is further understood that the amount of investment and working capital had increased during the study period for the banks except for Irinjalakkuda bank because of bifurcation. There was a decline in investment from Rs.1180.28 lakhs in the year 2008-09 to Rs.842.58 in the year 2017-18 for Irinjalakkuda bank, an effect of bifurcation. The ratios revealed the amount of working capital investments in various sources were highest for Irinjalakkuda throughout the study period with a ratio close to 22 percent in the year 2015-16. It is also observed that Irinjalakkuda PCARDB which was once leader in agricultural lending had to diversify their lending portfolio for non-agricultural purposes and also resort to non-banking investments sources. The overall ratio

ranged from 4 to 20 percent which was comparatively lower indicating that a small portion of the working capital had been deployed in other investments. Aluva bank after the bifurcation during 2011 managed to maintain their growth position even though it declined 2012-13. Therefore, it could be concluded that the ratios of the selected banks were increasing which in turn shows that banks are in the safe zone of deploying the funds mobilised effectively.

4.2.3 Efficiency in operations

The efficiency of an organisation is assessed by its capacity to control costs as well as to improve earnings. The study of the operational efficiency is the yardstick to measure the performance of the sample banks as well as the testimony to justify the existence and sustainability of the organisation. As such analysis of the operational efficiency is equally important as mobilisation and deployment. Even though the cooperatives are operating with service motive, a reasonable profit is inevitable for their maintenance, expansion and growth. Improving operational efficiency enables a cooperative to offer more services at competitive prices thereby securing and ensuring member loyalty and patronage. The study attempts to examine the operational efficiency using the following ratios.

4.2.3.1 Interest income to loans outstanding

As far as a bank is concerned, interest income is the major and vital source of revenue. This ratio highlights the quantum of interest income on the loans and advances or in other words it expresses the major income generation capacity of the banks. Loans outstanding represents the total amount of loans advanced by the banks and interest income is the amount received as interest for the loans issued by a bank during a year. A higher ratio is an indicator of the quality of loan portfolio and ability of the bank in recovery management. A lower ratio is a negative indicator of loan recycling which ultimately results in higher level of non-performing assets of the bank. The ratio is calculated using the formula:

$$\text{Interest income to loans outstanding ratio} = \frac{\text{Interest income}}{\text{Loans outstanding}} * 100$$

Table 4.10 Interest income to loans outstanding ratio from 2008-09 to 2017-18.

(Amount in Rs. Lakhs)

Year	Interest income			Loans outstanding			Ratio		
	ALY	ALT	IJK	ALY	ALT	IJK	ALY	ALT	IJK
2008-09	790.77	522.73	711.51	8393.52	5411.88	6696.23	9.42	10.23	10.63
2009-10	1181.79 (49)	750.29 (44)	823.64 (16)	11999.63 (43)	6367.65 (25)	7131.16 (6)	9.85	11.78	11.55
2010-11	1568.40 (98)	851.93 (63)	825.36 (16)	15144.24 (80)	7710.08 (51)	7422.78 (11)	10.36	11.05	11.12
2011-12	1089.25 (38)	1006.38 (93)	531.13 (-25)	16878.25 (101)	9734.58 (90)	8322.20 (24)	6.45	10.34	6.38
2012-13	1524.05 (93)	1457.15 (179)	1056.33 (48)	12824.42 (53)	11756.41 (130)	8808.16 (32)	11.88	12.39	11.99
2013-14	1801.85 (128)	1728.18 (231)	1221.56 (72)	14534.72 (73)	13228.50 (159)	9642.22 (44)	12.40	13.06	12.67
2014-15	2006.08 (154)	1971.89 (277)	1292.45 (82)	15413.38 (84)	14397.29 (182)	9752.16 (46)	13.02	13.70	13.25
2015-16	2255.79 (185)	2139.66 (309)	486.62 (-32)	17460.20 (108)	15335.57 (200)	3643.67 (-46)	12.92	13.95	13.36
2016-17	2399.59 (203)	2121.43 (306)	470.06 (-34)	18600.03 (122)	15750.00 (208)	3590.61 (-46)	12.90	13.47	13.09
2017-18	2533.84 (220)	2343.87 (348)	457.61 (-36)	19473.55 (132)	16614.08 (225)	3506.89 (-48)	13.01	14.11	13.05
CAGR	13.81	18.14	-4.79	9.80	13.99	-6.93			

Note: Figures in parentheses represents simple growth rate

Source: Audit reports of the banks from 2008-09 to 2017-18.

Fig 4.9 Interest income to loans outstanding ratio from 2008-09 to 2017-18.

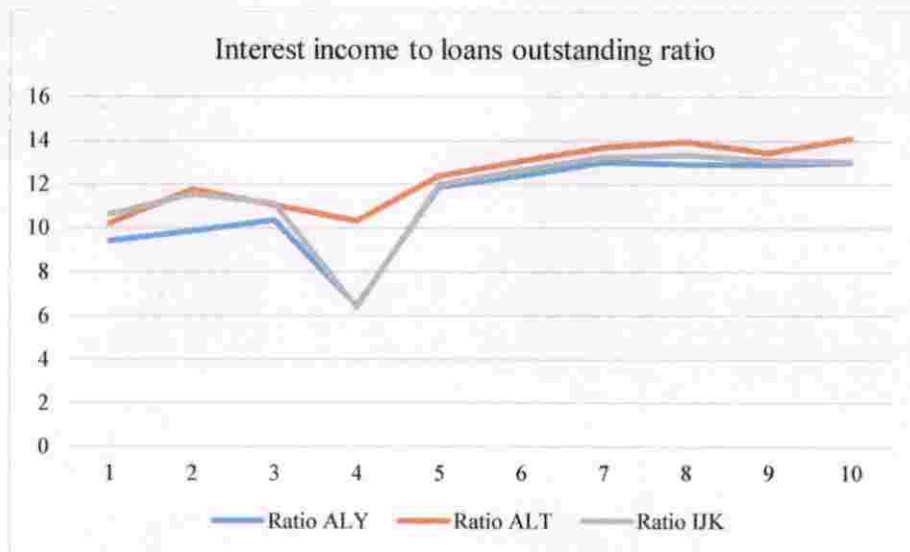


Table 4.10 shows the interest income to loans outstanding ratio of the sample banks. On an average the ratio was 11.22 percent, 12.41 per cent and 11.71 percent for Aluva, Alathur and Irinjalakkuda banks respectively. It is clear from the table that the overall growth rate of interest income for Aluva, Alathur and Irinjalakkuda banks were 13.81, 18.14 and -4.79 percent respectively, whereas for loan outstanding it was 9.80, 13.99 and -6.93 percent for the sample banks. Similarly, the simple growth rate of interest income and loan outstanding for Aluva, Alathur and Irinjalakkuda banks were 220 & 132, 348 & 225 and -36 & -48 percent respectively. In both cases of CAGR and simple growth rate, Irinjalakkuda bank showed a negative value because of the bifurcation in 2015. It is obvious that the amount of interest income and loans outstanding increased steadily during the study period with an exception for Aluva and Irinjalakkuda bank during the year of bifurcation. Aluva bank, which got bifurcated during the year 2011-12 witnessed a fall in interest income (Rs.1089 lakhs). Despite the fall, Aluva bank successfully accomplished to revive and maintain their performance, whereas for Irinjalakkuda bank the interest declined to Rs. 457 lakhs from Rs.711 lakhs during the year 2008-09. The interest income of the Alathur bank recorded an increase of four times over the base year which is an indication of efficient and effective deployment of funds. It should be noted that there was not much variation among the ratios of the three banks and on an average the banks were earning an interest of 11-12 percent on loans and advances. Finally, it could be inferred that Alathur bank has an edge over the other two banks in generating income from loans and advances.

4.2.3.2 Interest expense to borrowed fund

This ratio highlights the proportion of interest expense incurred on borrowed fund of the banks. As far as banking institution is concerned interest expense on deposits and borrowings are its main expense as the deposits is the major constituent of borrowed fund. However, the sample banks mobilise deposits only as agents of KSCARDB and hence cannot be used for lending. Thus, interest expense incurred under study is exclusively borrowings. Higher the ratio, higher will the cost of funds and hence deter the performance. Thus a lower ratio is preferred. Therefore, the banks should try to maintain a lower ratio

by minimising the interest expenses for better performance and sustainability. The ratio is calculated using the formula:

$$\text{Interest expense to borrowed fund ratio} = \frac{\text{Interest expense}}{\text{Borrowed fund}} * 100$$

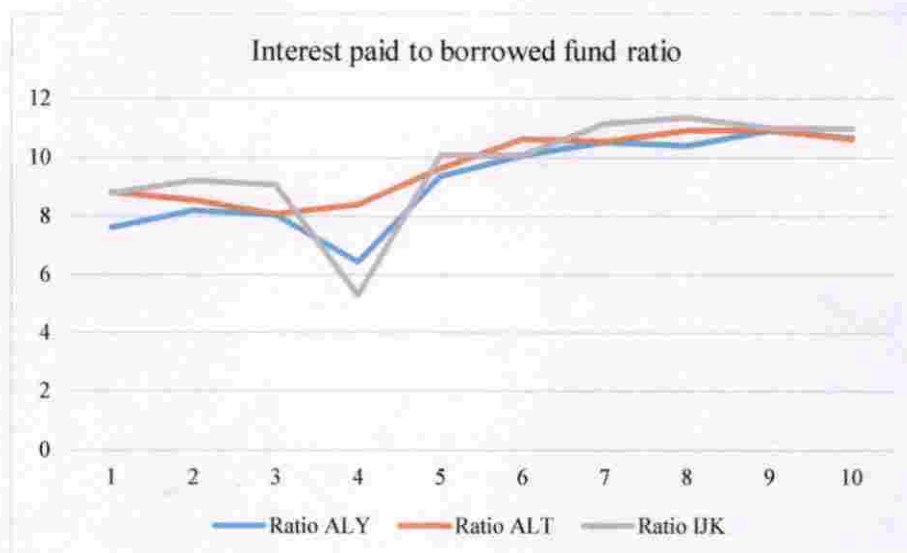
Table 4.11 Interest expense to borrowed fund ratio from 2008-09 to 2017-18.
(Amount in Rs. Lakhs)

Year	Interest expense			Borrowed fund			Ratio		
	ALY	ALT	IJK	ALY	ALT	IJK	ALY	ALT	IJK
2008-09	611.73	421.44	584.18	8029.88	4780.19	6645.5	7.62	8.82	8.79
2009-10	950.89 (55)	519.80 (23)	666.34 (14)	11592.78 (44)	6069.47 (27)	7230.32 (9)	8.20	8.56	9.22
2010-11	1221.06 (100)	610.95 (45)	677.38 (16)	15170.51 (89)	7572.47 (58)	7471.9 (12)	8.05	8.07	9.07
2011-12	1047.71 (71)	825.85 (96)	432.73 (-26)	16302.40 (103)	9836.64 (106)	8174.44 (23)	6.43	8.40	5.29
2012-13	1205.97 (97)	1121.72 (166)	875.73 (50)	12879.11 (60)	11630.94 (143)	8700.42 (31)	9.36	9.64	10.07
2013-14	1445.31 (136)	1373.89 (226)	1023.72 (75)	14342.00 (79)	12914.78 (170)	10149.43 (53)	10.08	10.64	10.09
2014-15	1608.90 (163)	1488.85 (253)	1113.51 (91)	15275.50 (90)	14093.55 (195)	9976.26 (50)	10.53	10.56	11.16
2015-16	1746.02 (185)	1699.50 (303)	423.73 (-27)	16776.97 (109)	15563.05 (226)	3727.1 (-44)	10.41	10.92	11.37
2016-17	2053.28 (236)	1708.26 (305)	407.44 (-30)	18810.66 (134)	15618.03 (227)	3699.68 (-44)	10.92	10.94	11.01
2017-18	2095.31 (243)	1786.69 (324)	397.27 (-32)	19611.12 (144)	16800.39 (251)	3617.45 (-46)	10.68	10.63	10.98
CAGR	14.66	17.41	-4.19	10.43	14.99	-6.53			

Note: Figures in parentheses represents simple growth rate

Source: Audit reports of the banks from 2008-09 to 2017-18.

Fig 4.10 Interest expense to borrowed fund ratio from 2008-09 to 2017-18.



It is clear from the table 4.11 that the average ratio for Aluva, Alathur and Irinjalakkuda banks were 8.47, 9.72 and 8.57 respectively. Interest expense recorded at an overall growth rate of 14.66, 17.41 and -4.19 for Aluva, Alathur and Irinjalakkuda banks whereas, for borrowed funds the value was 10.43, 14.99 and -6.53 respectively for the sample banks during the reference period. Correspondingly, the simple growth rate of interest expense and borrowed funds were 243 & 144, 324 & 251 and -32 & -46 for Aluva, Alathur and Irinjalakkuda banks respectively. It is clear from the table that the interest expense had increased over the reference period except for Irinjalakkuda bank which declined during the post bifurcation period due to resultant fall in borrowings. Interest expense increased 2 times for Aluva bank with Rs. 950 lakhs during 2009-10 which has reached to Rs.2095 lakhs during 2017-18, whereas, it was a 4 times increase for Alathur bank with Rs. 421 lakhs during 2008-09 to Rs.1786 lakhs during 2017-18. The borrowed fund which includes only borrowings from KSCARDB had also increased during the study period for the sample banks except for Irinjalakkuda bank. Further, it is evident from the table that the banks on an average incurs 10-11 percent interest on borrowings. Thus, it

could be safely concluded that the banks succeeded in maintaining the cost of funds within a controllable level so that it does not adversely affect the profitability.

4.2.3.3 Interest expense to interest income ratio

This ratio highlights the relation between two major components of banking business viz., interest expense (expense component) and interest income (income component) which decides the results of the overall performance of a banking institution. It is an excellent ratio that substantiates the profitability of the banks by analysing the efficiency in its operations. Unlike other banking institutions, the interest expenses for the sample banks were mainly on borrowings from the apex organisation because the sample banks do not deploy deposit. The interest income includes income received on loans and advances, the interest received on investments of fluid resources and surplus funds deposited with other financial institutions by the banks. A lower ratio indicates better performance of the bank and a higher ratio implies that interest expense on borrowings are higher and will adversely affect the profitability of the bank. The ratio is calculated using the formula:

$$\text{Interest expense to interest income ratio} = \frac{\text{Interest expense}}{\text{Interest income}} * 100$$

Table 4.12 Interest expense to interest income ratio from 2008-09 to 2017-18.

(Amount in Rs. Lakhs)

Year	Interest expense			Interest income			Ratio		
	ALY	ALT	IJK	ALY	ALT	IJK	ALY	ALT	IJK
2008-09	611.73	421.44	584.18	790.77	522.73	711.51	77.36	80.62	82.10
2009-10	950.89 (55)	519.80 (23)	666.34 (14)	1181.79 (49)	750.29 (44)	823.64 (16)	80.46	69.28	80.90
2010-11	1221.06 (100)	610.95 (45)	677.38 (16)	1568.40 (98)	851.93 (63)	825.36 (16)	77.85	71.71	82.07
2011-12	1047.71 (71)	825.85 (96)	432.73 (-26)	1089.25 (38)	1006.38 (93)	531.13 (-25)	96.19	82.06	81.47
2012-13	1205.97 (97)	1121.72 (166)	875.73 (50)	1524.05 (93)	1457.15 (179)	1056.33 (48)	79.13	76.98	82.90
2013-14	1445.31 (136)	1373.89 (226)	1023.72 (75)	1801.85 (128)	1728.18 (231)	1221.56 (72)	80.21	79.50	83.80
2014-15	1608.90 (163)	1488.85 (253)	1113.51 (91)	2006.08 (154)	1971.89 (277)	1292.45 (82)	80.20	75.50	86.15
2015-16	1746.02 (185)	1699.50 (303)	423.73 (-27)	2255.79 (185)	2139.66 (309)	486.62 (-32)	77.40	79.43	87.08
2016-17	2053.28 (236)	1708.26 (305)	407.44 (-30)	2399.59 (203)	2121.43 (306)	470.06 (-34)	85.57	80.52	86.68
2017-18	2095.31 (243)	1786.69 (324)	397.27 (-32)	2533.84 (220)	2343.87 (348)	457.61 (-36)	82.69	76.23	86.81
CAGR	14.66	17.41	-4.19	13.81	18.14	-4.79			

Note: Figures in parentheses represents simple growth rate

Source: Audit reports of the banks from 2008-09 to 2017-18.

Fig 4.11 Interest expense to interest income ratio from 2008-09 to 2017-18.

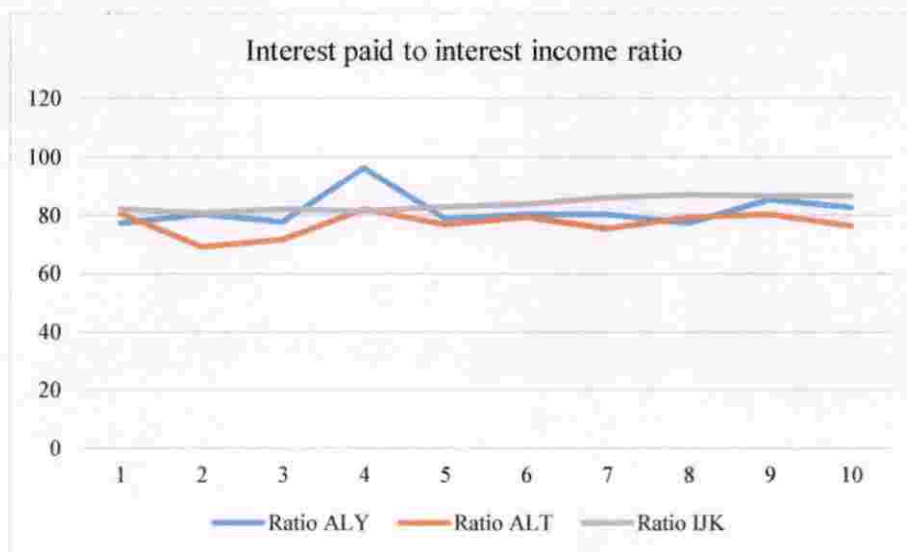


Table 4.12 presents the interest expense and interest income of the banks during the study period. The average ratio was 81.71, 77.18 and 84.00 for Aluva, Alathur and Irinjalakkuda banks respectively. The CAGR for interest expense was 14.66, 17.41 and -4.19 of Aluva, Alathur and Irinjalakkuda banks whereas for interest income it was at 13.81, 18.14 and -4.79 respectively. Likewise, the simple growth rate was 243, 324 and -32 for interest expense and it was 220, 348 and -36 for interest income for Aluva, Alathur and Irinjalakkuda banks respectively. The CAGR showed a negative value during the study period. The decline in the interest interest income and interest expense of Irinjalakkuda bank can be attributed to bifurcation which resulted in loss of business for the bank. Interest expense increased 2 times for Aluva bank where it was a 4 times increase for Alathur bank with Rs.421 lakhs during 2008-09 to Rs. 1786 lakhs during 2017-18. Similarly in case of interest income on loans and advances, Aluva bank and Alathur bank was better compared to Irinjalakkuda bank. The ratios for the banks showed an increasing trend which means that the growth of interest expenses were higher compared to the interest income which is a cause of concern as it would adversely affect the performance of the bank.

4.2.3.4 Manpower expenses to total expenses

This ratio deals with the proportion of manpower expenses in the total expenses of the bank. Manpower expenses include expenses for salary, bonus, leave salary, medical allowance, provident fund contribution, gratuity, and staff security contribution etc. for the employees. Total expenses are the sum total of all the operational expenses of the bank which includes interest expenses, contingency and establishment expenses. A lower ratio is ideal for the banks to maintain the profitability. The ratio is calculated using the formula:

$$\text{Manpower expenses to total expenses ratio} = \frac{\text{Manpower expenses}}{\text{Total expenses}} * 100$$

Table 4.13 Manpower expenses to total expenses ratio from 2008-09 to 2017-18**(Amount in Rs. Lakhs)**

Year	Manpower expenses			Total expenses			Ratio		
	ALY	ALT	IJK	ALY	ALT	IJK	ALY	ALT	IJK
2008-09	120.44	71.24	150.59	732.18	492.68	734.77	16.45	14.46	20.49
2009-10	133.86 (11)	91.06 (28)	145.51 (-3)	1084.76 (48)	610.86 (24)	811.85 (10)	12.34	14.91	17.92
2010-11	201.67 (67)	97.41 (37)	184.81 (23)	1422.73 (94)	708.36 (44)	862.19 (17)	14.17	13.75	21.43
2011-12	123.35 (2)	127.14 (78)	149.91 (0)	1171.06 (60)	952.99 (93)	582.64 (-21)	10.53	13.34	25.73
2012-13	228.01 (89)	147.84 (108)	256.43 (70)	1433.99 (96)	1269.56 (158)	1132.16 (54)	15.90	11.64	22.65
2013-14	250.51 (108)	152.82 (115)	252.04 (67)	1695.82 (132)	1526.71 (210)	1275.76 (74)	14.77	10.01	19.76
2014-15	277.51 (130)	187.12 (163)	314.51 (109)	1886.42 (158)	1675.97 (240)	1428.02 (94)	14.71	11.16	22.02
2015-16	404.78 (236)	236.86 (232)	259.37 (72)	2150.80 (194)	1936.36 (293)	683.1 (-7)	18.82	12.23	37.97
2016-17	426.03 (254)	256.61 (260)	161.93 (8)	2479.31 (239)	1964.87 (299)	569.37 (-23)	17.18	13.06	28.44
2017-18	432.46 (259)	247.62 (248)	176.32 (17)	2527.77 (245)	2034.31 (313)	573.59 (-22)	17.11	12.17	30.74
CAGR	15.26	14.85	1.77	14.76	17.07	-2.71			

Note: Figures in parentheses represents simple growth rate

Source: Audit reports of the banks from 2008-09 to 2017-18.

Fig 4.12 Manpower expenses to total expenses ratio from 2008-09 to 2017-18.

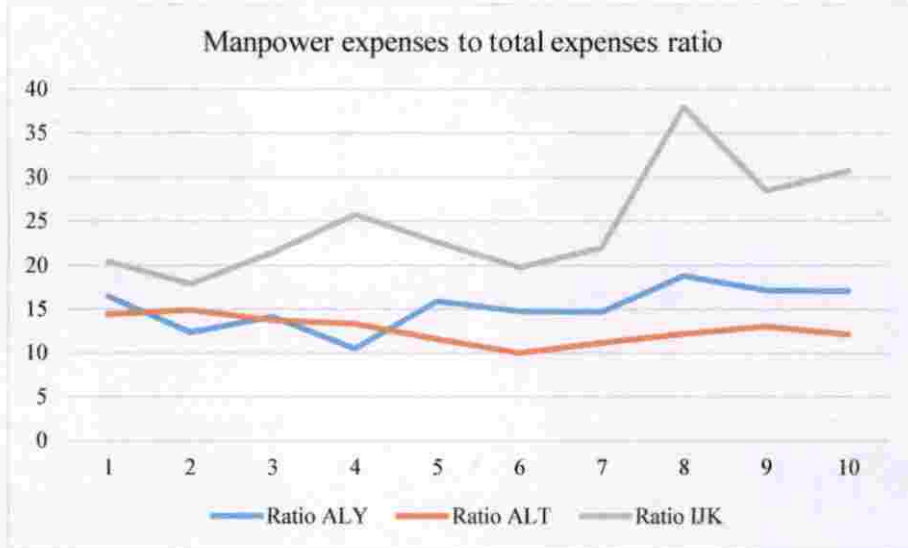


Table 4.13 presents the manpower expenses increased for the sample banks. It is understood that the CAGR of manpower expenses were 15.26, 14.85 and 1.77 for Aluva, Alathur and Irinjalakkuda banks respectively and the CAGR of total expenses were 14.76, 17.07 and -2.71 respectively for the banks. Moreover, the simple growth rate for manpower expenses and total expenses were 259 & 245, 248 & 313 and 17 & -22 for Aluva, Alathur and Irinjalakkuda banks respectively. On an average, the ratio was 15.20, 12.67 and 24.72 for Aluva, Alathur and Irinjalakkuda banks respectively. On an average Aluva bank spends Rs. 250 lakhs for manpower expenses and it had increased thrice over the base year and it had the highest manpower expenditure compared with other two banks which can be attributed to the highest number of 39 employees. Whereas it was 10 for the Irinjalakkuda bank and 26 for the Alathur bank. The total expenses which includes the interest and non-interest expenses were also increasing during the study period. It is evident from the table that on an average Aluva bank spends 15.20 percent of its total expenses for human resource whereas, for Alathur bank it was 12.67 percent and for Irinjalakkuda bank it was the highest among the three banks with 24.72 percent. The

Irinjalakkuda bank with the lowest number of employees spending the highest proportion on manpower expenses could be attributed to the ageing profile of the employees.

4.2.3.5 Total expenses to total income ratio

This ratio measures the proportion of total expenses to total income of the banks and is also an indicator to measure of profitability. The ratio and profitability are inversely related in the sense that when the ratio increases profitability decreases because expenditure will be higher than income and when the ratio decreases profitability increases because income will be more than expenses. Total expenses consists of interest expenses and non-interest expenses which in turn includes establishment and contingency expenses. Total income consists of interest income and non – interest income which also includes miscellaneous income. The ratio is calculated using the formula:

$$\text{Total expenditure to total income ratio} = \frac{\text{Total expenses}}{\text{Total income}} * 100$$

Table 4.14 Total expenses to total income ratio from 2008-09 to 2017-18.

(Amount in Rs. Lakhs)

Year	Total Expenses			Total Income			Ratio		
	ALY	ALT	IJK	ALY	ALT	IJK	ALY	ALT	IJK
2008-09	732.18	492.68	734.77	835.42	550.03	818.95	87.64	89.57	89.72
2009-10	1084.76 (48)	610.86 (24)	811.85 (10)	1230.79 (47)	776.87 (41)	900.40 (10)	88.14	78.63	90.17
2010-11	1422.73 (94)	708.36 (44)	862.19 (17)	1685.0 (102)	920.97 (67)	979.63 (20)	84.43	76.91	88.01
2011-12	1171.06 (60)	952.99 (93)	582.64 (-21)	1122.70 (34)	1050.17 (91)	583.63 (-29)	104.31	90.75	99.83
2012-13	1433.99 (96)	1269.56 (158)	1132.16 (54)	1684.83 (102)	1517.37 (176)	1231.43 (50)	85.11	83.67	91.94
2013-14	1695.82 (132)	1526.71 (210)	1275.76 (74)	1982.16 (137)	1811.1 (229)	1382.97 (69)	85.55	84.30	92.25
2014-15	1886.42 (158)	1675.97 (240)	1428.02 (94)	2235.79 (168)	2084.6 (279)	1492.95 (82)	84.37	80.40	95.65
2015-16	2150.80 (194)	1936.36 (293)	683.1 (-7)	2505.24 (200)	2239.91 (307)	627.71 (-23)	85.85	86.45	108.82
2016-17	2479.31 (239)	1964.87 (299)	569.37 (-23)	2665.09 (219)	2238.86 (307)	564.80 (-31)	93.03	87.76	100.81
2017-18	2527.77 (245)	2034.31 (313)	573.59 (-22)	2825.42 (238)	2439.9 (344)	549.01 (-33)	89.47	83.38	104.48
CAGR	14.76	17.07	-2.71	14.50	18.00	-4.35			

Note: Figures in parentheses represents simple growth rate

Source: Audit reports of the banks from 2008-09 to 2017-18.

Fig 4.13 Total expenditure to total income ratio from 2008-09 to 2017-18.

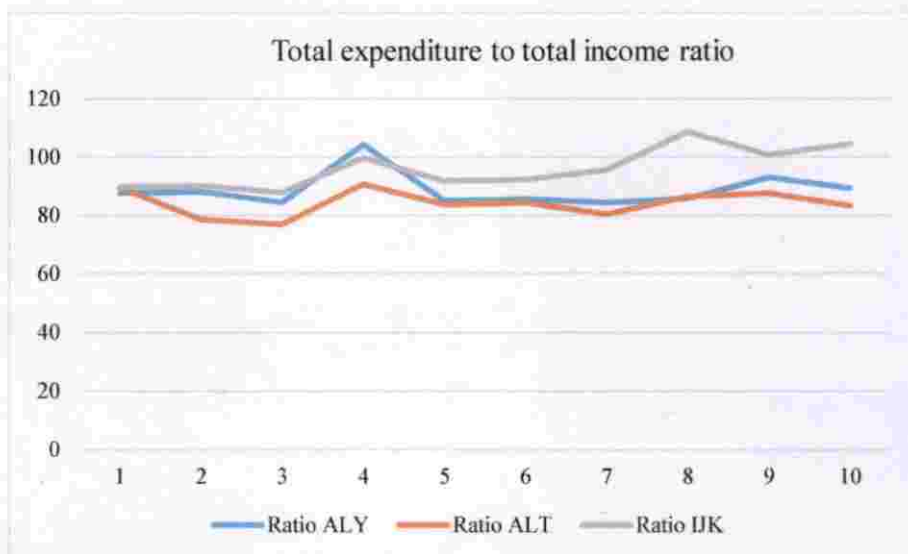


Table 4.14 shows an increasing pattern of total expenditure and total income. As the business expands expenditure and income also increases. The CAGR of total expenditure and total income for Aluva, Alathur and Irinjalakkuda banks were 14.76 & 14.50, 17.07 & 18.00 and -2.17 & -4.35 percent respectively. Similarly, the simple growth rate for total expenses and total income was 245 & 238 for Aluva bank, 313 & 344 for Alathur bank and -22 & -33 for Irinjalakkuda banks respectively. Aluva bank which recorded a two times increase in its total expenses over the base year sustained its growth during the study period regardless of the bifurcation during the year 2011-12. The total expenses of Alathur bank increased four times during the study period. However, for Irinjalakkuda bank the total expenses declined after the bifurcation. Total income which includes interest income and other miscellaneous income showed an increasing trend for the sample banks except for Irinjalakkuda bank. Increase in the income was two times and four times respectively for Aluva and Alathur banks. On an average the ratio was 88.79, 84.18 and 96.17 percent for Aluva, Alathur and Irinjalakkuda banks respectively, with Irinjalakkuda bank recording the highest ratio which implies that performance of the bank

is under threat. Finally, it could be concluded that income earned by the sample banks were enough to meet the expenses with an exception of Irinjalakkuda bank.

4.2.3.6 Net profit to working capital ratio

This ratio indicates the efficiency of banks in deploying the working capital or in other words it expresses the earning capacity of the banks. It says whether the working capital of the bank has profitably deployed or not. Earning a reasonable amount of profit and effective management of working capital is the most important task of the banks. The ratio is calculated using the formula:

$$\text{Net profit to working capital ratio} = \frac{\text{Net profit}}{\text{Working capital}} * 100$$

Table 4.15 Net profit to working capital ratio from 2008-09 to 2017-18.

