Profitability Of The Central Cooperative Banks In Punjab - A Decomposition Analysis

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INTRODUCTION

The Indian banking industry has been transformed since the implementation of the recommendations of the Narsimham Committee Report, along with the liberalization and globalization of the Indian economy and financial system. The cooperative banking system, being an important player of the Indian credit system, has also witnessed a vast and comprehensive change from regulated to competitive and deregulated scenario. These banks are now subject to perform with modern functioning parameters, such as prudential norms, covering the income recognition, asset classification and provisioning, etc. In view of the above changes, it has become the need of the hour to measure the shift in the profitability performance of the cooperative banks.

Although, there has been a basket of goals a banking institution may pursue, but earning maximum profits is the supreme one. Providing highest possible returns to the shareholders and securing additional funds to support long term growth of the institution is the most sought after goal. For the bank management in India, the growth of the institution and community service are worthwhile objectives. But economists and financial analysts usually argue that these goals are secondary to one prime objective i.e., earning maximum profits for the owners of the institution. In case of a corporation, whose stock is actively traded, the owners (stockholders) of the institution are in better position if the institution's stock price in the market rises. Unfortunately, there are thousands of financial institutions whose stocks are not actively traded. This is particularly true for the cooperative banks in India. In this case, most of the financial analysts advocate the use of financial ratios as a proxy measure of returns flowing to the owners of the business (Rose and Kolari, 1995).

The term *'Profitability'* can be defined as an ability to earn profit and it is measured in relative terms with various factors. Profitability has been an important criterion to evaluate the overall efficiency of a bank's fund management. Profitability, in the banking terminology, denotes the efficiency with which a bank deploys its total resources to optimize its profit and thus, serves as an indicator of asset utilization and managerial effectiveness.

REVIEW OF LITERATURE

As per **Hampel, Coleman, Simonson (1989)**, the Return on Equity (ROE) can be decomposed into two components, viz., equity multiplier and return on assets. The details are as follows:

Return on Equity = Return on Assets x Equity Multiplier

Where, Return on Assets (ROA) is calculated as the net profit, divided by the total assets and it measures the profit generated by a bank's assets. The equity multiplier is the ratio of total assets to equity shareholders funds. It is also termed as leverage factor. Total assets are the total resources available to the institution, while the equity shareholders' fund is the sum of paid up share capital, retained earnings and reserves.

The second step of ROE decomposition analysis further splits ROA into two factors:

Return on Assets = Profit Margin x Asset Utilization

The Profit Margin (PM) can be calculated as the net profit, divided by total income. It shows the profit earned by each rupee of total revenue generated and thus, focuses on a bank's ability to control expenses. The Asset Utilization (AU) is defined as the ratio of total income to total assets. It measures the revenue generated against per rupee of assets implemented in the business.

If both the stages are combined, the ROE equation becomes:

ROE = PM x AU x EM

Rose and Kolari (1995), pointed out that because ROA and ROE cater to the different analyzing angles of the financial institution, both should be given due weightage in overall financial analysis. ROA is the measure of the efficiency in usage of the resources, while ROE is a direct measure of return to the shareholders. Because ROA is only a constituent

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of ROE and the rewards of the owners should be the key goal, ROE is considered superior to ROA.

Pandey, IM. (1995), stated that the conventional but practical approach of calculating ROA is to divide Profit After Tax (PAT) i.e. the bottom line of the earning statement by the total assets. Total assets represent pool of funds of the equity shareholders and outside lenders, whereas, the PAT represents residue income to equity shareholders only. Therefore, it seems conceptually and theoretically unsound to use the PAT in calculating ROA. A broader view of profit, i.e., Earnings Before Interest and Taxes (EBIT) should be used for calculating ROA.

