PERFORMANCE EVALUATION, COMPARATIVE ANALYSIS AND FACTORS INFLUENCING THE EFFICIENCY OF DISTRICT CENTRAL CO-OPERATIVE BANKS –A STUDY WITH REFERENCE TO SOUTHERN STATES OF INDIA

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Abstract
Cooperative Is one of the oldest and effective systems in terms of development of human civilization. Cooperative institutions are organized and managed on the principle of cooperation, self-help and mutual help. There are different types of cooperative institutions functioning in India. As far as the institutional credit structure is concerned, cooperatives play a significant role in this regard. Cooperative credit institutions are spread all over India and are providing their services at the grass root level. As main portion of the population in India lives in rural areas so it is important to strengthen the cooperative credit institutions in these areas. The major advantage of the institutions is their strong branch network which covers entire area of the country. The major objective of this paper is to study and analyze the performance of operational variables such as deposits,disbursements of loans, loans and advances, outstanding loans and recovery position of loans, reserves and surpluses of DCCB. The lending operations are given due emphasis. The advances made by District Central Cooperative Bank (DCCB) under the different programmers with reference to collection and recovery conditions are scrutinized. The parameters, perspectives and problems pertaining to repayment and recovery of loans will also be highlighted. The period of the study for this research is taken from 2003 to 2013. The study is based on secondary data. The data required for the study has been collected from RBI annual reports, Journals, reports on trend and progress of banking in India, Annual Reports of NAFSCOB etc.

Keywords: Deposit, Loan Outstanding, District Central Cooperative Bank, Anova, Ratio Analysis.

1.1 INTRODUCTION
Banks play a pivotal role in building and developing the economy of the nation. If the banking industry does not perform well, the effect to the economy could be huge and broad. Efficient banking system reflects a sound inter mediation process and hence the banks render due contribution to the economic growth. The present banking scenario in India is witnessing tremendous changes. The business of banking revolves around optimum mobilization and application of funds. Co-operative banks are the most important source of rural financing and hold the significant position in the Indian banking system. Co-operative banks play imperative role in the Indian financial system as cooperation has been inherent in Indian cultural ethos to work as a socio-economic organization for the well-being of the people.

1.2 STATEMENT OF THE PROBLEM
The Reserve Bank of India through National Bank for Agriculture and Rural Development (NABARD) introduces various schemes for the development of agriculture and also the rural areas in the country. In turn the NABARD gives direction to the co-operative banks concentrate more on the development of farmers and also the rural development in the particular regions. The performance of the District Central Co-operative Banks (DCCBs) depends on services provided by the DCCBs to the farmers, rural public and also the rural women and the profitability of the bank. It is widely agreed that the DCCB role in the development of farmers and women members should ensure sustainable growth in the rural area. Non Performing Assets (NPA) has become most discussed topics in the financial literature. The profitability of the bank is questionable in many occasions because of the increase in Non Performing Assets (NPA).The managers of DCCBs face serious problems to collect the loan lent every year. The Farmers and Women members (Self Help Group) in the study area could not generate reasonable income, this was one of the main reason observed for the non-repayment. This situation is going on all parts of the country. This situation should be changed. Hence, to analyze the causes for the problems in the recovery of the loan lent by the DCCBs, and to improve the performance and the profitability of the DCCBs a thorough study is undertaken in the performance of the DCCBs. The knowledge of relative influence of fundamental factors on the efficiency of DCCBs is helpful to management, government and customers. In this process the following questions arise.

1. What are the factors influencing the efficiency of DCCB?
2. What are the causes for NPA and the steps taken for its recovery?

1.3 OBJECTIVES OF THE STUDY
The study has the following objectives;
1. To analyze the performance Evaluation of DCCBs in Southern States of India.

2. To measure and compare the efficiency of the DCCBs in Southern States of India.
3. To identify the significant factors influencing the success of select DCCB.
4. To suggest measures to enhance the services of DCCBs.

1.4 REVIEW OF LITERATURE

Deepak shah 2008 in his attempt "Banking sector reforms and co-operative credit institutions in India". The major objective of this paper was to evaluate the credit delivery through cooperatives across all the districts and regions of Maharashtra. This study covered period years from 1980-81 to 2002-03. the researcher used secondary data for this study statistical tools such as linear, semi-log and cob douglus were applied for analysis. The study found that the credit cooperatives operating in Maharashtra have not only shown slower growth in their institutional finance coupled with much slower growth in their membership but also a faster growth in outstanding loans as against their loan advances during the reform period.