(Amount in Rs. Lakhs)

Year	NP/NL			Working Capital			Ratio		
	ALY	ALT	IJK	ALY	ALT	IJK	ALY	ALT	IJK
2008-09	25.38	9.19	75.31	8710.76	5070.82	7471.24	0.29	0.18	1.01
2009-10	-20.70 (-182)	24.43 (166)	76.82 (2)	12214.99 (40)	6442.12 (27)	8160.04 (9)	-0.17	0.38	0.94
2010-11	93.89 (270)	17.97 (96)	86.42 (15)	15896.10 (82)	8010.01 (58)	8454.56 (13)	0.59	0.22	1.02
2011-12	127.02 (400)	24.62 (168)	-76.37 (-201)	16902.58 (94)	10377.39 (105)	9159.50 (23)	0.75	0.24	-0.83
2012-13	198.72 (683)	57.48 (525)	79.10 (5)	13231.25 (52)	12200.36 (141)	9605.00 (29)	1.50	0.47	0.82
2013-14	10.55 (-58)	61.44 (569)	74.82 (-1)	14848.21 (70)	13588.74 (168)	10997.84 (47)	0.07	0.45	0.68
2014-15	79.63 (214)	66.60 (625)	6.80 (-91)	15864.30 (82)	14849.92 (193)	10866.23 (45)	0.50	0.45	0.06
2015-16	76.48 (201)	48.63 (429)	-79.07 (-205)	17201.67 (97)	16346.00 (222)	4277.89 (-43)	0.44	0.30	-1.85
2016-17	-12.72 (-150)	57.16 (522)	-49.16 (-165)	19266.94 (121)	16407.37 (224)	4165.82 (-44)	-0.07	0.35	-1.18
2017-18	-81.11 (-420)	69.68 (658)	-29.52 (-139)	20375.87 (134)	17757.57 (250)	4088.71 (-45)	-0.40	0.39	-0.72
CAGR	-213.78	25.24	-190.12	9.90	14.94	-6.48			

Note: Figures in parentheses represents simple growth rate

Source: Audit reports of the banks from 2008-09 to 2017-18.

Fig 4.14 Net profit to working capital ratio from 2008-09 to 2017-18.

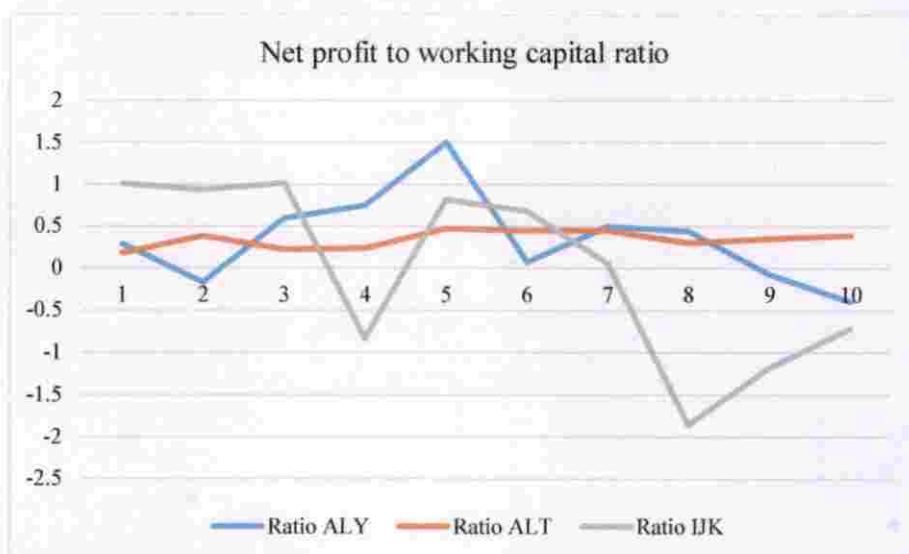


Table 4.15 shows the net profit to working capital ratio of the selected banks. The average ratio was 0.35 for Aluva bank, 0.34 for Alathur bank and 0.00 for Irinjalakkuda bank. The ratios were less than one percent and for few years it was negative which means that the profit could not be earned during these years from the deployment of working capital. The working capital in absolute figures had increased for the sample banks except Irinjalakkuda bank during the study period. The CAGR recorded -213.78, 25.24 and -190.12 for net profit of Aluva, Alathur and Irinjalakkuda banks whereas it was 9.90, 14.94 and -6.48 for the working capital. Likewise, the simple growth rate of net profit and working capital for Aluva, Alathur and Irinjalakkuda banks were -420 & 134, 658 & 250 and -139 & -45 percent. It is clear from the table that the Alathur bank had earned profit during the period of study, whereas Aluva and Irinjalakkuda banks had incurred loss for four years out of the ten years under study. The Aluva, Alathur and Irinjalakkuda banks earned an average profit of Rs. 24.19 lakhs, Rs. 43.72 lakhs and Rs. 16.52 lakhs respectively. Irinjalakkuda bank failed to maintain their business during the post bifurcation period and thus incurred losses for the last three years of the study period. The calculated ratios are trivial for the sample banks, however, the ratio of Alathur bank had a

better ratio when compared to the other two banks. Thus, it could be concluded that the Alathur bank has a better earning capacity which may be attributed to the efficiency and effectiveness in deployment of fund.

4.2.3.7 Net profit to interest income ratio

This ratio is a measure of the efficiency of the bank in its operations. The ratio measures the banks' profitability in terms of the quantum of interest income contributing to the net profit. The interest income on loans and advances and investment are the major source of income of banks. Net profit is the final operating result of the bank and interest income is the major component contributing to it. The ratio is calculated using the formula:

$$\text{Net profit to interest income ratio} = \frac{\text{Net profit}}{\text{Interest income}} * 100$$

Net profit = Net profit as per P&L account

Interest income = interest income by the bank on loans and advances and investments

Table 4.16 Net profit to interest income ratio from 2008-09 to 2017-18.

(Amount in Rs. Lakhs)

Year	NP/NL			Interest income			Ratio		
	ALY	ALT	IJK	ALY	ALT	IJK	ALY	ALT	IJK
2008-09	25.38	9.19	75.31	790.77	522.73	711.51	3.21	1.76	10.58
2009-10	-20.70 (-182)	24.43 (166)	76.82 (2)	1181.79 (49)	750.29 (44)	823.64 (16)	-1.75	3.26	9.33
2010-11	93.89 (270)	17.97 (96)	86.42 (15)	1568.40 (98)	851.93 (63)	825.36 (16)	5.99	2.11	10.47
2011-12	127.02 (400)	24.62 (168)	-76.37 (-201)	1089.25 (38)	1006.38 (93)	531.13 (-25)	11.66	2.45	-14.38
2012-13	198.72 (683)	57.48 (525)	79.10 (5)	1524.05 (93)	1457.15 (179)	1056.33 (48)	13.04	3.94	7.49
2013-14	10.55 (-58)	61.44 (569)	74.82 (-1)	1801.85 (128)	1728.18 (231)	1221.56 (72)	0.59	3.56	6.12
2014-15	79.63 (214)	66.60 (625)	6.80 (-91)	2006.08 (154)	1971.89 (277)	1292.45 (82)	3.97	3.38	0.53
2015-16	76.48 (201)	48.63 (429)	-79.07 (-205)	2255.79 (185)	2139.66 (309)	486.62 (-32)	3.39	2.27	-16.25
2016-17	-12.72 (-150)	57.16 (522)	-49.16 (-165)	2399.59 (203)	2121.43 (306)	470.06 (-34)	-0.53	2.69	-10.46
2017-18	-81.11 (-420)	69.68 (658)	-29.52 (-139)	2533.84 (220)	2343.87 (348)	457.61 (-36)	-3.20	2.97	-6.45
CAGR	-213.78	25.24	-190.12	13.81	18.14	-4.79			

Note: Figures in parentheses represents simple growth rate

Source: Audit reports of the banks from 2008-09 to 2017-18.

Fig 4.15 Net profit to interest income ratio from 2008-09 to 2017-18.

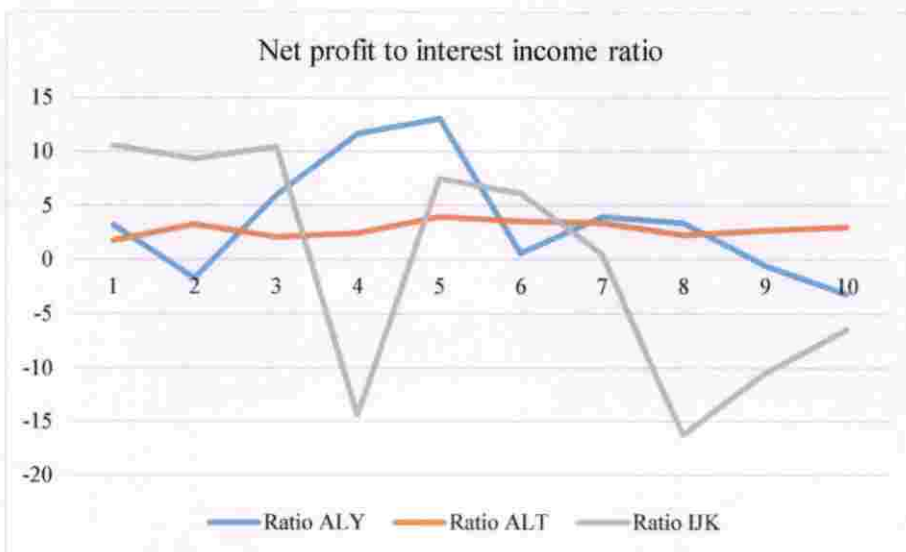


Table 4.16 exhibits net profit to interest income ratio of the sample banks. The table exhibited a CAGR of net profit was -213.78, 25.24 and -190.12 for Aluva, Alathur and Irinjalakkuda banks respectively, whereas, for interest income it was 13.81, 18.14 and -4.79 respectively. Likewise, the simple growth rate of net profit and interest income for Aluva, Alathur and Irinjalakkuda banks were -420 & 220, 658 & 348 and -139 & -36 respectively. It was further understood that the component interest income showed an increasing trend over the study period for the sample banks except Irinjalakkuda bank. Alathur bank had an average net profit of Rs. 43.72 lakhs during the study period whereas it was Rs. 49 lakhs for Aluva bank and Rs.16 lakhs for Irinjalakkuda bank. The years 2011-12 and 2012-13 were the highest profit making years for Aluva bank, which makes the bank more profitable compared to the other two sample banks. Thus, it could be concluded that Alathur bank was on the safer side earning adequate profit to run the business, whereas, Aluva bank requires improvement in their operations and Irinjalakkuda bank needs re-engineering in their operations.

4.2.3.8 Spread Ratio

Spread ratio is an excellent mark of the banks' efficiency in lending operations. It can be expressed as a relationship between spread and total fund of the bank. Spread is the net difference between interest income and interest expenses. Interest income can be defined as the income earned on deployment of funds and it represents the return on banking activities. It includes interest earned from loans and advances and interest income from investment. Interest expense is the expense incurred by the bank on borrowings. It is actually the cost of funds. Total fund of the bank constitutes its owned fund and borrowed fund. Higher ratio is preferable and is possible only if interest income on loans and advances is more than interest expense on borrowings. The ratio is calculated using the formula:

$$\text{Spread ratio} = \frac{\text{Int.income.} - \text{Int.expenses}}{\text{Total fund}} * 100$$

Table 4.17 Spread ratio of selected banks from 2008-09 to 2017-18.

(Amount in Rs. Lakhs)

Year	Interest income			Interest expenses			Total Fund			Spread Ratio		
	ALY	ALT	IJK	ALY	ALT	IJK	ALY	ALT	IJK	ALY	ALT	IJK
2008-09	790.77	522.73	711.51	611.73	421.44	584.18	8856.44	5205.84	7319.67	2.02	1.95	1.74
2009-10	1181.79 (49)	750.29 (44)	823.64 (16)	950.89 (55)	519.8 (23)	666.34 (14)	12565.12 (42)	6518.82 (25)	7997.64 (9)	1.84	3.54	1.97
2010-11	1568.40 (98)	851.93 (63)	825.36 (16)	1221.06 (100)	610.95 (45)	677.38 (16)	16499.41 (31)	8301.94 (27)	8277.08 (3)	2.11	2.90	1.79
2011-12	1089.25 (38)	1006.38 (93)	531.13 (-25)	1047.71 (71)	825.85 (96)	432.73 (-26)	17580.10 (7)	10688.74 (29)	9008.86 (9)	0.24	1.69	1.09
2012-13	1524.05 (93)	1457.15 (179)	1056.33 (48)	1205.97 (97)	1121.72 (166)	875.73 (50)	14143.92 (-20)	12634.60 (18)	9513.66 (6)	2.25	2.65	1.90
2013-14	1801.85 (128)	1728.18 (231)	1221.56 (72)	1445.31 (136)	1373.89 (226)	1023.72 (75)	15952.25 (13)	14124.09 (12)	10947.55 (15)	2.24	2.51	1.81
2014-15	2006.08 (154)	1971.89 (277)	1292.45 (82)	1608.90 (163)	1488.85 (253)	1113.51 (91)	17148.51 (7)	15458.55 (9)	10795.79 (-1)	2.32	3.12	1.66
2015-16	2255.79 (185)	2139.66 (309)	423.73 (-32)	1746.02 (185)	1699.5 (303)	486.62 (-27)	18792.37 (10)	17710.43 (15)	4189.49 (-61)	2.71	2.49	1.50
2016-17	2399.59 (203)	2121.43 (306)	470.06 (-34)	2053.28 (236)	1708.26 (305)	407.44 (-30)	20970.09 (12)	18516.62 (5)	4117.52 (-2)	1.65	2.23	1.52
2017-18	2533.84 (220)	2343.87 (348)	457.61 (-36)	2095.31 (243)	1786.69 (324)	397.27 (-32)	21943.78 (5)	19311.15 (4)	4021.88 (-2)	2.00	2.89	1.50
CAGR	13.81	18.14	-4.79	14.66	17.41	-4.19	10.61	15.68	-6.44			

Note: Figures in parentheses represents simple growth rate
Source: Audit reports of the banks from 2008-09 to 2017-18

121

Fig 4.16 Spread ratio of selected banks from 2008-09 to 2017-18.

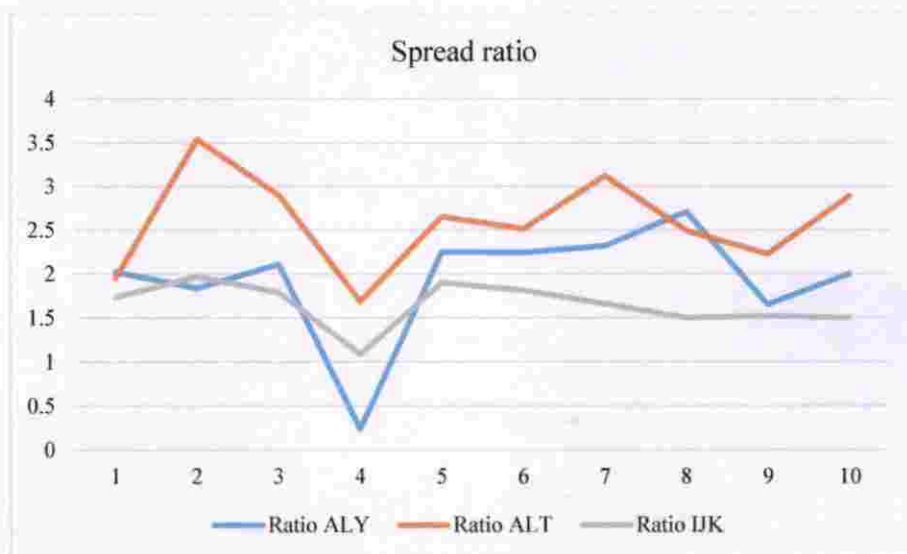


Table 4.17 clearly shows that the CAGR of interest income was 13.81, 18.14 and -4.79 percent and the simple growth rate was 220, 348 and -36 percent for Aluva, Alathur and Irinjalakkuda banks. Similarly, the CAGR of interest expenses was 14.66, 17.41 and -4.19 percent and the simple growth rate was 243, 324 and -32 percent for Aluva, Alathur and Irinjalakkuda banks. At the same time, the CAGR and simple growth rate for the total funds were 10.61 & 5, 15.68 & 4 and -6.44 & -2 for Aluva, Alathur and Irinjalakkuda banks respectively. It is evident from the table that the spread ratio of selected banks varied. The maximum spread ratio for Alathur bank was 3.54 during the year 2009-10 and the minimum was 1.69 during 2011-12, the average spread ratio being 2.6 percent during the study period. Likewise, the maximum and minimum spread ratio for Aluva bank was 2.71 during 2015-16 and 0.24 during 2011-12 respectively. The spread ratio for Irinjalakkuda bank was almost constant within a range of 1.5 to 2.00 percent during the period under study. A higher ratio is preferred because it is an indicator of better performance. It could be concluded from the ratios that the selected banks had excess of interest income over interest

expenses which indicates the efficiency of banks in mobilisation and deployment of funds. It is clear from the table that the interest income for Aluva bank increased thrice over the base year and that of Alathur bank was four fold, whereas for Irinjalakkuda bank the interest income increased till the year 2014-15 and thereafter declined due to bifurcation. Similar trend could be observed in interest expense and total fund. In case of Aluva bank, interest income and total fund increased thrice and twice respectively throughout the study period whereas for Alathur bank the increase was four times. In case of Irinjalakkuda bank, an increase was witnessed until the year 2014-15 and thereafter it declined due to bifurcation. Comparing the ratios of the three banks, it is observed that Alathur bank had an edge over the other two banks. Finally, it could be concluded that the spread ratio of the selected banks were reasonable.

4.2.3.9 Burden Ratio

Burden ratio is the proportion of burden to total funds of the bank. Although the banks' constantly try to increase their non-interest income and decrease non-interest expense, the latter usually exceeds the former. The net difference between the non-interest expense and non-interest income is labelled as burden. As such any efforts in reducing the burden have direct impact on efficiency and will improve the profitability of the bank. The ratio is calculated using the formula:

$$\text{Burden ratio} = \frac{\text{Non Int.exp} - \text{Non Int.inc}}{\text{Total fund}} * 100$$

Table 4.18 Burden ratio of selected banks from 2008-09 to 2017-18

(Amount in Rs. Lakhs)

Year	Non-Interest expenses			Non- Interest income			Total Fund			Burden ratio		
	ALY	ALT	IJK	ALY	ALT	IJK	ALY	ALT	IJK	ALY	ALT	IJK
2008-09	120.45	71.24	150.59	44.65	27.3	107.44	8856.44	5205.84	7319.67	0.86	0.84	0.59
2009-10	133.86 (11)	91.06 (28)	145.51 (-3)	49.00 (10)	26.58 (-3)	76.76 (-29)	12565.12 (42)	6518.82 (25)	7997.64 (9)	0.68	0.99	0.86
2010-11	201.67 (67)	97.41 (37)	184.81 (23)	116.64 (161)	69.04 (153)	144.27 (34)	16499.41 (86)	8301.94 (59)	8277.08 (13)	0.52	0.34	0.49
2011-12	123.35 (2)	127.14 (78)	149.91 (0)	33.44 (-25)	43.79 (60)	52.5 (-51)	17580.10 (99)	10688.74 (105)	9008.86 (23)	0.51	0.78	1.08
2012-13	228.01 (89)	147.84 (108)	256.43 (70)	160.78 (260)	60.22 (121)	175.1 (63)	14143.92 (60)	12634.60 (143)	9513.66 (30)	0.48	0.69	0.85
2013-14	250.51 (108)	152.82 (115)	252.04 (67)	180.31 (304)	82.92 (204)	161.41 (50)	15952.25 (80)	14124.09 (171)	10947.55 (50)	0.44	0.49	0.83
2014-15	277.51 (130)	187.12 (163)	314.51 (109)	229.71 (414)	112.71 (313)	200.5 (87)	17148.51 (94)	15458.55 (197)	10795.79 (47)	0.28	0.48	1.06
2015-16	404.78 (236)	236.86 (232)	259.37 (72)	249.45 (459)	100.25 (267)	141.09 (31)	18792.37 (112)	17710.43 (240)	4189.49 (-43)	0.83	0.77	2.82
2016-17	426.03 (254)	256.61 (260)	161.93 (8)	265.50 (495)	117.43 (330)	94.74 (-12)	20970.09 (137)	18516.62 (256)	4117.52 (-44)	0.77	0.75	1.63
2017-18	432.46 (259)	247.62 (248)	176.32 (17)	291.59 (553)	96.03 (252)	91.4 (-15)	21943.78 (148)	19311.15 (271)	4021.88 (-45)	0.64	0.78	2.11
CAGR	15.26	14.85	1.77	23.18	15.00	-1.78	10.61	15.68	-6.44			

Note: Figures in parentheses represents simple growth rate

Source: Audit reports of the banks from 2008-09 to 2017-18

124



Fig 4.17 Burden ratio of selected banks from 2008-09 to 2017-18.

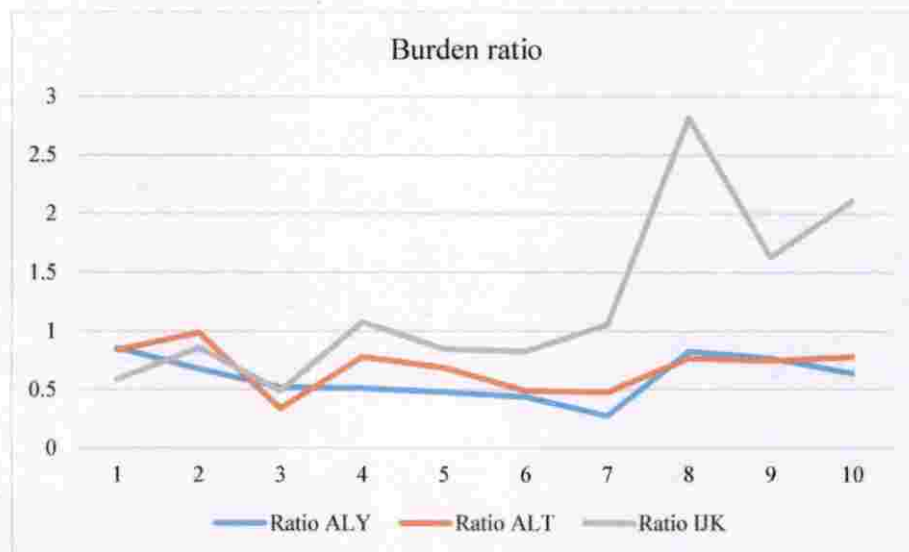


Table 4.18 presents the burden ratio of the sample banks during the study period. It is understood that the CAGR of non-interest expenses and non-interest income was 15.26 & 23.18 for Aluva bank, 14.85 & 15.00 for Alathur bank and 1.77 & -1.78 for Irinjalakkuda bank respectively during the course of study period. Likewise, the simple growth rates of non-interest expenses and non-interest income were 259 & 553 for Aluva bank, 248 & 252 for Alathur bank and 17 & -15 for Irinjalakkuda bank. Total funds administered a CAGR of 10.61, 15.68 and -6.44 and simple growth rate of 148, 271 and -45 for Aluva, Alathur and Irinjalakkuda banks respectively. Maintaining a lower ratio always favours the bank. The ratio was less than one percent for the sample banks except for Irinjalakkuda bank which had a burden of more than one percent after bifurcation. The burden ratio of Aluva and Alathur banks was lower than that of Irinjalakkuda bank. The ratio ranged between 0.28 and 0.86 percent for Aluva bank, 0.34 to 0.99 for Alathur bank and 0.49 to 2.82 for Irinjalakkuda bank. It is clear from the table that non-interest expenses had increased thrice for Aluva bank and Alathur bank, however, the Irinjalakkuda bank witnessed an increase till the year 2014-15 and declined thereafter. Likewise, the non-interest income showed an increase twice over the base year for both Aluva and Alathur banks whereas, for

Irinjalakkuda bank as already mentioned showed increase up to 2014-15 and later declined due to bifurcation. Similar was the trend with total funds. Therefore, it could be concluded that selected banks had maintained their profitability by keeping its burden lower except Irinjalakkuda bank, which had a higher burden.

4.2.3.10 Profitability ratio

Profitability is a relative concept different from profit. The former is expressed as a relation between spread ratio and burden which also explains the operational efficiency and effectiveness of the bank whereas, the latter is the absolute result of the financial operations of the bank. Profitability is measured by the formula:

$$\text{Profitability ratio} = \text{Spread ratio} - \text{Burden ratio}$$

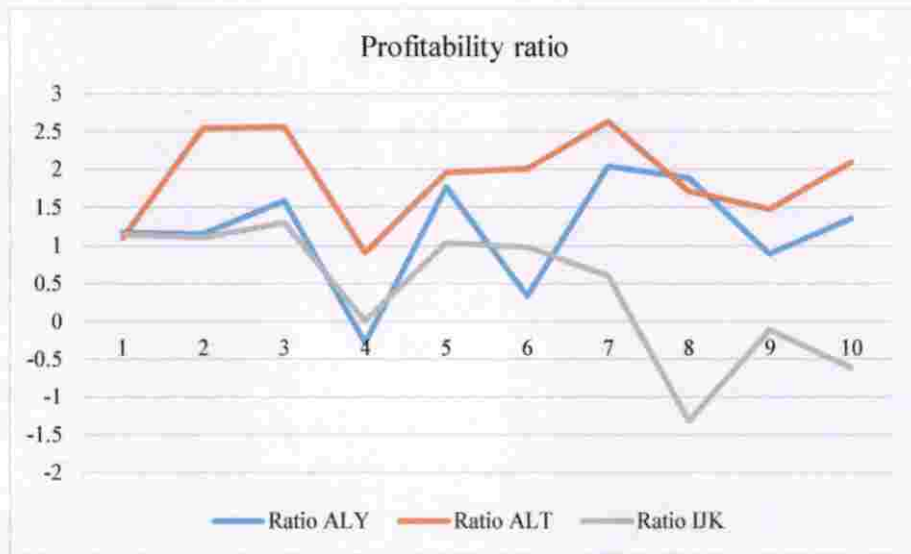
Table 4.19 Profitability ratio from 2008-09 to 2017-18.

(Amount in Rs. Lakhs)

Year	Spread ratio			Burden ratio			Profitability ratio		
	ALY	ALT	IJK	ALY	ALT	IJK	ALY	ALT	IJK
2008-09	2.02	1.95	1.74	0.86	0.84	0.59	1.17	1.10	1.15
2009-10	1.84	3.54	1.97	0.68	0.99	0.86	1.16	2.55	1.11
2010-11	2.11	2.90	1.79	0.52	0.34	0.49	1.59	2.56	1.30
2011-12	0.24	1.69	1.09	0.51	0.78	1.08	-0.28	0.91	0.01
2012-13	2.25	2.65	1.90	0.48	0.69	0.85	1.77	1.96	1.04
2013-14	2.24	2.51	1.81	0.44	0.49	0.83	0.34	2.01	0.98
2014-15	2.32	3.12	1.66	0.28	0.48	1.06	2.04	2.64	0.60
2015-16	2.71	2.49	1.50	0.83	0.77	2.82	1.89	1.71	-1.32
2016-17	1.65	2.23	1.52	0.77	0.75	1.63	0.89	1.48	-0.11
2017-18	2.00	2.89	1.50	0.64	0.78	2.11	1.36	2.10	-0.61

Source: Audit reports of the banks from 2008-09 to 2017-18.

Fig 4.18 Profitability ratio of selected banks from 2008-09 to 2017-18.



The table 4.19 shows the profitability ratio of the banks during the period of study. The ratio of the sample banks ranged from -0.28 to 2.04 for Aluva bank, 0.91 to 2.64 for Alathur bank and -0.11 to 1.30 for Irinjalakkuda bank. Aluva bank during the year 2011-12, witnessed a loss of 0.28 percent whereas Irinjalakkuda bank incurred losses from 2015-16 onwards as a result of bifurcation. The study of profitability ratios concludes that the ratio of Alathur bank was superior to the ratios of other two banks. Therefore, it could be concluded that the banks should initiate efforts to maintain the spread margin, decrease the burden and improve the profitability level so as to ensure sustainability of the banks.

4.3 Conclusion

The primary objective of the study was to analyse the financial performance of the PCARDBs in central Kerala. The financial performance has been done under three heads viz, efficiency in mobilisation, efficiency in deployment and efficiency in operations with the help of financial ratios. The study on efficiency of the selected banks in mobilisation

of funds analysed by using three ratios namely, owned fund to working capital ratio, borrowed fund to working capital ratio and owned fund to borrowed fund ratio concluded that the PCARDBs in central Kerala were efficient in mobilising resources within the restricted framework and despite other structural changes witnessed. The study on effectiveness and efficiency in deployment of funds examined with the help of selected ratios concluded that the PCARDBs of central Kerala were efficient in deployment in the form of loans and advances and other investments. Finally the study operational efficiency concluded that the PCARDBs of central Kerala were efficient in ensuring adequate interest income to cover the interest expenses, could maintain a reasonable spread ratio and lower burden ratio thereby ensuring a reasonable level of profitability despite of various exogenous and endogenous constraints faced by the co-operative banks of Kerala.

4.4 Operational and Managerial Problems of the PCARDBs

The second objective of the study was to identify the operational and managerial problems was examined from the perspective of the Board of Directors and the employees. From the directors perspective the problems was studied under four heads viz., administrative problems, functional problems, structural problems and human resource related problems. The administrative problems were further subdivided as problems related to board meeting, problems related to general body meeting and problems related to audit. In the same way from the employee's perspective it was studied under the heads viz., administrative problems, functional problems, structural problems and human resource related problems. The responses/opinion of the board of directors and employees on the operational and managerial problems prevailing in the banks were analysed, interpreted and presented in the following section.

4.4.1 Operational and managerial problems of the bank perceived by Board of Directors

In order to have a detailed analysis about the problems confronted by the selected banks, a discrete analysis of the view of Board of Directors of the banks regarding the operational and managerial problems was carried out using indices and Kruskal- Wallis test. Analysis was carried out under various heads as follows:

The analysis was carried out using percentage and index and the following scale was adopted to draw conclusions on the various parameters under the study.

Classification of operational and managerial problems

Scores Obtained	Problems/Constraints Category
0 - 20	Negligible
21 - 40	Tolerable
41 - 60	Risk
61 - 80	Severe
81 - 100	Chronic

4.4.1.1 Socio- economic profile of Board of Directors

As a prelude of studying the operational and managerial problems, the socio-economic profile of the board of directors and employees were examined with the help of selected socio-economic variables such as as age, gender, marital status, education and income. The socio-economic profile of the Board of Directors is presented in the following table.

