International Journal of Multidisciplinary Research and Development
Online ISSN: 2349-4182, Print ISSN: 2349-5979; Impact Factor: RJIF 5.72
Received: 03-03-2019; Accepted: 05-04-2019
www.allsubjectjournal.com
Volume 6; Issue 5; May 2019; Page No. 107-112

Financial performance of Irinjalakuda primary cooperative agricultural and rural development bank. Ltd. R. 312: An analysis

Niranjana Chandran[1], Dr. G Veerakumaran[2], Dr. E Vinaikumar[3]

[1] Research Scholar, Department of Cooperative Management, College of Cooperation, Banking and Management, Kerala Agricultural University, Thrissur, Kerala, India

[2] Professor, Department of Cooperative Management, College of Cooperation, Banking and Management, Kerala Agricultural University, Thrissur, Kerala, India

[3]Professor and Head, Department of Cooperative Management, College of Cooperation, Banking and Management, Kerala Agricultural University, Thrissur, Kerala, India

Abstract

Primary Co-operative Agricultural and Rural Development Banks (PCARDBs) are playing an important role in promoting capital formation in agriculture and rural sectors in the State through its long term investment loans. However, a good number of them are running at loss and their NPAs are mounting over the years. Hence, the study aims at evaluating the financial performance of Primary Cooperative Agricultural and Rural Development Bank by studying the case of Irinjalakuda Cooperative Agricultural and Rural Development Bank (ICARDB) located in Thrissur district of Kerala which is the best performing bank in the state a few years back and there by examining the financial ambiguities existing in the bank. The study found that the bank is in loss. Therefore, it is suggested to elevate the performance of the bank by increasing their efficiency in proper deployment of funds and thereby increasing profitability level by acquiring suitable developmental practices.

Keywords: Agricultural and rural development bank, mobilization, deployment, profitability

1. Introduction

Co-operatives have a huge network and unparalleled reach, with 100 per cent coverage in rural areas. They play a pivotal role in the mainstream of Indian economy, particularly in the fields of rural credit, distribution of agricultural inputs, storage, fertilizer, marketing, labour, and housing. When the country calls for inclusive growth as a key factor in removing socio-economic disparities, to achieve this objective, the cooperatives are the best organization as they are embedded in the psyche of the people, are participatory by nature, and promote equity. The co-operative movement in India has made remarkable progress, now numbering more than 600,000 cooperatives and 250 million members, making it one of the largest cooperative movement of the world (Economic Review, 2016) []. In Kerala also, the co-operative movement has made deep strides and touched all spheres of life. Though initially started as a credit movement, it has diversified its activities in various socio economic forefronts.

The credit co-operative societies are most vibrant and viable in the State. The Co-operative Credit structure in the state comprises of Short Term Credit and Long Term Credit. The Short Term Agricultural Credit structures mainly comprises the Kerala State Co-operative Bank (KSCB) at the apex level, 14 District Co-operative Banks (DCB) at the district level 1647 Primary Agricultural Co-operative Societies (PACS) at the bottom level. These co-operatives are basically self-governing institutions with total accountability to the borrower members and in whose management they have a voice. In addition to the three-tire co-operative banking, there are well developed network of Urban Co-operative Banks in the State.

In the long-term credit, Kerala State Co-operative Agriculture and Rural Development Bank (KSCARDB) is at the apex level and 78 Primary Co-operative Agricultural Rural Development Banks (PCARDB) at the bottom level. At present there are 94,178 rural cooperative credit institutions in India, of which 734 are long-term credit institutions comprising of 20 State Co-operative Agricultural and Rural Development Banks (SCARDBs) and 714 Primary Co-operative Agricultural and Rural Development Banks (PCARDBs) (RBI, 2015) [6]. KSCARDB is playing an important role in promoting capital formation in agriculture and rural sectors in the State through its long term investment loans. The survival of KSCARDB and affiliated PCARDBs in the long run depends on their ability to raise funds at reasonable cost that permits financing of farmers and other rural sections at affordable interest rates and to offer a complete range of credit and financial services to them.

