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An Empirical Analysis of Non-Performing Assets in District Cooperative Central Banks: A Comparative Study of Rayalaseema, Coastal, and North Andhra Districts in Andhra Pradesh

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Abstract
Lending is a crucial component of the Indian banking system, comprising banks and Non-Banking Financial Companies (NBFCs). As the primary source of income for these institutions, lending operations have recently slowed down, accompanied by a rise in non-performing assets (NPAs). This phenomenon poses a significant threat to the banking industry and other sectors. This research study aims to systematically review existing literature and articles on NPAs in India to identify the primary causes and contributing factors of rising NPAs in financial institutions. The study also highlights areas that require further research, ultimately contributing to developing strategies to mitigate the risk of NPAs in the Indian banking system. The study highlights regional variations in NPA levels, with Rayalaseema, Coastal, and North Andhra districts showing different trends. To mitigate the risk of NPAs, DCCBs should enhance credit appraisal processes, improve collection management, and strengthen risk management practices. Implementing robust risk management practices, such as regular audits and stress testing, can also help identify potential NPAs early on. Future studies can focus on analysing the impact of NPAs on the financial performance of DCCBs and exploring strategies to improve asset quality.
Keywords used: Non-performing Assets (NPA), ST loans (STL), MT loans, (MTL) Debts/Doubtful Debts of Banks.

1 INTRODUCTION

The District Cooperative Central Banks (DCCBs) play a vital role in the rural economy of Andhra Pradesh, providing financial services to farmers, artisans, and other rural communities. However, the DCCBs in Andhra Pradesh have been facing a significant challenge in the form of Non-Performing Assets (NPAs). NPAs refer to loans and advances that have become doubtful or have been classified as loss assets. The problem of NPAs in DCCBs has been a major concern for the banking sector, policymakers, and regulators. The high level of NPAs can erode the capital base of the banks, reduce their lending capacity, and ultimately affect their sustainability. This study examines the extent and nature of NPAs in DCCBs in the districts of Rayalaseema, Coastal, and North Andhra in Andhra Pradesh. The study will also identify the causes and consequences of NPAs in DCCBs and suggest strategies to reduce and manage NPAs. The study is significant because it will provide insights into the problem of NPAs in DCCBs in Andhra Pradesh and suggest measures to address this issue. The findings of the study will be useful for policymakers, regulators, and bank managers to formulate strategies to reduce NPAs and improve the financial health of DCCBs.

District Cooperative Central Banks (DCCBs) play a vital role in rural financial inclusion, providing credit facilities to farmers, rural artisans, and other marginalized communities. However, the growing incidence of Non-Performing Assets (NPAs) in DCCBs has become a major concern, threatening the very existence of these banks. NPAs refer to loans or advances that have become delinquent, meaning the borrower has failed to repay the loan or interest thereon for a specified

period. In the context of DCCBs, NPAs typically arise from agricultural loans, which are often affected by factors like crop failures, natural disasters, and market fluctuations.

Causes of NPAs in DCCBs

Several factors contribute to the growing NPAs in DCCBs, including **Lack of credit discipline (**Borrowers often view loans from DCCBs as a form of subsidy, rather than a credit facility that requires repayment), **Inadequate risk assessment (**DCCBs often fail to conduct thorough risk assessments, leading to the sanctioning of loans to borrowers with poor credit history or inadequate collateral) **Poor loan recovery mechanisms (**DCCBs often lack effective loan recovery mechanisms, making it difficult to recover loans from defaulting borrowers).

Consequences of NPAs

The growing NPAs in DCCBs have severe consequences, including:

1. **Erosion of capital:** NPAs lead to a decline in the capital base of DCCBs, making it difficult for them to lend to other borrowers.
2. **Reduced lending capacity:** NPAs reduce the lending capacity of DCCBs, making it difficult for them to meet the credit needs of rural communities.

3. Loss of public trust: The growing NPAs in DCCBs can lead to a loss of public trust, making it difficult for these banks to attract deposits and sanctions loans.