Table 4.20 Socio- economic profile of Board of Directors

Variables	Category	ALY	ALT	IJK	Total
	Up to 40 years	1 (10)	0	1 (8)	2 (6)
	41-50	0	2 (17)	3 (23)	5 (14)
	51-60	4 (40)	6 (50)	4 (31)	14 (40)
	Above 60	5 (50)	4 (33)	5 (38)	14 (40)

Age	Total	10 (100)	12 (100)	13 (100)	35 (100)
Gender	Male	6 (60)	9 (75)	10 (77)	25 (71)
	Female	4 (40)	3 (25)	3 (23)	10 (29)
	Total	10 (100)	12 (100)	13 (100)	35 (100)
Religion	Hindu	5 (50)	11 (92)	9 (69)	25 (71)
	Christian	2 (20)	0	4 (31)	6 (17)
	Muslim	3 (30)	1 (8)	0	4 (11)
	Total	10 (100)	12 (100)	13 (100)	35 (100)
Caste	SC	2 (20)	1 (8)	1 (8)	4(11)
	ST	0	0	0	0
	OBC	2 (20)	8 (67)	5 (38)	16 (44)
	OEC	0	0	0	0
	General	6 (60)	3 (25)	7 (54)	16 (44)
	Total	10 (100)	12 (100)	13 (100)	35 (100)
Marital status	Married	9 (90)	12 (100)	12 (92)	33 (94)
	Unmarried	0	0	1 (8)	1 (3)
	Widow	1 (10)	0	0	1 (3)
	Total	10 (100)	12 (100)	13 (100)	35 (100)
Education	Illiterate	0	0	0	0
	Primary	1 (10)	4 (33)	0	5 (14)
	High school	6 (60)	6 (50)	10 (77)	22 (63)
	Graduate	3 (30)	2 (17)	3 (23)	8 (23)
	PG	0	0	0	0
	Total	10 (100)	12 (100)	13 (100)	35 (100)
Economic status	BPL	1 (10)	6 (50)	5 (38)	12 (34)
	APL	9 (90)	6 (50)	8 (62)	23 (66)
	Total	10 (100)	12 (100)	13	35 (100)
Employment status	Self-employed	7 (70)	4 (33)	7 (54)	18 (51)
	Wage employed	0	1 (8)	5 (38)	6 (17)
	Unemployed	3 (30)	7 (58)	1 (8)	11 (31)
	Total	10 (100)	12 (100)	13 (100)	35 (100)
	Agriculture	1 (14)	1 (25)	1 (14)	3 (17)
	Service	3 (43)	1 (25)	0	4 (22)

Self-employment-Nature	Business	1 (14)	0	2 (29)	3 (17)
	Others	2 (29)	2 (50)	4 (57)	8 (44)
	Total	7 (100)	4 (100)	7 (100)	18 (100)
Wage employment-Nature	Government	0	0	5 (100)	5 (83)
	Private	0	0	0	0
	Agri. Labourers	0	0	0	0
	Non-agri labourers	0	1 (100)	0	1 (17)
	Total	0	1 (100)	5 (100)	6 (100)
Monthly Income status	Below 10000	0	4 (33)	3 (23)	7 (20)
	10000-15000	7 (70)	4 (33)	9 (69)	20 (57)
	15000-20000	2 (20)	1 (8)	1 (8)	4 (11)
	20000-25000	1 (10)	1 (8)	0	2 (6)
	Above 25000	0	2 (17)	0	2 (6)
	Total	10 (100)	12 (100)	13 (100)	25 (100)
Sources of income	Agriculture	1	3	1	5
	Salary	1	4	0	5
	Rent	2	0	0	2
	Wages	4	2	4	10
	Profit	1	2	0	3
	Others	1	4	10	15
Years of membership	Up to 10 years	4 (40)	2 (17)	7 (54)	13 (37)
	11 – 20 years	3 (30)	2 (17)	1 (8)	6 (17)
	21 – 30 years	3 (30)	8 (97)	5 (38)	16 (46)
	Total	10 (100)	12 (100)	13 (100)	35 (100)
No. of years as board member	Up to 10 years	4 (40)	11 (92)	11 (85)	26 (74)
	11 – 20 years	4 (40)	1 (8)	1 (8)	6 (17)
	21 – 30 years	2 (20)	0	1 (8)	3 (9)
	Total	10 (100)	12 (100)	13 (100)	35 (100)

Note: Figures in parentheses represents percentage to total

Source: Compiled from primary data

Table 4.20 examines the socio economic profile of the Board of Directors (BoD) of selected PCARDBs based on selected socio- economic indicators. It is evident from the

table that Directors of Aluva PCARDB (50 percent) and Irinjalakkuda PCARDB (38 percent) were in the age category of above 60 years whereas, for Alathur PCARDB (50 percent) were in the category of 51- 60 years. Therefore, it is concluded that out of 35 Directors, 80 percent were in the age group of above 50 years of which 50 percent belonged to the group above 60 years. Thus it could be concluded that the banks had failed to attract youngsters in the board of management.

Male members dominates the Director Board with 60 percent for Aluva bank, 75 percent for Alathur bank and 77 percent for Irinjalakkuda bank. However, the mandatory seats for females in the Board were fulfilled by Aluva bank (4 Directors), Alathur bank (3 Directors) and Irinjalakkuda bank (3 Directors). Thus, as a whole, it is clear that 71 percent were males and 29 percent were females out of 35 Directors.

The religion wise distribution revealed that 50 percent, 92 percent and 69 percent Directors of Aluva, Alathur and Irinjalakkuda PCARDB belonged to the Hindu community. Therefore, in toto, majority of the Directors belonged to Hindu community (71 percent) followed by Christian (17 percent) and Muslim (11 percent).

The caste wise cross section of the respondents reveals that majority of the Directors of Aluva bank belongs to general category (60 percent) followed by OBC (20 percent) and SC (20 percent). In the same way, Irinjalakkuda bank Directors dominates in the general category (54 percent) followed by OBC (46 percent). However, Alathur bank shows that 67 percent of the Directors are under OBC category which is followed by general (25 percent) and SC (8 percent). Thus, among the total Directors, 44 percent each belonged to the general category and OBC followed by SC category (11 percent).

Ninety percent of the Directors of Aluva bank were married and one person was a widower. All Directors of Alathur bank were married. However, except on person all other Directors of Irinjalakkuda bank were married. Therefore, among the Directors of the sample banks 94 percent of them were married.

The education status of the directors' ranged from primary to graduation. Majority of the directors of selected banks viz. 50 percent of Aluva bank, 60 percent of Alathur bank and 77 percent of Irinjalakkuda bank had high school education. Three Directors each of Aluva and Irinjalakkuda bank and two Directors of Alathur bank had post-graduation. Hence it could be concluded of the total Directors, 63 percent had high school education, 23 percent were graduates and 14 percent had primary education.

The economic status of the directors examined based on the status in the ration cards revealed that majority of the Directors of Aluva bank (90 percent), Irinjalakkuda bank (62 percent) and Alathur bank (50 per cent) belonged to APL category. Finally, among the total Directors, 66 percent were in APL category.

The employment status of the respondents revealed that self-employed directors are more in Aluva bank (70 percent) and Irinjalakkuda bank (54 percent) whereas majority of the Directors of Alathur bank were unemployed (58 percent). The self-employed directors, are engaged in agriculture, business, service and other forms of employment whereas among the wage-employed directors, one from Alathur bank is a non-agricultural labourer and five of Irinjalakkuda bank were government employees. Thus, it is clear that out of the total directors of sample banks, 51 percent were self-employed, 31 percent were unemployed and 17 percent were wage- employed.

Monthly income status of the Directors shows majority of them of Aluva bank (70 percent) and Irinjalakkuda bank (69 percent) acquired income ranging from Rs. 10,000- Rs. 15,000. However, monthly income of Alathur bank Directors fell in the category of below 10,000 (33 percent) and Rs. 10,000- Rs. 15,000 (33 percent). The sources of their income were agriculture, salary, rent, wages, profit and other sources. Therefore, it is understood that among the total Directors, 57 percent earned income ranging from Rs. 10,000- Rs. 15,000, 20 percent earned income below Rs. 10,000, 11 percent earned Rs' 15,000 to Rs. 20,000 and the rest of them (12 percent) earned above Rs. 20,000.

It is clear from the table that majority of Directors of Aluva bank had membership of less than 10 years in the bank (40 percent) whereas 97 percent of the Directors of Alathur bank acquired membership ranging from 21 to 30 years. Similarly, majority Directors of Irinjalakkuda bank (54 percent) had membership in their bank for less than 10 years. Therefore, as a whole, it is understood that 46 percent of the Directors had membership ranging from 21-30 years, 37 percent had membership of up to 20 years and 11 percent had membership of 11-20 years.

Majority of the Directors of Aluva bank had experience as a Board member for less than twenty years (80 percent) whereas Alathur bank Directors had an experience of less than ten years (92 percent). In the same way, majority of Irinjalakkuda Board members also had service of less than ten years as a Board member (82 percent). Thus, it is clear from the overall data that, 74 percent of the Directors had Board membership of less than ten years, 17 percent had service on 11-20 years and only 9 percent had experience as a Board member for more than 20 years.

4.4.1.2 Administrative problems perceived by Board of Directors

Administrative problems perceived by Board of Directors were classified into three and studied in detail. The findings are discussed in the following section.

- a. Administrative problems related with Board meeting
- b. Administrative Problems related with General Body meeting
- c. Administrative problems related with audit

a) Administrative problems related with Board meeting

Board of directors are the representative body of the general body of members of a co-operative society entrusted with rights, powers and responsibility to take appropriate decisions and execute them for and on behalf of the general body for the fulfilment and attainment of organisational objectives and goals. The sum total of duties and activities performed by board of directors to fulfill the aspirations of the general body can be termed

as administration. Any hurdles that comes in the process of administration are considered as administrative problems for the present study. The table 4.21 attempts to examine the major administrative problems related with general body as perceived by Board of Directors.

Table 4.21 Administrative problems related with Board meeting perceived by Board of Directors

Sl. No	Statements	Aluva		Alathur		Irinjalakkuda		Total	
		Score	Index	Score	Index	Score	Index	Score	Index
1	Board meetings are not conducted regularly	17	34	18	30	22	37	57	33
2	Notice for Board meetings not received in time	17	34	18	30	22	37	57	33
3	Agenda for the Board meetings not intimated in advance	18	36	21	35	22	37	61	35
4	Documents/information for deliberations in Board meetings not circulated in advance	18	36	21	35	22	37	61	35
5	Board meetings usually resorted to ad hoc decisions	19	38	22	37	22	37	63	36
6	Board meetings were suspended due to insufficient quorum	20	40	21	35	24	40	65	37
7	Board meetings were conducted even without quorum in exceptional cases	20	40	21	35	24	40	65	37
8	Board meetings were inconclusive of agenda of meetings	20	40	22	37	24	40	66	38
9	Seldom involve in day to day managerial issues of the bank	21	42	24	40	24	40	69	39
10	Seldom monitor the implementation of decisions of Board meeting	20	40	24	40	24	40	68	39
	Composite Index	190	35	212	32	230	35	632	37

Source: Compiled from primary data

Table 4.22 Classification of administrative problems related with Board meeting perceived by Board of Directors based on intensity

Sl. No	Statements	Aluva	Alathur	Irinjalakkuda
1	Board meetings are not conducted regularly	Tolerable	Tolerable	Tolerable
2	Notice for Board meetings not received in time	Tolerable	Tolerable	Tolerable
3	Agenda for the Board meetings not intimated in advance	Tolerable	Tolerable	Tolerable
4	Documents/information for deliberations in Board meetings not circulated in advance	Tolerable	Tolerable	Tolerable
5	Board meetings usually resorted to ad hoc decisions	Tolerable	Tolerable	Tolerable
6	Board meetings were suspended due to insufficient quorum	Tolerable	Tolerable	Tolerable
7	Board meetings were conducted even without quorum in exceptional cases	Tolerable	Tolerable	Tolerable
8	Board meetings were inconclusive of agenda of meetings	Tolerable	Tolerable	Tolerable
9	Seldom involve in day to day managerial issues of the bank	Risk	Tolerable	Tolerable
10	Seldom monitor the implementation of decisions of Board meeting	Tolerable	Tolerable	Tolerable

Source: Compiled from primary data

The table 4.21 shows the administrative problems existing in the bank related with Board meeting. It is clear from the table that the index ranged between 17 and 42 for the selected banks. The composite index for the sample banks i.e. Aluva, Alathur and Irinjalakkuda banks were 35, 32 and 35 respectively.

The indices of Aluva bank were included under the category 0-20 and 20-40. The statement "seldom involve in day to day managerial problems of the bank" (Index 42) fell in the category 41-60 which is a 'risk' that the bank faces. Managerial problems of the bank should be properly monitored by the management and therefore statement 10 was ranked as one of the problems faced by the bank. Rest of the statements i.e. "Board meetings are not conducted regularly", "notice for Board meetings not received in time", "agenda for the Board meetings not intimated in advance", "documents/information for deliberations in Board meetings not circulated in advance", "Board meetings usually resorted to ad hoc decisions", "Board meetings were suspended due to insufficient quorum", "Board meetings were conducted even without quorum in exceptional cases" and "Board meetings were inconclusive of agenda meetings" fell in the index category 21-40 which states that the problems are 'tolerable'.

In case of Alathur bank, none of the statements fell in the category 41-60 (risk), 61-80 (severe) and 81-100 (chronic) which means that no major administrative problems related to Board meeting exists in the bank in the opinion of Board of Directors. All the statements belonged to the category 21-40 which states that the problems existing in the bank were 'tolerable'. In other words, administrative problems related to the Board meeting were tolerable such that Board meetings are conducted regularly, notice of the meeting is received in time, agenda is intimated in advance, information for deliberations in Board meetings are circulated in advance, Board meetings does not resort to ad hoc decisions nor suspended due to insufficient quorum nor conducted without quorum in exceptional cases, agenda in the meeting is always concluded, there is frequent involvement in day to day managerial problems of the bank, and decisions of the Board

meeting are implemented without fail. Thus, it is understood the bank is led by a panel of Board of Directors who were scrupulous in carrying out meetings and is well-organised.

In case of Irinjalakkuda bank, it is clear that all statements were in the tolerable category of 21-40 which means, no major administrative problems are present in the bank.

Thus, the overall index of the Board of Directors revealed that statements can be termed as 'tolerable' as it fell in the category 21-40. Correspondingly, the composite index was 36 which is again, under the category 21-40, 'tolerable'. Therefore, it can be safely concluded that none of the above mentioned problems had affected the administration of the three banks under study.

In order to determine if there is any statistical difference among the administrative problems of the three banks related with Board meeting, Kruskal-Wallis H test (One way ANOVA on ranks) was administered and found that there was significant difference among the administrative problems related to the Board meeting of the selected banks (P-value = 0.002*).

b) Administrative Problems related with General Body meeting perceived by Board of Directors

General Body, which is the supreme authority of a cooperative organisation consisting of its members meets annually, commonly known as "general body meeting". The main motive behind the meeting is to decide upon the policies and programmes of the bank. The general body meeting and its conduct often results in certain problems that may considerably affect the authority and administration of the bank. Hence the table 4.23 tries to figure out the administrative problems existing in the selected banks related with general body meeting in the opinion of the Board of Directors.

Table 4.23 Administrative Problems related with General Body perceived by Board of Directors

Sl. No	Statements	Aluva		Alathur		Irinjalakkuda		Total	
		Score	Index	Score	Index	Score	Index	Score	Index
1	GB meetings are not conducted regularly	19	38	24	40	24	40	67	38
2	Failed to circulate GB notice in time	19	38	24	40	24	40	67	38
3	Agenda for the GB meetings not intimated in advance	19	38	24	40	24	40	67	38
4	Documents/information for deliberations in GB meetings not circulated in advance	16	32	24	40	15	25	55	31
5	Occasional attendance in the GB meetings	17	34	24	40	15	25	56	32
6	Rare involvement in discussions in the GB meetings	19	38	24	40	24	40	67	31
7	GB meetings usually resorted to ad hoc decisions	19	38	24	40	24	40	67	31
8	GB meetings were suspended due to insufficient quorum	15	30	24	40	15	25	54	38
9	GB meetings were conducted even without quorum in exceptional cases	15	30	24	40	15	25	54	38
10	GB meetings were inconclusive of agenda meetings	15	30	24	40	15	25	54	38
11	Delay in implementing decisions of GB	20	40	24	40	24	40	68	39
	Composite Index	193	32	264	37	219	30	676	36

Source: Compiled from primary data

140

Table 4.24 Classification of administrative problems related with General Body perceived by Board of Directors based on intensity

Sl. No	Statements	Aluva	Alathur	Irinjalakkuda
1	GB meetings are not conducted regularly	Tolerable	Tolerable	Tolerable
2	Failed to circulate GB notice in time	Tolerable	Tolerable	Tolerable
3	Agenda for the GB meetings not intimated in advance	Tolerable	Tolerable	Tolerable
4	Documents/information for deliberations in GB meetings not circulated in advance	Tolerable	Tolerable	Tolerable
5	Occasional attendance in the GB meetings	Tolerable	Tolerable	Tolerable
6	Rare involvement in discussions in the GB meetings	Tolerable	Tolerable	Tolerable
7	GB meetings usually resorted to ad hoc decisions	Tolerable	Tolerable	Tolerable
8	GB meetings were suspended due to insufficient	Tolerable	Tolerable	Tolerable
9	GB meetings were conducted even without quorum in exceptional cases	Tolerable	Tolerable	Tolerable
10	GB meetings were inconclusive of agenda meetings	Tolerable	Tolerable	Tolerable
11	Delay in implementing decisions of GB	Tolerable	Tolerable	Tolerable

Source: Compiled from primary data

Table 4.23 shows administrative problems existing in the selected banks related with general body meeting. The ratios were in the category of 21-40 for the selected banks. The composite ratio was ranked 32 for Aluva bank, 37 for Alathur bank and 30 for Irinjalakkuda bank. It is very clear from the table that for Aluva bank, Alathur bank and Irinjalakkuda bank, all statements had fallen in the category 21-40, which says problems in the banks are 'tolerable'. It is understood from the opinion of the Board that GB meetings were conducted regularly, notices were circulated on time, agenda for the GB meetings were intimated in advance, regular involvement of Directors in discussions in the GB meetings, GB meetings were usually resorted to detailed discussions, there was no suspension of GB meetings due to insufficient quorum, no GB was conducted without quorum, no GB concluded without completing the agenda of the meeting, and there was no delay in implementing the GB decisions as well.

Likewise, the composite index of the Board of Directors (Index 35) together shows that the administrative problems related with the general body meeting fell under the category of 21-40 which is 'tolerable'. Therefore, it is concluded from the study that there were no problems related general body meeting for the selected banks. Further, the general body of the selected banks were active in its functioning which in turn gain the trust and confidence of the customers in the bank.

Kruskal – Wallis H test on Administrative problems related with General Body meeting perceived by Board of Directors concluded that there was significant difference among the administrative problems related with general body meeting of the selected banks (P-value = 0.001**).

c) Administrative problems related with audit perceived by Board of Directors

Auditing is the process of examining an organization's financial records to determine whether they are accurate and in accordance with applicable rules, laws and bye-laws. Such problems considerably affects the administration of the bank. Therefore, an attempt is made to examine the possibility of such problems existing in the sample banks, as opined by the Board of Directors.

Table 4.25 Administrative problems related with audit perceived by Board of Directors

Sl. No	Statements	Aluva		Alathur		Irinjalakkuda		Total	
		Score	Index	Score	Index	Score	Index	Score	Index
1	Delay in conducting annual audit	20	40	23	38	24	40	67	37
2	Delay in rectification of audit defects	20	40	24	40	22	37	66	37
3	Down gradation of audit classification of the Bank	20	40	22	37	22	37	64	38
4	Inquiry was ordered based on audit report/other reasons	20	40	24	40	24	40	68	39
	Composite Index	80	40	93	39	92	38	265	35

Source: Compiled from primary data

143

Table 4.26 Classification of administrative problems related with audit perceived by Board of Directors based on intensity

Sl. No	Statements	Aluva	Alathur	Irinjalakkuda
1	Delay in conducting annual audit	Tolerable	Tolerable	Tolerable
2	Delay in rectification of audit defects	Tolerable	Tolerable	Tolerable
3	Down gradation of audit classification of the Bank	Tolerable	Tolerable	Tolerable
4	Inquiry was ordered based on audit report/other reasons	Tolerable	Tolerable	Tolerable

Source: Compiled from primary data

Table 4.25 shows whether problems are existing in the selected banks related with conducting of audit. It is clear from the table that the composite index ranked 40, 39 and 38 respectively for Aluva, Alathur and Irinjalakkuda banks.

From the indices of selected banks, it is understood that all statements were in the category of 21-40 which means that the problems related with audit existing in the banks were 'tolerable'. The Board of Directors of the selected banks either disagreed or strongly disagreed all the statements mentioned above. It was found that there was no delay in conducting the audit by the banks nor rectification of audit defects, audit classification of the bank was not relegated and inquiry was ordered based on audit report. Thus, it is understood that the selected banks successfully carries out the audit processes.

Similarly, the overall index of the Board of Directors (Index 35) shows that administrative problems related with audit were rated in the 'tolerable' category of 21-40 which states that auditing of the selected banks were executed regularly. Therefore, it is concluded that the Board of selected banks were of the opinion that the audit process and procedure were carried out by the banks at its best with minimum problems.

The results of the Kruskal-Wallis test concluded that there was no significant difference in the administrative problems related to audit for the selected banks (P-value 0.151). In other words, selected banks faced similar problems related with audit.

4.4.1.3 Functional problems perceived by Board of Directors

The key function of Board of Directors in general is to make decision as a fiduciary on behalf of its members. Tasks that falls under Board's purview includes decisions on sanctioning the loan, post loan supervision, loan appraisal, taking proper action against defaulters etc. Problems which may occur meanwhile carrying out these functions in a bank are called functional problems. Thus, the table 4.27 tries to analyse the major functional problems existing in the sample banks as perceived by the Board of Directors.

Table 4.27 Functional problems perceived by Board of Directors

SL No	Statements	Aluva		Alathur		Irinjalakkuda		Total	
		Score	Index	Score	Index	Score	Index	Score	Index
1	Untimely issue of loans and procedural delays in loan issue	15	30	22	37	15	25	52	30
2	Inadequate loan appraisal and credit planning	18	36	24	40	21	35	63	36
3	Absence of post loan monitoring/supervision	18	36	22	37	24	40	64	37
4	Mounting of NPA	40	80	48	80	48	80	136	78
5	Delay in initiating legal proceedings against defaulters	19	38	24	40	21	35	64	37
6	Non-execution of incentives for prompt repayment	36	30	24	40	24	40	84	48
7	Absence of serving reminders/notice for repayment of the loan	19	38	24	40	21	35	64	37
8	Absence of charging penal interest on defaulters	20	40	24	40	24	40	68	39
9	No action initiated against diversion of loan	19	38	24	40	21	35	64	37
	Composite Index	204	41	236	44	219	41	683	42

Source: Compiled from primary data

Table 4.28 Classification of functional problems perceived by Board of Directors based on intensity

Sl. No	Statements	Aluva	Alathur	Irinjalakkuda
1	Untimely issue of loans and procedural delays in loan issue	Tolerable	Tolerable	Tolerable
2	Inadequate loan appraisal and credit planning	Tolerable	Tolerable	Tolerable
3	Absence of post loan monitoring/supervision	Tolerable	Tolerable	Tolerable
4	Mounting of NPA	Severe	Severe	Severe
5	Delay in initiating legal proceedings against defaulters	Tolerable	Tolerable	Tolerable
6	Absence of incentives for prompt repayment	Tolerable	Tolerable	Tolerable
7	Absence of serving reminders/notice for repayment of the loan	Tolerable	Tolerable	Tolerable
8	Absence of charging penal interest on defaulters	Tolerable	Tolerable	Tolerable
9	No action initiated against diversion of loan	Tolerable	Tolerable	Tolerable

Source: Compiled from primary data

147

Table 4.27 shows the functional problems existing in the selected banks. It was found that the composite index for the selected banks i.e. Aluva, Alathur and Irinjalakkuda banks were registered 41, 44 and 45 respectively. It is understood from the table that the index for Aluva bank ranged from 30 to 80 which fall under the categories 21-40 and 61-80. Index of 80 was administered for the statement "mounting NPA" which was a 'severe' problem whereas, rest of the problems were categorised as 'tolerable' (21-40). Increasing overdue of is one among the reason behind impairments in PCARDBs as rightly pointed out by Prof. Vaidyanathan (Report, 2006) in his report "Report of the Task Force on Revival of Rural Co-operative Credit Institutions (Long-term)". Adalat processes carried out by the banks were always in the forefront to tackle down the problems of NPA. However, the problem still exists for which the bank needs to take appropriate curative measures. Statements other than "mounting NPA" were under the category 21-40 i.e. bank has a reasonable performance in its operations in such a way that problems were 'tolerable'.

Similar is the case with Alathur bank. "Mounting NPA" which fell under the category 61-80 was the 'severe' functional problem faced by the bank. All other statements were under the category 21-40 which is 'tolerable'. It is understood from the opinion of Board of Directors that, loan were issued timely without procedural delays, there is adequacy in loan appraisal and credit planning, bank had suitable post loan supervision, no delay in initiating legal proceedings against defaulters and penal interest was charged for defaulters, repayers were always given notice for repayment of the loan and incentives were given for prompt repayers, and suitable action was initiated against the diversion of loan.

In the same way, major functional problem faced by Irinjalakkuda bank was also "Mounting NPA" under the category 61-80 which is called 'severe'. Rest of the statements were categorized in 21-40 which are 'tolerable'. It should be noted that Irinjalakkuda bank were forerunners in banking business among the long term cooperative banks in the state and had kept a lower NPA of less than 3 percent till bifurcation in the year 2015.

Finally, the overall index of the Board of Directors of selected banks showed “Mounting NPA” (Index 78) under the category 61-80 called ‘severe’ and the statement “absence of incentives for prompt repayment” (Index 48) under the category 41-60 called ‘risk’. The composite index of the Board of Directors was administered 42. Therefore, it can be concluded that major functional issue faced by the banks in the opinion of Board of Directors was increasing overdue over the years.

Kruskal – Wallis H test on functional problems perceived by Board of Directors found that there was no significant difference among the functional problems of the selected banks (P-value = 0.99) which means, functional problems confronted by the selected banks were the same.

4.4.1.4 Structural problems perceived by Board of Directors

Structure is the framework within which an organization functions. There are internal as well as external factors that may either support or may hinder the framework. Board of Directors being the owners who manages the affairs of the bank have to face the hurdles, if any, within that framework. Therefore, table 4.29 examines the structural problems faced by the selected banks as perceived by the Board of Directors.

Table 4.29 Structural problems perceived by Board of Directors

Table 4.29 depicts the structural problems existing in the selected banks. The calculated index ranged from 18 to 80 for the banks. It is clear that the composite index for Aluva, Alathur and Irinjalakkuda banks were registered 55, 36 and 55 respectively.

The index of the Aluva bank ranged from 36 to 80 which means, the index fell under 21-40 and 61-80 categories. The higher index administered for the statements were “restrictive laws” (Index 76), “existence of multiple regulations (Index 76)”, “existence of govt. waiver schemes” (Index 76), “over politicization and excess government control” (Index 74) and “lack of modern management techniques and absence of MIS” (Index 70) which were in the category 61-80 termed as ‘severe’. The cooperative laws are restrictive

Table 4.29 Structural problems perceived by Board of Directors

Sl. No	Statements	Aluva		Alathur		Irinjalakkuda		Total	
		Score	Index	Score	Index	Score	Index	Score	Index
1	Unethical and poor management practices	18	36	20	33	21	35	59	34
2	Heavy dependency on government capital rather than shareholder's contribution	19	38	24	40	21	35	64	37
3	Lack of modern management techniques and absence of MIS	35	70	21	35	44	73	100	57
4	Restrictive laws	38	76	24	40	48	80	110	63
5	Existence of multiple regulations	38	76	24	40	48	80	110	63
6	Existence of govt. waiver schemes	38	76	24	40	48	80	110	63
7	Corruption and corrupt practices	21	42	24	40	24	40	69	39
8	Attrition	21	42	24	40	24	40	69	39
9	Bureaucracy in administration of cooperatives	21	42	24	40	24	40	69	39
10	Predominance of vested interest of a particular person or class	21	42	24	40	24	40	69	39
11	Over politicization and excess government control	37	74	24	40	48	80	109	62
12	Absence of regular performance appraisal of employees	20	40	24	40	24	40	68	39
	Composite Index	327	55	281	39	398	55	1006	48

Source: Compiled from primary data

150

Table 4.30 Classification of structural problems perceived by Board of Directors based on intensity

Sl. No	Statements	Aluva	Alathur	Irinjalakkuda
1	Unethical and poor management practices	Tolerable	Tolerable	Tolerable
2	Heavy dependency on government capital rather than shareholder's contribution	Tolerable	Tolerable	Tolerable
3	Lack of modern management techniques and absence of MIS	Severe	Tolerable	Risk
4	Restrictive laws	Severe	Tolerable	Tolerable
5	Existence of multiple regulations	Severe	Tolerable	Tolerable
6	Existence of govt. waiver schemes	Severe	Tolerable	Tolerable
7	Corruption and corrupt practices	Tolerable	Tolerable	Tolerable
8	Attrition	Tolerable	Tolerable	Tolerable
9	Bureaucracy in administration of cooperatives	Tolerable	Tolerable	Tolerable
10	Predominance of vested interest of a particular person or class	Tolerable	Tolerable	Tolerable
11	Over politicization and excess government control	Severe	Tolerable	Severe
12	Absence of regular performance appraisal of employees	Tolerable	Tolerable	Tolerable

Source: Compiled from primary data

151

Table 4.30 Classification of structural problems perceived by Board of Directors based on intensity

Sl. No	Statements	Aluva	Alathur	Irinjalakkuda
1	Unethical and poor management practices	Tolerable	Tolerable	Tolerable
2	Heavy dependency on government capital rather than shareholder's contribution	Tolerable	Tolerable	Tolerable
3	Lack of modern management techniques and absence of MIS	Severe	Tolerable	Risk
4	Restrictive laws	Severe	Tolerable	Tolerable
5	Existence of multiple regulations	Severe	Tolerable	Tolerable
6	Existence of govt. waiver schemes	Severe	Tolerable	Tolerable
7	Corruption and corrupt practices	Tolerable	Tolerable	Tolerable
8	Attrition	Tolerable	Tolerable	Tolerable
9	Bureaucracy in administration of cooperatives	Tolerable	Tolerable	Tolerable
10	Predominance of vested interest of a particular person or class	Tolerable	Tolerable	Tolerable
11	Over politicization and excess government control	Severe	Tolerable	Severe
12	Absence of regular performance appraisal of employees	Tolerable	Tolerable	Tolerable

Source: Compiled from primary data

152

in mobilising deposits, investing in other agencies, restrictions in business, adaptability to changing environment etc. Political and government interference is yet another major issue faced by the bank. Unlike commercial banks, cooperative banks lack the practice of modern management and MIS which is another major issue. Correspondingly, the rest of statements were under the category 21-40 which can be termed 'tolerable'.

In case of Alathur bank, all statements were category of 21-40 which is said to be 'tolerable'. From the opinion of the Board of Alathur bank, it is understood that bank follow ethical and good management practices, depends on funds from government, utilisation of modern management practices and MIS, bank have unrestricted structural laws, existence of multiple regulations, existence of government waiver schemes, bank follow uncorrupt practices, fill vacant posts, democratic administration, there is no dominance of vested interest, less political and government interference and there was follow up of performance appraisal of employees of the bank.

In case of Irinjalakkuda bank, there were five statements which fell under the category 61-80 which is 'severe'. Higher index was for four statements namely, "restrictive laws" (Index 80), "existence of multiple regulations" (Index 80), "existence of govt. waiver schemes" (Index 80), "over politicisation and excess government control" (Index 80) and "lack of modern management techniques and absence of MIS" (Index 76) which means the Board of the bank strongly agreed to the above statements. Rest of the statements were categorised under the range 21-40, termed as 'tolerable' which means, the bank follows ethical and good management practices, depends on government contributions, follow uncorrupt practices, fill vacant posts, carries out democratic administration, there was no dominance of vested interest and there was follow up of performance appraisal of employees of the bank.

