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# A Comparative Study on the Profitability and Performance of District Central Co-operative Banks in Virudhunagar and Madurai Districts

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#### **ABSTRACT**

This study presents a comparative study on the analysis of profitability and performance of Virudhunagar and Madurai District Central Co-operative banks (DCCBs). DCCBs are those which provide finance to primary co-operative credit societies which in turn provide credit for developing agriculture and rural economy in India. The Central Co-operative banks had incurred huge losses in 2006. In 2006, 12 of the 23 DCCBs in Tamilnadu were operating under losses. Virudhunagar District Central Co-operative Bank (VDCCB) incurred a loss of about ₹22.78 crores and Madurai District Central Co-operative Bank (MDCCB) loss of about ₹20.37 crores which had comparatively more number of branches than the other loss made banks. In order to identify the reasons for the inefficient performance and the decline of profitability of VDCCB and MDCCB, this study analyzes the Profitability of the two Central Co-operative Banks with the help of Earning Ratios which are represented by Return on assets and Interest income to total income ratio for the study period of ten years from 2004-05 to 2013-14 and the Performance of the two banks with the help of Management Capability Ratios represented by Expenditure to Income ratio, Diversification ratio and Credit-deposit ratio (C/D ratio) and also with Assets quality ratio.

JEL Classification Codes: M210, M20 and M41

Keywords: Trends of Net Profit, Earning ratios, Management capability ratios, Assets quality ratio.

### 1. INTRODUCTION

Co-operative banks in India play a very significant role in the Indian financial system. Because they were established mainly for the purpose of making the delivery of credit more easy and comfortable for

the rural public who were engaged in handloom weaving, handicrafts, horticulture, farming, plantation, animal husbandry and mining. The co-operative banking structure in India is categorized as primary cooperative credit societies, central co-operative banks, state or apex co-operative banks, land development banks and urban co-operative banks. A primary co-operative credit society is formed by the association of borrowers and non-borrowers in a particular locality whereas central co-operative banks are established as the federations of primary co-operative credit societies in a district. The central co-operative banks may have only the members of primary co-operative credit societies or they may have both the members of primary co-operative credit societies and the individuals. They raise their funds through loans and overdrafts offered by state co-operative banks, joint stocks, share capital and deposits. These banks provide finance to member societies by considering their borrowing capacity. They also conduct all the business which a joint stock bank carries out. In India, District Central Co-operative Banks play an important role in providing credit to rural people who are involved in agricultural and other activities like horticulture, animal husbandry, plantation, mining, etc., for purchasing pump sets, tractors and other needed equipments. District Central Co-operative Banks (DCCBs) provide term loans to farmers either directly or through Primary Agricultural Credit Societies (PACS). The Board of DCCBs has chairmen of PACS, representatives of state co-operative banks and the state government. DCCBs are under the administrative control of the registrar of co-operative societies and under the regulatory control of Reserve Bank of India and they are registered under the Banking Regulations Act and are subject to periodical supervision. They can get refinance from National Bank for Agriculture and Rural Development (NABARD) through state co-operative banks. If they function efficiently, the rural people could obtain funds whenever they need to attain growth in agriculture and other activities.

According to S Vydyanathan's report in March 2006, the District Central Co-operative Banks which made notable profits were Chennai Central Co-operative Bank which made the profit to the tune of ₹45 Crores, Erode District Central Co-operative Bank to the tune of ₹3.21 crore, and Kancheepuram DCCB gained profit of ₹2.70 crore and Coimbatore DCCB obtained the profit of ₹1.49 crore. The other DCCBs which were Pudukottai District Central Co-operative Bank, The Salem District Central Co-operative Bank, Cuddalore District Central Co-operative Bank, Villupuram District Central Co-operative Bank, Tiruchirapalli District Central Co-operative Bank, Vellore District Central Co-operative Bank, Tiruvannamalai District Central Co-operative Bank made profits less than ₹1 crore. The other twelve of the 23 district central cooperative banks in Tamilnadu were operating under loss and their cumulative losses accounted for were more than ₹500 crore in March 2006, which included DCCBs in Tirunelveli (₹50.03 crore), Kumbakonam (₹42.24 crore), Ramanathapuram (₹39.35 crore), the Nilgiris (₹27.01 crore), Tuticorin (₹23.03 crore), Dindigul (₹22.49 crore), Virudhunagar (₹22.78 crore), Madurai (₹20.37 crore) and Sivagangai (₹11.65 crore), Dharmapuri (₹145.07 crore), Thanjavur (₹86.21 crore) and Kanyakumari (₹4.32 crore) districts. Out of the twelve DCCBs that made losses, the performance of Thoothukudi District Central Co-operative Bank from 2002-2003 to 2011-2012, Kumbakonam Central Co-Operative Bank Ltd. at three districts, viz., Thanjavur, Thiruvarur and Nagapattinam from 2004-05 to 2013-14, Dindigul Central Cooperative Bank from 2000-01 to 2009-10, Nilgiri District CentralCo-Operative Bank" from 2010-11 to 2014-15, overall performance of Rajapettai Primary Agricultural Cooperative Society Ltd in Dharmapuri District"from 2008-09 to 2012-13, Virudhunagar DCCB, Tirunelveli DCCB and Thoothukudi DCCB from 1998-99 to 2008-09, Nilgiris, Sivagangai, Thanjavur DCCBs were analysed and concluded that VIDCCB was with very low ratio of owned funds to working capital was very low during 1998-99-2008-09 and it should take steps to minimize its non-performing assets. On the analysis of the performance of Madurai District Central

Co-operative Bank's performance made in 2005, it was concluded that there should be reduction of burden rate by applying cost control measures and spread rate should be improved to attain high profitability. So the research study is on the performance of Virudhunagar District Central Co-operative bank and Madurai District Central Co-operative bank.