As per this concept:

ROE = PM x AU x FL x DFL

Where, PM (Profit Margin) = EBIT/Total Income,

AU (Asset Utilization) = Total Income/ Assets,

FL (Financial Leverage) = Assets/ Net Worth and

DFL (Degree of Financial Leverage) = PAT/ EBIT

Dass, PK (1997), advocated the ROE Decomposition model to evaluate the performance of the banks. In his paper titled *"Indian Banks' Performance : A Decomposition Analysis"*, he used the ROE model consisting of 39 ratios. He worked on profitability of various banks and ranked foreign banks as first, State Bank of India as second, followed by new private sector banks and SBI associates. The model helped in pinpointing specific areas of banks' working, which required focus for better performance. He observed that there are number of factors which have significant bearing on the profitability of a bank. Some of the important factors are credit policies, competition, state of economy, interest rate structure, directed deployment of funds, asset liability management (ALM) practices, operational efficiency, financial decision of the banks etc.

The ROE Decomposition model formulation helps the management of a banking institution in diagnosing the problem, if ROE is not upto mark or is on a declining trend.

Kumar Sanjay (1999) stated that there have been various measures of profitability of the banks. An excellent framework of profitably measurement has been provided by Return on Equity (ROE) model given by David Cole, in 1972. Return on equity (ROE) measures profitability from shareholders' perspective. It is defined as the net profit divided by shareholders equity, where the net profit is the net income before appropriation and the shareholders equity comprises of the equity share capital and all reserves and surpluses entitled to equity shareholders.

Another view of looking at ROE is given on www.seark.edu, as

ROE = (ROA - Interest Cost Adjustment) x Financial Leverage

Where, Interest Cost Adjustment = Interest Expenses/ Total Income

Financial Leverage = Total Assets / Net Worth

METHODOLOGY

The ROE decomposition model is presented in a tree form in Figure 1. This tree consists of 20 ratios, spread up in five stages. This model helps in identifying the specific areas of the bank's operations, which need to be improved, in order to get better performance of the bank. Almost all the financial functions of the bank are covered under this model. The ratios in the stage 1 to stage 4 are integrated. The stage 5 ratios are certain crucial functional areas of the bank, those have been identified to be having significant relationship with the stage four ratios. This model is not a close ended one, and the scope is open for further detailed analysis. To give a concrete recognition to the changed working environment of the cooperative banking system in Punjab, the central cooperative banks in Punjab are tested for the two time periods covering 1991-92 and 2008-09.