2. Materials and Methods

The present study was completely based on the secondary data obtained from the various annual reports and audited reports published by Irinjalakuda CARDB collected during 2019. The period of study was a reference period of ten years, from 2008-09 to 2017-18. Additionally, secondary data collected from various websites and journals were also used for substantiating and supporting the study wherever necessary. Ratio analysis was used to study the financial performance of ICRADB.

3. Statement of the problem

The PCARDBs in Kerala are passing through a critical stage of their growth. A good number of them are running at loss and their NPAs are mounting over the years (RBI, 2015) [6]. The PCARDBs raise their funds by way of share capital, loans from KSCARDB, admission fees, grants and subsidies from government and borrowings from other agencies. Recently, they have started mobilization of fixed deposits also.

The declining agricultural operations in the state and the lack of demand for agricultural credit have made the PCARDBs to lend to non- agricultural operations, though it is not their mandatory function. Among co-operative credit institutions, PCARDBs were enjoying the monopoly status in long-term agricultural lending till recently. Now, short-term co-operative credit institutions have also started lending long-term loans for agricultural and rural development. Moreover, the PCARDBs interest rates are not at all competitive and hence demands for long-term loans are dwindling. Even in the case of existing loans, takeover by the other lending agencies are on the higher side. Besides these banks are facing stiff competition from commercial banks and Regional Rural Banks. However, survival and growth of PCARDBs are very vital for the sustained development of agricultural sector in Kerala. As far as Irinjalakuda PCARDB is concerned, the restructuring of Taluks which resulted in the restructuring of PCARDBs was the major issue behind the decline of ICARDB which in turn affected the profitability of the bank that caused them a reverse growth.

Hence, the study aims at evaluating the financial performance of Irinjalakuda Cooperative Agricultural and Rural Development Bank. Ltd. R. 312 (ICARDB) and there by examines the ambiguities existing in the bank. The findings of the study would be of immense help to the officials of the bank and the state government for taking effective interventions towards improving the performance of these banks.

4. Scope of the study

With the help of ratio analysis comparison of profitability and financial soundness can be made. Current year's ratios are compared with those of previous years and if some weak spots are thus located remedial measures can be taken to correct them. This gives information to the researchers for conducting research in respect of profitability, efficiency financial soundness and growth of the bank.

5. Objective

To study the financial performance of Irinjalakuda Primary Cooperative Agricultural and Rural Development Bank. Ltd. R. 312

6. Review of Literature

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.

Sapna (2003) [1] in her study 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.

Selvaraj and Sankaravadivoo (2007) [2] in their study 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.

Ganesh and Rajur (2014) [4] concluded in their study 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 mobilization by providing reasonable interest for deposits.

Velu (2011) [3] in his study 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.

7. Results and Discussion

The present study examine the financial performance of ICARDB under the following three heads:

7.1 Efficiency in mobilization
7.2 Efficiency in deployment
7.3 Efficiency in operation

7.1.1 Efficiency in mobilization

Mobilization of deposits is of utmost importance while considering a bank, and it has a vital role in building a sound financial structure. However, PCARD banks have limited action in deployment of the mobilised deposits from the members as they are serving as an agent to KSCARDB. These banks mobilise deposits from the members and directly deposits in the KSCARDB accounts on the same day itself or else it will result in the loss of interest payable to the depositors. Therefore, the following ratios are used for analysing the efficiency of the selected banks in mobilization of funds:

Table 1: Ratios showing efficiency in mobilization of ICARDB

Year	Owned fund to Working capital ratio	Borrowed fund to Working capital ratio	Owned fund to Borrowed fund ratio
2008-09	9.02	88.95	10.14
2009-10	9.40	88.61	10.61
2010-11	9.52	88.38	10.78
2011-12	9.11	89.25	10.21