In Virudhunagar and Madurai districts, there are considerable numbers of people who indulge in agricultural and other allied activities. So, the main objective of this study is to analyze whether Virudhunagar District Central Co-operative Bank (VDCCB) and Madurai District Central Co-operative Bank (MDCCB) perform their functions efficiently to distribute funds to the rural people and at the same time whether they earn profit in order to sustain in the field. The objectives of the study include analyzing the trend of Net Profits of the two selected Central Co-operative Banks for the study period of ten years from 2004 to 05 to 2013 to 14, examining the profitability of VDCCB and MDCCB with the help of two Profitability ratios represented by Return on assets and Interest income to total income ratio for the study period, studying the performance of the two DCCBs by means of Management Capability ratios represented by Expenditure to Income ratio, Diversification ratio, C/D Ratio and Assets quality ratio.

#### 2. REVIEW OF LITERATURE

In 'A Camel Model Analysis of Scheduled Urban Co-operative Bank in Surat City-A case study of Surat People's Co-operative bank' published in IOSR Journal of Business and Management Prof. Krupa R. Trivedi (2012), used assets quality ratio, management capability ratio and earning ratio. NimalathasanBalasundaram (2008), in 'A Comparative Study of Financial Performance of Banking Sector in Bangladesh – An Application of Camels Rating System' applied return on assets as one of the best indicators of profitability of banks, and Expenditure to Income ratio to reflect the soundness of the management. Dr. J. Paramasivam & R. Venkatasamy (2014), in IJSR - International Journal of Scientific Research in his study, Workings of Select Urban Co-Operative Banks in Tamilnadu-With Reference to Profitability Analysis' studied the profitability of UCBs in terms of mean, standard deviation (SD), coefficient of variation (CV) and GAGR of their Net Profits and their percentage change over previous years for ten years (2003 to 04 to 2012 to 13) and in terms of mean of their net profit to total assets ratio. In a research study, 'An Empirical Study Of Profitability Analysis In Cooperative Societies In Kaprada Taluk' undertaken for the period of five years from 2009 to 10 to 2013 to 14, published in Scholarly Research Journal for Interdisciplinary Studies Patel Dilipkumar (2014), Research Scholar Pacific University Udaipur (Rajasthan) used net profit ratios, return on assets ratio, return on capital employed ratio and operating ratio to assess the profitability of co-operative societies and concluded that total return on total assets ratio and return on capital employed ratio are below the co-operative societies average because the Net Profits of co-operative societies are not regular every year during the study period. In his study 'Co-operative Bank's Performance in Tamil Nadu' Selvaraj (2013), published in Asia Pacific Journal of Marketing & Management Review, he compared the annual growth rates of loans, deposits, credits and Net Profits of primary agricultural co-operative credit society in Tamil Nadu and found out that the highest positive compound growth rate corresponds to credits and that Net Profits are highly correlated with deposits than loans made. In his Research work 'Performance Evaluation of DCCBs in India - A Study' published in Asia Pacific Journal of Marketing & Management Review, Thirupathi Kanchu (2012), analysed the performance of DCCBs in India in terms of C/D ratio, growth of investments by Indian DCCBs and trend of capital, reserves and borrowings from 2001 to 02 to 2010 to 11. He calculated the mean, SD and CV of C/D ratios for ten years, and concluded that the C/D ratios of Indian DCCBs from 2002 to 2011 had shown a fluctuating trend.

Nallusamy (2012), in his work 'Financial Performance of the Salem District Central Cooperative Bank since Computerization - Evidence From Multi Discriminant Model' published in Namex International Journal of Management Research, applied total Expenses to total income ratio and interest earned to total income ratio to evaluate the financial performance of Salem District Central Co-operative Bank. Mahendran and Natarajan (2014), from the Department of Cooperatives Ambo University, Ambo in their research on 'A Study on the Profitability Ratio of the District Central Cooperative Banks in Tirunelveli Region, Tamilnadu' in International Journal of Research in Commerce, IT and Management, focused on nonperforming assets of Virudhunagar District Central Co-operative Bank and calculated profitability Ratios for the eleven years from 1998-99 to 2008-09. Mahendran and HiwotBekele (2014), from Department of Cooperatives Ambo University, Ambo, Ethiopia in their study, 'A Study on the Funds Flow Analysis of the District Central Cooperative Banks in Tirunelveli Region, Tamilnadu' published in International Journal of Research in Commerce and Management, analysed the fundflow statement of Tirunelveli (TIDCCB), Virudhunagar (VIDCCB), Thuthukudi (TUDCCB) and Kanyakumari (KADCCB) District Central Cooperative Banks in Tirunelveli Region, Tamil Nadu and concluded that the change in the sources and applications of funds over the years is fluctuating during the years 2004-05, 2005-06, 2006-07, 2007-08 & 2008-09. Mahendran and Moges Tadesse (2015), computed current ratio and liquidity ratios of Tirunelveli (TIDCCB), Virudhunagar (VIDCCB), Thuthukudi (TUDCCB) and Kanyakumari (KADCCB) District Central Cooperative Banks in Tirunelveli Region, Tamil Nadu. The research work was published in International Journal of Social Science, Arts and Humanities, with the title, 'Liquidity Ratio of the District Central Cooperative Banks In Tirunelveli Region, Tamilnadu'. They concluded that the liquidity ratios of selected banks in Tamilnadu were not satisfactory during the study period of eleven years from 1998-99 to 2008-09.