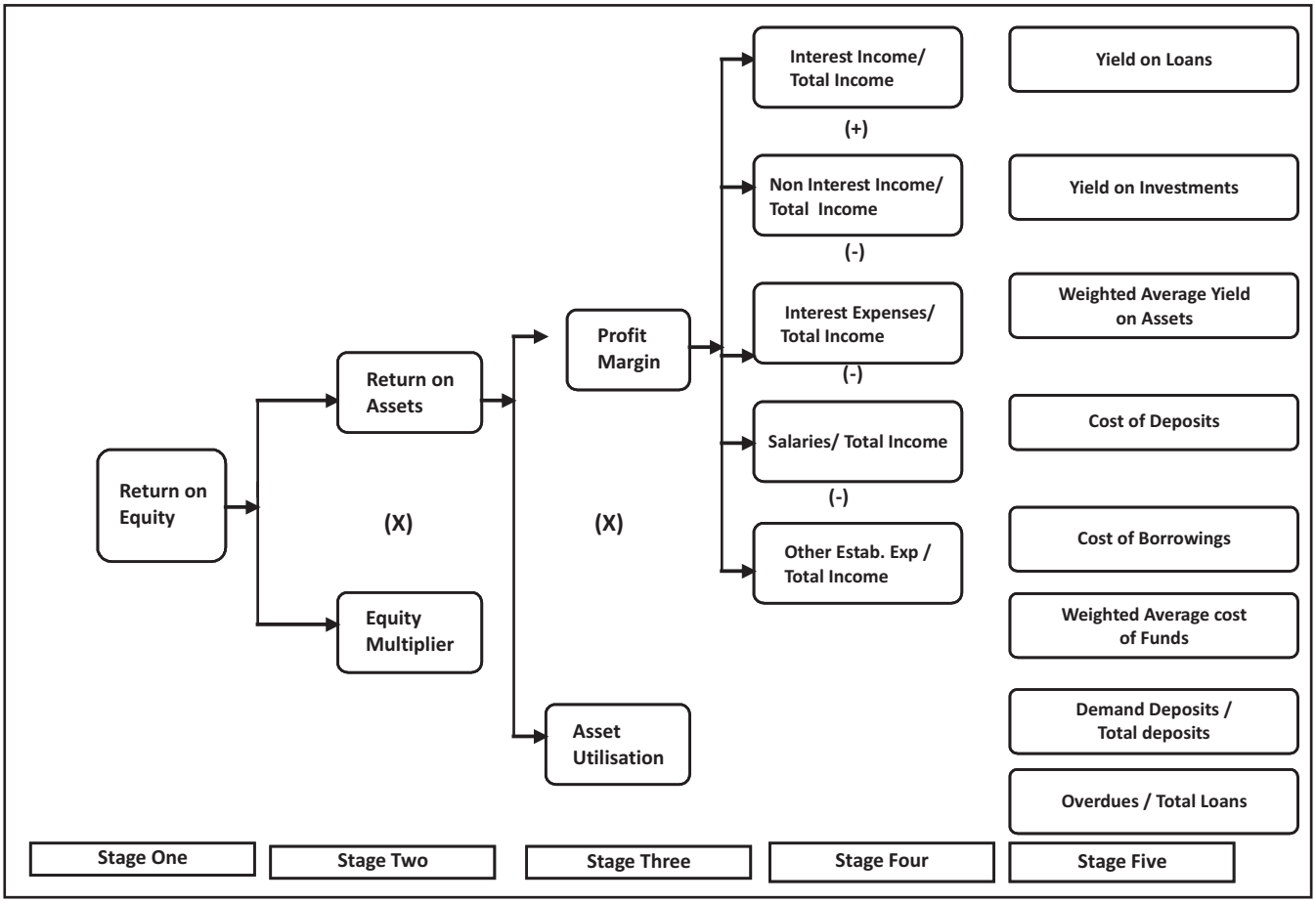
For the purpose of present study, a list of all the central co-operative banks in the state of Punjab was obtained along with their business volume as on 31.03.2009. These banks were arranged in descending order of their business (sum of deposits and loans & advances). Then, those central cooperative banks which were intact i.e. in which no bifurcation or merger was made in a big way since 31.03.1992, were selected. Out of the list, six central co-operative banks, three of which were top most and three the bottom most, were selected. The sample of these six banks out of a total of nineteen central cooperative banks is as under:

(a) Central Co-operative Banks With High Business Volume :

1) The Sangrur Central Cooperative Bank Ltd.

2) The Gurdaspur Central Cooperative Bank Ltd.

Figure 1: ROE Decomposition Tree



3) The Jullundur Central Cooperative Bank Ltd.

(B) Central Co-operative Banks With Low Business Volume:

1) The Fazilka Central Cooperative Bank Ltd.
2) The Ferozepur Central Cooperative Bank Ltd.
3) The Kapurthala Central Cooperative Bank Ltd.

The data on various aspects affecting profitability of banks was collected from secondary sources.

For the purpose of calculating Return on Assets (ROA), an attempt has been made to look into the model by both the approaches, i.e., Profit After Tax (PAT) and Earnings Before Interest and Taxes (EBIT), separately. Since the district central cooperative banks in Punjab have been engaged in conventional banking business, income from which is exempted under Sec 80P of the Income Tax Act 1961, the tax factor is ignored in the present analysis.