Dr.dimitrios. p.petropoulos-george kyriazopoulos(2010) conducted a study entitled, "profitability, efficiency and liquidity of the co-operative banks in Greece", with a sample of 16 cooperative banks for the years 2003-2007. The main findings of the study revealed that the estimation of the profitability and efficiency of the co-operative banks reaches satisfactory levels. The liquidity indexes for the co-operative banks lack to size when they are compared with the corresponding ones for the total of the banks.

1.5 RESEARCH METHODOLOGY

1.5.1 Sources of Data

The data required for the study have been collected from both primary and secondary data. Primary data were collected from the sample respondents with the help of a questionnaire / Interview schedule. Further, for the purpose of analysis, detailed information was collected from the secondary sources such as Books, Periodicals and Journals. In addition to this, required information has been collected from respective bank websites and from popular websites such as www.rbi.org and nafscob.org.

1.5.2 Sample Selection

The present study is mainly based on secondary data. The required secondary data collected from southern region of India. To elicit the opinion of customers about bank services a separate questionnaire/ interview schedule was administered. To identify the significant factors influencing the efficiency of DCCB, Coimbatore district in Tamilnadu was selected purposively.

1.5.3 Study Period

The study covers a period of ten financial years, i.e. from 2003-2004 to 2012-2013 pertaining to the performance analysis. The financial year starts from 1st day of April of a year and ends on 31st day of March the next year.

1.5.4 Framework of Analysis

The secondary data were analyzed by applying statistical tools like Average, Standard Deviation, C.V, ANOVA, Trend analysis, Growth rate and also some ratios which are relevant to the study. The collected primary data were analyzed and interpreted properly to find the result of the research work. Further, to know the association between two variables in deciding the particular issues, statistical tools like simple percentage, chi-square, rank correlation, ANOVA, Factor analysis, Cluster Analysis and H test was applied.

1.6 LIMITATION OF THE STUDY

1. In this study due to time constraint the researcher analyzed the data of DCCBs in southern states only.
2. It may be recalled that the study based on secondary data collected from NAFSCOB. The limitations of the secondary data if any will also influence of the study.
3. As the respondents did not co-operate well at the time of the questionnaire or interview schedule, the findings are based on the information given by the respondents. There may
   be a possibility of bias in the information provided by the respondents.

1.7 RESULTS AND DISCUSSIONS

LIQUIDITY RATIOS

Meaning of liquidity Ratio

In accounting, the term liquidity is defined as the ability of a company to meet its financial obligations as they come due. The liquidity ratio, then, is a computation that is used to measure a company's ability to pay its short-term debts. There are three common calculations that fall under the category of liquidity ratios. The current ratio is the most liberal of the three. It is followed by the acid ratio, and the cash ratio. These three ratios are often grouped together by financial analysts when attempting to accurately measure the liquidity of a company.

CASH AND BANK BALANCE TO CURRENT AND SAVING DEPOSIT RATIO

The ratio shows the ability of banks immediate funds to cover their (current Margin, call and saving) deposit. Higher the ratio shows higher liquidity position and ability to pay the deposits to the customers whenever it is demanded. The liquidity ratio is computed by dividing the cash and bank balance by current and saving deposits. The following table shows the liquidity ratio of DCCBs in select states for the period of ten years starting from 2003-04 to 2012-13.

Table No.1,Table Showing the Liquid Ratios of DCCBs of Southern States

Serial No	State Year	AP Ratio	KA Ratio	KL Ratio	TN Ratio
1	2003-04	0.76	0.44	0.53	0.21
2	2004-05	0.67	0.43	0.79	0.28
3	2005-06	0.62	0.50	0.61	0.25
4	2006-07	0.72	0.56	0.30	0.27
5	2007-08	0.55	0.59	0.35	0.15
6	2008-09	0.59	0.41	0.33	0.23
7	2009-10	0.74	0.44	0.32	0.13
8	2010-11	0.73	0.33	0.33	0.27
9	2011-12	0.84	0.37	0.28	0.79
10	2012-13	0.74	0.32	0.56	0.31
	Average	0.69	0.43	0.44	0.28

Source: NAFSCOB Web site.www.nafscob.org

Interpretation

From the above table it is understood that the liquidity ratio for the DCCBs in Andhra Pradesh shows the fluctuating trends. In the year 2004 and 2005 the liquidity position is considerably decreased and in the year 2006-07 the liquidity position shows the increasing trend i.e. increased to 0.72 from 0.62 in the year 2005-06. After that in the year 2007-08 it is decreased to 0.55 and in the 2009-10 onwards we could find the stability position of the liquid ratio.