#### 3. RESEARCH METHODOLOGY

The Researcher has followed Multi-phase sampling method for selecting Virudhunagar DCCB and Madurai DCCB. At the first stage, 23 District Central Co-operative Banks from Tamilnadu State were selected. In the second stage, the central co-operative banks which incurred huge losses during March 2006 were selected. In the third stage, analysis regarding the researches made on the loss made central co-operative banks for a decade was made. Except for Ramanathapuram DCCB and Madurai DCCB frequent researches were conducted on the performance of other loss made banks. From the Researches it was found out that the performance of VDCCB was to be improved. Out of these three DCCBs, Ramanathapuram District Central Co-operative Bank has 16 branches but Madurai District Central Co-operative Bank has 41 branches including DCCBs in Theni District and Virudhunagar District Central Co-operative Bank has 34 branches. The Researcher has selected DCCBs which have comparatively more number of DCCB Branches and the districts (Virudhunagar and Madurai districts) in which the Population are more than the other Districts (As per Census of Tamilnadu 2011) in which the DCCBs had incurred losses. The Researcher analyzed the Profitability and Performance of VDCCB (Head Office) and MDCCB (Head Office) as the Head Office of the District Central Co-operative Bank controls all its branches in the district and maintains all the Records of its branches. VDCCB controls 35 branches and MDCCB controls 41 branches at present.

All the numerical data/figures used for this analysis are collected from the Annual Reports of VDCCB and MDCCB. To assess the profitability and performance of Virudhunagar District Central Co-operative Bank and Madurai district Central Co-operative Bank, Annual reports of the respective District Central Co-operative Banks from 2004 to 05 to 2013 to 14 are obtained.

#### 4. FINDINGS AND SUGGESTIONS

On the basis of analysis made, the Net Profits of Madurai central co-operative bank were highly fluctuating than that of Virudhunagar Central co-operative bank. The net profit (NP) for MDCCB peaked during the year 2009 to 10 and was the lowest during 2007 to 08. Co-efficient of variation for the NPs of MDCCB was greater when compared with that of VDCCB. But the CAGR of Net Profits for the ten years of MDCCB was positive while that of VDCCB was negative. Butthe mean net profit of MDCCB was lower than that of VDCCB (Table 35.1 and Figure 35.1). Return on assets is one of the important indicators of profitability of business. ROAs over 5% are generally considered good. But both the banks had attained ROA of over 5% for only one year over ten years, MDCCB for 2009-10 (7.63%) and VDCCB for the year 2004-05 (6%). This shows that the assets of the two selected banks were not profitable in generating income. The Mean Return on assets for MDCCB for ten years was only 0.17% and for VDCCB it is 0.95% (Table 35.2 and Table 35.3). This shows that the assets of the two selected banks were not profitable in generating income. So the two banks should try to maintain their ROA above 5%.

The Earning ratio of Interest income to total income was good for both VDCCB and MDCCB. The mean of Interest income to total income for VDCCB for the study period was 91% whereas for MDCCB it was 90% (Table 35.4 & Table 35.5). C/D ratio shows the strength of a bank in terms of mobilizing deposits and extending credit. The Indian banks have to allocate their funds for maintaining a cash reserve ratio of 4.5% and a statutory reserve Ratio of 22.50% of their total demand and time liabilities with effect from 12 July, 2014. The Indian banks having more than 70% of C/D ratio means that they are relying more on their deposits to extend the loans. Here both VDCCB and MDCCB had more than 70% of C/D ratios for the study period of ten years and C/D Ratios for MDCCB were greater than that for VDCCB for the ten years (Table 35.6 and Table 35.7). MDCCB should necessarily take steps to lower the C/D Ratio as the higher ratio indicates that the bank may not have enough funds in case of emergency or unforeseen circumstances to meet the fund requirements. The two co-operative banks should necessarily keep their C/D ratios below 70%. Although they significantly contribute to the growth of local people by providing more credit, it is equally important to increase their management capability not to go more illiquid.

The Expenditure to Income ratio should be smaller as it conveys that the bank has more income than its expenses. The higher Expenditure to Income ratio may also mean that the costs have increased. For VDCCB the mean of Expenditure to Income ratio for the study period was 94% and that for MDCCB it was 101%. MDCCB should make its efforts to decrease its expenses (Table 35.8 and Table 35.9). VDCCB and MDCCB should see that the income they earn is more than the Expenses they incur in order to increase their efficiency of operation. The mean Diversification Ratio for VDCCB and MDCCB was almost the same for the ten years, 0.09 and 0.10 respectively. (Table 35.10 & Table 35.11). The two sample banks shall try to increase the income other than interest income by issuing debit cards, ATM cards and credit cards, issuing letters of credit, Bank guarantee, net banking services, etc., Also the two banks shall try to convert its surplus funds into secured investments like money at call and short notice, investment in Gilt-edged Government securities like Treasury bills, etc., The assets quality ratio of Total Investments to Total Assets ratio depicts how much investments are made by a bank from its total assets. Total Investments to Total Assets ratio for the study period of ten years for MDCCB was lower (8.3%) when compared to VDCCB (15.6%). (Table 35.12 & Table 35.13). With respect to assets quality ratio, MDCCB should learn to convert its total assets to more investments. Nonperforming assets (NPAs) refer to the loans which are in arrears