FINDINGS AND RESULT

Table 1 and 2 shows the decomposition analysis of the sample central cooperative banks, having high business volume and low business volume, respectively. The ROE model for the two years, i.e., 1991-1992 and 2008-2009, is comparatively presented to get an idea about shift in profitability position. The period 1991-92 has been assumed to be the period of initiation of liberalization process in the cooperative banks and 2008-09 has been assumed to be the period when the outcome of the process of liberalization and diversification in these banks could be assessed.

It has been observed from the Table 1 and 2, that the Return on Equity (ROE) of the Gurdaspur Central Cooperative Bank has turned from a negative, (-)12.73% in 1991-92 to a handsome 17.86% in 2008-09. During both the time periods, the Jullundur Central Cooperative Bank has remained the leading performer, as per the Return on Equity (ROE) parameter. During 1991-92, an average central cooperative bank with high business volume has ROE of only

Table 1: Decomposition Analysis of CCBs in Punjab

	CCBs with High Business Volume							
Performance Parameters	**The Sangrur CCB**		**The Gurdaspur CCB**		**The Jullundur CCB**		**Average**	
	1991-92	**2008-09**	**1991-92**	**2008-09**	**1991-92**	**2008-09**	**1991-92**	**2008-09**
Return on Equity	3.07	24.21	-12.73	17.86	13.08	24.47	1.14	22.18
Return on Assets	0.20	1.24	-0.85	1.47	0.85	1.58	0.07	1.43
Return on Assets*	4.45	7.38	3.69	7.46	5.50	7.69	4.55	7.51
Profit Margin	2.83	12.38	-13.97	13.88	10.62	15.71	-0.17	13.99
Profit Margin*	62.65	73.67	60.93	70.31	68.96	76.62	64.18	73.53
Asset Utilisation	0.07	0.10	0.06	0.11	0.08	0.10	0.07	0.10
Equity Multiplier	15.27	19.51	15.04	12.12	15.45	15.53	15.25	15.72
Degree of Leverage*	0.05	0.17	-0.23	0.20	0.15	0.20	-0.01	0.19
Intt. Income/ Total Income	99.65	98.85	99.39	98.26	98.99	98.09	99.34	98.40
Non Intt. Inc/ Total Income	0.35	1.15	0.61	1.74	1.01	1.91	0.66	1.60
Intt Expenses/ Total Inc	59.82	61.29	74.90	56.43	58.34	60.91	64.35	59.54
Salaries/ Total Income	29.03	21.11	35.83	24.98	25.28	19.66	30.04	21.92
Other Estb. Exp/ Total Inc	8.32	5.90	3.24	4.71	5.76	3.74	5.77	4.78
Cost of Deposit	4.74	6.20	5.17	5.52	5.09	6.68	5.00	6.13
Cost of Borrowings	4.99	7.33	4.93	9.51	4.85	8.04	4.92	8.29
Wt. Av.Cost of Funds	4.25	6.14	4.54	5.99	4.65	6.11	4.48	6.08
Demand Dep. / Total Dep.	58.71	46.68	54.56	58.68	48.37	49.50	53.88	51.62
Yield on Loans	9.39	11.08	5.53	11.77	5.69	11.65	6.87	11.50
Yield on Investments	3.17	9.15	8.56	9.48	10.89	8.86	7.54	9.16
Wt. Av.Yield on Assets	7.08	9.91	6.02	10.43	7.89	9.84	7.00	10.06
Financial Margin	2.83	3.77	1.48	4.44	3.24	3.73	2.52	3.98
Overdues to Loans	20.60	5.94	40.79	20.35	13.82	0.78	25.07	9.02
where,								
Return on Equity	=(Net Profit/ Net Worth)*100							
Return on Assets	=(Net Profit/Total Assets)*100							
Return on Assets*	=(EBIT/Total Assets)*100							
Profit Margin	=(Net Profit/Total Income)*100							
Profit Margin*	=(EBIT/Total Income)*100							
Asset Utilisation (Times)	=Total Income/ Total Assets							
Equity Multiplier (Times)	=Total Assets/ Net Worth							
Degree of Leverage*	=Net Profit/EBIT							

1.14%, as against 8.09% for an average central cooperative bank with the low business volume. During 2008-09, the result turned to be in favour of central cooperative banks, in high business volume group. They recorded an ROE of 22.18%, as against 15.72% for central cooperative banks with low business volume.