2012-13	8.47	90.58	9.35
2013-14	7.26	92.29	7.86
2014-15	7.54	91.81	8.21
2015-16	10.81	87.13	12.41
2016-17	10.03	88.81	11.29
2017-18	9.89	88.47	11.18
CAGR	1.03	-0.06	1.09

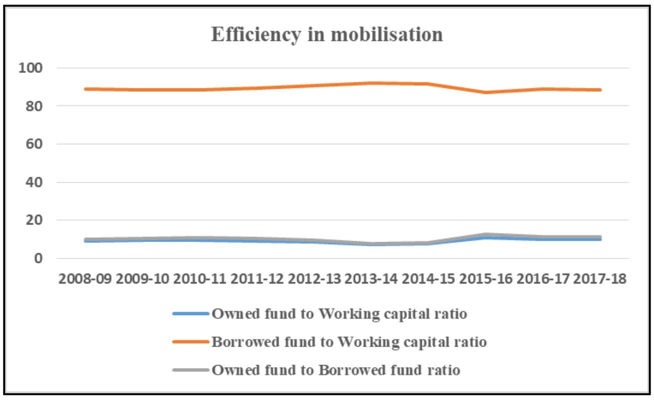

Fig 1: Graph showing efficiency in mobilization of ICARDB

a. **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. The ratio showed a constant growth during the first four years, later a weakened growth and again fastened growth on the last three years of the study period. It is evident that merely less than 10 percentage of the working capital is constituted by owned funds which indicates that the bank is running on a majority of borrowed funds which does not deter the performance of the banks. Increase in ratios were due to the significant increase in owned fund and working capital.
b. **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. A higher ratio indicates higher composition of borrowed funds in the working capital and lower ratio indicates higher owned fund composition. On an average, the ratio is 89.43 percent for the bank which means, more than 88 percent of the banks' working funds are composed of borrowed fund. Thus, the bank showed a higher ratio indicating their capability in mobilizing funds for their operations.
c. **Owned fund to borrowed fund:** This ratio shows whether the bank depends more on owned funds or borrowed funds. A higher ratio indicates increased share of owned fund in the functioning of the bank and a lower ratio indicates increased use of borrowed funds in the bank. The bank had well performed status during the first four years and thereafter a moderate growth could be observed. However, bank exhibited a lower ratio which conveys the increased use of borrowed funds. Similarly, ICARDB weakened its performance during the course of study. Thus, the bank borrows funds more than the owned funds resulting in added responsibility to deploy their funds effectively.

7.2.1 Efficiency in deployment

Deployment of funds is equally or even more important as mobilisation of funds because revenue generation of any banking institution solely depends on deployment of funds, cooperative banks are no exception to this. The PCARDBs deploy funds by means of loan and advances, investment in shares of other cooperatives, fixed and other assets etc. In the present study the efficiency in deployment of funds of the banks was examined with the help of following ratios.

Table 2: Ratios showing efficiency in deployment of ICARDB

Year	Loans outstanding to Total fund ratio	Loans outstanding to Borrowed fund ratio	Investment to Working capital ratio	Loans outstanding to Working capital ratio	Investment to Total fund ratio
2008-09	91.48	100.76	15.80	89.63	16.12
2009-10	89.17	98.63	14.06	87.39	14.35
2010-11	89.68	99.34	14.62	87.80	14.94
2011-12	92.38	101.81	13.20	90.86	13.42
2012-13	92.58	101.24	12.02	91.70	12.13
2013-14	88.08	95.00	6.26	87.67	6.29
2014-15	90.33	97.75	12.60	89.75	12.69
2015-16	86.97	97.76	21.47	85.17	21.92
2016-17	87.20	97.05	13.71	86.19	13.87
2017-18	87.20	96.94	20.61	85.77	20.95
CAGR	-0.53	-0.43	3.00	-0.49	2.95