on the schedule of payments of principal amount. From the graphical representation, it is clear that Gross NPAs of MDCCB exceeded that of VDCCB. The mean Gross NPA to Total Assets Ratio for the study period for MDCCB was 22% while for VDCCB it was only 9% (Table 35.14 & Table 35.15). The mean of Gross NPA to Total Advances Ratio for MDCCB for the study period was 30% and that for VDCCB was 12% (Table 35.16 & Table 35.17). For both the DCCBs, it was more than 10%. The DCCBs should take care to maintain Gross NPA level atleast less than 10%. They should also be keen to keep the level of Net NPA atleast below 5%. By undertaking the steps earlier mentioned, VDCCB and MDCCB could contribute more to the betterment of local community as well as to the economic growth of nation.

Table 35.1
Trend of Net Profits of Virudhunagar DCCB and Madurai DCCB<sup>1</sup>

| Year                      | VDCCB (NP) (₹ in crores) | MDCCB (NP) (₹ in crores) |
|---------------------------|--------------------------|--------------------------|
| 2004-05                   | 19,08,28,924.5           | 66,99,914.74             |
| 2005-06                   | -9,11,19,810.34          | -2,18,87,848.18          |
| 2006-07                   | 6,08,897.24              | -10,53,76,635.3          |
| 2007-08                   | -5,84,72,467.21          | -40,42,23,878.7          |
| 2008-09                   | 7,21,68,872.9            | 7,24,67,811.34           |
| 2009-10                   | 13,88,43,638.3           | 65,79,61,568.7           |
| 2010-11                   | 8,30,24,904.04           | 3,42,03,292              |
| 2011-12                   | 2,71,35,499.93           | 2,34,56,861.4            |
| 2012-13                   | 3,93,70,032.89           | 3,16,24,907.13           |
| 2013-14                   | 4,78,43,740.61           | 4,36,98,890.55           |
| Mean                      | 4,50,23,223.29           | 3,38,62,488.37           |
| SD                        | 8,42,09,650.57           | 25,95,62,300.8           |
| Co-efficient of variation | 1.87                     | 7.67                     |
| CAGR                      | -0.13                    | 0.21                     |

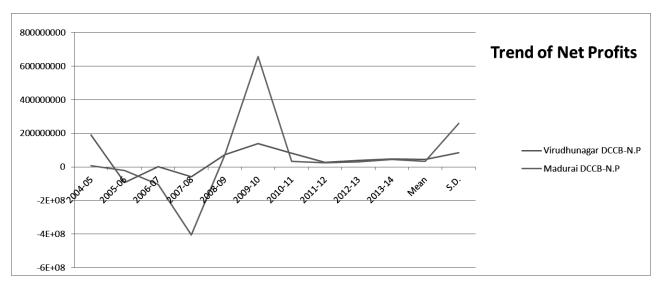


Figure 35.1: Trend of net profits

The Net Profits of MDCCB are more fluctuating than that of VDCCB. And the mean GAGR of Net Profits for MDCCB is greater but its mean net profit is lower than that of VDCCB.

# Earning Ratios for VDCCB and MDCCB

Table 35.2 Return on assets for VDCCB

| Year    | Net Profit (₹ in crores) | Net assets (₹ in crores) | ROA (in %) |
|---------|--------------------------|--------------------------|------------|
| 2004-05 | 19,08,28,924.5           | 298,75,51,662.94         | 6.4        |
| 2005-06 | -9,11,19,810.34          | 316,26,53,630.35         | -2.88      |
| 2006-07 | 6,08,897.24              | 325,05,20,526.95         | 0.02       |
| 2007-08 | -5,84,72,467.21          | 335,93,30,998.16         | -1.74      |
| 2008-09 | 7,21,68,872.9            | 402,53,68,752.18         | 1.8        |
| 2009-10 | 13,88,43,638.3           | 458,65,21,049.35         | 3.0        |
| 2010-11 | 8,30,24,904.04           | 570,48,94,455.10         | 1.5        |
| 2011-12 | 2,71,35,499.93           | 682,02,16,969.15         | 0.40       |
| 2012-13 | 3,93,70,032.89           | 823,35,71,663.98         | 0.48       |
| 2013-14 | 4,78,43,740.61           | 890,48,63,334.09         | 0.54       |
| Mean    | _                        | _                        | 0.95       |
| SD      | _                        | _                        | 2.55       |
| CV      | _                        | _                        | 2.68       |

Table 35.3
Return on assets for MDCCB<sup>2</sup>

| Year    | Net Profit (₹ in crores) | Net assets (₹ in crores) | ROA (in %) |
|---------|--------------------------|--------------------------|------------|
| 2004-05 | 66,99,914.74             | 620,04,21,500.15         | 0.11       |
| 2005-06 | -218,87,848.18           | 615,35,81,053.05         | -0.36      |
| 2006-07 | -1053,76,635.3           | 615,80,00,953.54         | -1.71      |
| 2007-08 | -4042,23,878.7           | 689,08,87,368.36         | -5.87      |
| 2008-09 | 7,24,67,811.34           | 818,62,21,460.49         | 0.89       |
| 2009-10 | 65,79,61,568.7           | 862,85,30,297.17         | 7.63       |
| 2010-11 | 3,42,03,292              | 1059,85,04,577.36        | 0.32       |
| 2011-12 | 2,34,56,861.4            | 1199,28,07,230.85        | 0.2        |
| 2012-13 | 3,16,24,907.13           | 1374,51,34,641.71        | 0.23       |
| 2013-14 | 4,36,98,890.55           | 1507,72,44,544.01        | 0.3        |
| Mean    | _                        | _                        | 0.17       |
| SD      | _                        | _                        | 3.27       |
| CV      | _                        | _                        | 19.24      |