Likewise, the index of Board of Directors revealed that four statements namely "restrictive structural laws" (Index 63), "existence of multiple regulations (Index 63)", "existence of govt. waiver schemes" (Index 63), "over politicisation and excess

government control” (Index 62) were categorized in the range 61-80 which says the these structural problems existing in the banks were ‘severe’. Similarly, one statement, “lack of modern management techniques and absence of MIS” (Index 57) was categorised in the range 41-60 which is said to be ‘risk’ for the banks. Rest of the statements were categorized in 21-40 which is ‘tolerable’ and the composite index was registered 48.

Therefore, it is concluded that the structural problems existing in the banks were severe. Unfortunately, these problems cannot be tackled by the banks alone as it is related to the cooperative law.

Kruskal – Wallis H test on structural problems perceived by Board of Directors concluded that, there was significant difference among the structural problems faced by the selected banks (P-value = 0.00**).

4.4.1.5 Human Resource related problems perceived by Board of Directors

Board of Directors, being the administrators who administer the day to day affairs of the bank is also responsible to deal with the employees and provide them adequate working conditions. The success of any organisation to a great extent depends upon the harmonious blend among the members of the board. The table 4.31 attempts to analyse the problems related with the human resource in selected banks, if any, as perceived by the Board of Directors.

Table 4.31 Human Resource related problems perceived by Board of Directors

Table 4.31 shows the responses of the board of directors on human resource related problems in the selected banks. It is very clear that the index ranged from 22 to 80 for the selected banks. Further, the composite index was registered 42, 39 and 42 for Aluva, Alathur and Irinjalakkuda banks.

It is very clear from the table that the index ranged from 37 to 48 for the selected banks which had fell in the ranges of 21-40 and 41-60. In case of Aluva and Irinjalakkuda banks, the highest index was for the statement “employees do not addresses the grievances

Table 4.31 Human Resource related problems perceived by Board of Directors

SL No	Statements	Aluva		Alathur		Irinjalakkuda		Total	
		Score	Index	Score	Index	Score	Index	Score	Index
1	Employees do not address the grievances raised by the members	24	48	24	40	28	47	76	43
2	Employees do not motivate member participation in business	20	40	22	37	24	40	66	38
3	Disinterest to manage performance of employees consistently	20	40	24	40	24	40	68	39
4	Low employee participation in both business & management	20	40	24	40	24	40	68	39
5	Employees meeting were not convened in emergency situations	20	40	24	40	24	40	68	39
6	Composite Index	104	42	118	39	124	42	346	40

Source: Compiled from primary data

155

Table 4.32 Classification of human resource related problems perceived by Board of Directors based on intensity

Sl. No	Statements	Aluva	Alathur	Irinjalakkuda
1	Employees do not address the grievances raised by the members	Risk	Tolerable	Risk
2	Employees do not motivate member participation in business	Tolerable	Tolerable	Tolerable
3	Disinterest to manage performance of employees consistently	Tolerable	Tolerable	Risk
4	Low employee participation in both business & management	Tolerable	Tolerable	Tolerable
5	Employees meeting were not convened in emergency situations	Tolerable	Tolerable	Tolerable

Source: Compiled from primary data

156

raised by the members” which was under the category 41-60, termed as ‘risk’. Grievance redressal is an important strategy that should be followed in all type of organisations in order to preserve their human resource. However, in the opinion of Board of Directors of Aluva and Irinjalakkuda banks, the problem of not addressing the grievances are at risk and the banks have to resolve the problem. All the other statements fell under the category 21-40 which means the problems are ‘tolerable’. The Board were of the opinion that bank motivates the employees to participate in the business and in the management, bank was interested in managing the performance of the employees and in emergency situations, employee meetings are convened.

However, Alathur bank categorised all of the statements in the range of 21-40 which says the problems are ‘tolerable’. Thus, the Board of Directors of Alathur bank was of the opinion that employees are always being motivated by the management to participate in the business, grievances of the members are always addressed by the employees of the bank, manages the performance of the employees, members always participated in business & management and employee meetings were always convened in emergency situations.

Correspondingly, the total index of the Board of Directors categorised the statement “employees do not addresses the grievances raised by the members” (Index 43) in the range of 41-60 which can be termed as ‘risk’ whereas rest of the statements fell under the category of 21-40 which was ‘tolerable’. Thus, it is understood that the Board of Directors of the Aluva and Irinjalakkuda banks have to address the grievances raised by the employees whereas Alathur bank always encourages their employees in meeting the business goals of bank.

Therefore, based on the index of the selected banks, it could be concluded that the management of the banks strives in maintaining smooth inter and intra relationships among the employees. Literally, no problems related to the human resource exits in the banks, said Board.

Kruskal – Wallis H test on HR related problems perceived by Board of Directors showed that there was significant difference among the human resource related problems faced by the selected banks (P-value = 0.00**).

4.4.2 Operational and managerial problems of the bank perceived by employees

The operational and managerial problems faced by the banks perceived by employees are analysed under various heads as follows:

4.4.2.1 Socio- economic profile of the employees of selected banks

The socio-economic profile of the employees of selected banks is presented in the following table.

Table 4.33 Socio- economic profile of the employees of selected banks.

Variables	Category	ALY	ALT	IJK	Total
Age	Up to 40 years	7 (29)	7 (37)	1 (14)	15 (30)
	41-50	9 (38)	9 (47)	2 (29)	20 (40)
	51-60	8 (33)	3 (16)	4 (57)	15 (30)
	Total	24 (100)	19 (100)	7 (100)	50 (100)
Gender	Male	13 (54)	10 (53)	5 (71)	28 (56)
	Female	11 (46)	9 (47)	2 (29)	22 (44)
	Total	24 (100)	19 (100)	7 (100)	50 (100)
Marital status	Married	23 (95)	17 (89)	7 (100)	47 (94)
	Unmarried	1(5)	1 (5)	0	2 (4)
	Widow	0	1 (5)	0	1 (2)
	Total	24 (100)	19 (100)	7 (100)	50 (100)
Education	Graduate	13 (54)	11 (58)	7 (100)	31 (62)
	Post Graduate	3 (13)	5 (26)	0	8 (16)
	Others	8 (33)	3 (16)	0	11 (22)
	Total	24 (100)	19 (100)	7 (100)	50 (100)
Technical education	Yes	10 (42)	10 (53)	5 (71)	25 (50)
	No	14 (58)	9 (47)	2 (29)	25 (50)
	Total	24 (100)	19 (100)	7 (100)	50 (100)

Monthly Income	20000-25000	3 (13)	3 (16)	1 (14)	7 (14)
	25000-50000	15 (63)	12 (63)	1 (14)	28 (56)
	Above 50000	6 (23)	4 (21)	5 (71)	15 (30)
	Total	24 (100)	19 (100)	7 (100)	50 (100)

Note: Figures in parentheses represents percentage to total
Source: Compiled from primary data

Table 4.33 presents the socio-economic profile of employees of selected PCARDBs based on selected socio- economic indicators. It is evident from the table that majority of employees of Aluva (38 percent) and Alathur bank (47 percent) were in the age category of 41-50 years whereas, majority of employees of Irinjalakkuda bank fell in the age category of 51-60. Besides, 33 percent of employees of Aluva bank belonged to the age group of 51-60 years. Thus, out of the total employees of selected banks, 40 percent were in the upper middle age group of 41-50 and 30 percent were in the age group of 51-60 and only 30 percent had age of up to 40 years which shows that the presence of youth is comparatively low.

It is clear from the table that male employees dominated with 54 percent in Aluva bank, 53 percent in Alathur bank and 71 percent in Irinjalakkuda bank. However, Alathur bank which had three branches dominates with highest number of female staff (47 percent) among the sample banks. Thus, it is clear that 56 percent of the employees of selected banks were males and the rest 44 percent were females.

The study on marital status concluded that majority of the employees were married with Irinjalakkuda bank leading (100 per cent) followed by Aluva bank (95 per cent) and Alathur bank (89 per cent). It is understood that among the total employees of the selected banks, 94 percent were married, two were unmarried and one was a widow.

The education wise cross-section of the employees revealed that majority of employees of the sample banks i.e. 54 percent of Aluva bank, 58 percent of Alathur bank and 100 percent of Irinjalakkuda bank were graduates. However, 13 and 26 percent of employees of Aluva and Alathur banks respectively had post-graduation. Therefore, out

of the total employees of the selected bank, 62 percent were graduates, 16 percent had post-graduation and the rest 22 percent had other qualification like JDC, HDC and other diploma courses.

The technical education status of the employees revealed that majority of respondents of Aluva bank (58 percent) do not possess any technical qualifications, however, 53 percent employees of Alathur bank and 71 percent of Irinjalakkuda bank had technical qualification besides general education. Thus, out of the total employees of the banks, 50 percent had technical qualification and the rest of them had not.

The income status of the employees revealed that majority of employees of Aluva bank (63 percent) and Alathur bank (63 percent) had a monthly income in the range of Rs. 25000-50000 whereas, the majority (71 per cent) of employees of Irinjalakkuda bank had monthly income more than Rs. 50000. Moreover, 23 percent of employees of the Aluva and 21 percent of Alathur bank had a monthly income above Rs. 50000. Therefore, it is understood that majority (56 percent) of employees of the selected banks had monthly income in the range of Rs. 25000-50000, 30 percent earned above Rs. 50000 and the rest had income of below Rs. 25000.

Having examined the general profile of the employees, an attempt is made to look into the professional profile of the employees in order to judge the competency of the existing human resources of the selected banks.

4.4.2.2 Professional details of employees

The success and sustainability of an organisation to a large extent depends on the quality of human resources. Quality of the employees depends on their educational qualification, technical and professional qualifications, training programmes attended etc. Table 4.34 presents the profile of the employees of the selected banks.

Table 4.34 Professional details of employees of selected banks

Variables	Category	ALY	ALT	IJK	Total
Designation	Secretary	1	1	1	3
	Asst. Secretary	1	2	1	4
	Branch Manager	2	1	1	4
	Sr. Supervisor	5	4	1	10
	Jr. Supervisor	7	8	2	17
	Sr. Clerk	2	1	0	3
	Jr. Clerk	5	1	1	7
	Record Keeper	1	1	0	2
	Total	24	19	7	50
Years of service	Below 10 years	13 (54)	6 (32)	2 (29)	21 (46)
	11 – 15 years	3 (13)	3 (16)	0	6 (12)
	16 – 20 Years	4 (17)	4 (21)	5 (71)	13 (26)
	Above 20 years	4 (17)	6 (32)	0	10 (20)
	Total	24 (100)	19 (100)	7 (100)	50 (100)
Years of service in the post	Below 1 year	8 (33)	8 (42)	4 (57)	20 (40)
	2 – 5 years	14 (58)	11 (58)	3 (43)	28 (56)
	6 – 9 years	2 (8)	0	0	2 (4)
	Above 10 years	0	0	0	0
	Total	24 (100)	19 (100)	7 (100)	50 (100)
Training attended (Nos.)	One	1	1	0	2 (4)
	Two	0	1	0	1 (2)
	Three	2	1	1	4 (8)
	Four	5	2	0	7 (14)
	Five	9	6	6	21 (42)
	Six	7	6	0	13 (26)
	Seven	0	0	0	0
	Eight	0	2	0	2 (4)
	Total	24	19	7	50 (100)
	Finance	1	2	0	3 (6)
	HR	2	0	0	2 (4)

Areas of training	Marketing	0	0	0	0
	Others	4	9	0	13 (26)
	All	17	8	7	32 (64)
	Total	24	19	7	50 (100)

Source: Compiled from primary data

The table 4.34 shows the professional details of the employees of selected banks. The table analyses the designation of employees, years of service, years of service in the current post, number of training programmes attended and the area of training.

Aluva PCARDB which dominates the other two bank with highest number of staff have (24) more number of Junior Supervisors (7), Senior Supervisors (5) and Junior Clerks (5) followed by Senior Clerks (2). The bank have its branch operating at Angamali (Ernakulum), therefore two managers in action. The Secretary of the bank is assisted by an Asst. Secretary along with a Record Keeper. Alathur PCARDB is having 19 staff in action among which 8 employees are Junior Supervisors followed by 4 Senior Supervisors. The Secretary of the bank is assisted by two Asst. Secretaries and no post is kept vacant. However, in case of Irinjalakkuda PCARDB, there are only 7 staff in action among which two are Junior Supervisors. Further, the posts of Senior Clerk and Record Keeper is vacant. Thus, it is clear that in the selected banks Jr. Supervisors are more in number (16 employees) followed by Sr. Supervisor (9 employees).

Years of service status of the employees reveals that majority of the employees of Aluva bank (54 percent) had a service of less than 10 years in the bank and 17 percent of the employees had experience of more than 20 years. In case of Alathur bank, 32 percent had experience in the bank for less than 10 years and another 32 percent had experience for more than 20 years. However, in Irinjalakkuda PCARDB, among the seven employees, 5 had experience in between 16-20 years and only two employees had service of less than 10 years. Thus, among the selected banks 46 percent of the employees had service in the bank for below 10 years, 26 percent had experience of 16-20 years and only ten percent had service of more than 20 years.

While analyzing the status of years of service in the present post, it is seen that 58 percent of the employees of Aluva and Alathur were in the category of 2-5 years of service of their current post. However, majority of employees of the Irinjalakkuda bank had an experience of less than one year in their current post. It is understood that 56 percent of the employees of selected banks had service in their present post for 2-5 years, 40 percent had service of less than 1 year and nobody had experience of more than 10 years in their current post. Number of training programmes attended has also analysed in order to understand about the technical competency of employees. It is evident from the table that majority of employees (9) of Aluva and Irinjalakkuda banks had attended five training programmes whereas majority of Alathur bank employees (6) attended six training programmes. Therefore, as a whole, 42 percent of the employees of selected banks had attended five training programmes, 26 percent had attended six training programmes and 14 percent had attended five training programmes. The training was attended in the areas of finance, HR, marketing and others by the selected banks. Employees of Aluva bank attended all these areas of training whereas Alathur bank employees attended training of the other category. Employees of Irinjalakkuda bank had participated in all areas of training mentioned above. Therefore, it is understood that majority (64 percent) of the employees of selected banks had attended training in all areas mentioned above.

4.4.2.3 Administrative problems perceived by employees

Board of Directors, the panel of elected owner users who set grand goals and develop an overarching vision for the bank often meets together fortnightly commonly called "Board meeting" act as a policy making body, owns the financial responsibility, deals with bank's business, create policies governing the appointment and duties of Board officers, deals with employee compensation etc faces certain problems that hinders the policies of the Board. Delay in implementing Board decisions, competition from other financial intermediaries and manipulation in record keeping etc. are some among such problems. The major problems perceived by the employees of the selected banks are analysed and presented in table 4.35.

Table 4.35 Administrative problems of the banks perceived by employees

Sl. No	Statements	Aluva		Alathur		Irinjalakkuda		Total	
		Score	Index	Score	Index	Score	Index	Score	Index
1	GB meetings are not conducted regularly	53	44	30	32	7	20	90	36
2	Special GB are not convened in emergency situations	58	48	47	49	7	20	112	45
3	Delay in conducting Board meetings	50	42	37	39	7	20	94	38
4	Delay in implementing Board decisions	50	42	35	37	7	20	92	37
5	Domination of Board curtails operational freedom	74	62	36	38	14	40	124	50
6	Delay in conducting annual audit	64	53	37	39	14	40	115	46
7	Delay in rectification of audit defects	64	53	36	38	14	40	114	46
8	Down gradation of audit classification of the Bank	82	68	37	39	28	80	147	59
9	Competition from other financial intermediaries	91	76	75	79	28	80	194	78
10	Impact of demonetization	91	76	78	82	28	80	197	79
11	Low promotion for stakeholders' interest	70	58	42	44	14	40	126	50
12	Manipulation in record keeping	63	53	40	42	28	80	131	52
13	Lack of transparency in financial statements	60	50	37	39	28	80	125	50
14	Bureaucracy associated with the administration of cooperatives	72	60	34	36	28	80	134	54
	Composite Index	942	56	601	45	252	51	1975	51

Source: Compiled from primary data

164

Table 4.36 Classification of administrative problems of the banks perceived by employees based on intensity

Sl. No	Statements	Aluva	Alathur	Irinjalakkuda
1	GB meetings are not conducted regularly	Risk	Tolerable	Tolerable
2	Special GB are not convened in emergency situations	Risk	Risk	Tolerable
3	Delay in conducting Board meetings	Risk	Tolerable	Risk
4	Delay in implementing Board decisions	Risk	Tolerable	Tolerable
5	Domination of Board curtails operational freedom	Severe	Tolerable	Risk
6	Delay in conducting annual audit	Risk	Tolerable	Risk
7	Delay in rectification of audit defects	Risk	Tolerable	Risk
8	Down gradation of audit classification of the Bank	Severe	Tolerable	Severe
9	Competition from other financial intermediaries	Severe	Severe	Severe
10	Impact of demonetization	Severe	Chronic	Severe
11	Low promotion for stakeholders' interest	Risk	Risk	Risk
12	Manipulation in record keeping	Risk	Risk	Severe
13	Lack of transparency in financial statements	Risk	Tolerable	Severe
14	Bureaucracy associated with the administration of cooperatives	Risk	Tolerable	Severe

Source: Compiled from primary data

1651

The table 4.35 shows the administrative problems faced by the sample banks. The composite index was 56, 45 and 51 for Aluva, Alathur and Irinjalakkuda banks. In case of Aluva bank, the statements which had fell in the category 61-80 were "competition from other financial intermediaries", "impact of demonetisation", "down gradation of audit classification of the bank" and "domination of Board curtails operational freedom" which can be termed as 'severe'. Competency of the bank is questioned by other financial intermediaries with respect to interest on loans. Similarly, employees were of the opinion that post demonetisation, the bank was gasping for breath on account of severe liquidity issues. All the other statements were in the range of 41-60 categorised as risk problems.

Correspondingly, the 'chronic' problem in the opinion of employees of Alathur bank were "impact of demonetisation" which fell in the category 81-100. In the opinion of employees, demonetisation and its aftermath have acquired inevitable political overtones in Kerala that had resulted in unnerving of cooperative banks. Another issue which is 'severe' was "competition from other financial intermediaries" and fell in the category 61-80. Other financial agencies, especially commercial banks which are enriched in net banking, mobile banking, online banking etc is a serious threat to the PCARDSs. The problems fell in the category 41-60, called 'risk' were "special GB are not convened in emergency situations", "low promotion for stakeholders' interest" and "manipulation in record keeping" which the bank has to consider seriously. Rest of the statements were belonged to the category 21-40 which were 'tolerable'.

However, Irinjalakkuda bank employees were of the opinion that the major administrative problems faced were "competition from other financial intermediaries", "impact of demonetisation", "down gradation of audit classification of the bank", "manipulation in record keeping", "lack of transparency in financial statements" and "bureaucracy associated with the administration of cooperatives" which were 'severe'. The statements "domination of Board curtails operational freedom", "delay in conducting annual audit", "delay in rectification of audit defects" and "low promotion for stakeholders' interest" were 'risk' problems and rest of the problems were 'negligible'.

The overall index of the employees of selected banks revealed that the problems “competition from other financial intermediaries” and “impact of demonetization” were the ‘severe’ problems faced by the selected banks. The category of ‘tolerable’ problems comprises of the statements “GB meetings are not conducted regularly”, “delay in conducting Board meetings” and “delay in implementing Board decisions” and rest of the statements were categorised as ‘risk’ problems.

Therefore, it is concluded that the major administrative problems confronted by the sample banks are “competition from other financial intermediaries” and “impact of demonetisation”. Obviously, the demonitisation triggered the smooth functioning of banking sector in Kerala especially cooperative banks as these banks were enjoying a rich legacy in the state by providing credit to farmers without much procedural delay.

Kruskal – Wallis H test on administrative problems perceived by employees concluded that there was significant difference among the administrative problems faced by the selected banks, in the opinion of employees (P-value = 0.002*).

4.4.2.4 Functional Problems perceived by employees

The cooperatives have thrived in the un-banked rural outback of the country for over a century. But their reach and functions vary between co-operatives. Obstacles and hurdles that hinders in the proper functioning of the bank can be termed as a functional issue. For example, the ritualistic write-off of loans of farmers has spawned a series of schemes by the states, announcing waivers of various magnitudes, ranging from interest write-off to partial loan write-offs. This has also made cooperatives a conduit for distributing political patronage, leading to parties vying with each to control these cooperatives. Moreover, faulty loaning policies, inadequate supervision, over-utilisation of loans, ineffective measures for recovery, willful defaulters, etc. are the main causes of unsatisfactory level of overdues. Table 4.37 attempts to analyse the functional problems faced by the bank in the opinion of employees.

Table 4.37 Functional problems of the banks perceived by employees

Sl. No	Statements	Aluva		Alathur		Irinjalakkuda		Total	
		Score	Index	Score	Index	Score	Index	Score	Index
1	High interest on loans	100	83	64	67	28	80	192	77
2	Improper documents produced by farmers with loan application	68	57	45	47	21	60	134	54
3	Delay in verification of documents	54	45	39	41	7	20	100	40
4	Untimely issue of loans and procedural delays	62	52	41	43	7	20	110	44
5	Inadequate loan appraisal and credit planning	75	63	38	40	7	20	120	48
6	Absence of post loan monitoring/supervision	59	49	39	41	7	20	105	42
7	Mounting of NPA	100	83	73	77	35	100	208	83
8	Delay in initiating legal proceedings against defaulters	76	63	49	52	28	80	153	61
9	Non-execution of incentives for prompt repayment	63	53	49	52	28	80	140	56
10	Absence of serving reminders/notice for repayment of the loan	62	52	40	42	7	20	109	44
11	Absence of charging penal interest on defaulters	72	60	44	46	35	100	151	60
12	No action initiated against diversion of loan	70	58	49	52	28	80	147	59
13	Existence of govt. loan waiver schemes	81	68	58	61	35	100	174	70
	Composite Index	942	60	628	51	273	60	1843	57

Source: Compiled from primary data

168

Table 4.38 Classification of functional problems of the banks perceived by employees

Sl. No	Statements	Aluva	Alathur	Irinjalakkuda
1	High interest on loans	Chronic	Chronic	Negligible
2	Improper documents produced by farmers with loan application	Risk	Risk	Risk
3	Delay in verification of documents	Risk	Risk	Negligible
4	Untimely issue of loans and procedural delays	Risk	Risk	Negligible
5	Inadequate loan appraisal and credit planning	Severe	Tolerable	Negligible
6	Absence of post loan monitoring/supervision	Risk	Risk	Negligible
7	Mounting of NPA	Chronic	Chronic	Negligible
8	Delay in initiating legal proceedings against defaulters	Severe	Risk	Chronic
9	Non-execution of incentives for prompt repayment	Risk	Risk	Chronic
10	Absence of serving reminders/notice for repayment of	Risk	Risk	Negligible
11	Absence of charging penal interest on defaulters	Risk	Risk	Chronic
12	No action initiated against diversion of loan	Risk	Risk	Chronic
13	Existence of govt. loan waiver schemes	Severe	Chronic	Negligible

Source: Compiled from primary data

169

Table 4.37 presents the functional problems faced by the sample banks. It is clear from the table that 60, 51 and 60 percent were the composite index marked by Aluva, Alathur and Irinjalakkuda banks. In case of Aluva bank, the statements "mounting NPA" and "high interest on loans" had the highest index (Index 83) which fell in the category of 81-100, termed as 'chronic'. Currently, the bank has an overdue of 7 percent. Anyhow keeping a lower NPA rate always favors the bank. Likewise, the interest of the loan is higher compared to the interest charged by commercial banks. Similarly, the problems which fell in the range of 61-80 viz., "inadequate loan appraisal and credit planning", "delay in initiating legal proceedings against defaulters" and "existence of govt. loan waiver schemes" are 'severe' problems that should be considered seriously by the bank. Rest of the statements were in the category of 41-60, 'risk' and they were "improper documents produced by farmers while granting credit", "delay in verification of documents", "untimely issue of loans and procedural delays", "absence of post loan monitoring/supervision", "absence of incentives for prompt repayment", "absence of serving reminders/notice for repayment of the loan" and "absence of charging penal interest on defaulters".

"Mounting NPA" (Index 77) was the major functional issue faced by Alathur bank which fell in the category 'severe'. Other problems which fell in the same range were "high interest on loans" and "existence of govt. loan waiver schemes". All of these problems can be termed as 'severe' for which the bank needs to take immediate remedial actions. However, for the severe problems mentioned above, only corrective action that could be taken by the bank is to reduce the overdues since the interest on loan and loan waiver schemes were introduced by the government on which the bank has no control. Rest of the statements were included in the category 41-60, which is termed 'risk' except one statement "inadequate loan appraisal and credit planning" which belonged to the range 21-40, that is 'tolerable'.

Correspondingly, in the opinion of employees of Irinjalakkuda bank, the major functional problems faced were "mounting NPA" (Index 100), "absence of charging penal

interest on defaulters” (Index 100) and “existence of govt. loan waiver schemes” (Index 100) which were included in the category of 81-100, that is ‘chronic’. Increasing overdue is a serious problem for the bank which have to be resolved at the earliest in order to be competent. Other problems which were included in the same category were “High interest on loans”, “delay in initiating legal proceedings against defaulters”, “absence of incentives for prompt repayment” and “no action initiated against diversion of loan” which were ‘chronic’. Correspondingly, a statement which fell in the range of 41-60 was “improper documents produced by farmers while granting credit” (Index 60) which can be termed as ‘risk’. All the other statements fell in the category of 0-20 which means they are ‘negligible’.

The overall index of employees of the three selected banks showed that “mounting NPA” (Index 83) was the major problem which falls in the category 81-100, termed ‘chronic’. Those problems of the selected banks which included in the category of 61-80 termed as ‘severe’ were “high interest on loans”, “delay in initiating legal proceedings against defaulters” and “existence of govt. loan waiver schemes”. At the same time, problems which were termed as ‘risk’ fell in the category of 41-60 were “improper documents produced by farmers while granting credit”, “absence of incentives for prompt repayment” and “no action initiated against diversion of loan”. Rest of the statements fell under the category of 21-40 which means the problems are ‘tolerable’.

Therefore, it is concluded that the index of functional problems faced by the bank showed “mounting NPA”, “high interest on loans” and “existence of govt. loan waiver schemes” as the major functional problems faced by the selected banks. It should be noted that high interest rate was one among the major reason behind loan default opined by the sample banks.

Kruskal – Wallis H test on functional problems perceived by employees showed that there was significant difference among the functional problems faced by the selected banks as opined by the employees (P-value = 0.005*).

4.4.2.5 Structural Problems perceived by employees

Problems that affect the formal structure of a cooperative organisation which affects its business operations and profitability can be termed as structural problems of a bank. The sustainability of a cooperative bank to a large extent depends on the strength and flexibility of the structure of the cooperative. For example, adequacy of resources, infrastructural strength, quality of work environment, adoption of modern practices of banking etc., are few structural components that determine the performance of a cooperative bank. The following section examines the structural problems of the selected banks as perceived by the employees and are presented in the table 4.91.

Table 4.39 Structural Problems of the banks perceived by employees

It is evident from the table 4.39 that the index ranged between 21 and 100 for the selected banks. The composite index marked by Aluva, Alathur and Irinjalakkuda banks were 76, 66 and 96 respectively. It is clear from the table that the index of Aluva bank ranged from 62 to 88. Highest index was for the problem “absence of technological upgradation” (Index 88) which fell in the category 81-100, termed as ‘chronic’. Technological upgradation is a necessity for proper functioning of the banks and the lack of it severely reflects in the day to day operations of the bank. Similarly, statements viz, “lack of modern practices of banking” (Index 87), “absence of modern management techniques and MIS” (Index 87), “inadequacy of resources for business growth” (Index 85) were also fell in ‘chronic’ category. Rest of the statements such as “weak capital base”, “poor quality of work environment”, “infrastructural weaknesses”, “absence of financial discipline”, “lack of diversification of business”, “limited avenues for investment” and “low deposit mobilisation” were under ‘severe’ category 61-80. Therefore, it could be concluded that the structural problems confronted by Aluva bank are chronic and severe which needs to be addressed for the sustainability of the bank in long run.

Table 4.39 Structural problems of the banks perceived by employees

SL No	Statements	Aluva		Alathur		Irinjalakkuda		Total	
		Score	Index	Score	Index	Score	Index	Score	Index
1	Weak capital base	87	73	53	56	35	100	175	70
2	Inadequacy of resources for business growth	102	85	57	60	35	100	194	78
3	Poor quality of work environment	92	77	44	46	35	100	171	68
4	Infrastructural weaknesses	92	77	48	51	21	60	161	64
5	Absence of financial discipline	80	67	54	57	35	100	169	68
6	No diversification of business	78	65	56	59	35	100	169	68
7	Limited avenues for investment	74	62	61	64	35	100	170	68
8	Low deposit mobilisation	82	68	70	74	35	100	187	75
9	Lack of modern practices of banking	104	87	81	85	35	100	220	88
10	Absence of technological up gradation	106	88	80	84	35	100	221	88
11	Absence of modern management techniques and MIS	104	87	81	85	35	100	220	88
	Composite Index	1001	76	685	66	371	96	2057	75

Source: Compiled from primary data

173

Table 4.40 Classification of structural problems of the banks perceived by employees based on intensity

Sl. No	Statements	Aluva	Alathur	Irinjalakkuda
1	Weak capital base	Severe	Risk	Chronic
2	Inadequacy of resources for business growth	Chronic	Risk	Chronic
3	Poor quality of work environment	Severe	Risk	Chronic
4	Infrastructural weaknesses	Severe	Risk	Risk
5	Absence of financial discipline	Severe	Risk	Chronic
6	No diversification of business	Severe	Risk	Chronic
7	Limited avenues for investment	Severe	Severe	Chronic
8	Low deposit mobilisation	Severe	Severe	Chronic
9	Lack of modern practices of banking	Chronic	Chronic	Chronic
10	Absence of technological up gradation	Chronic	Chronic	Chronic
11	Absence of modern management techniques and MIS	Chronic	Chronic	Chronic

Source: Compiled from primary data

In case of Alathur bank, three statements, namely “lack of modern practices of banking”, “absence of modern management techniques ad MIS” and “absence of technological upgradation” fell in the category 81-100 which is ‘chronic’. Alike commercial banks, PCARDBs should also follow the modern banking and management practices because both these banks function in the same environment. Similarly, two statements namely, “limited avenues for investment” and “low deposit mobilisation” were in the ‘severe’ category 61-80. The Kerala Cooperative Societies Act, 1969 restricts PCARDBs from investing in agencies other than cooperatives and to mobilise deposits from its members, which is a severe threat to the conduct of banking operations. Rest of the statements fell in the category of 41-60 termed as ‘risk’ viz., “weak capital base”, “inadequacy of resources for business growth” “poor quality of work environment”, “infrastructural weaknesses”, “absence of financial discipline” and “lack of diversification of business”. Thus, it is understood from the study that the structural problems faced by the Alathur bank were in the category of severe, chronic and risk, which is a cause of concern and to be addressed at the earliest.

The index of Irinjalakkuda bank for all statement except “infrastructural weakness” (Index 60) had an index in the range of 61-80 which was termed as ‘chronic’. The statement “infrastructural weakness” fell in ‘risk’. The employees of the bank were of the opinion that the bank is confronts with structural problems and therefore should take necessary action to cut solve the problems.