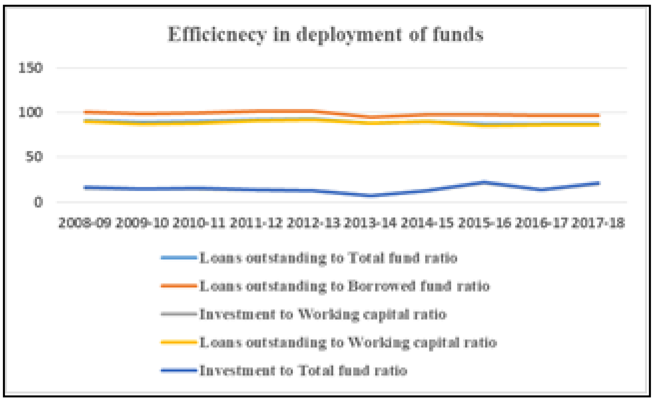

Fig 2: Graph showing efficiency in deployment of funds by ICARDB

a. **Loans outstanding to Total fund ratio:** This ratio highlights the quantum of loan outstanding to total funds. If the ratio is higher, it implies that the majority of the funds has been delivered as loan and is favourable to the bank whereas, a lower ratio indicates idle funds and is unfavourable. Here, a decreasing trend is observed during the study period which is because of the bifurcation of the bank which prima facie is not a cause of concern. Thus it could be safely concluded that the bank is effective and sagacious in distribution of funds.
b. **Loans outstanding to borrowed fund ratio:** The ratio is indicative of the share of loans o/s 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 appropriate disbursement of borrowings in to loans. Higher ratio represents better performance of the banks and vice-versa. It is understood that the bank shows higher values which are more than 90 percentage which means the bank is efficient in deploying the funds mobilized successfully. But ICARDB beheld a shrinkage in their performance from 2015-16 onwards which can be attributed to bifurcation. Therefore, it is concluded that the bank has to improve its efficiency in distribution of borrowings in to loans.
c. **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 invested by the banks in other resources. Therefore, a higher ratio indicates good performance of the banks as they effectively deploy the funds and a lower ratio needs improvement over their routine. Irinjalakuda PCARDB which were once prominent and pioneers in lending agricultural credit maintained a steady growth up to the year 2012-13. Though the ratio faced a fall during 2013-14, the bank thrived in modifying improved performance and the ratio shows an increased performance. Therefore it is concluded that the bank is efficient in investing its working capital funds in other resources.
d. **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 availed by the bank. High ratio shows that bank is efficient in deploying its working capital as loans and hence improve the performance and a lower ratio implies poor performance of the banks. It is evident from the table that the bank showed an increased performance up to the year 2014-15 and thereafter declined due to bifurcation. However, with the available funds, the bank managed to deploy its funds as loans. Thus, it is concluded that a good amount of the working capital is deployed as loans by the bank and thereby bank strives to maintain a good performance. Also, this ratio shows the turnover of working capital into loans.
e. **Investment to total fund ratio:** The ratio is a good indicator to evaluate the efficiency of the selected banks in deployment of the funds. It shows the amount of total funds set out as investments. A higher ratio always results in better performance of the bank and vice-versa. The overall ratio depicts 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 loans and advances. Therefore, it is concluded that only a meager part of the total funds is recycled for investment and the bank is well functioning.

7.3.1 Efficiency in operation

The efficiency of an organisation is assessed by its capacity to control cost as well as to improve earnings. The study on the operational efficiency is the yardstick to measure the performance of an organization as well as the testimony to justify the existence and sustainability of the organization. As such analysis of the operational efficiency of the bank is equally important as mobilization and deployment. The study attempts to examine the operational efficiency with the following ratios:

Table 3: Ratios showing efficiency in operation of ICARDB

Year	Int. received to Loan O/S ratio	Net profit to Working capital ratio	Int. Paid to Int. received ratio	Int. Paid to borrowed fund ratio	Manpower exp. To Total exp. ratio	Total expenses to Total income ratio	Net profit to Int. received ratio	Spread Ratio	Burden Ratio	Profitability Ratio
2008-09	10.63	1.01	82.10	8.79	20.49	89.72	10.58	1.74	0.59	1.15
2009-10	11.55	0.94	80.90	9.22	17.92	90.17	9.33	1.97	0.86	1.11
2010-11	11.12	1.02	82.07	9.07	21.43	88.01	10.47	1.79	0.49	1.30
2011-12	6.38	-0.83	81.47	5.29	25.73	99.83	-14.38	1.09	1.08	0.01
2012-13	11.99	0.82	82.90	10.07	22.65	91.94	7.49	1.90	0.85	1.04
2013-14	12.67	0.68	83.80	10.09	19.76	92.25	6.12	1.81	0.83	0.98
2014-15	13.25	0.06	86.15	11.16	22.02	95.65	0.53	1.66	1.06	0.60
2015-16	13.36	-1.85	87.08	11.37	37.97	108.82	-16.25	1.50	2.82	-1.32
2016-17	13.09	-1.18	86.68	11.01	28.44	100.81	-10.46	1.52	1.63	-0.11
2017-18	13.05	-0.72	86.81	10.98	30.74	104.48	-6.45	1.50	2.11	-0.61
CAGR	2.31	-196.31	0.62	2.52	4.61	1.71	-194.65	-1.64	15.21	-193.20

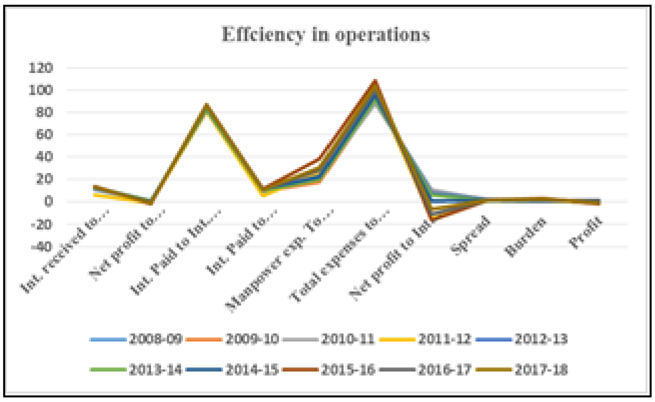

Fig 3: Graph showing efficiency in operations of ICARDB

a. **Interest received to loans outstanding:** As far as a bank is concerned, interest received is the major and vital source of revenue. This ratio highlights the quantum of interest received on the loans and advances or in other words it expresses the percentage of revenue generated from loans and advances. A reasonable ratio is preferred in the sense that reasonable interest is being collected in time on the principle amount and the same is recycled in the business thereby improving the business turnover and ultimately the profit. This ratio shows the recovery performance of bank and also gives an indication in the reduction of NPAs. A lower ratio is a negative indicator of loan recycling which ultimately results in higher level of non - performing assets of the bank. It is understood that more than 10 percent of the loans and advances are received as income which is said to be the major source of income for the bank. It is evident from the study that on an average the bank got 10.37 percent as the ratio which implies that, bank recycled the funds reasonably.

b. **Net profit to working capital ratio:** It says whether the working capital of the bank has profitably deployed or not. The net profit should be adequate enough to provide optimum returns on the working capital which is the soul of any organization. Hence earning a reasonable amount of profit and effective management of working capital is the most important task of the banks. Higher ratio implies better performance of the bank and vice-versa. The ratios showed less than one percent value and some of the year's even triggered negative value which depicts that the working capital has not deployed well. Irinjalakuda bank after bifurcation failed to keep up their business intact and thus incurred losses for the last three years of the study period. The calculated ratio was trivial for the bank which implies that the bank doesn't have a better earning capacity and therefore needs improvement.