Table 35.4
Interest income to total income ratio for VDCCB

| Year    | Interest income (₹ in crores) | Total income (₹ in crores) | Interest income to total income ratio |
|---------|-------------------------------|----------------------------|---------------------------------------|
| 2004-05 | 28,45,71,911.27               | 42,12,24,199.27            | 0.68                                  |
| 2005-06 | 25,22,29,153.14               | 25,89,26,379.01            | 0.97                                  |
| 2006-07 | 26,42,68,208.07               | 27,45,62,155.83            | 0.96                                  |

The average ROA for MDCCB for the study period is only 0.17% and for VDCCB, it is 0.95%.

| Year    | Interest income (₹ in crores) | Total income (₹ in crores) | Interest income to total income ratio |
|---------|-------------------------------|----------------------------|---------------------------------------|
| 2007-08 | 18,12,45,342.92               | 21,51,01,383.00            | 0.84                                  |
| 2008-09 | 41,53,25,271.50               | 42,88,39,245.42            | 0.97                                  |
| 2009-10 | 39,26,21,844.40               | 54,64,44,182.66            | 0.72                                  |
| 2010-11 | 47,11,42,394.39               | 48,89,83,200.20            | 0.96                                  |
| 2011-12 | 63,66,54,846.39               | 64,50,11,614.28            | 0.99                                  |
| 2012-13 | 79,67,74,590.05               | 80,75,81,858.65            | 0.99                                  |
| 2013-14 | 92,91,41,153.02               | 93,76,97,911.77            | 0.99                                  |
| Mean    | _                             | _                          | 0.91                                  |
| SD      | _                             | _                          | 0.12                                  |
| CV      | _                             | _                          | 0.13                                  |

Table 35.5
Interest income to total income ratio for MDCCB<sup>3</sup>

| Year    | Interest income (₹ in crores) | Total income (₹ in crores) | Interest income to total income ratio |
|---------|-------------------------------|----------------------------|---------------------------------------|
| 2004-05 | 85,25,80,986.32               | 86,82,77,874.18            | 0.98                                  |
| 2005-06 | 85,93,17,758.53               | 89,16,44,367.55            | 0.96                                  |
| 2006-07 | 80,63,27,173.06               | 94,69,21,802.59            | 0.85                                  |
| 2007-08 | 54,75,77,900.89               | 65,99,99,395.17            | 0.83                                  |
| 2008-09 | 82,24,47,157.36               | 84,96,07,285.83            | 0.97                                  |
| 2009-10 | 80,18,45,534.64               | 150,60,32,634.35           | 0.53                                  |
| 2010-11 | 73,86,59,832.65               | 77,62,85,656.40            | 0.95                                  |
| 2011-12 | 94,02,75,868.49               | 96,42,48,757.27            | 0.98                                  |
| 2012-13 | 118,15,82,210.37              | 119,62,46,496.79           | 0.99                                  |
| 2013-14 | 141,04,33,114.78              | 143,70,51,955.10           | 0.98                                  |
| Mean    | _                             | _                          | 0.90                                  |
| SD      | _                             | _                          | 0.14                                  |
| CV      | _                             | _                          | 0.16                                  |

Table 35.6 Credit-Deposit ratio for VDCCB

| Year    | Total Advances (₹ in crores) | Total Deposits (₹ in crores) | Credit-Deposit ratio<br>(C/D Ratio) (in %) |
|---------|------------------------------|------------------------------|--|
| 2004-05 | 202,82,57,999.03             | 219,72,85,426.86             | 92.31                                      |
| 2005-06 | 214,30,37,636.19             | 200,73,76,774.62             | 106.76                                     |
| 2006-07 | 201,23,22,065.68             | 218,88,78,128.48             | 91.93                                      |
| 2007-08 | 222,27,24,868.40             | 262,34,56,785.68             | 84.73                                      |
| 2008-09 | 255,31,68,286.92             | 304,66,82,742.58             | 83.80                                      |
| 2009-10 | 315,74,26,824.37             | 345,06,43,872.12             | 91.50                                      |
| 2010-11 | 417,78,77,292.00             | 403,76,60,376.36             | 103.47                                     |

The mean Earning ratio of Interest income to total income is good for both VDCCB and MDCCB.

| Year    | Total Advances (₹ in crores) | Total Deposits (₹ in crores) | Credit-Deposit ratio<br>(C/D Ratio) (in %) |
|---------|------------------------------|------------------------------|--|
| 2011-12 | 519,45,31,519.82             | 464,83,98,869.93             | 111.75                                     |
| 2012-13 | 632,20,08,588.21             | 538,75,91,374.56             | 117.34                                     |
| 2013-14 | 658,17,53,112.67             | 666,49,74,563.85             | 98.75                                      |
| Mean    | _                            | _                            | 98.234                                     |
| SD      | _                            | _                            | 11.35                                      |
| CV      | _                            | _                            | 11.55                                      |