Likewise, the index of opinion of the employees revealed that all the structural problems fell in the categories 61-80 and 81-100 which means the problems were ‘severe’ and ‘chronic’. Therefore, structural problems of the selected banks were “lack of modern practices of banking”, “absence of modern management techniques ad MIS” and “absence of technological upgradation” which are termed as ‘chronic’ problems and “weak capital base”, “inadequacy of resources for business growth” “poor quality of work environment”, “infrastructural weaknesses”, “absence of financial discipline”, “undiversified business”, “limited avenues for investment” and “low deposit mobilisation” were ‘severe’ problems.

Therefore, it is concluded that the structural problems faced by the banks were either chronic, severe or risk, which was rightly pointed out by Prof. Vaidyanathan in the report "Report of the Task Force on Revival of Rural Co-operative Credit Institutions (Long-term)" as the reasons behind the impairment in Long-Term Co-operative Credit Structure.

Kruskal – Wallis H test on structural problems perceived by employees concluded that there was significant difference among the structural problems faced by the bank, in the opinion of employees (P-value = 0.00**)

4.4.2.6 Human resource related problems perceived by employees

Human resource management of a bank is used to describe both the people who work for a bank and the responsibility of the bank in managing issues related to the employees. To acquire skilled, experienced and responsible employees is a challenge before the cooperative banks. Moreover, sustaining the working spirit of existing employees is yet another task before the banks. Absence of specialised staff, lack of professional skills, poor interpersonal relations etc are some of the problems related to the human resource, known as human resource related problems. Table 4.41 examines the major human resource problems as opined by the employees of the selected banks.

Table 4.41 Human Resource related Problems of the banks perceived by employees

Table 4.41 shows the human resource related problems associated with the selected banks. The sample banks Aluva, Alathur and Irinjalakkuda showed a composite index of 56, 50 and 59 respectively. It is clear from the table that employees of Aluva bank opined that the severe problems faced by them were "absence of specialised staff", "lack of professional skills" and "staff paucity and employee overburden". Absence of individuals with specialisation and professional skill upgradation inputs constraints the professional management in the banks. Rest of the problems fell in the category 'risk'.

Table 4.41 Human Resource related problems of the banks perceived by employees

Sl. No	Statements	Aluva		Alathur		Irinjalakkuda		Total	
		Score	Index	Score	Index	Score	Index	Score	Index
1	Absence of specialised staff	94	78	56	59	28	80	178	71
2	Lack of professional skills	93	78	55	58	28	80	176	70
3	Staff paucity and employee overburden	80	67	68	72	28	80	176	70
4	Over aged staff	53	44	44	46	14	40	111	44
5	Lack of staff training programmes	52	43	38	40	7	20	97	39
6	Absence of good work culture & commitment	59	49	46	48	21	60	126	50
7	Inadequate staff for field supervision and loan appraisal	58	48	44	46	7	20	109	44
8	Delayed promotions	61	51	41	43	14	40	116	46
9	Absence of regular performance appraisal of employees	63	53	43	45	7	20	113	45
10	Poor interpersonal relations	69	58	44	46	28	80	141	56
11	Low level of employee satisfaction	65	54	37	39	14	40	116	46
12	Low level of employee identification	66	55	38	40	28	80	132	53
13	Increasing employee apathy	69	58	49	52	28	80	146	58
14	Low employee participation	68	57	51	54	21	60	140	56
15	Employees rarely addresses the grievances raised by the members of the bank	66	55	46	48	28	80	140	56
16	Employees hardly motivate member participation in business	66	55	54	57	28	80	148	59
	Composite Index	1082	56	754	50	329	59	2165	54

Source: Compiled from primary data

FFI

Table 4.42 Classification of Human Resource related problems of the banks perceived by employees based on intensity

Sl. No	Statements	Aluva	Alathur	Irinjalakkuda
1	Absence of specialised staff	Severe	Risk	Severe
2	Lack of professional skills	Severe	Risk	Severe
3	Staff paucity and employee overburden	Severe	Severe	Severe
4	Over aged staff	Risk	Risk	Tolerable
5	Lack of staff training programmes	Risk	Tolerable	Tolerable
6	Absence of good work culture and commitment	Risk	Risk	Risk
7	Inadequate staff for field supervision and loan	Risk	Risk	Tolerable
8	Delayed promotions	Risk	Risk	Tolerable
9	Absence of regular performance appraisal of	Risk	Risk	Tolerable
10	Poor interpersonal relations	Risk	Risk	Severe
11	Low level of employee satisfaction	Risk	Tolerable	Tolerable
12	Low level of employee identification	Risk	Tolerable	Severe
13	Increasing employee apathy	Risk	Risk	Severe
14	Low employee participation	Risk	Risk	Risk
15	Employees rarely addresses the grievances raised by the members of the bank	Risk	Risk	Severe
16	Employees hardly motivate member participation in business	Risk	Risk	Severe

Source: Compiled from primary data

In case of Alathur bank, the major human resource problem with index in between 61-80 ranked as 'severe' problem were "staff paucity and employee overburden". Individuals with high levels of skills and standards in performing the duties entrusted to them are prime assets of the bank and therefore bank should initiate in filling the vacancies and thereby reduce the employee overburden. Problems in 'tolerable' category were "lack of staff training programmes", "low level of member satisfaction" and "low level of member identification". Rest of the problems were in the 'risk' category of 41-60.

Employees of Irinjalakkuda banks were of the opinion that "absence of specialised staff", "lack of professional skills", "staff paucity and employee overburden", "poor interpersonal relations", "low level of member identification", "increasing member apathy", "rarely addresses the grievances raised by the members" and "hardly motivate member participation in business" as the major human resource related problems which fall the index range of 71-80 were 'severe' problems. Correspondingly, problems in 'risk' category were "absence of good work culture and commitment" and "low member participation". Rest of the problems were 'tolerable'.

It is clear from the overall index of employees that "absence of specialised staff", "lack of professional skills" and "staff paucity and employee overburden" were 'severe' human resource problems faced by the selected banks and the 'tolerable' problem was "lack of staff training programmes" and the rest of the problems fell in 'risk' category.

Thus, it is concluded that the major human resource related issue faced by the selected banks as perceived by the employees were "absence of specialised staff", "lack of professional skills" and "staff paucity and employee overburden".

Kruskal – Wallis H test on HR related problems perceived by employees concluded that there was significant difference among the human resource related problems faced by the selected banks (P value = 0.001 **)

4.5 Conclusion

The above analysis had examined the objective “identifying the operational and managerial problems existing in the banks” with the help of indices, percentages, averages and Kruskal –Wallis H test. The objective was analysed and interpreted from the perspective of employees and Board of Directors. From the study, it was found that the Board of Directors opined that the only major obstacle for the banks was increasing overdue over and there were no administrative, functional, structural and human resource related problems faced by the banks. However, the employees opinion was totally different from that of the Board which concluded that the major problems faced by banks were “absence of technological upgradation”, “lack of modern practices of banking” “absence of modern management techniques and MIS” as structural problems, “mounting NPA”, “high interest on loans” “existence of govt. loan waiver schemes” as functional problems “competition from other financial intermediaries” and “impact of demonetisation” as administrative problems and “absence of specialised staff”, “lack of professional skills” and “staff paucity and employee overburden” as human resource related problems

4.6 Loan Utilisation Pattern and Repayment Behaviour of Farmers

The third objective of the study was to analyse the loan utilisation pattern and repayment behaviour of farmers. Firstly, the socio-economic profile of the borrower farmers was examined with the help of selected socio- economic variables such as age, gender, marital status, religion, caste, education, economic status, employment status, income, sources of income and land ownership. These variables were selected for the reason that they are expected to substantially contribute and influence the loan utilisation pattern and repayment behaviour of the farmers.

Table 4.43 Socio-economic profile of the borrower farmers

Variables	Category	ALY	ALT	IJK	Total
Age	Up to 40 years	09 (15)	15 (25)	08 (13)	32 (18)
	41-50	20 (33)	17(28)	18(30)	55 (31)
	51-60	23 (38)	21(35)	21(35)	65 (36)
	Above 60	08 (13)	07(12)	13(22)	28 (16)
	Total	60 (100)	60 (100)	60 (100)	180 (100)
Gender	Male	48 (80)	33 (55)	45 (75)	126 (70)
	Female	12 (20)	27 (45)	15 (25)	54 (30)
	Total	60 (100)	60 (100)	60 (100)	180 (100)
Religion	Hindu	34 (57)	29 (48)	37 (62)	100 (56)
	Christian	11 (18)	15 (25)	08 (13)	34 (19)
	Muslim	15 (25)	16 (27)	15 (25)	46 (26)
	Total	60 (100)	60 (100)	60 (100)	180 (100)
Caste	SC	02 (03)	07 (12)	06 (10)	15 (8)
	ST	01 (02)	0	01 (2)	02 (01)
	OBC	30 (50)	21 (35)	29 (48)	80 (44)
	OEC	16 (27)	08 (13)	08 (13)	32 (18)
	General	11 (18)	24 (40)	16 (27)	51 (28)
	Total	60 (100)	60 (100)	60 (100)	180 (100)
Marital status	Married	57 (95)	57 (95)	55 (92)	119 (94)
	Unmarried	01 (02)	03 (05)	03 (05)	07 (04)
	Widow	02 (03)	0	02 (03)	04 (02)
	Total	60 (100)	60 (100)	60 (100)	180 (100)
Education Status	Illiterate	01 (02)	02 (03)	03 (05)	06 (03)
	Primary	18 (30)	33 (55)	17 (28)	68 (38)
	High school	32 (53)	16 (27)	30 (50)	78 (43)
	Graduate	07 (12)	09 (15)	08 (13)	24 (13)
	PG	02 (03)	0	02 (03)	04 (02)
	Total	60 (100)	60 (100)	60 (100)	180 (100)
Economic status	BPL	19 (32)	36 (60)	15 (25)	70 (39)
	APL	41 (68)	24 (40)	45 (75)	110 (61)
	Total	60 (100)	60 (100)	60 (100)	180 (100)

181

Employment status	Self-employed	31 (52)	20 (33)	43 (72)	94 (52)
	Wage employed	21 (35)	35 (58)	11 (18)	67 (37)
	Unemployed	08 (13)	05 (8)	06 (10)	19 (11)
	Total	60 (100)	60 (100)	60 (100)	180 (100)
Self-employment-Nature	Agriculture	07 (23)	07 (35)	21 (49)	35 (37)
	Service	01 (03)	09 (45)	0	10 (11)
	Business	11 (35)	04 (20)	06 (14)	21 (22)
	Others	12 (39)	0	16 (37)	28 (30)
	Total	31 (100)	20 (100)	43 (100)	94 (100)
Wage employment-Nature	Government	04 (19)	05 (14)	0	09 (13)
	Private	06 (29)	0	06 (55)	12 (18)
	Agri. Labourers	02 (10)	10 (29)	01 (9)	13 (19)
	Non-agri labourers	09 (43)	20 (57)	04 (36)	33 (49)
	Total	21 (100)	35 (100)	11 (100)	67 (100)
Monthly Income (Rs)	Below 10000	29 (48)	11 (18)	26 (43)	66 (37)
	10000-15000	10 (17)	39 (65)	17 (28)	66 (37)
	15000-20000	11 (18)	05 (08)	06 (10)	22 (12)
	20000-25000	01 (02)	05 (08)	02 (03)	08 (04)
	Above 25000	09 (15)	0	09 (15)	18 (10)
	Total	60 (100)	60 (100)	60 (100)	180 (100)
Sources of Income	Agriculture	13	07	26	46
	Salary	9	10	06	25
	Rent	1	07	0	8
	Wages	14	40	18	72
	Profit	12	14	06	32
	Others	22	0	26	48
Land Holdings	Below 50 cents	51 (85)	43 (72)	42 (70)	136 (76)
	50 cents-1 acre	06 (10)	17 (28)	14 (23)	37 (21)
	1-2 acres	03 (05)	0	04 (07)	07 (04)
	Total	60 (100)	60 (100)	60 (100)	180 (100)

Note: Figures in parentheses represents percentage to total

Source: Compiled from primary data

Table 4.43 presents the profile of farmers of the selected PCARDBs based on selected socio-economic indicators. It is evident from the table that majority of the respondents i.e. 38 percent of Aluva bank, 35 percent of Alathur bank and 35 percent of Irinjalakkuda bank were in the age category of 51-60. At the same time, few farmers were above the age of sixty which reveals that age was not an important parameter for advancing loan. Therefore, among the total farmers 36 percent were in the age category of 51-60, 31 percent belonged to the age category of 41-50, 18 percent had age up to 40 years and 16 percent had above 60 years of age.

It is clear from the study that males dominated the borrower farmers with Aluva bank (80 percent), Irinjalakkuda bank (75 percent) and Alathur bank (55 percent). However, Alathur bank (45 percent) had the highest number of female borrowers. Among the total farmers, 70 percent were males and 30 percent were females. Therefore, it is obvious that gender is not a limiting factor in availing loans from these banks.

The religion wise distribution revealed that Hindu community dominated in all three banks with 62 percent for Irinjalakkuda bank, 57 percent for Aluva bank and 48 percent for Alathur bank. The borrowers of Muslim community were 27, 25 and 25 percent for Alathur, Aluva and Irinjalakkuda banks respectively. Therefore, in total, 56 percent of the borrowers were Hindus, 26 percent were Muslims and 19 percent were Christians revealing the fact that religion is not an important factor for availing loans.

The caste wise cross section of the respondents revealed that majority of the borrowers (50 percent) of Aluva bank belongs to the OBC category followed by OEC (27 percent), general (18 percent), SC (3 percent) and ST (2 percent) categories. In case of Alathur bank, the general category (40 percent) dominated followed by OBC (35 percent), OEC (13 percent) and SC/ST (12 percent). Meanwhile, the farmers were OBC (48 percent) for Irinjalakkuda bank followed by general (27 percent), OEC (13 percent), SC (10 percent) and ST categories (2 percent). Thus, it is clear that among the total borrowers, 44 percent were belonged to the OBC category, 28 percent belonged to general category, 18 percent were in OEC category, 8 percent were SC and one percent were ST category.

Ninety five percent of the borrowers of Aluva and Alathur bank and ninety two percent of the borrowers of Irinjalakkuda bank were married. Thus, among the total borrowers, 94 percent were married, 4 percent unmarried and two percent were widows. The practice of availing loans by the borrowers in the name of their spouses was observed during the survey. However, marital status of members doesn't play an important role in availing loans to members.

The education status of the respondents ranged from illiterate to post graduation. It differs for respondents of each sample bank. Fifty three percent the respondents of Aluva bank had high school education and 30 percent of them had primary education, 12 percent were graduates and 3 percent were post- graduates, only single person was illiterate. Alathur bank which is demographically categorised as located in a village area owns majority borrowers had only primary education (55 percent). 27 percent of the borrowers had high school education, 15 percent were graduates and 3 percent were illiterate. However, for Irinjalakkuda bank, majority of farmers (50 percent) had high school education followed by primary education (28 percent), graduates (15 percent), illiterate (5 percent) and post graduates (3 percent). It is clear that among the total farmers, 43 percent had high school education, 38 had primary education, 13 percent were graduates, 2 percent had post-graduation and 3 percent were illiterates.

The economic status of the respondents as to whether they belong to BPL or APL families was ascertained from the ration cards of the farmers. Thus it was evident that majority of farmers of Irinjalakkuda bank (75 percent) and Aluva bank (68 percent) belonged to APL category. However, for Alathur bank 60 percent of the farmers were in BPL category. Thus, in total, 61 percent were in APL category and 39 percent were belonged to BPL category.

The study on the employment status of the farmers revealed that for Aluva bank 52 percent were self-employed, 32 percent were wage employed and the rest were unemployed. The major livelihood of self-employed borrowers of Aluva bank were agriculture (23 percent), business (35 percent) and other activities (39 percent) which

included autorikshaw drivers, monthly deposit scheme collectors, lottery agents, coolies etc whereas the wage employed borrowers included non-agricultural labourers (43 percent), private sector (29 percent), government sector (19 percent), agricultural labourers (10 percent). However, for Alathur bank 58 percent of the borrowers were wage employed, 33 percent were self-employed and the rest were unemployed. Among the self-employed borrowers, majority (45 percent) were engaged in service activities, 35 percent were agriculturalists and 20 percent were businessmen. Whereas, in the wage employed category majority were non-agricultural labourers (57 percent) followed by agricultural labourers (29 percent) and Government (14 percent). However for Irinjalakkuda bank majority (72 percent) of the borrowers were self-employed, 18 per cent were wage employed. Among the self-employed category, 49 percent were agriculturalists, 37 percent were engaged in other income generating activities and 14 percent were businessmen. Whereas, in the wage employed category majority were in the private sector (55 percent), followed by non-agricultural labourers (36 percent) agricultural labourers (9 percent). Thus, among the total farmers, 52 percent were self-employed, 37 percent were wage employed and 11 percent were unemployed. Among the self-employed farmers of selected banks, 37 percent were agriculturalists, 22 percent were businessmen, 11 percent engaged in service and 30 percent engaged in other activities. Among the wage-employed farmers of selected banks, 49 percent were non-agriculturalists, 19 percent were agriculturalists, 18 percent were in private sector and 13 percent were in government sector.

The study on the monthly income revealed that 48 percent of the borrowers of Aluva bank and 43 per cent of Irinjalakkuda bank had a monthly income below Rs. 10,000 whereas, 65 percent of the farmers of Alathur bank had income between Rs. 10,000 and Rs. 15,000. Thus, among the total borrowers, 74 percent had a monthly income of up to Rs. 15000, 12 percent had Rs.15000 to Rs.20000, 10 percent had above Rs.25000 of monthly income and 4 percent had income ranged from Rs.20000 to Rs.25000. It was also evident that the farmers had multiple sources of income. Income from the sources other than agriculture (13 percent), salary (9 percent) wages (14 percent), rent (1percent) and profit (12 percent) constituted the majority (22 percent) for the borrowers of Aluva bank

whereas the sources of income for Alathur bank borrowers were agriculture (7 percent), salary (10 percent) wages (40 percent), rent (7 percent) and profit (14 percent). However the study of Irinjalakkuda bank revealed that the sources of income of the borrowers constituted agriculture (26 percent), salary (6 percent) wages (18 percent), profit (6 percent) and other sources (26 percent).

It was obvious from the study that majority of the borrowers had land below 50 cents. Eighty five percent of the borrowers of Aluva bank, 72 percent of Alathur bank and 70 per cent of Irinjalakkuda bank had land below 50 cents. The borrowers who owned land between 50 cents to one acre were 10 percent, 28 percent and 23 percent for Aluva, Alathur and Irinjalakkuda banks respectively. In total, 76 of the borrowers had less than 50 cents of land, 21 percent had 50 cents to 1 acres of land and 4 percent had more than one acres of land.

4.6.1 Loan Utilisation Pattern of borrower farmers

Having examined the socio-economic profile of the respondent farmers, the study attempts to examine the loan utilisation pattern, the repayment behaviour as well as the factors affecting loan utilisation and loan repayment by the farmers of the sample banks. Debt is an inevitable component in the life of Indian farmers. The age old proverb that Indian farmers are born in debt, live in debt and die in debt still stands good in the present period too. In a context where incomes typically experience large seasonal fluctuations, debt is an important instrument for smoothing investment. Further, the borrowing were diversified for uses of priority to fulfill the desires and aspirations of the farmers. Loan utilisation pattern of borrower farmers are studied under the following heads:

4.6.1.1 Type of loan availed by borrower farmers

This section examines the type of loans availed by the borrowers which is also an indirect measure of efficiency of the bank in deployment of funds. In order to satisfy the mandate of the bank, it lend funds under various schemes as well as non-schemes. The

186

following table presents the type of loan availed by the borrower farmers which in turn also helps in understanding the utilisation pattern of the borrowers.

Table 4.44 Type of loans availed by the borrower farmers

Sl. No	Type of loan	ALY	ALT	IJK	Total
1.	Agricultural	20 (33)	18 (30)	26 (43)	64 (36)
2.	Housing	32 (53)	33 (55)	26 (43)	91 (51)
3.	Commercial	8 (13)	9 (18)	8 (13)	25 (14)
	Total	60 (100)	60 (100)	60 (100)	180 (100)

Note: Figures in parentheses represents percentage to total

Source: Compiled from primary data

It is very clear from the table 4.44 that housing, agricultural and commercial loans constituted the major type of loans availed by the farmers from the selected banks. In case of Aluva bank, 53 percent of borrowers availed housing loan, 33 percent availed agricultural loan and 8 percent availed commercial loan, whereas the corresponding figures were 55 percent, 30 percent and 18 percent for Alathur bank. However, for Irinjalakkuda bank the share was equal for agricultural and housing loans (43 per cent) and commercial loans 13 percent. Therefore, among the total farmers, 51 percent had availed housing loan, 36 percent had availed agricultural loan and 14 percent availed commercial loan. Thus it could be inferred that the farmers rely on PCARDB's primarily for housing loans.

4.6.1.2 Farmers' opinion on structure and characteristics of loan availed

Members of PCARDBs avail loan for meeting their various long term financial requirements. This section attempts to examine the details regarding the loans availed by the borrowers from the selected banks.

Table 4.45 Farmers' opinion on structure and characteristics of loan availed

Sl. No.	Particulars	ALY		ALT		IJK		Total	
		Yes	No	Yes	No	Yes	No	Yes	No
1.	Loan is secured	60 (100)	0	60(100)	0	60(100)	0	180(100)	0
2.	Loaning procedure is satisfactory	57 (95)	03 (5)	55 (92)	05 (8)	59 (98)	01 (2)	171 (95)	9 (5)
3.	Loan has subsidy component	0	60 (100)	0	60 (100)	0	60 (100)	0	180
4.	Qualified for interest subvention	17 (28)	43 (72)	16 (27)	44 (73)	26 (43)	34 (57)	59 (33)	121 (67)
5.	Interest rate is satisfactory	5 (8)	55 (92)	4 (7)	56 (93)	6 (10)	54 (90)	15 (8)	165 (92)
6.	Period of loan is satisfactory	36 (60)	24 (40)	33 (55)	27 (45)	41 (68)	17 (28)	110 (61)	68 (38)
7.	Repayment schedule is satisfactory	38 (63)	22 (37)	34 (57)	26 (43)	42 (70)	18 (30)	114 (63)	66 (37)
8.	Loan is overdue	43 (72)	17 (28)	42 (71)	18 (29)	38 (63)	22 (37)	123 (68)	57 (32)

Note: Figures in parentheses represents percentage to total
Source: Compiled from primary data

188

It is obvious from the table 4.45 that cent per cent of the loans were secured because the loans were advanced only on the security of title deed of land owned by the borrowers. Majority of the borrowers of the selected banks were of the opinion that the loaning procedure was convenient.

PCARDBs are specialised organisations designated for providing long term agricultural loans under different schemes and programmes with subsidy component. Unfortunately, majority of the borrower farmers under study were not eligible for the subsidy component because they had availed housing loans which had no subsidy component. Moreover, the farmers those who had taken agricultural loans were the non-schematic agricultural loans which also had no subsidy component.

Interest subvention scheme is an incentive to provide relief in the interest rate to borrowers who make prompt repayment. The selected banks provided interest subvention to the tune of 10 per cent of the annual interest accrued or Rs. 5000/- whichever is less. However, majority of the borrowers had not qualified for the benefits of interest subvention for various reasons.

Although the PCARDB'S charge an interest rate higher than other banks, the borrowers opined that they resort to these banks because of the simple and convenient loaning procedure. At the same time every single borrower desires to avail loan at low interest rate and therefore, majority of borrowers opined that the banks should bring in a reduction in the present interest rate.

The opinion of the borrowers on the period of loan concluded that they were convenient and satisfactory for 60, 55 and 68 percent of borrowers of the Aluva, Alathur and Irinjalakkuda banks respectively. Correspondingly, for majority i.e. 63, 57, and 70 percent borrowers of Aluva, Alathur and Irinjalakkuda banks respectively the repayment schedule was also convenient. It is evident from the survey that, the loan was overdue for 72, 71 and 63 percent borrowers of Aluva, Alathur and Irinjalakkuda banks and the rest were prompt repayers.

4.6.1.3 Comparison of estimated cost of the proposed project and loan sanctioned

The preliminary estimate otherwise known as budget estimate is generally prepared by the borrower to know the approximate cost of the proposed project. This in turn also helps the bank to decide the financial requirement. The borrower's estimated cost and the actual loan amount sanctioned is compared and presented in the following table.

Table 4.46 Comparison of estimated cost and loan sanctioned

Particulars	ALY	ALT	IJK
Estimated cost of the project			
Up to 2 lakhs	15 (25)	26 (43)	12 (20)
2 – 4 lakhs	12 (20)	20 (33)	23 (38)
4 – 8 lakhs	12 (20)	14 (23)	12 (20)
Above 8 lakhs	21 (35)	0	13 (21)
Total	60 (100)	60 (100)	60 (100)
Loan sanctioned by the banks			
Up to 2 lakhs	17 (28)	28 (47)	14 (23)
2 – 4 lakhs	13 (22)	18 (30)	24 (40)
4 – 8 lakhs	14 (23)	14 (23)	13 (25)
Above 8 lakhs	16 (27)	0	9 (15)
Total	60 (100)	60 (100)	60 (100)

Note: Figures in parentheses represents percentage to total

Source: Compiled from primary data

It is evident from the table 4.46 that there exists variation between the loan applied by the farmers and the loan sanctioned by the banks under study. In case of Aluva bank majority (35 per cent) of the members had applied for loan above Rs. 8.00 lakhs but loan was sanctioned only for 27 per cent, whereas for Alathur bank majority (43 per cent) farmers applied for loans up to Rs. 2.00 lakhs but loan was sanctioned to 47 percent farmers which indicates that for few farmers who had applied for higher loan were sanctioned loan below their estimated cost. Majority of the members (38 per cent) of Irinjalakkuda bank had applied for loans between Rs. 2.00-4.00 lakhs whereas sanction was accorded to 40 percent. Thus, it could be concluded that variations exists in the amount of loan requested by farmers and the loan actually sanctioned by all the three banks. It was also understood during the survey that the estimate submitted by the borrower farmers were not the realistic one but were prepared to satisfy the requirements of the loan amount which the bank

intends to sanction which the farmers understood from the discussions with the bank officials. However, irrespective of all these, it could be safely concluded that the farmers had faith and confidence in their co-operative.

4.6.1.4 Sufficiency of loan sanctioned to the borrowers

A loan is the mechanism by which a farmer bridges the gap between his resources and his actual requirement. In this context sufficiency of loan is important because if the loan is insufficient/partially sufficient the borrowers will be forced to depend on multiple sources on the one side and diversification on the other. Table 4.47 presents the sufficiency of loans sanctioned to the borrowers.

Table 4.47 Sufficiency of loan sanctioned to the borrowers

Particulars	ALY	ALT	IJK	Total
Loan was Sufficient	14 (24)	20 (33)	24 (40)	58 (32)
Loan was Insufficient	46 (76)	40 (56)	36 (60)	122 (68)
Total	60 (100)	60 (100)	60 (100)	180 (100)

Note: Figures in parentheses represents percentage to total

Source: Compiled from primary data

It is clear from table 4.47 that majority of the borrowers were of the opinion that the loan was insufficient to meet their requirements. Seventy six percent of the borrowers of Aluva bank opined that the loan was insufficient, whereas it was 56 per cent and 60 per cent for Alathur and Irinjalakkuda banks respectively. In total, 68 percent of the borrowers of selected banks opined that the loan amount was insufficient for them. The ground reality is that the loan amount was sufficient only for a trivial percentage of borrowers. Discussions with the borrower farmers revealed that the estimate prepared for the loan amount by them were only a part of the actual amount they needed and therefore for majority of the borrowers the loan amount was insufficient.

4.6.1.5 Bridging sources for farmers with sufficient/ insufficient loan

In the earlier section we had examined the sufficiency of loan to borrowers, the present section attempts to examine the alternative sources resorted by the borrowers for whom the loan sanctioned was partially sufficient/insufficient. This will help to gain an insight to the various alternate sources accessible to the borrowers.

Table 4.48 Alternate sources of borrowings of the borrower farmers

Sl. No	Bridging sources	ALY	ALT	IJK
1.	Personal savings	25 (42)	40 (67)	12 (20)
2.	Borrowed from friends & relatives	20 (33)	33 (55)	12 (20)
3.	Private financiers	0	2 (3)	1 (2)
4.	Other cooperative banks	10 (17)	3 (5)	4 (7)
5.	Commercial & private banks	6 (10)	3 (5)	4 (7)

Note: Figures in parentheses represents percentage to total

Source: Compiled from primary data

It is understood from table 4.48 that the farmers with insufficient loans from the PCARDB borrowed from more than one source at a time. However, majority of the borrowers had their own personal savings which assisted them in meeting their financial requirements. Besides personal savings, the borrowers depended on their friends and relatives as well as other cooperative banks for financial assistance. However, the positive fact is that the borrowers' dependence on private financiers was trivial. Therefore, it could be concluded that various sources of financial assistance in par with loans from PCARDBs are used by the borrowers in meeting their financial requirements.

4.6.1.6 Amount of loan availed by the borrower farmers under various categories

Among the total loan amount availed, different categories under which the loan amount used is shown below:

**Table 4.49 Amount of loan availed by the borrower farmers under various categories
(Amt in Rs. Lakhs)**

Category of loan	ALY	ALT	IJK	Total
Agricultural	34.50 (10)	27.08 (14)	23.64 (10)	85.22 (11)
Housing	266.25 (78)	138.50 (72)	161.84 (71)	566.59 (74)
Commercial	41.40 (12)	27.95 (14)	43.4 (19)	112.75 (15)
Total	342.05 (100)	193.53 (100)	228.88 (100)	764.46 (100)

Note: Figures in parentheses represents percentage to total

Source: Compiled from primary data

Table 4.49 shows the amount of loan availed by the borrower farmers of sample banks. It is evident from the table that the borrower farmers of the selected banks had availed Rs. 342.05 lakhs, Rs. 193.53 lakhs and Rs. 228.88 lakhs from Aluva, Alathur and Irinjalakkuda banks respectively. It is also evident from the table that majority (74 percent) of the borrowers of the three banks had availed loans for housing purposes followed by commercial loans (15 per cent) and agricultural loans (11 per cent). Thus, it could be concluded that the banks under study have deviated from the mandate and purpose of setting PCARDBs.

4.6.1.7 Utilisation of loan by borrower farmers

A loan is financial leverage to a borrower to bridge the gap between the cost of a project and his own resources. Loan when utilised effectively and efficiently for the designated purpose will help the borrowers positively and will also assist in asset creation for income generation in future. Therefore, it is important to examine whether the loan has been utilised for the designated purpose and is presented in table 4.50.

Table 4.50 Utilisation of loan for designated purpose by borrower farmers

Sl.No	Loan utilised for designated purpose	ALY	ALT	IJK	Total
1.	Yes	43 (72)	29 (48)	34 (57)	106 (59)
2.	No	17 (28)	31(52)	26 (43)	74 (41)
	Total	60 (100)	60 (100)	60 (100)	180 (100)

Note: Figures in parentheses represents percentage to total

Source: Compiled from primary data

It is understood from table 4.50 that the majority of the borrowers (72 percent) of Aluva bank utilised the entire loan for the designated purpose for which the loan was availed whereas, 52 percent of the borrowers of Alathur bank had diverted the loan for other purposes. However, 57 percent borrowers of Irinjalakkuda bank utilised the entire amount for the designated purpose. Thus, it could be inferred that on an average 59 percent borrower farmers of the selected banks had diverted the loan amount which may in the long run will increase the repayment burden of the farmers.