While considering the Karnataka state here also there is fluctuating trend in the liquidity position of the DCCBs in the state. Between the financial years 2005-06 to 2007-08 there is stability in the liquidity position whereas in all the years the liquidity ratios show the decreasing trends.

In Kerala State at the beginning of the study periods i.e. from 2003-04 and 2005-06 the liquidity position of the DCCBs shows better position after that there is an abnormal decrease in the liquidity position of the DCCBs, a decrease of ratio from 0.61 to 0.30 and it is continuing till the year 2011-12 and in the 2012-13 the liquidity position increased to 100 percent of the previous year.

In Tamilnadu in all financial periods the liquidity position of the DCCBs shows the lower status except in the year 2011-12 where the liquidity position of the DCCBs is high (0.79)

With regard to the liquidity ratio of the DCCBs select southern states of India it is concluded that the Liquidity position of the DCCBs in Andhra Pradesh shows better liquidity position(0.69) whereas in Tamilnadu liquidity position of DCCBs (0.28) is very low when compared with the other states.

F-TEST OF CASH AND BANK BALANCES TO CURRENT AND SAVING DEPOSITS

The statements of hypothesis are as under:
Ho: cash and bank balances to current and saving deposits of DCCBs does not differ significantly between the years
H1: cash and bank balances to current and saving deposits of DCCBs differ significantly between the years.
Ho: cash and bank balances to current and saving deposits of DCCBs does not differ significantly between the DCCBs of select states
H1: cash and bank balances to current and saving deposits of DCCBs differ significantly between the DCCBs of select states

Table No.2,F-Test of Cash and Bank Balances to Current and Saving Deposits

Source of Variation	SS	D.F	MS	F	$F_{5\%}$
Between Years	0.13	9	0.01	0.69	2.25
Between DCCBs of Select states	0.85	3	0.28	13.10	2.96
Residual	0.58	27	0.02		
Total	1.57	39			

Table Value V1=9 and V2= 27= 2.25 at 5% level of significance
Table value V1=3 and V2= 27=2.96 at 5% level of significance

The above table represents the difference in cash and bank balances to current and saving deposits of DCCBs in years is not significant because table value (2.25) is higher than the calculated value (0.69). So null hypothesis is accepted i.e. there is no significant difference among the years so far cash and bank balances to current and saving deposits of DCCBs is concerned.

In the same way table value (2.96) is lower than the calculated value of 'F' (13.10) value for banks and so here also null hypothesis is rejected i.e. there is a significant difference in the cash and bank balances to current and saving deposits of DCCBs amongst various banks.

LEVERAGE RATIOS
DEBT EQUITY RATIO
Total debt consists of all interest bearing long-term and short-term debts. These include Loans and advances taken from other financial institutions, deposits carrying interest etc. Shareholder's equity includes paid-up capital, reserves and surplus and undistributed profit. The ratio shows the mix of debt and equity in capital. It measures creditors' claims against owners. A high ratio shows that the creditors' claims are greater than those of owners are. Such a situation introduces inflexibility in the firm's operation due to the increasing interference and pressures from creditors'. Low ratio implies a greater claim of owners than creditors. In such a situation, shareholders are less benefited if economic activities are good enough. Therefore, the ratio should be neither too high nor too low.

Table No.3,Table Showing the Debt Equity Ratio of DCCBs of Southern States

Serial No		AP	KA	KL	TN
	Year	Ratio (in times)	Ratio(in times)	Ratio(in times)	Ratio(in times)
1	2003-04	3.34	3.21	0.71	1.13
2	2004-05	2.74	1.56	0.89	1.15
3	2005-06	2.78	1.93	0.93	1.05
4	2006-07	2.90	1.69	1.21	0.82
5	2007-08	2.68	2.11	1.18	0.72
6	2008-09	1.24	2.14	0.97	0.42
7	2009-10	2.02	2.02	1.02	0.70
8	2010-11	1.99	1.89	1.54	1.10
9	2011-12	1.88	2.50	1.49	1.43
10	2012-13	2.49	2.65	1.70	1.68
Average		2.41	2.17	1.164	1.02

Source: NAFSCOB Web site.www.nafscob.org

The table clearly exhibits that in Andhra Pradesh in the year 2003-04 the debt equity ratios of the DCCBs 3.34 times after that it shows decreasing trend in the year 2004-05 and 2005-06 there is a stability position of debt to equity whereas in the year 2008-09 it shows the better position i.e. 1.24 times, in all other financial years the debt to equity ratio shows increasing trend and also little fluctuations trend.