c. **Interest paid to interest received ratio:** This ratio highlights the relation between two major components of banking business *viz*., interest paid (expense component) and interest received (income component) which decides the results of the overall performance of a banking institution. A lower ratio indicates better performance of the bank and a higher ratio implies that interest paid on deposits and borrowings are higher and hence badly affect the profitability of the bank. When the ratios are analysed, it showed a higher trend which shows interest expenses were higher compared to the interest income which would be resulting in the pitiable performance of the bank. Bank should try to improve its performance by the way of increasing its lending operations and thereby maintain a higher interest income than the interest expense.

d. **Interest paid to borrowed fund:** This ratio shows the proportion of interest paid to borrowed fund of the bank. Higher the ratio, higher will the interest amount payable and hence deter the performance. On contrast, a lower ratio lowers the interest expense and offers better performance. The ratios which showed a lesser value for the bank implies that lesser amount is paid as interest to the borrowed funds. The average ratio for Irinjalakuda bank was 8.57 respectively. Thus, the cost of funds was meager for the bank for the first few years and thereafter it increased. It shows, the cost of funds of the bank is higher.

e. **Manpower expenses to total expenses:** This ratio deals with the proportion of manpower expenses in the total expenses of the bank and thereby analyses the efficiency of the banks in its smarter operations and profitability. In order to function well, a lower ratio should be maintained by the banks which in turn keep the banks profitable and a higher ratio implies that the banks have to find other sources to meet manpower expenses alone. From the table, it is clear that manpower expenses increased for the bank. Also, the ratio was at a moderate level for the bank up to the year 2014-15 and after that due to bifurcation it shows an increased level. Average ratio was 21 percent for the bank because their total expenses were also lesser. Anyhow, keeping a lower ratio favours the banks. And therefore, it is suggested to improve the profitability level of the bank by lowering the manpower expenses.

f. **Total expenditure to total income ratio:** The ratio measures the proportion of total expenditure to total income of the banks. It is an excellent indicator of measure of profitability. As the ratio increases profitability decreases because expenditure will be higher than income and a lower ratio always favors the banks as it keeps expenditure at a lower level. Irinjalakuda bank, as already mentioned subjected to bifurcation and a passive performance was noticed. It is well clear from the table that the bank showed an increasing ratio throughout the study period. A moderate ratio was maintained until the year of bifurcation and later it increased and that has affected the profitability of the bank considerably. Since the ratios showed a higher value, it can be concluded that the bank is not making enough income to cover all the expenses.

g. **Net profit to interest received ratio:** This ratio is an excellent evidence which shows the efficiency of the bank in its operations. Both net profit and interest received are directly related. When the interest received increases, profitability of the banks also increases and vice versa. It is understood from the ratio that there were no significant growth for the bank during the study period and instead, some years had losses too. However, a fall in this ratio doesn't mean the bank is inefficient, instead it should be noted that bank has sources of income other than the interest income. It is very clear from the table that the bank maintained a reasonable profit during the first three years and the very next year they incurred loss and it should be noted that the bank thrived to maintain profit again until the year of bifurcation and thereafter incurred losses again. Therefore, it is concluded that the ICRADB needs more improvement in their operations to make the bank profitable.

- **h. Spread Ratio:** The ratio is an excellent mark of the banks' efficiency in lending operations. Higher ratio is preferable and it will be possible only if interest received on loans and advances is more than interest paid on borrowings. It is evident from the table that the ICARDB has showed a spread ratio of less than two percent. It is known that higher ratio is always preferable for better performance of the bank provided that interest income should be more than enough to cover the expenses. Positive ratio is a good sign showing the capacities of the bank in maintaining regular banking practices. Here, in the case of Irinjalakuda bank, ratio showed a moderate value. It should be noted that after bifurcation, both interest income and interest expenses had fell down and therefore the ratio displays moderate value factually. Therefore, it is always suggested to maintain a better ratio throughout the existence of the bank.
- **i. Burden Ratio:** Burden ratio is the proportion of burden to total funds of the bank. Reducing the burden will improve the profitability of the bank. Maintaining a lower ratio always favours the bank. Here, the ratios showed burden up to two percent. Before 2015-16, the year of bifurcation, the bank had maintained a lower burden ratio however after bifurcation, the burden had increased which is a challenge before the bank. The bank have to take necessary action in order to keep a lower burden and thereby increase the profitability.
- **j. Profitability ratio:** Profitability ratio expressed in absolute terms indicates whether the banks operations are satisfactory or not. It is the final figure of analysis. It is necessary to relate profit and working funds for analyzing operational efficiency and thereby profitability of the bank. ICARDB incurred losses during 2015-16 onwards. Rest of the years shows better productivity for the bank. Losses were due to the bifurcation of the bank. Therefore, efforts should be made to maintain the spread margin and improve the profitability level so as to maintain the sustainability of the bank.