Table 35.7 Credit-Deposit Ratio for MDCCB<sup>4</sup>

| Year    | Total Advances (₹ in crores) | Total Deposits (₹ in crores) | Credit-Deposit ratio<br>(C/D Ratio) (in %) |
|---------|------------------------------|------------------------------|--|
| 2004-05 | 484,71,00,346.75             | 336,10,09,403.34             | 144.22                                     |
| 2005-06 | 478,94,40,774.36             | 288,13,83,102.73             | 166.22                                     |
| 2006-07 | 455,11,16,941.29             | 304,80,90,643.01             | 149.31                                     |
| 2007-08 | 530,96,76,221.22             | 352,41,58,659.01             | 150.67                                     |
| 2008-09 | 546,71,59,842.44             | 431,08,92,533.04             | 126.82                                     |
| 2009-10 | 623,48,74,936.42             | 505,21,13,567.83             | 123.41                                     |
| 2010-11 | 801,92,87,501.25             | 546,00,97,757.81             | 146.87                                     |
| 2011-12 | 898,31,46,839.09             | 618,64,19,553.19             | 145.21                                     |
| 2012-13 | 1032,79,36,596.28            | 700,15,67,175.65             | 147.51                                     |
| 2013-14 | 1126,66,89,171.13            | 811,68,78,326.19             | 138.81                                     |
| Mean    | _                            | _                            | 143.905                                    |
| SD      | _                            | _                            | 12.177                                     |
| CV      | _                            | _                            | 8.46                                       |

# **Management Capability Ratios**

Table 35.8 Expenditure to Income ratio for VDCCB

| Year    | Expenditure (₹ in crores) | Income (₹ in crores) | Expenditure to Income ratio |
|---------|---------------------------|----------------------|-----------------------------|
| 2004-05 | 23,03,95,274.82           | 42,12,24,199.27      | 0.55                        |
| 2005-06 | 35,00,46,189.35           | 25,89,26,379.01      | 1.35                        |
| 2006-07 | 27,39,53,258.59           | 27,45,62,155.83      | 1.00                        |
| 2007-08 | 27,35,73,850.21           | 21,51,01,383.00      | 1.27                        |
| 2008-09 | 35,66,70,372.52           | 42,88,39,245.42      | 0.83                        |
| 2009-10 | 40,76,00,544.33           | 54,64,44,182.66      | 0.75                        |
| 2010-11 | 40,59,58,296.16           | 48,89,83,200.20      | 0.83                        |
| 2011-12 | 61,78,76,114.35           | 64,50,11,614.28      | 0.96                        |
| 2012-13 | 76,82,11,825.76           | 80,75,81,858.65      | 0.95                        |

<sup>&</sup>lt;sup>4</sup> Both VDCCB and MDCCB have more than 70% of C/D ratio for the ten years and mean C/D ratio for MDCCB is greater than that of VDCCB.

| Year    | Expenditure (₹ in crores) | Income (₹ in crores) | Expenditure to Income ratio |
|---------|---------------------------|----------------------|-----------------------------|
| 2013-14 | 88,98,54,171.16           | 93,76,97,911.77      | 0.95                        |
| Mean    | _                         | _                    | 0.94                        |
| SD      | _                         | _                    | 0.22                        |
| CV      | _                         | _                    | 0.23                        |

Table 35.9 Expenditure to Income ratio for MDCCB<sup>5</sup>

| Year    | Expenditure (₹in crores) | Income (₹ in crores) | Expenditure to Income ratio |
|---------|--------------------------|----------------------|-----------------------------|
| 2004-05 | 86,15,77,959.44          | 86,82,77,874.18      | 0.99                        |
| 2005-06 | 91,35,32,215.73          | 89,16,44,367.55      | 1.02                        |
| 2006-07 | 105,22,98,437.89         | 94,69,21,802.59      | 1.11                        |
| 2007-08 | 106,42,23,273.86         | 65,99,99,395.17      | 1.61                        |
| 2008-09 | 77,71,39,474.49          | 84,96,07,285.83      | 0.91                        |
| 2009-10 | 84,80,71,065.67          | 150,60,32,634.35     | 0.56                        |
| 2010-11 | 74,20,82,364.40          | 77,62,85,656.40      | 0.96                        |
| 2011-12 | 94,07,91,895.87          | 96,42,48,757.27      | 0.98                        |
| 2012-13 | 116,46,21,589.66         | 119,62,46,496.79     | 0.97                        |
| 2013-14 | 139,33,53,064.55         | 143,70,51,955.10     | 0.97                        |
| Mean    | _                        | _                    | 1.01                        |
| SD      | _                        | _                    | 0.24                        |
| CV      | _                        | _                    | 0.24                        |

Table 35.10 Diversification ratio for VDCCB

| Year    | Income other than interest income<br>(₹ in crores) | Total income (₹ in crores) | Diversification ratio |
|---------|--|----------------------------|-----------------------|
| 2004-05 | 13,66,52,288                                       | 42,12,24,199.27            | 0.32                  |
| 2005-06 | 66,97,225.87                                       | 25,89,26,379.01            | 0.03                  |
| 2006-07 | 1,02,93,947.76                                     | 27,45,62,155.83            | 0.04                  |
| 2007-08 | 3,38,56,040.08                                     | 21,51,01,383.00            | 0.16                  |
| 2008-09 | 1,35,13,973.92                                     | 42,88,39,245.42            | 0.03                  |
| 2009-10 | 15,38,22,338.26                                    | 54,64,44,182.66            | 0.28                  |
| 2010-11 | 1,78,40,805.81                                     | 48,89,83,200.20            | 0.04                  |
| 2011-12 | 83,56,767.89                                       | 64,50,11,614.28            | 0.01                  |
| 2012-13 | 1,08,07,268.60                                     | 80,75,81,858.65            | 0.01                  |
| 2013-14 | 85,56,758.75                                       | 93,76,97,911.77            | 0.01                  |
| Mean    | _  | _                          | 0.09                  |
| SD      | _  | _                          | 0.12                  |
| CV      | _  | _                          | 1.33                  |

For VDCCB the mean of Expenditure to Income ratio for the study period is 94% and that for MDCCB it is 101%. MDCCB should make its efforts to decrease its expenses.