When we look the Debt equity ratio of DCCBs of Karnataka, in the year 2003-04 the debt equity ratios of the DCCBs 3.21 times after that it shows decreasing trend and fluctuating trend, in the year 2004-05 there is a decreasing position of debt to equity whereas in the subsequent years it shows the increasing trend at maximum of 2.65 times in the year 2012-13. In the year 2004-05 the debt to equity shows the better position as the ratio in times is 1.56 times.

While considering the Kerala State the Debt equity ratio of DCCBs of Kerala state, in the year 2003-04 the debt equity ratios

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of the DCCBs was very low and better i.e. the debt to equity was 0.72. In the subsequent years the debt equity ratio shows increasing and fluctuating trend, In Kerala the debt to equity position of the DCCBs reveals the bad position in the ratio in times i.e. 1.70 times.

The debt equity ratio of the DCCBs in Tamilnadu , in the year 2008-09 it was better i.e. the ratio is 0.42 times whereas in the year where as the debt equity ratio in the year 2012-13 shows the bad position. It is increased to 1.68 times when compared with other states. In general every year the debt equity position of the DCCBs shows abnormal differences in the ratios.

In relation to the Debt Equity ratio of the DCCBs in select southern states of India, it is concluded that the Debt Equity position of the DCCBs in Tamilnadu shows better position (1.02 times) whereas in Andhra pradesh the Debt to Equity position of DCCBs (2.41) is very high when compared with the other states. It is concluded from the above table the DCCBs in Andhra pradesh should find alternatives measures to reduce the Debt to Equity position.

F-TEST OF DEBT TO EQUITY
The statements of hypothesis are as under:
Ho: The Debt to Equity of DCCBs does not differ significantly between the years
H1: The Debt to Equity of DCCBs differs significantly between the years.
Ho: The Debt to Equity of DCCBs does not differ significantly between the DCCBs of select states
H1: The Debt to Equity of DCCBs differ significantly between the DCCBs of select states

Table No.4, F-Test of Debt To Equity

Source of Variation	SS	DF	MS	F	F crit
Between Years	2.81	9	0.31	1.70	2.25
Between Banks	14.67	3	4.89	26.66	2.96
Residual	4.95	27	0.18		
Total	22.45	39			

Table Value V1=9 and V2= 27= 2.25 at 5% level of significance
Table value V1=3 and V2= 27=2.96 at 5% level of significance

The above table reveals the difference in Debt to Equity position *of DCCBs* in years is not significant because table value (2.25) is higher than the calculated value (1.70). So null hypothesis is accepted i.e. there is no significant difference among the years so far Debt to Equity ratio of DCCBs is concerned.In the same way table value (2.96) is lower than the calculated value of 'F' (26.66) value for banks and so here null hypothesis is rejected i.e. there is a significant difference in Debt to Equity ratio of DCCBs amongst various banks.

HUMAN RESOURCE PRODUCTIVITY
LOAN RECOVERY TO NUMBER OF EMPLOYEES
This ratio indicates the efficient performance of employees in collecting the dues. Recovery of loan leads to extending of credit facilities to the prompt borrowers. Higher ratio shows the sound recovery of policy of the bank.

Table No.5

Serial No	Year	AP Ratio(in times)	KA Ratio(in times)	KL Ratio(in times)	TN Ratio(in times)
1	2003-04	32.16	34.31	44.05	69.36
2	2004-05	42.17	29.94	49.52	90.48
3	2005-06	48.19	55.63	56.61	81.12
4	2006-07	59.06	49.54	123.65	102.75
5	2007-08	59.82	67.30	79.33	94.60
6	2008-09	70.30	74.45	97.04	152.03
7	2009-10	78.77	78.07	135.55	196.47
8	2010-11	109.85	90.11	147.12	194.50
9	2011-12	151.56	121.41	174.45	298.01
10	2012-13	167.69	135.26	221.83	459.96
Average		81.957	73.602	112.915	173.928

Source: NAFSCOB Web site.www.nafscob.org

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The above table clearly depicts that in Andhra Pradesh in the year 2003-04 the ratio of loan recovery to number of employees of the DCCBs is 32.16 times and in the subsequent years it shows the increasing trend till the 2012-13. In the year 2012-03 the loan recovery to number of employees is considerable increased when compared with the other financial years i.e. the loan recovery ratio to total number of workers is 167.69 times which is more than 500 % of the ratio in the year 2003-04 which shows the commitment of the workers of the DCCBs in collecting the dues from the famers and also the from the members.