4.6.1.8 Pattern of loan utilisation by borrower farmers

It is clear from table 4.50 that the farmers had availed agricultural, housing and commercial loans. The foregoing section had examined the loan utilisation and it was evident that diversification was widespread among the borrower farmers. Therefore, the present section attempts to highlight the various heads under which the loans were utilised by the borrowers based on the methodology adopted by Mondal *et.al* on the study of "Credit utilization pattern and repayment behaviour of the fish farmers in Mymensingh and Kishoreganj districts" conducted by Department of Aquaculture of Bangladesh Agricultural University. Adopting the methodology, in the present study the percentage of loan amount utilised in different heads by individual borrower farmers were ascertained and finally the average of the consolidated percentage of loan utilisation in each head by sixty farmers selected from each sample bank was derived to ascertain the loan utilisation pattern and is presented in the following table.

Table 4.51 Pattern of utilisation of loan by borrower farmers (Amt in Rs. Lakhs)

Sl. No	Head of expenditure	ALY	ALT	IJK
Utilisation of housing loan				
1.	Addition of plinth area	71.83 (21)	56.12 (29)	41.20 (18)
2.	Renovation & maintenance of house	34.21 (10)	9.68 (5)	20.60 (9)
Utilisation of commercial loan				
3.	Establishment of institution	6.84 (2)	5.81 (3)	2.29 (1)
4.	Building of commercial space	23.94 (7)	13.55 (7)	20.60 (9)
5.	Purchase of stock	10.26 (3)	5.81 (3)	4.58 (2)
Utilisation of agricultural loan				
6.	Land preparation	3.42 (1)	1.94 (1)	2.29 (1)
7.	Purchase of livestock	17.10 (5)	7.74 (4)	9.16 (4)
8.	Purchase of inputs	6.84 (2)	7.74 (4)	6.87 (3)
9.	Payment of wages	6.84 (2)	9.68 (5)	4.58 (2)
10.	Digging wells /water storage facilities	13.68 (4)	5.81 (3)	6.87 (3)
Diversion of loan				
11.	Consumption expenses	17.10 (5)	5.81 (3)	13.73 (6)
12.	Marriage purposes	71.83 (21)	32.90 (17)	45.78 (20)
13.	Medical expenses	6.84 (2)	3.87 (2)	9.16 (4)
14.	Repayment of old debt	17.10 (7)	9.68 (5)	16.02 (7)
15.	Emergency needs of friends or relatives	6.84 (2)	9.68 (6)	6.87 (3)
16.	Educational expenses	27.36 (8)	7.74 (4)	18.31 (8)
	Total	342.05 (100)	193.53 (100)	228.88 (100)

Note: Figures in parenthesis represents percentage to total

Source: Compiled from primary data

Table 4.51 presents the loan utilisation pattern of borrower farmers of the selected banks. It is conspicuous from the table that the farmers had utilised the loan for various purposes in addition to the designated purpose for which the loan was applied and sanctioned. Among the different expenditure heads of loan utilisation addition of plinth area of house, expenses for marriage ceremony and renovation of houses were the major heads of expenditure for which the loans were utilised. Inter- bank analysis revealed that the borrowers of Aluva bank had spent 21 per cent each of the loan amount for addition of

plinth area of their house and for marriage ceremony and 10 per cent was used for renovation of houses. The borrowers of Alathur bank had utilised 29 per cent for extension of plinth area of their house, 17 per cent for marriage ceremony and 7 per cent for building of commercial space, 6 per cent for meeting emergencies of friends and relatives, 5 per cent each for payment of wages and redemption of old debts. Finally, the borrowers of Irinjalakkuda bank utilised for marriage purposes (19 per cent), addition of plinth area of houses (18 per cent), renovations of house (09 per cent), and building of commercial space (09 per cent), repayment of old debt (07 per cent).

Moreover, it is also evident from the table that the borrowers who availed commercial loan spent the amount for building of commercial space, purchase of stock and for the establishment of institution. Correspondingly, those who have availed agricultural loan utilised the amount for land preparation, purchase of livestock, purchase of inputs, payment of wages and digging wells/ water storage facilities. Further, it is clear that diversion was more prominent from housing loan. The loan availed for housing and commercial purposes had been diverted for marriage purposes, medical expenses, repayment of old debt, emergency needs of friends or relatives, educational expenses and other consumption expenses. Therefore, it is concluded that the borrowers had a varied loan utilisation pattern, most of which was for unproductive purposes which later added on their responsibility for prompt repayment of the loan and often resulted in the overdue of loans. In short, the amount of loan availed, amount utilised and amount diverted is shown below:

Table 4.52 Loan amount utilised under various categories

		(Amt. in Rs. Lakhs)			
Sl. No	Particulars	ALY	ALT	IJK	Total
1.	Loan amount availed	342.05 (100)	193.53 (100)	228.88 (100)	764.46 (100)
2.	Loan amount utilised	194.96 (56)	123.88 (64)	119.04 (52)	437.88 (57)
3.	Loan amount diverted	147.09 (44)	69.65 (36)	109.84 (48)	326.58 (47)

Note: Figures in parentheses represents percentage to total

Source: Compiled from primary data

196

It is clear from the table 4.52 that the borrowers of Aluva, Alathur and Irinjalakkuda banks utilised 56, 64 and 52 percent of their loan amount for agricultural, housing and commercial loans and the rest was diverted for other purposes mentioned above. Therefore, among the total loan amount availed by the borrower farmers, 57 percent utilised and 47 percent were diverted.

4.6.1.9 Factors affecting the utilisation of loan by borrower farmers

In order to understand the loan utilisation pattern of the borrower farmers, the major factors affecting the loan utilisation was also examined. It was noted from the survey results that housing loan was the major kind of loan availed by the farmers followed by commercial loan and agricultural loan. Indices were worked out to identify the factors contributing to utilisation of loans by borrowers. The computed indices were compared with a standard to determine the relative importance of the factors that influence utilisation of loans by borrowers.

Table 4.53 Factors affecting loan utilisation by borrower farmers

Table 4.43 shows the index of factors affecting the loan utilisation pattern of the borrowers of selected banks. It is clear from the table that the composite index administered 46 for Aluva and Alathur bank and 49 for Irinjalakkuda bank respectively. The borrowers of Aluva bank opined that the most important factor contributing to the loan utilisation pattern was “non-availability of labour” which fell in the category 81-100, termed ‘chronic’ followed by the factor “non-availability of inputs”, with score between 61-80, termed as ‘severe’. “Climatic factors” and “market fluctuations” were problems that fell in the category 41-60, termed as ‘risk’ category. Rest of the problems fell in the tolerable category with index of 21-40 except the statement “delay in sanctioning the loan” which fell in the category 0-20, termed ‘negligible’.

Similarly, the borrowers of Alathur bank were of the opinion that the major factors affecting loan utilisation pattern were “non-availability of labour” and “non-availability of inputs” which were in the category 81-100, termed ‘chronic’. At the same time, “climatic

Table 4.53 Factors affecting loan utilisation by borrower farmers

Statements	Aluva			Alathur			Irinjalakkuda			Total		
	Score	Index	Rank	Score	Index	Rank	Score	Index	Rank	Score	Index	Rank
Climatic factors	136	45	3	124	41	5	158	53	3	418	46	3
Non- availability of input	233	78	2	244	81	2	235	78	2	712	79	2
Market fluctuations	129	43	4	128	43	3	153	51	4	410	46	3
Delay in sanctioning the loan	60	20	8	60	20	7	60	20	8	180	20	7
Personal sickness /illness	110	37	5	125	42	4	125	42	5	360	40	4
Non-availability of labour	261	87	1	257	86	1	264	88	1	782	87	1
Change in technology	102	34	6	94	31	6	106	35	6	302	34	5
Lack of support from Development Dept.	76	25	7	60	20	7	73	24	7	209	23	6
Overall Index	1107	46		1092	46		1174	49		3373	47	

Source: Compiled from primary data

Table 4.54 Classification of factors affecting loan utilisation by borrower farmers based on intensity

Sl. No	Factors	Aluva	Alathur	Irinjalakkuda
1	Climatic factors	Risk	Risk	Risk
2	Non-availability of input	Severe	Chronic	Chronic
3	Market fluctuations	Risk	Risk	Risk
4	Delay in sanctioning the loan	Negligible	Negligible	Negligible
5	Personal sickness /illness	Tolerable	Tolerable	Tolerable
6	Non-availability of labour	Chronic	Chronic	Chronic
7	Change in technology	Tolerable	Tolerable	Tolerable
8	Lack of support from Development Dept.	Negligible	Negligible	Tolerable

Source: Compiled from primary data

factors” and “market fluctuations” were considered as the ‘risk’ factors. “Change in technology” was included in the category 21-40, called ‘tolerable’ and the rest of the statements were negligible factors, otherwise known as least affected factors.

Likewise, the borrower farmers of Irinjalakkuda bank opined that the highest factor contributing to the loan utilisation pattern was “non-availability of labour” which fell in the category 81-100, termed ‘chronic’ followed by the factor “non-availability of inputs”, in the category 61-80, termed as ‘severe’. “Climatic factors” and “market fluctuations” were in ‘risk’ category whereas, “Change in technology” and “lack of support from Development Dept.” were considered as a ‘tolerable’ problems and “delay in sanctioning the loan” was a negligible problem.

The composite index for the total farmers was 47. In the same way, “non-availability of labour” was the ‘chronic’ factor affecting the loan utilisation pattern as opined by the farmers. Correspondingly, “non-availability of input” which fell in the category ‘severe’. “Climatic factors” and “market fluctuations” were the ‘risk’ factors whereas “Change in technology” and “delay in sanctioning the loan” and “lack of support from Development Dept.” were ‘tolerable factors’.

The borrowers opined that wages being high, major portion of the loan was spent for meeting the wage expenses to the labourers. Farmers strongly reiterated the impact of the 2017 floods which devastated the economic balance of the State on the loan utilisation of the borrowers. Therefore, loan utilisation among other factors was mainly affected by non-availability of inputs and labour, climatic factors as well as market fluctuations. Therefore, it is concluded that among the eight factors identified to affect loan utilisation pattern of borrower farmers, non-availability of labour, non-availability of input, Climatic factors and market fluctuations were the major factors.

Kendall’s coefficient of concordance was administered for identifying the concordance of borrower farmers of the three selected banks on factors affecting the loan utilisation pattern. Since the computed value of Chi-Square of Aluva bank (100.6**),

Alathur bank (110.9**) and Irinjalakkuda bank (102.2**) are greater than the table value, it could be concluded that it is significant at 1% percent level. Therefore, there was perfect agreement among the farmers of the selected banks on the factors affecting the loan utilisation pattern.

4.6.2 Repayment behaviour of farmers

The preceding session had already discussed the loan utilisation pattern and as such the present section attempts to study the repayment behaviour of the borrower farmers. It is obvious from the study of the loan utilisation pattern that, since the farmers were in the grip of financial anemia, the utilisation of credit for productive purposes was limited. Though the mandate of PCARDB's was to lend for agricultural and rural development, majority farmers of the sample banks had availed housing loan. Moreover, the farmers who had availed agricultural loan utilised a substantial portion of their loan for other purposes including house maintenance, marriage ceremonies, redemption of old debts etc., this in turn results in increasing the debt load and adversely affects the repayment capacity of the borrowers.

The repayment behaviour of farmers, reasons for loan default and suggestions for reducing the loan default was examined with the help of binary logistic regression model, indices and Kendall's Coefficient of Concordance respectively.

Logistic regression model was administered for analysing the factors affecting the repayment behaviour of farmers. For the purpose of the study, repayment behaviour was taken as dependent variable and age, gender, education status, economic status, and employment status, membership in the bank, income status and land holding were considered as the independent variables.

4.6.2.1 Logistic regression model for the repayment behaviour of farmers of Aluva bank

The logistic regression analysis showed the variables namely, age (0.006***) economic status (0.072*) and membership (0.034**) were statistically significant. This

means that these three variables can be a good predictor of farmers' repayment behaviour. By contrast, the variables gender, education status, employment status, income status and land holding were not significant. The Odds ratio $\text{Exp}(B)$ for the variable 'age' is 5.411 & P 0.844 which means with a unit increase in age class of farmers, there is 84 percent probability that a farmer will repay the loan. Similarly, the Odds ratio $\text{Exp}(B)$ for the variable 'economic status' is 5.435 & P 0.844 which means, a unit change in economic status of a farmer, the probability that a farmer will repay loan increases by 84 percent. Finally, Odds ratio for the variable 'membership in bank' is 0.324 & P 0.244 which means with a unit change in membership class of farmer, there is 24 percent probability that the farmer will turn to be a defaulter.

4.6.2.2 Logistic regression model for repayment behaviour of farmers of Alathur bank

The logistic regression analysis showed the variables namely, education status (0.029**), income status (0.061*) and landholding (0.013**) were statistically significant. This means that these three variables can be a good predictor of farmers' repayment behaviour. By contrast, the variables age, gender, economic status, employment status and years of membership in bank were not significant. The Odds ratio $\text{Exp}(B)$ for the variable 'education status' was 0.045 & P 0.403 which means with a unit increase in education class of farmers, there is 40 percent probability that the farmer will default the loan. Similarly, the Odds ratio $\text{Exp}(B)$ for the variable 'income status' was 20.934 & P 0.954 which means, a unit change in category of income status of a farmer, the probability that a farmer will repay loan increases by 95 percent. Finally, Odds ratio for the variable 'landholding' was 50.405 & P 0.980 which means with a unit change in the category of landholding of farmer, there is 98 percent probability that the farmer will repay the loan.

4.6.2.3 Logistic regression model for repayment behaviour of farmers of Irinjalakkuda bank

The logistic regression analysis showed the variables namely, education status (0.071*), years of membership in bank (0.054) alone were statistically significant. This means that these two variables can be a good predictor of farmers' repayment behaviour. However, the variables age, gender, economic status, employment status, income status and land holding were not significant. The Odds ratio $\text{Exp}(B)$ for the variable 'education status' was 2.896 & P 0.743 which means with a unit increase in education class, there is 74 percent probability that a farmer will repay the loan. Similarly, the Odds ratio $\text{Exp}(B)$ for the variable 'years of membership in bank' was 3.068 & P 0.754 which means, a unit change in category of 'years of membership in bank' of a farmer, the probability that a farmer will repay loan increases by 75 percent.

4.6.2.4 Reasons for loan default by borrower farmers

Default in banking glossary is the failure on the part of a borrower to repay a loan instalment on due date. A default occurs when a borrower is unable to make timely payments, misses payments or stops making payments. The following section attempts to examine the reasons for default by borrower farmers. The reasons were worked out based on the responses of the borrowers plotted on a five point Likert scale.

Table 4.55 Reasons for loan default by borrower farmers

The findings of the study on the reasons for loan default by the borrower farmers is presented in Table 4.55. It is clear that the composite indices were 49 for Aluva and Alathur banks and 50 for Irinjalakkuda bank. From the table it is clear that for Aluva, Alathur and Irinjalakkuda banks, the reasons "high interest rate", "reduction in employment" and "fall in price of agricultural commodities" were in the index category 81-100, termed 'chronic'. Likewise, the reasons "crop failure" and "lack of access to the consumption loans and diversification of income for consumption purposes" fell in 'severe'

Table 4.55 Reasons for loan default by borrower farmers

Reasons	Aluva			Alathur			Irinjalakkuda			Total		
	Score	Index	Rank	Score	Index	Rank	Score	Index	Rank	Score	Index	Rank
Fall in price of agricultural commodities	283	94	2	288	96	1	290	97	2	861	96	2
Crop failure	189	63	5	176	59	4	195	65	5	560	62	5
Lack of irrigation facility	121	40	11	111	37	10	111	37	12	343	38	9
Low quality seeds	64	21	16	71	24	15	67	22	17	202	22	14
Natural calamities	110	37	14	111	37	10	120	40	10	341	38	9
Non availability of labourers in time	146	49	8	142	47	7	138	46	8	426	47	7
Loan diversion	154	51	7	161	54	5	160	53	6	475	53	6
Ancestral debt	113	38	10	115	38	9	115	38	11	343	38	9
Non institutional loan	112	37	13	105	35	11	105	35	13	322	36	10
High interest rate	300	100	1	288	96	1	295	98	1	883	98	1
Defective loan policies	60	21	17	76	25	14	73	24	16	209	23	13
Lack of recovery efforts	60	21	17	70	23	16	65	22	18	195	22	14
Illness of borrower/family member	130	43	9	132	44	8	132	44	9	394	44	8
Ceremonies	165	55	6	155	52	6	157	52	7	477	53	6
Faith in loan waiver/write off	67	22	15	92	31	13	80	27	15	239	27	12
Inaccessibility to consumption loans and diversion of income for consumption purposes	235	78	4	222	74	3	230	77	4	687	76	4
Non availability of input in time	115	38	12	101	34	12	100	33	14	316	35	11
Reduction in employment	243	81	3	252	84	2	258	86	3	753	84	3
Composite Index	2667	49		2668	49		2691	50		8026	50	

Source: Compiled from primary data

205

Table 4.56 Classification of reasons for loan default by borrower farmers based on intensity

Sl. No	Reasons	Aluva	Alathur	Irinjalakkuda
1	Fall in price of agricultural commodities	Chronic	Chronic	Chronic
2	Crop failure	Severe	Severe	Severe
3	Lack of irrigation facility	Tolerable	Tolerable	Tolerable
4	Low quality seeds	Tolerable	Tolerable	Tolerable
5	Natural calamities	Tolerable	Tolerable	Tolerable
6	Non availability of labourers in time	Risk	Risk	Risk
7	Loan diversion	Risk	Risk	Risk
8	Ancestral debt	Tolerable	Tolerable	Tolerable
9	Non institutional loan	Tolerable	Tolerable	Tolerable
10	High interest rate	Chronic	Chronic	Chronic
11	Defective loan policies	Tolerable	Tolerable	Tolerable
12	Lack of recovery efforts	Tolerable	Tolerable	Tolerable
13	Illness of borrower/family member	Risk	Risk	Risk
14	Ceremonies	Risk	Risk	Risk
15	Faith in loan waiver/write off	Tolerable	Tolerable	Tolerable
16	Inaccessibility to consumption loans and diversion of income for consumption purposes	Severe	Severe	Severe
17	Non availability of input in time	Tolerable	Tolerable	Tolerable
18	Reduction in employment	Chronic	Chronic	Chronic

Source: Compiled from primary data

category with index in between 61-80. The reasons “non-availability of labourers in time”, “illness of borrower/family member”, “ceremonies”, “loan diversion” fell in the category 41-60, termed ‘risk’. Similarly, the reasons with index within 21-40 range categorised as ‘tolerable’ were “lack of irrigation facility”, “low quality seeds”, “natural calamities”, “ancestral debt”, “non-institutional loan”, “defective loan policies”, “lack of recovery efforts”, “faith in loan waiver/write off” and “non- availability of input in time”.

The overall index for the responses of farmers on reasons for loan default had the same conclusion as that of individual banks. The composite index was 50 and the major reasons which fell in ‘chronic’ category were “high interest rate”, “reduction in employment” and “fall in price of agricultural commodities” and reasons that was in ‘severe’ category were “lack of access to the consumption loans and diversion of income for consumption purposes”, and “crop failure”.

Therefore to conclude, the reasons which fell in chronic, severe and risk category is a cause of concern for the banks should initiate earnest efforts to address the issue before it affects the profitability and finally the sustainability of the banks. Moreover, those reasons which were considered as ‘tolerable’ for all the three banks could be attributed to the efficiency of the banks in loan deployment and recovery and at the same time the banks should try to make itself safe by pushing these factors to negligible level. Further, certain factors contributing to loan default were exogenous to the banks and hence could not be related to the inefficiency of the banks.

Kendall’s coefficient of concordance was worked out to test the concordance among the farmers of the three selected banks on reasons for loan default. Since the computed value of Chi-square of Aluva bank (55.172), Alathur bank (49.709) and Irinjalakkuda bank (55.228) were greater than the table value (33.41) at 1% percent level, it could be concluded that there was perfect agreement among the farmers of the selected banks regarding the reasons behind the loan default.

4.6.2.5 Suggestions for reducing loan default by borrower farmers

Banks are financial intermediaries working on the principle of recycling of funds. As such one of the measure of efficiency and effectiveness of any banking institution is the level of non-performing assets (NPA). It is widely accepted that loan default and NPA are directly related. The foregoing section had examined the reasons for loan default and this section presents the suggestions set forth by the borrowers for reducing and containing loan default. The responses of the borrowers were collected on a five point scale and the corresponding scores and indices are presented in table 4.57.

Table 4.57 Suggestions of borrower farmers for reducing loan default

The findings of the study on the suggestions for reducing loan default put forth by the borrower farmers presented in Table 4.45 revealed that there was no distinct difference in the suggestions put forth by the borrowers of the selected banks. This is substantiated by the fact that out of the twelve suggestions seven suggestions had indices above the overall index for all the three banks. Further, it is clear from the table that the overall index for Aluva, Alathur and Irinjalakkuda banks were 80, 81 and 83 respectively which was also an indication of uniformity in responses of the borrower farmers.

The measures suggested by farmers of Aluva bank for reducing loan default were incentives for prompt repayment (Index 97), timely reminders (Index 95), reduction in interest rates (Index 94), small installments (index 88) and fixation of recovery period in coincidence with the harvest/income period (Index 86).

Similarly, for Alathur bank, incentives for prompt repayment (Index 96), timely reminders (Index 94), reduction in interest rate (Index 93), provisions for adequate staff for project supervision (Index 87) and smaller installments (Index 87) were the main suggestions put forward by the borrowers of Alathur bank.

Incentives for prompt repayment (Index 97), timely reminders (Index 94), reduction in interest rates (Index 94), small installments (index 88) and fixation of recovery period

Table 4.57 Suggestions of borrower farmers for reducing loan default

Statements	Aluva			Alathur			Irinjalakkuda			Total		
	Score	Index	Rank	Score	Index	Rank	Score	Index	Rank	Score	Index	Rank
Provisions for adequate staff for project supervision	253	84	6	261	87	5	256	85	5	770	86	4
Incentives for proper repayment	292	97	1	289	96	1	292	97	1	873	97	1
Creation of awareness through good customer- banker relations	197	66	10	219	73	10	223	74	10	639	71	8
Provide adequate loan amount	224	75	7	224	75	8	222	74	7	670	74	6
Smaller installments	265	88	4	262	87	4	265	88	3	792	88	3
Timely credit	253	84	6	244	81	7	253	84	6	750	83	5
Timely reminders	284	95	2	283	94	2	282	94	2	849	94	2
Adoption of appropriate schedules for repayment	219	73	8	216	72	11	217	72	8	652	72	7
Reduction in interest rates	282	94	3	279	93	3	282	94	2	843	94	2
Fixation of recovery period in coincidence with harvest/income period	258	86	5	256	85	6	264	88	4	778	86	4
Loan waiver/ write off policies for default due to natural calamities	214	71	9	222	74	9	232	77	9	668	74	6
Provide adequate production, distribution and marketing support	155	52	11	165	55	12	206	69	11	526	58	9
Overall Index	2896	80		2920	81		2994	83		8810	82	

Source: Compiled from primary data

209

in coincidence with the harvest/income period (Index 88) were the main suggestions put forth by the borrowers of Irinjalakkuda bank.

Consolidating the responses on the suggestions by farmers it could be concluded that incentives for prompt repayment, timely reminders, reduction in interest rates, small installments, provisions for adequate staff for project supervision and fixation of recovery period in coincidence with the harvest/income period. Therefore, it could be concluded that the suggestions given by the borrowers of the three selected banks were uniform and these suggestions could be made operational by the banks without much burden.

Subsequently, the Kendall's coefficient of concordance was worked out based on the ranks assigned to determine whether there exists concordance among the farmers of selected banks in the suggestions put forth for reducing loan default. Since the computed value of Chi-Square of Aluva bank (23.220), Alathur bank (18.020) and Irinjalakkuda bank (24.580) were greater than the table value (24.72) at 1% level, it could be concluded that there was perfect agreement among the farmers of the selected banks regarding the suggestions for reducing loan default.

4.7 Conclusion

The third objective of the study was to analyse the loan utilisation pattern and repayment behaviour of the borrower farmers of the selected banks. As a preface of studying the loan utilisation pattern, the socio-economic profile of the farmers along with the details of borrowings were analysed using the tool percentage analysis. It was found that majority of the borrowers have availed housing loan followed by commercial loan and agricultural loan. Further, the loan utilisation pattern of the farmers and the factors affecting loan utilisation was analysed using percentage analysis and Kendall's coefficient of concordance. It was found that the borrowers had a varied loan utilisation pattern, most of which was for unproductive purposes such as marriage ceremonies, medical expenses, educational expenses, redemption of old debts etc. which later added on to their responsibility for prompt repayment of the loan.. The loan utilisation pattern of the farmers

were mostly affected by the factors non-availability of labour, non-availability of input, climatic factors and market fluctuations.

Finally, the repayment behaviour of farmers, reasons for loan default and suggestions for reducing the loan default was examined with the help of logistic regression model, indices and Kendall's Coefficient of Concordance respectively. The logistic regression model of factors affecting the repayment behaviour of farmers of Aluva bank resulted that the variables, age, economic status and years of membership in bank were found to be statistically significant. Whereas, for Alathur bank the variables education status, income status and land holding were statistically significant. Finally, for Irinjalakkuda bank variables education status and duration of membership in the bank were statistically significant.

The reasons behind the loan default identified by the study were high interest rate, reduction in employment, fall in price of agricultural commodities, inaccessibility to consumption loans, and crop failure. Finally, the suggestions put forth by the farmers for reducing the loan default were, incentives for prompt repayment, timely reminders, and reduction in interest rates, small installments and fixation of recovery period in coincidence with the harvest/income period.

Chapter-V

**SUMMARY OF FINDINGS AND
CONCLUSION**

212

Chapter V

SUMMARY OF FINDINGS AND CONCLUSION

Agriculture, being the source of livelihood for over seventy percent of the population of our country plays a dominant role in the Indian economy. Therefore, the expansion of agriculture to its completest potential is the kingpin of Indian economy and the prosperity of India is solely dependent on agriculture. Finance is one among most significant constraints of agricultural development. Like any other industry, agriculture also needs capital investment for development and growth. The need for credit is more persistent because the farmers are more without liquid resources, reasonable money is needed to finance the preparation for their next crop, adoption of improved methods of farming is necessary etc. Timely availability of credit facilities to the farmers is of paramount significance for agricultural development since majority of the farmers in the State belong to the small/marginal category. The short and medium term capital requirements of the farmers are being met by commercial banks, DCBs, PACS, UCBs etc. In order to meet the long term investment needs of the farmers, Land Development Banks otherwise known as Cooperative Agricultural and Rural Development Banks were established all over the country with a mission to encourage rural farmers to make adequate investment in agriculture by availing the benefits of its loan schemes. For the completion of mission, State Cooperative Agricultural and Rural Development Banks (SCARDBs) are functioning at the apex level and Primary Cooperative Agricultural and Rural Development Banks (PCARDBs) are operating at the Taluk levels.

PCARDBs have been assigned a vital role in agricultural development of our country. It is through the branches of these banks that various programmes of the government are being implemented in the agricultural sector. However, PCARDBs in Kerala are passing through a critical stage of their growth. A good number of them are running at loss and their overdue are mounting over the years (RBI, 2015). In this context, the study entitled 'Performance Evaluation of Primary Cooperative Agricultural and Rural Development Banks in Central Kerala' had been taken with the objectives of analysig the

financial performance of these banks, examining the operational and managerial problems existing in the banks and to study the loan utilisation pattern and repayment behaviour of farmers.

The study area covered Irinjalakkuda PCARDB from Thrissur district, Alathur PCARDB from Palakkad district and Aluva PCARDB from Ernakulum district of Central Kerala and was based on both primary and secondary data. The financial performance of the banks were analysed by using secondary data collected from the annual reports of the banks for a reference period of ten years from 2008-09 to 2017-18. Structured interview schedule for employees and Board of Directors of the selected banks were used for analyzing the operational and managerial problems of the banks. Similarly, the loan utilisation pattern and repayment behaviour were studied with help of pre-tested structures interview schedule for 180 farmers (60 from each bank). Financial ratios, percentages, CAGR, simple growth rates, indices, Kendall's coefficient of concordance, Kruskal-Wallis H test and binary logistic regression model were administered for the data analysis.

5.1 Major findings

The major findings of the study are summarised and presented in the sequence given below:

5.1.1 Financial performance of the selected banks

5.1.2 Operational and managerial problems of the banks

5.1.3 Loan utilisation pattern and repayment behaviour of farmers

5.1.1 Financial performance of the selected banks

5.1.1.1 Efficiency in mobilisation

- a) Owned fund to working capital ratio of Aluva, Alathur and Irinjalakkuda banks were 10, 10.31 and 9.11 respectively which indicates that 90 percent of the working capital was constituted by borrowed funds. Thus, the ratio indicates the efficiency of banks in mobilisation of funds from other sources where Alathur bank had registered highest growth than the other two banks.

- b) Borrowed fund to working capital ratio of Aluva, Alathur and Irinjalakkuda banks were 96.06, 94.81, 89.43 respectively which explained that the major component of working capital was borrowed funds which highlights the bank's efficiency in mobilizing funds from external sources and Alathur bank had the highest growth throughout the study period when compared with the other two banks.
- c) Owned fund to borrowed fund ratio was 10.40, 10.96, and 10.20 for Aluva, Alathur and Irinjalakkuda banks respectively which confirms that owned fund constitutes only 10 percent of borrowed funds which reiterates the capability of banks in mobilising funds effectively. Alathur bank surpass the other two banks in their performance whereas the negative value of Irinjalakkuda bank was subjected to diminished business operations due to the bifurcation of the bank.

5.1.1.2 Efficiency in deployment

- a) Loan outstanding to total fund ratio of Aluva, Alathur and Irinjalakkuda banks were 92.01, 91.10 and 89.51 respectively. Since a higher ratio is always preferable the ratio shows that the sample banks were efficient and prudential in deployment of funds. Comparing the other two banks, Alathur bank owns a better performance while Irinjalakkuda bank, after bifurcation resulted in lessened performance and hence negative value.
- b) Loans outstanding to borrowed fund ratio which measures the share of loan disbursed from the borrowed fund was 101.55, 101.66 and 98.63 for Aluva, Alathur and Irinjalakkuda banks respectively. Increase in ratio, which was more than 90 percent shows that the selected banks were efficient in deploying the funds mobilized successfully.
- c) Investment to working capital ratio of Aluva, Alathur and Irinjalakkuda banks were 8.66, 6.50 and 14.44 respectively which indicates that portion of the working capital has been spend for other purposes also including granting loan which in turn revealed that the banks are in the safe zone of deploying the funds mobilised effectively.

- d) Loans outstanding to working capital ratio for Aluva, Alathur and Irinjalakkuda banks were 97.53, 96.37 and 88.19 respectively where Aluva bank forefronts the other two. More than 90 percent of the working capital were deployed as loans to the members of the bank which shows their productivity and enhancement in deployment of funds.
- e) Investment to total fund ratio for Aluva, Alathur and Irinjalakkuda banks were 8.11, 6.13 and 14.67 respectively which depicted a smaller percentage which implies that only a small portion of the total funds were deployed as investment and a good portion had utilized for other purposes including sanctioning of loans and advances.