Table 35.11
Diversification ratio for MDCCB<sup>6</sup>

| Year    | Income other than interest income<br>(₹ in crores) | Total income<br>(₹ in crores) | Diversification ratio |
|---------|--|-------------------------------|-----------------------|
| 2004-05 | 1,56,96,887.86                                     | 86,82,77,874.18               | 0.02                  |
| 2005-06 | 3,23,26,609.02                                     | 89,16,44,367.55               | 0.04                  |
| 2006-07 | 14,05,94,629.53                                    | 94,69,21,802.59               | 0.15                  |
| 2007-08 | 11,24,21,494.28                                    | 65,99,99,395.17               | 0.17                  |
| 2008-09 | 2,71,60,128.47                                     | 84,96,07,285.83               | 0.03                  |
| 2009-10 | 70,41,87,099.71                                    | 150,60,32,634.35              | 0.47                  |
| 2010-11 | 3,76,25,823.75                                     | 77,62,85,656.40               | 0.05                  |
| 2011-12 | 2,39,72,888.78                                     | 96,42,48,757.27               | 0.02                  |
| 2012-13 | 1,46,64,286.42                                     | 119,62,46,496.79              | 0.01                  |
| 2013-14 | 2,66,18,840.32                                     | 143,70,51,955.10              | 0.02                  |
| Mean    | _  | _                             | 0.10                  |
| SD      | _  | _                             | 0.14                  |
| CV      | _  | _                             | 1.4                   |

Table 35.12
Assets quality ratio for VDCCB

| Year    | Total investments (₹ in crores) | Total assets (₹ in crores) | Total Investments to<br>Total Assets ratio |
|---------|---------------------------------|----------------------------|--|
| 2004-05 | 31,29,68,200                    | 301,58,40,287.84           | 0.104                                      |
| 2005-06 | 28,82,88,200                    | 296,79,08,830.09           | 0.097                                      |
| 2006-07 | 26,81,28,200                    | 329,31,35,852.11           | 0.081                                      |
| 2007-08 | 26,81,28,200                    | 336,74,88,118.95           | 0.080                                      |
| 2008-09 | 95,82,52,200                    | 403,87,90,507.68           | 0.237                                      |
| 2009-10 | 95,02,52,200                    | 459,55,86,001.58           | 0.207                                      |
| 2010-11 | 111,86,92,200                   | 572,53,93,098.57           | 0.195                                      |
| 2011-12 | 123,66,54,903                   | 684,27,46,379.05           | 0.181                                      |
| 2012-13 | 144,85,18,868                   | 825,33,26,008.61           | 0.176                                      |
| 2013-14 | 181,74,24,733                   | 894,23,22,617.59           | 0.203                                      |
| Mean    | _                               | _                          | 0.156                                      |
| SD      | _                               | _                          | 0.06                                       |
| CV      | _                               | _                          | 0.38                                       |

Table 35.13 Assets quality ratio for MDCCB<sup>7</sup>

| Year    | Total Investments (₹ in crores) | Total assets (₹ in crores) | Total Investments to<br>Total Assets ratio |
|---------|---------------------------------|----------------------------|--|
| 2004-05 | 84,23,00,155                    | 657,76,23,792.48           | 0.128                                      |
| 2005-06 | 81,00,30,155                    | 673,96,53,677.13           | 0.120                                      |

MDCCB and VDCCB have almost the same mean Diversification ratio for the ten years.

The average Total Investments to Total Assets ratio for the study period of ten years for MDCCB is lower (8.3%) when compared to VDCCB (15.6%).

| Year    | Total Investments (₹ in crores) | Total assets (₹ in crores) | Total Investments to<br>Total Assets ratio |
|---------|---------------------------------|----------------------------|--|
| 2006-07 | 77,04,87,155                    | 626,74,06,563.58           | 0.123                                      |
| 2007-08 | 74,97,27,155                    | 703,68,71,852.66           | 0.097                                      |
| 2008-09 | 72,20,99,155                    | 834,18,49,190.12           | 0.087                                      |
| 2009-10 | 51,09,10,155                    | 875,01,67,390.78           | 0.058                                      |
| 2010-11 | 69,84,40,105                    | 1074,56,46,706.02          | 0.065                                      |
| 2011-12 | 69,91,47,605                    | 1214,03,12,235.12          | 0.058                                      |
| 2012-13 | 67,68,75,605                    | 1396,74,57,382.54          | 0.048                                      |
| 2013-14 | 74,50,78,205                    | 1535,36,49,901.97          | 0.049                                      |
| Mean    | _                               | _                          | 0.083                                      |
| SD      | _                               | _                          | 0.03                                       |
| CV      | _                               | _                          | 0.36                                       |