While considering the Karnataka state the loan recovery of the bank is 34.31 times in the year 2003-04 whereas it shows the fluctuating trend till the year 2007-08. Loan recovery to total number of worker in the bank is decreased and increased till the year 2007-08. In the subsequent years the loan recovery to total number of workers ratio shows increasing trend till the year 2012-13. In the year 2012-13 the loan recovery ratio is highly increased to 135.26 times of the number of workers which shows the greater involvement of workers in collecting the dues from the borrowers.

While considering the Kerala state the loan recovery of the bank is 44.05 times in the year 2003-04 where as in the year 2004-05 the same is increased to 49.52 times. In the 2005-06 the ratio is increased to 56.61 where we can see the considerable increase in collecting the dues from the borrowers. In the year 2006-07 the loan recovery ratio is increased to 123.65. In the subsequent years it shows the fluctuating trend till the year 2009-10. In the year 2012-13 the loan recovery to total number of employees of the DCCBs is at a maximum of 221.83 times. Nearly it is 500% of the loan recovery of the DCCBs in the year 2003-04. Hence the employees of the DCCBs in Kerala State took serious effort in collecting the dues from the borrowers.

While considering the Tamilnadu state the loan recovery of the bank is 69.36 times in the year 2003-04 where as in the year 2004-05 the same is increased to 90.48 times. In the 2005-06 the ratio is decreased to 81.12 where we can see the fluctuating trend in collecting the dues from the borrowers till the year 2008-09. In the year subsequent years the loan recovery ratio is going on increasing year by year. In the year 2012-13 the loan recovery to number of worker ratio is increased to 459.96. Here the ratio is nearly about 600% of the base year 2003-04 which shows the good policy of the state government and effort of the workers in collecting the dues from the borrowers.

In general loan recovery to number of workers ratio of the DCCBs in select southern states of India, it is found that loan recovery of the DCCBs total number of workers in Tamilnadu shows better position (173.928) of the total number of workers of the DCCBs whereas in Karnataka the loan recovery of the DCCBs (73.602) of the total number of workers the DCCBs. It shows poor effort taken by the Bank and employees in collecting the dues from the borrowers when compared with the other states. Hence it is concluded from the above table that the DCCBs in Karnataka should take initiative measures to collect the dues from the borrowers which will help to increase the mobilization of funds and also to reduce the NPA of the bank.

F-TEST OF LOAN RECOVERY TO NUMBER OF EMPLOYEES

The statements of hypothesis are as under:
Ho: The loan recovery to number of employees in the DCCBs does not differ significantly between the years
H1: The loan recovery to number of employees in the DCCBs differs significantly between the years.
Ho: The loan recovery to number of employees in the DCCBs does not differ significantly between the DCCBs of select states
H1: The loan recovery to number of employees in the DCCBs, differ significantly between the DCCBs of select states.

Table No.6,F-Test of Loan Recovery to Number of Employees

Source of Variation	*SS*	*DF*	*MS*	*F*	*F crit*
Between Years	148525.6	9	16502.85	9.12	2.25
Between Banks	62050.49	3	20683.5	11.43	2.96
Residual	48828.89	27	1808.477		
Total	259405	39			

Table Value V1=9 and V2= 27= 2.25 at 5% level of significance
Table value V1=3 and V2= 27=2.96 at 5% level of significance

From the above table it is found that, the difference in the loan recovery to number of employees of the DCCBs in years is significant because table value (2.25) is less than the calculated value (9.12). So the null hypothesis is rejected. Hence there is a significant difference among the years so far in the loan recovery ratio to the number of employees of the DCCBs is concerned.

In the same manner table value (2.96) is lower than the calculated value of 'F' (11.43) value for banks and so here the null hypothesis is rejected i.e. there is a great significant difference in the loan recovery ratio to the number of employees of the DCCBs amongst various banks.

FINDINGS

The liquidity ratio of the DCCBs select southern states of India it is concluded that the Liquidity position of the DCCBs in Andhra Pradesh shows better liquidity position(0.69) whereas in Tamilnadu liquidity position of DCCBs (0.28) is very low when compared with the other states. The debt to equity position of DCCBs in Andhra pradesh should find alternatives measures to reduce the Debt to Equity position. The DCCBs in Karnataka should take initiative measures to collect the dues from the borrowers which will help to increase the mobilization of funds and also to reduce the NPA of the bank.

CONCLUSION

From the above analysis of the District Central Co-operative Banks, we found that these banks are working efficiently, changing the profits level and using the managerial talent in a best way. Thereafter, the liquidity position has been improved but still it required some improving measurement. The recovery position of the District Central Co-operative Banks in India improved and it achieve the highest recovery position. Recovery position of bank is better as loan outstanding increases recovery of over dues also increases.