5.1.1.3 Efficiency in operation

- a) Interest received to loans outstanding ratio was 11.22 percent, 12.41 per cent and 11.71 percent for Aluva, Alathur and Irinjalakkuda banks respectively. The banks are said to be in moderate good condition as the ratios were smaller in percent. In addition, the banks are subjected to mounting NPA over the years resulting in poor management of loans advanced. Thus, it could be inferred that Alathur bank has an edge over the other two banks in generating income from loans and advances.
- b) Net profit to working capital ratio was 0.35 for Aluva bank, 0.34 for Alathur bank and 0.00 for Irinjalakkuda bank. The ratios showed less than one percent value and some of the year's even triggered negative value which depicted that the working capital of the banks had not deployed well. Another notable point was that, the banks had kept a bigger amount as reserves which made them unprofitable. Further, Alathur bank had earned profit during the period of study, whereas the Aluva and Irinjalakkuda banks had incurred loss for four years out of the ten years under study. Thus it could be concluded that the Alathur bank has a better earning capacity which may be attributed to the efficiency and effectiveness in deployment of funds.
- c) Interest expense to interest received ratio was 81.71, 77.18 and 84.00 for Aluva, Alathur and Irinjalakkuda banks respectively. Comparison of the ratios showed a higher trend which shows interest expenses were higher compared to the interest income which resulted in pitiable performance of the bank. Since a lower ratio is

always considered as better for the banks, Alathur bank forefronts the other two by its performance.

- d) Interest expense to borrowed fund ratio for Aluva, Alathur and Irinjalakkuda banks were 8.47, 9.72 and 8.57 respectively. The ratios of the sample banks implied that lesser amount is paid as interest to the borrowed funds which concludes that the cost of funds was meager which keeps the profitability of the bank at a better level.
- e) Manpower expenses to total expenses ratio was 15.20, 2.67 and 24.72 for Aluva, Alathur and Irinjalakkuda banks respectively. The ratios of the sample banks were almost similar with no significant change over the years. Anyhow, keeping a lower ratio favours the banks and thus concluded that Alathur bank was said to be safe, Aluva bank ensured moderate safety and Irinjalakkuda bank have to improve.
- f) Total expenditure to total income ratio showed less than 100 percent and thus it can be concluded that income was enough to meet the expense except some years and banks are maintaining a profit except Irinjalakkuda bank.
- g) Net profit to interest received ratio was 3.64, 2.84 and -0.30 for Aluva, Alathur and Irinjalakkuda banks respectively. The ratios depicted that there were no significant growth for the banks during the study period and instead, some years had losses too which means that a portion of the interest income had contributed to the net profit except for the years which incurred losses.
- h) Spread ratio which is an excellent mark of the banks' efficiency in lending operations was averaged at 1.94, 2.60 and 1.65 for Aluva, Alathur and Irinjalakkuda banks respectively which indicated that spread ratio of the selected banks was reasonable.
- i) Burden ratio which is the proportion of burden to total funds of the bank was 0.60, 0.69 and 1.23 for Aluva, Alathur and Irinjalakkuda banks respectively. The ratio was less than one percent for the sample banks except for Irinjalakkuda bank which had a burden of more than one percent after bifurcation.

- j) Profitability ratio was 1.19, 1.90 and 0.41 percent for Aluva, Alathur and Irinjalakkuda banks respectively which shows that the banks maintain a better profitability.

5.1.2 Operational and managerial problems in the bank.

5.1.2.1 Socio-economic profile of the Board of Directors of the selected banks

- a) Board of Directors of the selected PCARDBs were experienced persons with above 50 years of age.
- b) Among the borrowers, 71 percent were males and 29 percent were females
- c) Among the total Board of Directors, majority were belonged to the Hindu community (71 percent) followed by Christian (17 percent) and Muslim (11 percent).
- d) Among the total Directors, 44 percent each belonged to the general category and OBC followed by SC category (11 persons).
- e) Ninety four percent of the Directors were married, one was unmarried and one was a widow.
- f) Among the total Directors, 63 percent had high school education, 23 percent were graduates and 14 percent had primary education.
- g) Out of the total Directors of the selected banks, 66 percent were APL card owners and 34 percent were BPL card owners.
- h) Out of the total Directors of sample banks, 51 percent were self-employed, 17 percent were wage- employed and 31 percent were unemployed.
- i) Thirty eight percent of Irinjalakkuda bank, one director of Alathur bank and none of the Directors of Aluva bank were wage-employed.
- j) The self-employed Directors, were engaged in agriculture, business, service and other forms of employment whereas among the wage-employed Directors, one from Alathur bank is a non-agricultural labourer and five of the Irinjalakkuda bank were government employees.

- k) As a whole, 57 percent of the Directors of selected banks earned income ranging from Rs. 10,000- Rs. 15,000, 20 percent earned income below Rs. 10,000, 11 percent earned Rs. 15,000 to Rs. 20,000 and the rest of them (12 percent) earned above Rs. 20,000.
- l) In total 46 percent of the Directors of the selected banks had membership ranging from 21-30 years, 37 percent had membership of up to 20 years and 11 percent had membership of 11-20 years.
- m) In total, 74 percent of the Directors had Board membership of less than ten years, 17 percent had 11-20 years of membership and only 9 percent had experience as a Board member for more than 20 years.

Operational and managerial problems of the banks

Operational and managerial problems of the selected banks were analysed from two perspectives, viz, those perceived by the Board of Directors and those perceived by the employees using indices and Kruskal-Wallis H test. In both cases, the problems were subdivided in to administrative problems, functional problems, structural problems and human resource related problems where the administrative problems perceived by Board of Directors was further divided in to administrative problems related with Board meeting, related with general body meeting and related with audit.

Administrative problems related with Board meeting perceived by Board of Directors

- a) The Board of Directors of the selected banks were of the opinion that no major administrative issues are present in the bank, which is substantiated by the overall index 36, which is included in the category 'tolerable'.
- b) The Kruskal-Wallis H test (P -value = 0.002) indicated that that there was significant difference among the administrative problems related to the Board meeting of the selected banks.

5.1.2.2 Administrative problems related with General Body meeting perceived by Board of Directors

- a) No major problems were in the selected banks in particular to the general body meeting, as opined by the Board of Directors. The composite index was 35, which means the problems related to the general body meeting in the selected banks are 'tolerable'.
- b) The Kruskal-Wallis H test (P-value = 0.001) indicated that that there was significant difference among the administrative problems related to the general body meeting of the selected banks.

5.1.2.3 Administrative problems related with audit perceived by Board of Directors

- a) The composite index of the Board of Directors (Index 35) categorized the administrative problems related with audit as 'tolerable'.
- b) The Kruskal-Wallis H test (P-value = 0.151) indicated that that there was no significant difference among the administrative problems related to audit of the selected banks.

5.1.2.4 Functional problems perceived by Board of Directors

- a) The overall index of the Board of Directors showed "Mounting NPA" with index 78 and was categorized as 'severe' functional problem. "Absence of incentives for prompt repayment" with index 48 under the category 41-60 was a 'risky' problem. Rest of the problems were in 'tolerable' category of 21-40.
- b) The Kruskal-Wallis H test (P-value = 0.99) indicated that that there was no significant difference among the functional problems of the selected banks.

5.1.2.5 Structural problems perceived by Board of Directors

- a) The 'severe' structural problems in the selected banks under the category 61-80 were restrictive structural laws", "existence of multiple regulations", "existence of govt. waiver schemes" and "over politicization and excess government control".

Similarly, the problem which was under the 'risk' category was "lack of modern management techniques and absence of MIS". Rest of the statements were categorized as 'tolerable'.

- b) The Kruskal-Wallis H test (P-value = 0.00) indicated that that there was significant difference among the structural problems of the selected banks.

5.1.2.6 Human Resource related problems perceived by Board of Directors

- a) The 'risk' problem under the category 41-60 faced by the selected banks was "rarely addresses the grievances raised by the members". Rest of the problems related to human resource in the selected banks were 'tolerable'.
- b) The Kruskal-Wallis H test (P-value = 0.00) indicated that that there was significant difference among the human resource related problems of the selected banks.

5.1.2.7 Socio-economic profile of employees

- a) Among the total employees of the selected banks, 40 percent had age in the range of 41-50 years and 30 percent had age in between 51 and 60.
- b) In total, that 56 percent of the employees of selected banks were males and the rest 44 percent were females.
- c) Among the total employees of the selected banks, 94 percent were married, two were unmarried and one was a widow.
- d) Out of the total employees of the selected bank, 62 percent were graduates, 16 percent had post-graduation and the rest 22 percent had other qualification like JDC, HDC and other diploma courses.
- e) Fifty percent had technical qualification and the rest of them had not, out of the total employees.
- f) Among the total employees of the selected banks, 56 percent had monthly income in the range of Rs. 25000-50000, 30 percent earned above Rs. 50000 and the rest had income of below Rs. 25000.

5.1.2.8 Professional details of employees

- a) Aluva PCARDB which dominates the other two bank with highest number of staff package (24) consisting of Secretary, Asst. Secretary , Branch Managers (2), Sr. Supervisors (5), Jr. Supervisors (7), Sr. Clerks (2), Jr. Clerks (5) and a record keeper. Alathur PCARDB consisted of 19 staff among which Secretary, Asst. Secretary (2), Branch Manager, Sr. Supervisors (4), Jr. Supervisors (8), Sr. Clerk, Jr. Clerk and a record keeper are in action. Irinjalakkuda PCARDB have Secretary, Asst. Secretary, Branch Manager, Sr. Supervisors, Jr. Supervisors (2) and Jr. Clerk.
- b) Among the total employees of selected banks 46 percent had service in the bank for below 10 years, 26 percent had experience of 16-20 years and only ten percent had service of more than 20 years.
- c) Fifty six percent of the employees of selected banks had service in their present post for 2-5 years, 40 percent had service of less than 1 year and nobody had experience of more than 10 years in their current post.
- d) Forty two percent of the employees of selected banks had attended five training programmes, 26 percent had attended six training programmes and 14 percent had attended five training programmes.
- e) Majority (64 percent) of the employees of selected banks had attended training in all areas mentioned above.

5.1.2.9 Administrative problems perceived by employees

- a) The administrative problems which were categorized as 'severe' were "competition from other financial intermediaries" and "impact of demonetization". The category of 'tolerable' problems comprised of the statements "GB meetings are not conducted regularly", "delay in conducting Board meetings" and "delay in implementing Board decisions" and rest of them were categorized as 'risk' problems.

- b) The Kruskal-Wallis H test (P-value = 0.002) indicated that that there was significant difference among the administrative problems of the selected banks, in the opinion of employees of the bank.

5.1.2.10 Functional Problems perceived by employees

- a) The 'chronic' functional problem faced by the selected banks was "mounting NPA". Correspondingly, the problems that were categorized as 'severe' were "high interest on loans", "delay in initiating legal proceedings against defaulters" and "existence of govt. loan waiver schemes". At the same time, problems which are called 'risk' fallen in the category of 41-60 were "improper records produced by farmers while granting credit", "absence of incentives for prompt repayment" and "no action initiated against diversion of loan". Rest of the problems of the banks were considered as 'negligible'.
- b) The Kruskal-Wallis H test (P-value = 0.005) indicated that that there was significant difference among the functional problems of the selected banks, in the opinion of employees of the bank.

5.1.2.11 Structural Problems of the banks perceived by employees

- a) The structural problems faced by the selected banks were "lack of modern practices of banking", "absence of modern management techniques ad MIS" and "absence of technological upgradation" which are termed as 'chronic' problems. In addition, the 'severe' categorized problems were "weak capital base", "inadequacy of resources for business growth" "poor quality of work environment", "infrastructural weaknesses", "absence of financial discipline", "undiversified business", "limited avenues for investment" and "low deposit mobilisation".
- b) The Kruskal-Wallis H test (P-value = 0.00) indicated that that there was significant difference among the structural problems of the selected banks, in the opinion of employees of the bank.

5.1.2.12 Human resource related problems perceived by employees

- a) The 'severe' human resource problems faced by the selected banks were "absence of specialised staff", "lack of professional skills" and "staff paucity and employee overburden" which were in the 61-80 category. The 'tolerable' ranged problem faced by the banks was "lack of staff training programmes" and the rest of the problems were included in the category 41-60 called 'risk' problems.
- b) The Kruskal-Wallis H test (P-value = 0.001) indicated that there was significant difference among the administrative problems of the selected banks, in the opinion of employees of the bank.

5.1.3 Loan Utilisation Pattern and Repayment Behaviour of Farmers

5.1.3.1 Socio-economic profile of the borrower farmers

- a) Thirty six percent of the total farmers were in the age category of 51-60, 31 percent belonged to the age category of 41-50, 18 percent had age up to 40 years and 16 percent had above 60 years of age.
- b) Among the total farmers, 70 percent were males and 30 percent were females.
- c) Fifty six percent of the borrowers were Hindus, 26 percent were Muslims and 19 percent were Christians.
- d) Forty four percent of the borrowers belonged to the OBC category, 28 percent belonged to general category, 18 percent were in OEC category, 8 percent were SC and one percent were ST category.
- e) Ninety four percent were married, 4 percent unmarried and two percent were widows.
- f) Forty three percent had high school education, 38 had primary education, 13 percent were graduates, 2 percent had post-graduation and 3 percent were illiterates.
- g) Sixty one percent were in APL category and 39 percent were belonged to BPL category.
- h) Among the total farmers, 52 percent were self-employed, 37 percent were wage employed and 11 percent were unemployed.

- i) Among the self- employed farmers of selected banks, 37 percent were agriculturalists, 22 percent were businessmen, 11 percent engaged in service and 30 percent engaged in other activities
- j) Out of the wage-employed farmers of selected banks, 49 percent were non-agriculturalists, 19 percent were agriculturalists, 18 percent were in private sector and 13 percent were in government sector.
- k) Among the total borrowers, 74 percent had a monthly income of up to Rs. 15000, 12 percent had Rs.15000 to Rs.20000, 10 percent had above Rs.25000 of monthly income and 4 percent had income ranged from Rs.20000 to Rs.25000.
- l) The source of income of majority of borrowers of Aluva bank (13 percent) the 'other' category, Alathur bank (40 percent) were wages and Irinjalakkuda bank (26 percent) were agriculture.
- m) Seventy six of the borrowers had less than 50 cents of land, 21 percent had 50 cents to 1 acres of land and 4 percent had more than one acres of land.

5.1.3.2 Loan Utilisation Pattern of Farmers

- a) Among the total farmers, 51 percent had availed housing loan, 36 percent had availed agricultural loan and 14 percent availed commercial loan.
- b) Majority of the borrower farmers were not eligible for the subsidy component because they had availed housing loans which had no subsidy component. Moreover, the farmers those who had taken agricultural loans were the non-schematic agricultural loans which also had no subsidy component.
- c) The selected banks provided interest subvention to the tune of 10 per cent of the annual interest accrued or Rs. 5000/- whichever is less. However, majority of the borrowers had not qualified for the benefits of interest subvention for various reasons.
- d) The borrowers of the selected banks were of the opinion that they resort to these banks because of the simple and convenient loaning procedure.
- e) Likewise, the borrower farmers of the banks opined that the bank should bring in a reduction in the present interest rate.

- f) More than half of the borrowers of the selected banks were of the opinion that the period of loan and repayment schedule was convenient and satisfactory.
- g) Among the borrowers, 43, 42 and 38 farmers had the loan overdue while the rest of them were prompt repayers.
- h) While comparing the loan amount applied by the farmers and the actual loan sanctioned by the bank, it was found that majority of the borrowers of Aluva bank had applied for loan above Rs. 8.00 lakhs but loan was sanctioned only for 27 percent, whereas for Alathur bank majority (43 per cent) farmers applied for loans up to Rs. 2.00 lakhs but loan was sanctioned to 47 percent farmers. Similarly, majority of the members (38 per cent) of Irinjalakkuda bank had applied for loans between Rs. 2.00-4.00 lakhs whereas sanction was accorded to 40 percent.
- i) While the sufficiency of the loan sanctioned to the farmers was analysed, it was found that the loan was partially sufficient for seventy five percent of the borrowers of Aluva bank, 56 percent for Alathur bank and 60 percent for Irinjalakkuda bank respectively. The loan amount was sufficient only for a trivial percentage of borrowers and for rest of the borrowers it was in-sufficient.
- j) Alternative sources of financing for those farmers whom which the loan amount was partially sufficient/in-sufficient were analysed and found that these farmers had borrowed from more than one source at a time. Similarly, majority of the farmers have personal savings which assisted them in meeting their financial requirements. Other sources of income included money from friends and relatives, commercial bank and cooperative bank. However, dependency on private financiers were petty.

a.1.3.3 Loan utilisation pattern of the farmers of selected banks

- a) Seventy two percent of the borrowers of Aluva bank and 57 percent of the borrowers of Irinjalakkuda bank utilised the entire loan for the designated purpose for which the loan was availed whereas 52 percent of the borrowers of Alathur bank had diverted the loan for other purposes.

- b) The major purposes for which the loan had been diverted were addition of plinth area of house, expenses for marriage ceremony and renovation of houses. Twenty one percent, 29 percent and 18 percent of the borrowers of Aluva, Alathur and Irinjalakkuda banks had utilised their loan amount for addition of plinth area. Likewise, among the borrowers, 21 percent, 17 percent and 19 percent had utilised the loan amount for marriage purposes. Those who have availed commercial loan utilised the loan amount for building of commercial space, purchase of stock and for the establishment of institution. Correspondingly, those who have availed agricultural loan utilised the amount for land preparation, purchase of livestock, purchase of inputs, payment of wages and digging wells/ water storage facilities. Other purposes for which the loan amount had utilised were payment of wages and redemption of old debts, medical expenses, educational expenses and other consumption expenses.

5.1.3.4 Factors affecting the utilisation of loan by borrower farmers

- a) The major that had affected the loan utilisation pattern of borrower farmers was, “non-availability of labour” which had fell under the ‘chronic’ category. Correspondingly, “non-availability of input” which was included in the category ‘severe’ was another major factor that had affected the utilisation pattern of loan. “Climatic factors” and “market fluctuations” were the ‘risk’ factors whereas “Change in technology” and “delay in sanctioning the loan” and “lack of support from Development Dept.” were ‘tolerable factors’.
- b) Kendall’s coefficient of concordance revealed that there was perfect agreement among the farmers of the selected banks regarding the factors affecting the loan utilisation pattern.

5.3.1.5 Repayment behaviour of farmers

- a) Logistic regression model was administered for analysing the factors affecting the repayment behaviour of farmers where, repayment behaviour was taken as dependent variable and age, gender, education status,

economic status, and employment status, membership in the bank, income status and land holding were considered as the independent variables.

- b) In case of Aluva bank, the variables namely, age (P-value = 0.006), economic status (P-value = 0.072) and membership in bank (P-value = 0.034) were statistically significant.
- c) For Alathur bank, variables such as education status (P-value = 0.029), income status (P-value = 0.061) and land holding (P-value = 0.013) were statistically significant.
- d) Correspondingly for Irinjalakkuda bank, the variables education status (P-value = 0.071) and duration of membership (P-value = 0.054) in the bank were statistically significant.

5.3.1.6 Reasons for loan default by borrower farmers

- a) The major causes of the loan default were high interest rate, reduction in employment, fall in price of agricultural commodities and reduction in income. Likewise, lack of access to the consumption loans and diversification of income for consumption purposes, crop failure, loan default were also ranked as the major causes of loan default by the borrower farmers.
- b) Kendall's coefficient of concordance was significant at 1% level which showed that there was perfect agreement among the farmers of the selected banks regarding the reasons behind the loan default.

5.3.1.7 Suggestions for reducing loan default

- a) The key suggestions put forth by the borrowers of the selected banks were bank incentives for prompt repayment, timely reminders, reduction in interest rates, small installments and fixation of recovery period in coincidence with the harvest/income period.

228

- b) Kendall's coefficient was significant at 1 % level and therefore there was perfect agreement among the farmers of the selected banks regarding the suggestions for reducing loan default.

5.2 Conclusion

The study entitled 'Performance Evaluation of Primary Cooperative Agricultural and Rural Development Banks in Central Kerala' was carried out with the objectives of analysing the financial performance of these banks, examining the operational and managerial problems existing in the banks and to study the loan utilisation pattern and repayment behaviour of farmers. It was found that among the financial performance evaluation of the selected banks, Alathur PCARDB excelled than the other two PCARDBs. The bank was more efficient in mobilisation, deployment and operations and is currently running on profit. Aluva PCARDB which incurred losses during the year 2011-12, succeeded in withstanding the shock of bifurcation and fought back to maintain their performance level in the succeeding years. However, for the last two years, the bank is operating on loss. Irinjalakkuda PCARDB who were conspicuous in lending long term agricultural credit to the farmers till 2015-16 is currently running on loss subjected to the bifurcation happened during the same year.

The operational and managerial problems of the banks was examined and it was found that in the opinion of Board of Directors, the only major problem confronted by them was increasing overdue over the years. Existence of government waiver schemes was one among the major reasons behind the mounting NPA. However, they opined, the administrative, structural and functional operations were smoothly functioning are effectively managed by the Board of the three banks. At the same time, the employees of the banks opined that the banks are being faced with a varied problems. Absence of technological upgradation, lack of modern practices of banking, absence of modern management techniques and MIS, mounting NPA, high interest on loans existence of govt. loan waiver schemes, competition from other financial intermediaries, impact of demonetization, absence of specialised staff, lack of professional skills and staff paucity

and employee overburden were the major structural functional administrative and human resource related problems.

The loan utilisation pattern of the borrower farmers of selected banks was studied as found that majority of the borrowers had diverted the loan amount from their designated purpose to other unproductive purposes. The pattern showed that the loan was utilised for renovation, repair and maintenance of houses, marriage ceremonies, building up of commercial space, purchase of inputs, payment of wages, medical expenses, emergency needs of friends and relatives etc. The loan utilisation pattern of the farmers were mostly affected by the factors non-availability of labour, non-availability of input, Climatic factors and market fluctuations. Correspondingly, the repayment behaviour of farmers was studied and found that the variables, age, economic status and membership in bank had statistical significance in repayment behaviour of the borrowers of Aluva bank whereas education status, income status and land holding were found to have statistical significance over the borrowers of Alathur bank. However, the variables education status and duration of membership in the bank had statistical significance on the repayment behaviour of borrowers of Irinjalakkuda bank. Moreover, high interest rate, reduction in employment and fall in price of agricultural commodities were found to be the major causes of non-repayment of loan by the farmers. Further, suggestions were made by the farmers for reducing the loan default which were incentives for prompt repayment, timely reminders, reduction in interest rates, small installments and fixation of recovery period in coincidence with the harvest/income period.

Hence it is suggested to lessen the overdue of the bank by taking actions for forcing and persuading the defaulters to repay the loan promptly. Further, the banks should discourage the diversion of loan by carrying out effective post loan supervision and subsequently augment their financial performance.

5.3 Suggestions

- a) The banks should make efforts to mobilise more deposits as it fetches one percentage interest as commission from KSCARDB which will be as additional source of income.
- b) All the banks should maintain and retain the present efficiency in deployment of funds.
- c) Irinjalakkuda bank should bring down the manpower expenses to enhance the profitability level.
- d) All the banks should deploy younger staff which will bring down the manpower expenses and improve the operational efficiency of the bank.
- e) Youngsters should be encouraged and promoted to be the members of the board of directors.
- f) The banks should devise methods to address problem of mounting overdue.
- g) Employees of the bank should involve more in the activities of the bank by addressing the grievances of the members.
- h) Cooperatives being economic and social organisation, excessive political interference should be checked.
- i) The bank should adopt uniform accounting software and digitalise its operations.
- j) The banks should digitalise state-of- the-art recovery management system.
- k) The banks should evolve the possibilities of using the social networking platform which is a cost free means to maintain regular rapport with the members.
- l) The banks should try to adopt competitive interest rates in lending to attract more borrowers to the bank.
- m) Post loan monitoring and effective physical verification and supervision of post loan activities of the members.
- n) Banks should go for professionalisation of the staff and make concerted efforts for filling up of vacancies in the bank.
- o) Banks should have proper loan appraisal mechanisms to ensure adequacy of loans to borrowers.

- p) The banks should evolve programmes on a regular basis for awareness creation among farmers on the need for proper utilisation and timely repayment of loans.
- q) The banks should fix the installments and repayment schedule in tune with the gestation period of the project for which loan was availed.
- r) Proper and timely execution of incentive schemes for the borrowers to encourage prompt repayment.

Bibliography

Bibliography

- Adegbite, A.D. 2009. Repayment performance of beneficiaries of Ogun State Agricultural and multi-purpose Credit Agency (Osamca) in Ogun State, Nigeria. *American- Eurasian J.Agric.* 3(1): 117-125.
- Agarwal, S.R. and Solanke, S.S. 2012. Problems faced by co-operative banks and perspectives in the Indian economy. *Int. J. Commerce, Business and Manag.* 1(2): 53-54.
- Alexpandi, M. and Rameshkumar, S. 2014. Utilisation and repayment of agricultural credit - the case of Madurai District, Tamil Nadu. *J. Rural Dev.* 33(2): 147-159.
- Amin, G.H. 2008. Some reflections on cooperative credit institutions. *The Cooperator*.p40.
- Anthu, A. 2008. Financial performance of Vengola service cooperative bank ltd no: 4276. B. Sc. (C & B) project, Kerala Agricultural University, Thrissur, 73p.
- Arupillai, T. and Philip, P. M. G. 2014. Farmers' characteristics and its influencing on loans resettlement decision in Sri Lanka. *Int. J. Econ. and Finance.* 6(4): 110-117.
- Ashtangar, O. M. 2015. Cooperative sector banks in India: problems & prospects. *Int. J. Commerce and Manage. Res.* 1(1):1-5.
- Bala, K. 2015. An analysis of agricultural loan repayment performance of regional rural bank: a case study of district Sirsa, India. *Int. Res. J. Social Sci.* 4(6): 89-92.
- Bharthi, R.H. 2014. Financial performance of cooperative banks in the Muddebihal taluk of Bijapur district. *Int. J. Res. in Comput. and Manag.* 1(2): 34-39.
- Bharthi, R.H. 2015. Analysis of the financial performance of co-operative banks in Bijapur district (Karnataka state): A comparative study. *Int. Multidisciplinary E-J.* 4(8): 120-142.
- Chunilal, P.D. 2014. Financial inclusion and performance of rural cooperative banks in Gujarat. *Int. J. Res.* 1(8): 415-511.
- Derban et.al. 2005. Loan repayment performance in community development finance institutions in U.K. *Small Business Economics.* 25: 319-332.
- Ezhihe et.al. 2016. Accessibility and repayment of agricultural loan among farmers in Benue State, Nigeria. *IOSR J. Agric and Veterinary Sci.* 9(8): 39-46.

Fatollai, A. 2015. Factors contributing to repayment behavior of micro loans in agricultural bank of Meshkinshahr. *Int. Finance and Banking*. 2(1): 27-37.

Ganesh, B. and Basavaraja, M.D. 2012. The role of primary co-operative agriculture and rural development bank in the context of inclusive growth -a special study of Sagar taluk in Shimoga district in Karnataka. In: *7th ICA-AP -Co-Operative Research Conference*; 26, November, 2012, Kobe, Japan. International Cooperative Alliance, Japan.

Ganesh, T. S. and Rajur, B.C. 2014. Analysis of co-operative agricultural and rural development banks (PCARDBs) of Tumkur district of Karnataka. *Land Bank J*. 53(2):26-38.

Ghalawat, J. 2016. Assessment of managerial effectiveness in cooperative banks of India. *Int. J. Sci. Technol. And Manag.* 5(10): 80-83.

Godquin, M. (2004). Microfinance repayment performance in Bangladesh: How to improve the allocation of loans by MFIs. *World Development*. 32(11): 1909-1926.

GOI [Government of India]. 2006. Report of the Task force on Revival of Rural Cooperative Credit Institutions (Long-Term). Government of India, Ministry of Finance, New Delhi, 137p.

GoI [Government of India]. 2009. Report of the High Powered Committee on Cooperatives.[on-line]. Available:
<http://www.indiaenvironmentportal.org.in/files/hpcc2009new.pdf>[14-09-2018].

Gopalakrishna, K. and Gonchikar, P. 2018. Functioning of Karnataka state cooperative agricultural and rural development bank in the economic development of farming community. *Int. J. Educ. Manag. and Res.* 8(4): 1-9.

Grace, G. O. 2018. Loan repayment behaviour among member of farmers multipurpose cooperative societies in Anambra State, *Int. J. of Community and Coop. Studies*. 6(1): 28-29.

Gupta, J. and Jain, S. 2012. A study on cooperative banks in india with special reference to lending practices. *Int. J. Sci. and Res. Publications*. 2(10): 1-6.

Harisha, B.N. 2018. Performance of primary co-operative agriculture and rural development banks in Karnataka. *Int. J. Advanced Educ. and Res.* 3(2): 70-73.

Hooda, V.S. 2011. An evaluation of financial indicators of district central cooperative banks in India. *Indian J.Commerce and Manag. Studies*. 2(2): 319-329.

IBEF [India Brand Equity Foundation]. 2016. IBEF Indian Agricultural Industry: An Overview [on line]. Available: <http://www.ibef.org/industry/agriculture-india.aspx> [22 Dec. 2016].

IBEF [India Brand Equity Foundation]. 2016. IBEF *Indian Agricultural Industry: An Overview* [on line]. Available: <http://www.ibef.org/industry/agriculture-india.aspx> [22 Dec. 2016].

Ibrahim, H. A., Zareba, F. A. S. E. 2015. Determinants of loan utilization and repayment behaviour among small farmers in North Kordofan of Sudan. *Global Advanced Res. J. Agric. Sci.* 4(9) 533-648.

Isaac, A. R. 2011. Factors influencing loan repayment behaviour in community banks in Tanzania. Dissertation, University of Dar es Salaam, Tanzania, 95p.

Islam, J., Azim, Karim, M., and Begum, A. 2014. The problems and prospects of co-operative Society: A case study on its evolution and future possibilities in context of Bangladesh. *Int. J. Innovative Res. in Manage.* 10(3): 30-39.

Joseph, J. 1994. A study of agricultural and rural development banks in Kerala with special reference to funds management. Ph. D (Management) thesis, Cochin University of Science and Technology (CUSAT), Kochi, 289p.

Kaur, S. 2011. Poverty and indebtedness among marginal and small farmers in rural Punjab, Ph. D thesis, Punjab University, Punjab. 88p.

Kumar, R. and Kaur, J. 2010. Financial appraisal of Haryana state cooperative apex bank. *Advances in Manag.* 3 (12): 41-4.

Kumar, R. and Kaur, J. 2013. A Study of Cooperative Banking in Haryana. *Gyan Jyoti e-j.* 3(4): 37-44.

Kumar, R. E. G. 1992. A study on democratic management practices in primary agricultural credit societies in Trichur district. B. Sc. (C & B) project, Kerala Agricultural University, Thrissur, 187p.

Kumar, R. E. G. 2015. Impact of dairy cooperatives on production and marketing of milk in Kerala. Ph.D. (Commerce) thesis, University of Kerala, Thiruvananthapuram, 398p.

Makorere, R. F. 2014. Factors affecting loan repayment behaviour in Tanzania: Empirical evidence from Dar es Salaam and Morogoro regions. *Int. J. Develop. and Sustainability.* 3(3): 481-492.