The Return on Assets (ROA) has observed the same trend as ROE. The Gurdaspur Central Cooperative Bank, which has been having a negative Return on Assets (ROA) in 1991-92, could manage to turn into a profit making bank and, therefore, recorded a positive Return on Assets (ROA), in 2008-09. The Kapurthala Central Cooperative Bank has been a consistent leading performer on this front with ROA of 1.78% in 1991-92 and 1.98% in 2008-09.

As per the conceptual approach of ROA, i.e., using EBIT (Earnings Before Interest and Taxes) in place of PAT (Profit After Tax) i.e., net profit, it has been observed that all the banks under study, except the Ferozepur Central Cooperative Bank, depicted a positive trend in 2008-09, as compared to their position in 1991-92. In the Ferozepur

Table 2 : Decomposition Analysis of CCBs in Punjab

	CCBs with Low Business Volume							
Performance Parameters	**The Fazilka CCB**		**The Ferozepur CCB**		**The Kapurthala CCB**		**Average**	
	1991-92	**2008-09**	**1991-92**	**2008-09**	**1991-92**	**2008-09**	**1991-92**	**2008-09**
Return on Equity	7.95	14.43	2.78	14.97	13.55	17.75	8.09	15.72
Return on Assets	0.84	1.25	0.29	1.07	1.78	1.98	0.97	1.43
Return on Assets*	7.31	8.49	7.45	7.42	7.41	7.68	7.39	7.86
Profit Margin	8.31	11.50	3.06	10.15	17.51	19.78	9.63	13.81
Profit Margin*	72.52	77.89	77.55	70.34	72.85	76.70	74.31	74.98
Asset Utilisation	0.10	0.11	0.10	0.11	0.10	0.10	0.10	0.10
Equity Multiplier	9.50	11.52	9.45	13.97	7.61	8.96	8.85	11.49
Degree of Leverage*	0.11	0.15	0.04	0.14	0.24	0.26	0.13	0.18
Intt. Income/ Total Income	97.76	98.45	99.80	99.14	99.82	99.00	99.13	98.86
Non Intt. Inc./ Total Income	2.24	1.55	0.20	0.86	0.18	1.00	0.87	1.14
Intt. Expenses/ Total Inc	64.22	66.39	74.49	60.19	55.34	56.92	64.68	61.17
Salaries/ Total Income	22.04	18.49	19.80	21.37	22.77	19.51	21.54	19.79
Other Estb. Exp/ Total Inc	5.43	3.63	2.65	3.32	4.38	3.06	4.15	3.33
Cost of Deposit	7.54	6.77	9.34	5.57	5.44	6.44	7.44	6.26
Cost of Borrowings	7.19	9.13	5.56	8.51	7.89	7.26	6.88	8.30
Wt. Av.Cost of Funds	6.47	7.23	7.15	6.35	5.63	5.70	6.42	6.43
Demand Dep./ Total Dep.	60.92	39.91	43.30	57.99	49.39	51.12	51.20	49.67
Yield on Loans	10.45	11.66	9.23	11.85	7.83	11.67	9.17	11.73
Yield on Investments	9.74	8.93	10.41	8.30	10.09	9.10	10.08	8.78
Wt. Av.Yield on Assets	9.86	10.73	9.58	10.62	10.15	9.91	9.86	10.42
Financial Margin	3.38	3.50	2.43	4.27	4.52	4.21	3.45	3.99
Overdues to Loans	22.79	22.64	37.15	21.63	5.43	1.88	21.79	15.39
where,								
Return on Equity	=(Net Profit/ Net Worth)*100							
Return on Assets	=(Net Profit/Total Assets)*100							
Return on Assets*	=(EBIT/Total Assets)*100							
Profit Margin	=(Net Profit/Total Income)*100							
Profit Margin*	=(EBIT/Total Income)*100							
Asset Utilisation (Times)	=Total Income/ Total Assets							
Equity Multiplier (Times)	=Total Assets/ Net Worth							
Degree of Leverage*	=Net Profit/EBIT							