Table 35.14
Gross NPA to Total Assets Ratio: VDCCB

| Year    | Gross NPA (₹ in lakhs) | Total Assets (₹ in lakhs) | Gross NPA to<br>Total Assets Ratio |
|---------|------------------------|---------------------------|------------------------------------|
| 2004-05 | 3554.62                | 30,158.40                 | 0.12                               |
| 2005-06 | 3875.24                | 29,679.09                 | 0.13                               |
| 2006-07 | 3825.95                | 32,931.36                 | 0.12                               |
| 2007-08 | 4118.38                | 33,674.88                 | 0.12                               |
| 2008-09 | 3924.46                | 40,387.91                 | 0.10                               |
| 2009-10 | 2887.74                | 45,955.86                 | 0.06                               |
| 2010-11 | 2868.18                | 57,253.93                 | 0.05                               |
| 2011-12 | 2871.12                | 68,427.46                 | 0.04                               |
| 2012-13 | 3175.57                | 82,533.26                 | 0.04                               |
| 2013-14 | 3334.81                | 89,423.23                 | 0.12                               |
| Mean    |                        |                           | 0.09                               |
| CAGR    |                        |                           | 0%                                 |

Table 35.15 Gross NPA to Total Assets Ratio: MDCCB

| Year    | Gross NPA (₹ in lakhs) | Total Assets (₹ in lakhs) | Gross NPA to<br>Total Assets Ratio |
|---------|------------------------|---------------------------|------------------------------------|
| 2004-05 | 19,966.00              | 65776.24                  | 0.30                               |
| 2005-06 | 21,010.01              | 67396.54                  | 0.31                               |
| 2006-07 | 23,432.67              | 62674.07                  | 0.37                               |
| 2007-08 | 24,812.26              | 70368.72                  | 0.35                               |
| 2008-09 | 19,400.97              | 83418.49                  | 0.23                               |
| 2009-10 | 13,408.60              | 87501.67                  | 0.15                               |
| 2010-11 | 12,354.70              | 107456.47                 | 0.11                               |
| 2011-12 | 13,881.69              | 121403.12                 | 0.11                               |

| Year    | Gross NPA (₹ in lakhs) | Total Assets (₹ in lakhs) | Gross NPA to<br>Total Assets Ratio |
|---------|------------------------|---------------------------|------------------------------------|
| 2012-13 | 16,140.91              | 139674.57                 | 0.12                               |
| 2013-14 | 19,421.28              | 153536.5                  | 0.13                               |
| Mean    |                        |                           | 0.22                               |
| CAGR    | -0.28%                 |                           | -8.02%                             |

Table 35.16 Gross NPA to Total Advances Ratio: MDCCB

| Year    | Gross NPA (₹ in lakhs) | Total Advances (₹ in lakhs) | Gross NPA to<br>Total Advances Ratio |
|---------|------------------------|-----------------------------|--------------------------------------|
| 2004-05 | 19,966.00              | 48,471.00                   | 0.41                                 |
| 2005-06 | 21,010.01              | 47,894.41                   | 0.44                                 |
| 2006-07 | 23,432.67              | 45,511.17                   | 0.51                                 |
| 2007-08 | 24,812.26              | 53,096.76                   | 0.47                                 |
| 2008-09 | 19,400.97              | 54,671.6                    | 0.35                                 |
| 2009-10 | 13,408.60              | 62,348.75                   | 0.22                                 |
| 2010-11 | 12,354.70              | 80,192.88                   | 0.15                                 |
| 2011-12 | 13,881.69              | 89,831.47                   | 0.15                                 |
| 2012-13 | 16,140.91              | 103,279.37                  | 0.16                                 |
| 2013-14 | 19,421.28              | 112,666.89                  | 0.17                                 |
| Mean    |                        |                             | 0.30                                 |
| CAGR    |                        |                             | -8.43%                               |

Table 35.17
Gross NPA to Total Advances Ratio: VDCCB

| Year    | Gross NPA (₹ in lakhs) | Total Advances (₹ in lakhs) | Gross NPA to<br>Total Advances Ratio |
|---------|------------------------|-----------------------------|--------------------------------------|
| 2004-05 | 3,554.62               | 20,282.58                   | 0.18                                 |
| 2005-06 | 3,875.24               | 21,430.38                   | 0.18                                 |
| 2006-07 | 3,825.95               | 20,123.22                   | 0.19                                 |
| 2007-08 | 4,118.38               | 22,227.25                   | 0.19                                 |
| 2008-09 | 3,924.46               | 25,531.68                   | 0.15                                 |
| 2009-10 | 2,887.74               | 31,574.27                   | 0.09                                 |
| 2010-11 | 2,868.18               | 41,778.77                   | 0.07                                 |
| 2011-12 | 2,871.12               | 51,945.32                   | 0.06                                 |
| 2012-13 | 3,175.57               | 63,220.09                   | 0.05                                 |
| 2013-14 | 3,334.81               | 65,817.53                   | 0.05                                 |
| Mean    | 3,443.61               | 36,393.11                   | 0.12                                 |
| CAGR    |                        |                             | -12.02%                              |

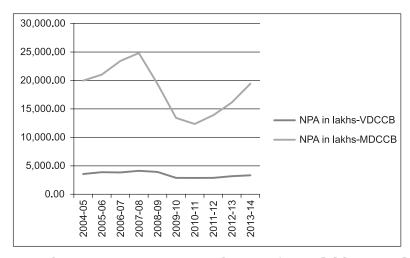


Figure 35.2: Graphical Representation of Gross NPAs of VDCCB and MDCCB

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