- Meenakadevi, A. and Tamilvani, S. 2015. A study on financial performance analysis of selected cooperative urban banks in Tamilnadu. *Res. Front.* 3(2): April-June.
- Mehmood, Y., Anjum, M. B., and Ahmad, M. 2012. Factors affecting delay in repayments of agricultural credit: A case study of district Kadur of Punjab province. *World Applied Sci. J.* 17(4):447-452.
- Michael, J.N. 2004. A study on non-performing assets in cooperative banks –with reference to Cuddalore district central bank ltd., Tamil Nadu. Ph.D thesis, Annamalai University, Annamalai Nagar, Tamil Nadu.156p.
- Mondal, M. A. H., Ali, M. M. and Shamsudhin, A. B. M. 2012. Credit utilization pattern and repayment behavior of the fish farmers in Mymensingh and Kishoreganj districts. *J. Bangladesh Agril. Univ.* 10(2): 349–354.
- Mondal, M. A. H., Ali, M.M. and Shamsudheen, A. B. M. 2012. Credit utilization pattern and repayment behavior of the fish farmers in Mymensingh and Kishoreganj districts. *J. Bangladesh Agril. Univ.* 10(2): 349–354
- NAFCARD [National Cooperative Agricultural and Rural Development Banks' Federation Ltd.]. 2018. *Annual Report 2017-18*. National Cooperative Agricultural and Rural Development Banks' Federation Ltd., Mumbai, 113p.
- Namasivayuan, D. and Ramachandraiah, G. 2000. End use of credit and repayment performance of the institutional borrowers: an integrated analysis. *J. Rural Develop.* 19(3): 411-444.
- Naqvi, S. 2014. An assessment of cooperative banking in India with special reference to Uttar Pradesh. Ph.D (Applied Economics) thesis, Univresity of Lucknow, Lucknow, 123p.
- Nitha, M. A. 2016. Performance evaluation of Adat farmers' service cooperative bank. B. Sc. (C & B) project, Kerala Agricultural University, Thrissur, 87p.
- Oni, O. A., Oladele, O.I., and Oyewole, I.K. 2005. Analysis of factors influencing loan default among poultry farmers in Ogun State Nigeria. *J. Central European Agric.*, 6(4):619-624.
- Ordway, T. and Tead, S. (1951). *The Art of Administration*. McGrew Hill publishers, New York, p. 101.
- Pathania, K. and Batra, S. 2008. Non-Performing assets management in cooperative banks: perceptions of bank officials. *Indian Coop. Review*. p161.
- Prabhu, P.V. 2012. Agricultural credit cooperatives; problems and prospects. *Land Bank J.* 51(3): 1-7.

- Prabina, C. K. and Vini, M. S. 2017. Study on financial performance of the Kozhikode district cooperative bank ltd. using camels rating scale. *Int. J. Creative Res. Thoughts*. 5(4): 274-276.
- Pramedra, Karwasra, J. C., Raju, K., and Vinay, M. 2017. Financial performance of the Hisar district central co-operative bank. *Int.J. Agric. Sci.* 9(1): 3610-3613.
- Preety E., Priyanka, S., Kowsalya, M., and Revathy, D. 2016. Benefits and challenges faced by the cooperative banks. *Int.J. Emerging Technol. In Eng.Res.* 4(4): 61-64.
- Rachana, T. 2011. Financial inclusion and performance of rural cooperative banks in Gujarat. *Res.J. Finance and Accounting*. 2(6): 40-50.
- Rahji, M. (2010). Determinants of agricultural credit rationing by commercial Bank in south-west Nigeria. *Journal of Finance Int.Res. and Econ.* 37(2): 56-60.
- Rajni, and Dhaliwal, N.K. 2013. Growth of loans and advances and recovery performance of state agricultural development banks in Punjab. *Int. Monthly Referred J.Res. in Manag. and Technol.* 2: 50-59.
- Rajur, C. B. and Ganeshprasad, T.S. 2014. Analysis of primary co-operative agricultural and rural development banks in Tumkur district of Karnataka. *Land Bank J.* 53(2): 26-38.
- Rao, S., Singh, S., and Mahal, A. K. 2014. Comparitive analysis of institutional credit pattern in Punjab and Kerala. *J. Agric. Dev. Policy.* 24(1): 23-30.
- Raveesha, S. 2004. Performance of primary co-operative agricultural and rural development banks in Tumkur district of Karnataka. M. Sc. (Ag) thesis, College of Agriculture, Pune, 105p.
- Raveesha, S., Bharamappanavara, S. C., and Govindaraj, G. 2010. Growth rate analysis of primary agricultural and rural development bank (PCARDBs) in Karnataka (India) [abstract]. In: Abstracts, International Conference on Applied Economics; 26-28, August, 2010, Athens, Greece. pp: 662-668.
- Ravi, V and Bhagwan, R. 2000. "Analysis of causes of overdues in cooperatives under swood", *Co-op. Perspective.* 35(1): 43-47.
- Ravichandran, K. 2000. Crop loan Systems and Overdues. Spellbound publications-business &Economics, 222p.
- Ravindran, K.K. 2013. Rural financial system in India and challenges before cooperative long term credit structure. *Land Bank J.* 52(3): 1-5.
- RBI [Reserve Bank of India]. 2015. Report on the trend and progress of banking in India 2014-15. Reserve Bank of India, Mumbai, 25p.

- Sahu, M., Raghuvanshi, J. S., and Jaulkar, A.M. 2018. Influence of long term credit of cooperative agriculture and rural development bank on the income of the borrowers. *Curr. Agric. Res.* 6(2): 188-199.
- Sakthivel, R. and Aranganathan, T. 2010. Salem and Cuddalore district central cooperative banks. *Southern Economist.* 49(15): 21-24.
- Sapna, K. R. 2003. Lending pattern and recovery performance of investment credit in agriculture- a case study of co-operative agricultural and rural development banks in Thiruvananthapuram district. B. Sc. (C &B) Project, Kerala Agricultural University, Thrissur, 76p.
- Selvaraj, V. M. and Sankaravadivoo, G. 2007. Obstacles and options before co-operative agricultural and rural development banks. *Indian Co-operative Review.* July 2007. pp. 1-8.
- Sentamilselvan, K. and Delecta, P. 2016. A study on financial performance of district central co-operative bank, Cuddalore. *Int. J. Advanced Sci. Res. & Develop.* 3(2): 109-115.
- Shanthi, R. and Anandan, M. 2017. Financial performance of co-operative bank in Tamil Nadu. *Int. J. Manag. and Dev. Studies.* 6(4): 1-6.
- Sharma, S. and Pathania, K. 2010. The ratio analysis aspects of the Himachal Pradesh state cooperative agricultural and rural development bank. *Indian Co-operative Review.* January 2010. pp. 255-259.
- Shivakumara, s. and Manjunath, T.R. 2017. Performance of primary co-operative agriculture and rural development banks in Karnataka. *Int. J. Multidisciplinary Res. and Manag.* 3(11): 39-41.
- Singh and Singh. 2010. Technical and scale efficiency in district central co-operative banks of punjab –a non- parametric analysis. *Indian Co-op. Review.* 47(1).
- Singh, A.K. and Banafar, K.N.S. 2005. Impact of crop loan on adoption of improved technology in paddy production in Raipur District of Chhattisgarh. *Indian Cooperative Review.* 42(3): 266- 271.
- Singh, V. 2008. Appraisal of Financial Performance of The Rohtak Central Cooperative Banks Ltd.”, *M.Phil. Dissertation*, Dept. of Commerce, M.D. University, Rohtak, Haryana (India).
- Soni, A. K. and Saluja, H. P. S. 2013. Financial ratio analysis of dcc bank ltd. Rajnandgaon. *J.Int.Financial Manag.and Accounting.* 3(1): 96-103.

- Swain, R.N. and Sahoo, R. 2017. An analysis on effects of demonetization on cooperative banks. *Indian J. Sci. Res.* 14(2): 85-90.
- Takale, D. 2013. Role of banking sector in Indian agricultural development. *Asian J. Res. in Business, Econ. and Manag.* 3(5): 103-112.
- Thimmaih, B. N., Maroor, P. J., and Shainy, V.P. 2013. Comparative study of the challenges faced by psu banks and urban cooperative banks and strategies to overcome with special reference to Mangalore city. *Glob. J. Manag. and Business Stud.* 3(3): 341-346.
- Unnithan, K. V. and Somasundaram, M. 2017. The major problems faced by urban cooperative banks in Kollam District, Kerala. *Int. J. Commerce Mang. And Res.* 3(4): 82-84.
- Vadrake, k. and Katti, V. P. 2015. Struggle for the Survival of long term cooperative credit institutions. *Re. gate.* 1-11.
- Vallissery, A. N. 2015. Trend and patterns of agricultural credit in India during the post- reforms period. Ph. D (Economics) thesis, Cochin University of Science and Technology (CUSAT), Kochi, 278p.
- Varesh, V. 2016. Financial performance of DCC bank with special reference to Vijayapur District. *Int. J. Res. in Finance and Marketing.* 6(7): 57-63.
- Velu. R. 2011. A study on product profitability of the Pondicherry co-operative central land development bank. *Land Bank J.* 50(3): 5-19.
- Venkatesh, R. and Gnanammal, N. 2016. A study on financial performance in primary agriculture co-operative bank ltd in Dharmapuri. *J. Stud. in Manag. and Planning.* 2(7):22-28.
- Venugopal, K. 2012. Impact of institutional credit on agricultural production in Kerala. M. Sc. (C & B) thesis, Kerala Agricultural University, Thrissur, 174p.
- Walia, A. 2003. Funds management of central cooperative banks – a case study of the Jalandhar central cooperative bank ltd. *Coop. Perspective.* p44.

**PERFORMANCE EVALUATION OF
PRIMARY CO-OPERATIVE AGRICULTURAL AND RURAL
DEVELOPMENT BANKS IN CENTRAL KERALA**

By

**Niranjana Chandran
(2016-15-001)**

ABSTRACT OF THE THESIS

Submitted in partial fulfilment of the requirement for the degree of

Master of Science in Co-operation & Banking
(Co-operative Management)

Faculty of Agriculture

Kerala Agricultural University



**Department of Co-operative Management
College of Co-operation, Banking & Management
Vellanikkara, Thrissur - 680656
Kerala, India**

2019

ABSTRACT

Agriculture in India has shared the thought, outlook and culture of the people of India for centuries and constitutes the backbone of Indian economy. Agricultural credit has played an important role in the development of agricultural sector, specifically investment credit in increasing production and productivity. Agriculture, during its primitive stage, the necessity of long term credit was not felt. However, the innovations in agricultural technologies paved way for vast potentialities for agricultural development. Currently, the long term credit has been viewed as essentially a vibrant credit in such a way that it supports the farmer to create assets on land, thereby augmenting his output which subsequently adds to the agricultural production in the country. The most important agency that lends long term investment credit to farmers is the Cooperative Agricultural and Rural Development Banks.

The Cooperative Agricultural and Rural Development Banks were the pioneers in providing investment credit for agriculture and were started primarily for this purpose. The banks have been assigned a vital role in agricultural development in the state. However, the PCARDBs in Kerala are passing through a critical stage of their growth. A good number of them are running at loss and their overdue are mounting over the years (RBI, 2015) which is already explained by a number of studies. It was found that the constraints are due to the poor recovery management, differential rate of interest when compared to commercial banks and private banks, restricted area of operation, restricted mobilisation of funds and restricted investments. In this context, a study on the "Performance Evaluation of Primary Cooperative Agricultural and Rural Development Banks in Central Kerala" was taken up with the objective of analysing the financial performance of these banks, examining the operational and managerial problems existing in the banks and to study the loan utilisation pattern and repayment behaviour of farmers.

The study area covered Thrissur, Ernakulum and Palakkad districts of Central Kerala which were selected based on the highest number of PCARDBs in each district in Central Kerala. From each district, the PCARDB which had the highest loan disbursed

during the year 2015-16 was selected for the study. Thus, Irinjalakkuda PCARDB from Thrissur, Aluva PCARDB from Ernakulum and Alathur PCARDB from Palakkad districts were selected for the study.

The secondary data for studying the financial performance was collected from the Annual reports for ten years (from 2008-09 to 2017-18) of these banks and was analysed with the help of statistical tools such as financial ratios, CAGR and simple growth rate. The primary data for examining the operational and managerial problems existing in the banks was collected from board of directors and employees of the selected banks using a pre-tested structured interview schedule. The data thus collected was analysed using the tools indices, percentages and Kruskal-Wallis H test. The primary data for studying the loan utilisation pattern and repayment behaviour of farmers was collected from randomly selected 180 farmers (60 from each bank) using a pre-tested structured interview schedule and was analysed with the support of the statistical tools percentages, indices, Kendall's coefficient of concordance and binary logistic regression model.

By analyzing the first objective, it was found that Aluva and Alathur PCARDBs were efficient in mobilising funds, in deployment of the funds and also efficient in its operations. However, Irinjalakkuda PCARDB after bifurcation during the year 2015-16 witnessed decline in their operations resulting in subsequent loss for the bank from the year 2015-16. However, among the three banks, Alathur PCARDB excelled in performance.

The second objective was analysed from the perspective of board of directors and employees. From the point of view of the directors the issue was studied under four heads viz., administrative problems, functional problems, structural problems and human resource related problems. The administrative problems were further subdivided as problems related to board meeting, problems related to general body meeting and problems related to audit. In the same way from the employee's perspective it was studied under the heads viz., structural, functional, administrative and human resource problems. The results showed that in the opinion of board of directors the major problem confronted by the banks were increasing NPA. Further, according to the board no other major

administrative/functional/structural issues were persisting in the banks. However, the perception of employees were different from that of the board of directors. In their opinion, the major problems confronted by the banks were “absence of technological upgradation”, “lack of modern practices of banking” “absence of modern management techniques and MIS” as structural problems, “mounting NPA”, “high interest on loans” “existence of govt. loan waiver schemes” as functional problems “competition from other financial intermediaries” and “impact of demonetization” as administrative problems “absence of specialised staff”, “lack of professional skills” and “staff paucity and employee overburden” as human resource related problems.

The analysis of the third objective concluded that majority of the borrowers had diverted the loan for other purposes like renovation, repair and maintenance of houses, marriage ceremonies, building up of commercial space, purchase of inputs, payment of wages, medical expenses, emergency needs of friends and relatives etc. The study on repayment behaviour of farmers found that the variables, age, economic status and membership in bank had statistical significance in repayment behaviour of the borrowers of Aluva bank, whereas education status, income status and land holding were found to have statistical significance for borrowers of Alathur bank and for Irinjalakkuda bank variables education status and duration of membership in the bank had statistical significance on the repayment behaviour of borrowers. Further, high interest rate, reduction in employment and fall in price of agricultural commodities were found to be the major causes of non-repayment of loan by the farmers. Finally, incentives for prompt repayment, timely reminders, reduction in interest rates, small installments and fixation of recovery period in coincidence with the harvest/income period were the suggestions put forth by the farmers for reducing loan default.

The member farmers, the board of directors and the employees are the three important pillars on which the success and sustainability of a cooperative organisation rests. It is obvious from the study that the board of directors of the sample banks are scrupulous, conscientious and meticulous in carrying out their duties and responsibilities

supported by a band of committed employees and dedicated member patrons. However, a few issues had been revealed in the study which could be addressed by the concerted efforts of all these three stakeholders. The banks should initiate measures to check the problem of mounting overdue by creating awareness among the borrower farmers for proper loan utilisation and prompt repayment. Banks should introduce mechanisms for post loan supervision and monitoring which should be the joint responsibility of the employees and the members of board. In toto, the overall performance of the selected banks were satisfactory which can be improved further and sustained in the future for the betterment of the cooperative banking structure and to induce confidence in the minds of the member patrons of the cooperatives.

Appendix

246

Appendix - I

KERALA AGRICULTURAL UNIVERSITY
College of Cooperation, Banking and Management
“Performance Evaluation of Primary Cooperative Agricultural and Rural
Development Banks in Central Kerala”

SCHEDULE FOR BOARD OF DIRECTORS

District	-	TCR/EKM/PKD
Name of PCARDB	-	ALUVA/ALATHUR/IRINJALAKUDA

1. Socio-economic profile of Board of Directors

1. Name of the respondent	-
2. Age	-
3. Gender	-Male/Female
4. Religion	-Hindu/Christian/Muslim
5. Caste	-SC/ST/OBC/OEC/General
6. Marital Status	-Married/Unmarried/Widower/ Widow/Divorced/Separated
7. Educational Status	-Illiterate/Primary/High School/Graduate/Post Graduate
8. Economic Status	-BPL/APL
9. Employment Status	-Self Employed/Wage Employed/Unemployed
10. If self-employed- nature	-Agrl/Service/Business/Others
11. If wage employed	- Govt./Pvt./Agri.labourers/Non-agri labourers
12. Number of family members	-2/3/4/5 & above
13. Number of earning members	-0/2/3/4/5 & above
14. Monthly income	-<10000/10000-15000/15000- 20000/20000-25000/>25000
15. Source of income	-Agri/Salary/Rent/Wage/Profit/ Others
16. Year of acquiring membership in PCARDB	-
17. Year of becoming board member for the first time	-
18. How long you are a board member (years)	-
19. Do you have membership in multiple coop	- Y/N
20. If yes, how many?	- 2/3/4

21. Type of other Coop membership -Marketing/Consumer/Dairy/Others

22. Are you member of :

- i. Political Party -Y/N
- ii. Local administration -Y/N
- iii. Voluntary organization -Y/N
- iv. Religious organization -Y/N
- v. Others (Specify) -Y/N

2. Managerial Issues associated with PCARDB

Sl.No	Administrative Issues	SA	A	MA	DA	SDA
	a.) Related with Board meeting					
1.	Board meetings are not conducted regularly					
2.	Notice for Board meetings not received in time					
3.	Agenda for the Board meetings not intimated in advance					
4.	Documents/information for deliberations in Board meetings not circulated in advance					
5.	Board meetings usually resorted to ad hoc decisions					
6.	Board meetings were suspended due to insufficient quorum					
7.	Board meetings were conducted even without quorum in exceptional cases					
8.	Board meetings were inconclusive of agenda meetings					
9.	Seldom involve in day to day managerial issues of the bank					
11.	Seldom monitor the implementation of decisions of Board meeting					
	b.) Related with GB meeting	SA	A	MA	DA	SDA
1.	GB meetings are not conducted regularly					
2.	Failed to circulate GB notice in time					
3.	Agenda for the GB meetings not intimated in advance					
4.	Documents/information for deliberations in GB meetings not circulated in advance					
5.	Occasional attendance in the GB meetings					

6.	Rare involvement in discussions in the GB meetings					
7.	GB meetings usually resorted to ad hoc decisions					
8.	GB meetings were suspended due to insufficient quorum					
9.	GB meetings were conducted even without quorum in exceptional cases					
10.	GB meetings were inconclusive of agenda meetings					
11.	Delay in implementing decisions of GB					
Sl.No	c.) Related with audit	SA	A	MA	DA	SDA
1.	Delay in conducting annual audit					
2.	Delay in rectification of audit defects					
3.	Down gradation of audit classification of the Bank					
4.	Inquiry was ordered based on audit report/other reasons					

Sl.No	Functional Issues	SA	A	MA	DA	SDA
1.	Untimely issue and procedural delays in loan issue					
2.	Inadequate loan appraisal and credit planning					
3.	Absence of post loan monitoring/supervision					
4.	Mounting of NPA					
5.	Delay in initiating legal proceedings against defaulters					
6.	Absence of incentives for prompt repayment					
7.	Absence of serving reminders/notice for repayment of the loan					
8.	Absence of charging penal interest on defaulters					
9.	No action initiated against diversion of loan					

Sl.No	Structural Issues	SA	A	MA	DA	SDA
1.	Unethical and poor management practices					
2.	Heavy dependency on government capital rather than shareholder's contribution					
3.	Lack of modern management techniques and absence of MIS					
4.	Restrictive laws					
5.	Existence of multiple regulations					
6.	Existence of govt. waiver schemes					
7.	Corruption and corrupt practices					
8.	No filling of vacant posts					
9.	Bureaucracy in administration of cooperatives					
10.	Predominance of vested interest of a particular person or class					
11.	Over politicization and excess government control					
12.	Absence of regular performance appraisal of employees					

Sl.No	HR related Issues	SA	A	MA	DA	SDA
1.	Employees rarely addresses the grievances raised by the members					
2.	Employees hardly motivate member participation in business					
3.	Disinterest to manage performance of employees consistently					
4.	Low member participation in both business & management					
5.	Special GB were not convened in emergency situations					

(SA- Strongly Agree, A- Agree, MA-Moderately Agree, DA- Disagree, SDA- Strongly Disagree

Appendix- II

**KERALA AGRICULTURAL UNIVERSITY
College of Cooperation, Banking and Management
“Performance Evaluation of Primary Cooperative Agricultural and Rural Development
Banks in Central Kerala”**

SCHEDULE FOR EMPLOYEES

District - TCR/EKM/PKD
Name of PCARDB - ALUVA/ALATHUR/IRINJLAKUDA

a. Profile of Employees

1. Name of the respondent -
2. Age -
3. Gender -Male/Female
4. Marital Status -Married/Unmarried/Widower/
Widow/Divorced/Separated
5. Designation -
6. Years of service -
7. Years of service in the present post -
8. Educational Qualification -Graduate/Post Graduate/Others
9. Technical qualification -
10. Monthly income (Rs.) -20000-25000/25000-50000/>50000
11. Training programs attended -0/1/2/3/4/5
12. Areas of training -Finance /HR /Marketing/Other

b. Operational Issues associated with PCARDB

Sl.No	Structural Issues	SA	A	MA	DA	SDA
1.	Weak capital base					
2.	Inadequacy of resources for business growth					
3.	Poor quality of work environment					
4.	Infrastructural weaknesses					
5.	Absence of financial discipline					
6.	Undiversified business					
7.	Limited avenues for investment					
8.	Low deposit mobilization					
9.	Lack of modern practices of banking					

10.	Absence of technological up gradation					
11.	Absence of modern management techniques and MIS					

Sl.No	Functional Issues	SA	A	MA	DA	SDA
1.	High interest on loans					
2.	Improper documents produced by farmers with loan application					
3.	Delay in verification of documents					
4.	Untimely issue of loans and procedural delays					
5.	Inadequate loan appraisal and credit planning					
6.	Absence of post loan monitoring/supervision					
7.	Mounting of NPA					
8.	Delay in initiating legal proceedings against defaulters					
9.	Delay in executing incentives for prompt repayment					
10.	Absence of serving reminders/notice for repayment of the loan					
11.	Absence of charging penal interest on defaulters					
12.	No action initiated against diversion of loan					
13.	Existence of govt. loan waiver schemes					

Sl.No	Administrative Issues	SA	A	MA	DA	SDA
1.	GB meetings are not conducted regularly					
2.	Special GB not convened in emergency situations					
3.	Delay in conducting Board meetings					
4.	Delay in implementing Board decisions					
5.	Domination of Board curtails operational freedom					
6.	Delay in conducting annual audit					
7.	Delay in rectification of audit defects					
8.	Down gradation of audit classification of Bank					
9.	Competition from other financial intermediaries					

10.	Impact of demonetisation					
11.	Low promotion for stakeholders' interest					
12.	Manipulation in record keeping					
13.	Lack of transparency in financial statements					
14.	Bureaucracy associated with the administration of cooperatives					

Sl.No	HR related Issues	SA	A	MA	DA	SDA
1.	Absence of specialised staff					
2.	Lack of professional skills					
3.	Staff paucity and employee overburden					
4.	Over aged staff					
5.	Lack of staff training programmes					
6.	Absence of good work culture and commitment					
7.	Inadequate staff for field supervision and loan appraisal					
8.	Delayed staff promotions					
9.	Absence of regular performance appraisal of employees					
10.	Poor interpersonal relations					
11.	Low level of member satisfaction					
12.	Low level of member identification					
13.	Increasing member apathy					
14.	Low member participation					
15.	Employees rarely addresses the grievances raised by the members					
16.	Employees hardly motivate member participation in business					

(SA- Strongly Agree, A- Agree, MA-Moderately Agree, DA- Disagree, SDA- Strongly Disagree)

Appendix- III

KERALA AGRICULTURAL UNIVERSITY
College of Cooperation, Banking and Management
“Performance Evaluation of Primary Cooperative Agricultural and Rural Development
Banks in Central Kerala”

SCHEDULE FOR BORROWER FARMERS

District - TCR/EKM/PKD
Name of PCARDB - ALUVA/ALATHUR/IRINJALKUDA

A. Socio-economic profile of farmers

1. Name of the respondent -
2. Age -
3. Gender -Male/Female
4. Religion -Hindu/Christian/Muslim
5. Caste -SC/ST/OBC/OEC/General
6. Marital Status -Married/Unmarried/Widower/
Widow/Divorced/Separated
7. Educational Status -Illiterate/Primary/High
School/Graduate/Post Graduate
8. Economic Status -BPL/APL
9. Employment Status -Self Employed/Wage
Employed/Unemployed
10. If self-employed- nature -Agri/Service/Business/Others
11. If wage employed -Govt./Pvt./Agri.labourers/Non-agri
labourers
12. Number of family members -
13. Number of earning members -
14. Monthly family income -<10000/10000-15000/15000-
20000/20000-25000/>25000
15. Ownership of land -<50 cents/50 cents-1acre/1-2/2-4/
4-6/>6acres
16. Sources of income -Agri/Salary/Rent/Wages/Profit/
Others
17. Duration of membership in PCARDB -(years)
18. Membership in multiple coop - Y/N
19. If yes, how many? - 2/3/4

254

20. Type of other Coop membership - PACS/DCB/SCB/
Marketing/Consumer/Dairy/Others
21. Are you member of :
- i. Political Party -Y/N
 - ii. Local administration -Y/N
 - iii. Voluntary organization -Y/N
 - iv. Religious organization -Y/N
 - v. Others (Specify) -Y/N

B. Details of borrowings

- 1. Method of cultivation adopted -Traditional/Modern
- 2. Experience in farming (Years) -
- 3. Type of loan availed - MT/ LT
- 4. Purpose for which loan was availed -Agril/Non-agril
- 5. If non-agril, specify the purpose -
- 6. Did bank officials visit your premises/
plot before sanctioning the loan -Y/N
- 7. If yes, how many times? - Once/twice/thrice
- 8. Did the bank educate you regarding
the terms and conditions of the loan - Y/N
- 9. Estimated cost of the project -
- 10. Owner's stake/margin -
- 11. Amount of loan applied -
- 12. Type of security given -
- 13. Did you face any problem in getting
the loans -Y/N
- 14. If yes, rank the following

Sl.No	Reasons	Rank
1.	Procedural delay	
2.	Inadequacy of security	
3.	Excessive documentation	
4.	Unscientific loan evaluation	
5.	Political reasons	
6.	Others (specify)	

- 15. Is there any subsidy component in your loan -Y/N
- 16. Did you get the benefit of interest subvention -Y/N
- 17. If no, state reason

255

18. Details of loan availed by the borrower farmers from PCARDB

Purpose of loan	Loan applied	Loan sanctioned	Int. (%)	Term	No. of instl	Rep. Sch	Repaid amt	Amt of subsidy	Balance O/S	Overdue if any

(M)Monthly/ (Q) Quarterly / (H) Half yearly / (A) Annually

19. Whether the total loan amount received was sufficient

- i). Insufficient ii). Partially Sufficient iii). Sufficient

20. If the loan amount was insufficient/partially sufficient, how did you manage?

- i. Personal savings
- ii. Borrowed from friends and relatives
- iii. Local money lenders
- iv. Loans from other agencies
- v. Others

C. Utilisation of loan

1. Have you utilised the entire loan amount for the designated purpose- Y/N
2. Utilisation pattern of loan

Sl. No	Head of expenditure	ALY (%)	ALT (%)	IJK (%)
1.	Addition of plinth area			
2.	Renovation & maintenance of house			
3.	Establishment of institution			
4.	Building of commercial space			
5.	Purchase of stock			
6.	Consumption expenses			
7.	Marriage purposes			
8.	Medical expenses			
9.	Repayment of old debt			
10.	Emergency needs of friends or relatives			
11.	Educational expenses			
12.	Land preparation			
13.	Purchase of livestock			
14.	Purchase of inputs			
15.	Payment of wages			
16.	Digging wells /water storage facilities			

3. If no, the amount utilised -.....%
4. Did bank officials visit your premises/plot after sanctioning the loan –Y/N
5. If yes, how many times? -Once/twice/thrice
6. State how the following factors have affected your utilization of credit

Sl.No	Factors	MR	R	Mod R	I	MI
1.	Climatic factors					
2.	Availability of input					
3.	Market fluctuations					
4.	Delay in sanctioning the loan					
5.	Personal sickness /illness					
6.	Non-availability of labour					
7.	Change in technology					
8.	Lack of support from Development Dept.					

(MR- Most Relevant, R- Relevant, Mod R-Moderately Relevant, I- Irrelevant, MI- Most Irrelevant)

D. Repayment of loan

1. Total loan installments (at the beginning/remaining) -
2. Repayment schedule of loan - Monthly/ quarterly /Half yearly / Annually
3. Is the repayment schedule suitable and convenient to you - Y/N
4. If no, what are the reasons
 1. The repayment schedule begins before generation of income
 2. EMI fixed is not in tune with flow of income
 3. Others (specify)
5. Whether the bank sends notices/ reminders for the timely repayment - Y/N
6. Have you repaid all the loan installments as per repayment schedule: Y/N
7. If yes, reasons for prompt repayment

Sl. No	Reasons	Rank
1.	Sufficient income from agriculture	
2.	Sufficient income from other sources	
3.	Convenient instalments	
4.	Incentives for prompt repayment	
5.	Strict recovery procedures	
6.	Others (specify)	

8. No. of instalments defaulted
9. Did you repay the loan out of the income obtained from the project: Y/N
10. Whether the bank has undertaken any monitory & supervisory measures regarding loan repayment- Y/N
11. Comment on the statements regarding loan default

Sl.No	Reasons	SA	A	NO	D	SD
1.	Fall in price of agricultural commodities					
2.	Crop failure					
3.	Lack of irrigation facility					
4.	Low quality seeds					
5.	Natural calamities					
6.	Non availability of laborers in time					
7.	Loan diversification					
8.	Ancestral debt					
9.	Non institutional loan					
10.	High interest rate					
11.	Defective loan policies					
12.	Lack of recovery efforts					
13.	Illness of borrower/ family member					
14.	Ceremonies					
15.	Faith in loan waiver/write off policies					
16.	Lack of access to the consumption loans and diversification of income for consumption purposes					
17.	Non availability of input in time					
18.	Reduction in employment					

12. Suggestions for reducing loan default

Sl.No	Suggestions	SA	A	NO	D	SD
1.	Provisions for adequate staff for project supervision					
2.	Incentives for proper repayment					
3.	Creation of awareness through good customer- banker relations					
4.	Provide adequate loan amount					
5.	Smaller installments					
6.	Timely credit					
7.	Timely reminders					
8.	Adoption of appropriate schedules for repayment					
9.	Reduction in interest rates					
10.	Fixation of recovery period in coincidence with harvest/ income period					
11.	Loan waiver/ write off policies for default due to natural calamities					
12.	Provide adequate production, distribution and marketing support					

194623