Central Cooperative Bank, ROA, as per both the approaches, has shown a different result. As per EBIT approach, it has been reduced from 7.45% in 1991-92 to 7.42% in 2008-09. This reduction may be attributed to a rise in ratio of low cost deposits to total deposits and a low ratio of interest expenses to total income, which might be the outcome of its low deposits. Also, a rise in the ratio of salaries to total income and ratio of other establishment expenses to total income might have contributed in such a result. The high ratio of overdues to total loans in this central cooperative bank is an indicator of large bad assets and in turn, high provisioning. Despite the decline in the Profit Margin (EBIT/ TI), the ROE of the Ferozepur Central Cooperative Bank has increased manifolds. The reason behind such a result might be its Degree of Financial Leverage (PAT/EBIT), which has risen from 0.04% in 1991-92 to 0.14% in 2008-09.
The Profit Margin is the residue left after meeting all the expenses out of revenue.This margin is available for ploughing back into the business or for owners' disposal. The Profit Margin of the central cooperative banks has

increased significantly in the post liberalisation era. As far as this ratio is concerned, the Kapurthala Central Cooperative Bank has kept its supremacy in both the periods. The Ferozepur Central Cooperative Bank has recorded a different result as per both the approaches of calculating the Profit Margin. As per the PAT approach, an increase has been observed in 2008-09 (10.15%), as compared to 1991-92 (3.06%), whereas, as per the EBIT approach, the same has been reduced from 77.55% in 1991-92 to 70.34% in 2008-09. This bank needs to lay stress on monitoring its expense structure and control its overdues. In rest of the sample banks, the movement and status of their profit margin as per both the approaches goes hand in hand.

The Asset Utilization of all the banks under study have registered a positive change from 1991-92 to 2008-09. The assets available to the bank are more judiciously and profitably used now, as compared to the position in these banks, before reforms. The Gurdaspur Central Cooperative Bank has shown a maximum increase in its Assets Utilization ratio from 0.06 times in 1991-92 to 0.11 times in 2008-09, whereas, the Kapurthala Central Cooperative Bank stayed at a consistent 0.10 times during both the years.

Equity Multiplier of all the sample banks under study, except the Gurdaspur Central Cooperative Bank, has recorded an increase in 2008-09, as compared to 1991-92. This is a concerning sign, as the equity position, as a ratio of total assets employed, has been weakened in these banks. These banks are now highly leveraged, as compared to their position in 1991-92.

Interest income to total income has reduced in all the central cooperative banks, except the Fazilka Central Cooperative Bank. This reduction has not been so significant, and these banks are still largely dependent upon interest earnings as a major source of their income. The financial reforms in these banks have not been able to switch them over to non interest income avenues. This may be due to their inherent limitations like restricted areas of operation and lack of mental and managerial transformation.

The ratio of interest expenses to total income of the sample banks, except the Gurdaspur Central Cooperative Bank and the Ferozepur Central Cooperative Bank, have increased from 1991-92 to 2008-09. This shows that a lesser margin is now available for other expenses and appropriations. The Gurdaspur Central Cooperative Bank and the Ferozepur Central Cooperative Bank were having a ratio of 74.90% and 74.49% in 1991-92, which has been reduced to 56.43% and 60.19%, respectively, in 2008-09.

Despite the fact that salaries have increased enormously, the proportion of the total income, which has been eaten up by the salaries have reduced in all the sample banks, except the Ferozepur Central Cooperative Bank. This is a good sign for these banks that their total income earning pace has been more than the handsome compensation paid to the employees, on whose sweat the banks are running.