8. Conclusion

Cooperative banking has been playing a crucial role in the development of rural economy and work as the backbone of the financial system in the country. Among the cooperative credit institutions, the Primary Cooperative Agricultural and Rural Development Banks (PCARDB) which meets all the long term credit needs of the farmers are primarily formed to free the weaker sections of society from economic exploitation. 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. The lack of demand for agricultural credit have made the PCARDBs to lend to non- agricultural operations, though it is not their mandatory function. Moreover, the PCARDBs interest rates are not at all competitive and even in the case of existing loans, takeover by the other lending agencies are on the higher side. Besides these banks are facing stiff competition from commercial banks and Regional Rural Banks. However, survival and growth of PCARDBs are very vital for the sustained development of agricultural sector in Kerala.

Hence, the study was conducted to analyse the financial performance of Irinjalakuda Primary Cooperative Agricultural and Rural Development Bank Ltd. No. R 312. It was realized that the bank was once the pioneers in lending long term credit to farmers and other members of the bank. The bank was prudential and prominent in carrying out the banking business. Even though they are restricted in mobilizing deposits from members, they had huge amount of borrowings from the apex bank and at the same time effective and efficient deployment of funds they mobilized. However, the bank got bifurcated during the year 2015-16 and the fertile part of the bank was removed from their area of operation which had resulted in a decline in their operations. Profitability of the bank was considerably affected. Now, the bank is in loss. Therefore, it is suggested to elevate the performance of the bank by increasing the mobilization practices, increasing the efficiency in proper deployment of funds and also increase the lending operations and thereby increase the profitability to the next higher level by acquiring suitable developmental practices.

9. References

1. Sapna KR. 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, 2003, 76.
2. Selvaraj VM, Sankaravadivoo G. Obstacles and options before co-operative agricultural and rural development banks. Indian Co-operative Review, 2007, 1-8.
3. Velu RA. Study on product profitability of the Pondicherry co-operative central land development bank. Land Bank J. 2011; 50(3): 5-19.
4. Rajur CB, Ganeshprasad TS. Analysis of primary co-operative agricultural and rural development banks in Tumkur district of Karnataka. Land Bank J. 2014; 53(2):26-38.
5. GOI [Government of India]. Report of the Task force on Revival of Rural Cooperative Credit Institutions (Long-Term). Government of India, Ministry of Finance, New Delhi, 2006, 137.
6. RBI [Reserve Bank of India]. Report on the trend and progress of banking in India 2014-15. Reserve Bank of India, Mumbai, 2015, 25.
7. Economic Review. http://spb.kerala.gov.in/EconomicReview2016/web/chapter02_09.php, 2019.

8. Research Scholar, Dept. of Cooperative Management, College of Cooperation, Banking and Management, Kerala Agricultural University, Thrissur. niranjanachandran94@gmail.com, 8281404837.
9. Professor, Dept. of Cooperative Management, College of Cooperation, Banking and Management, Kerala Agricultural University, Thrissur. gveeran@kau.in, 6238021334.
10. Professor and Head, Dept. of Cooperative Management, College of Cooperation, Banking and Management, Kerala Agricultural University, Thrissur. evinaikumar@gmail.com, 8921318997.