The percentage of demand deposits to total deposits has reduced in the Sangrur Central Cooperative Bank and the Fazilka Central Cooperative Bank. As per 2008-09, the Gurdaspur Central Cooperative Bank had the highest ratio of low cost deposits to total deposits (58.68%) and the Fazilka Central Cooperative Bank had the lowest one (39.91%).

A high percentage of low cost deposits to total deposits have helped the Gurdaspur Central Cooperative Bank and the Ferozepur Central Cooperative Bank to register a comparatively low cost on their deposits in 2008-09.

The central cooperative banks have usually been dependent upon NABARD for borrowings under various schemes. Due to the upcoming low subsidy economic scenario, the cost of borrowings of these banks have increased significantly from 1991-92 to 2008-09.

Another Financial sector reform for these banks, which has come in a big way, is the diversification of their loan portfolios. The movement from agriculture intensive loaning to agriculture allied and non farm sector avenues has helped these banks to increase their yield on loans. All the banks have been keeping their pace with the changing environment.

The Financial Margin is the resultant, which depicts the efficiency with which the funds in these banks have been managed. This is the financial margin only out of which the cost of management and risks cost have to be met. An increase in Financial Margin in all the banks, except the Kapurthala Central Cooperative Bank, is a sign of better financial management in these banks.

If we look at the quality of lending by any bank, the overdues to loan ratio is the most important ratio. The loans which have become overdue i.e. have not been repaid on due date and there are the chances that they may turn to be non performing assets, sometimes set the bank's fate. Although, all the banks under study in this class have improved on this front, but as per the position on 31.03.2009, the Fazilka Central Cooperative Bank, the Ferozepur Central Cooperative Bank and the Gurdaspur Central Cooperative Bank still have a very alarming percentage of overdues to

total loans at 22.64%, 21.63% and 20.35% respectively. The Jullundur Central Cooperative Bank has emerged as the most efficient bank, with less than 1% of its loans locked up in overdues, followed by the Kapurthala Central Cooperative Bank.

CONCLUSION

From the above discussion, it can be concluded that the cooperative banks in Punjab have responded to the on going financial reforms in a positive manner. Looking at the figures of 1991-92, when the reforms were just initiated in Central Cooperative Banks of Punjab, and the period 2008-09, when the result of these reforms could be seen, the ROE, ROA and PM have increased well. The performance of an average central cooperative bank in high business bank group, has been better than their counterparts in low business category. The assets utilization ratio has increased in all the banks, which depicts a more judicious and profitable use of the assets by the central cooperative banks in Punjab. The miscellaneous income, in comparison to the total income, has been in lower profile in all of the banks. The impression, as drawn from such performance, is that these banks are still attached to conventional banking business of taking deposit and giving loans only. The newer service avenues have not been much explored and exploited by these banks. This is the area looked for further improvement, as today more and more banks are trading on miscellaneous services, generating non fund income for them. Though, there has been an increase from 1991-92 to 2008-09, but it is very insignificant. The proportion of total income as consumed by the salaries has seen a negative trend, except in the Ferozepur Central Cooperative Bank. This indicates that despite enormous increase in the salaries, these banks have been able to absorb it and increase their income at a higher pace. The emergence of high yield non -farm sector loans have helped an increased yield on loans. Despite the diminishing subsidy regime on borrowings and increased cost of deposits, there has been a positive shift in financial margin of all the banks.

The awareness, efforts and prudential norms of NPA reporting and provisioning have helped the central cooperative banks in Punjab to reduce their percentage of overdues to total loans. As far as this ratio is concerned, all the central cooperative banks in Punjab have shown a decline in 2008-09, as compared to their position in 1991-92. But still, the Gurdaspur Central Cooperative Bank, the Ferozepur Central Cooperative Bank and the Fazilka Central Cooperative Bank have a very alarming situation. On the other end, the Jullundur Central Cooperative Bank has been the best bank on this front, followed by Kapurthala Central Cooperative Bank.

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