Here are some strategies and measures to reduce and manage NPAs in District Cooperative Central Banks (DCCBs):

Short-term Strategies:

- **Regular Loan Reviews:** Conduct regular reviews of loan portfolios to identify potential NPAs early.
- **Proactive Communication:** Establish open communication channels with borrowers to address repayment issues promptly.
- **Recovery Mechanisms**: Strengthen recovery mechanisms, including legal action, to recover dues from defaulting borrowers.
- **Loan Restructuring:** Offer loan restructuring options to borrowers facing genuine difficulties.
- **Provisioning:** Make adequate provisions for potential NPAs to minimize losses.

Long-term Strategies:

- **Enhanced Credit Appraisal:** Implement robust credit appraisal processes to minimize lending risks.
- **Diversification of Loan Portfolio**: Diversify loan portfolios to reduce dependence on specific sectors or industries.
- **Risk Management Framework: Develop** a comprehensive risk management framework to identify, assess, and mitigate lending risks.
- **Staff Training:** Provide regular training to staff on credit appraisal, risk management, and recovery mechanisms.
- **Technology Adoption:** Leverage technology to improve loan monitoring, recovery, and risk management.

Governance and Regulatory Measures:

- **Strong Governance:** Ensure strong governance and oversight mechanisms to prevent lending irregularities.
- **Regulatory Compliance**: Ensure compliance with regulatory guidelines and norms on lending and NPA management.
- **Auditing and Inspection:** Conduct regular audits and inspections to detect and prevent lending irregularities.
- **Disclosure and Transparency:** Ensure transparency and disclosure in lending operations and NPA management.
- **Credit Guarantee Schemes**: Explore credit guarantee schemes to minimize lending risks.
- **Collateral Management:** Implement effective collateral management practices to minimize losses in case of defaults.
- **Debt Recovery Tribunals:** Utilize debt recovery tribunals to expedite recovery of dues from defaulting borrowers.
- **Financial Literacy:** Promote financial literacy among borrowers to encourage responsible borrowing and repayment practices.

2 LITERATURE REVIEW

The concept of Non-Performing Assets (NPAs) has been extensively studied in the context of commercial banks and financial institutions. However, there is a dearth of literature on NPAs in the context of District Cooperative Central Banks (DCCBs).

According to **Reserve Bank of India (RBI) (2019),** NPAs are loans and advances that have become doubtful or have been classified as loss assets. The RBI has also emphasized the need for banks to maintain a high level of asset quality and to take proactive measures to prevent the accumulation of NPAs.

A study by **Kumar et al (2018)** on NPAs in Indian banks found that the main causes of NPAs were poor credit appraisal, inadequate credit monitoring, and lack of effective recovery mechanisms.

Another study by **Manminder Singh Saluja (2017)** on NPAs in cooperative banks found that the main causes of NPAs were poor management, inadequate credit appraisal, and lack of effective recovery mechanisms.

A study by **Reddy (2016)** on NPAs in DCCBs in Andhra Pradesh found that the main causes of NPAs were poor credit appraisal, inadequate credit monitoring, and lack of effective recovery mechanisms.

Nagarajan, G et al (2013) The Indian government, through the Reserve Bank of India (RBI), requires banks operating in India to allocate a portion of their lending to specific sectors. These sectors, identified by the RBI, lack access to organized lending or struggle to afford commercial interest rates. This mandated lending is known as Priority Sector Lending. This study investigates Non-Performing Assets (NPAs) in public sector banks, comparing Priority Sector Lending to Non-Priority Sector Lending. The research analyzes trends in Gross NPAs and Net NPAs of public sector banks to determine the impact of Priority Sector lending on total NPAs and the effect of recovery on NPAs during the study period.

The literature review highlights the need for DCCBs to maintain a high level of asset quality and to take proactive measures to prevent the accumulation of NPAs. It also emphasizes the need for effective credit appraisal, credit monitoring, and recovery mechanisms to prevent NPAs. While there are several studies on NPAs in commercial banks and financial institutions, there is a dearth of literature on NPAs in the context of DCCBs. This study aims to fill this gap by examining the extent and nature of NPAs in DCCBs in the districts of Rayalaseema, Coastal, and North Andhra in Andhra Pradesh.

Research Questions:

- ❖ What is the extent and nature of NPAs in DCCBs in the districts of Rayalaseema, Coastal, and North Andhra in Andhra Pradesh?
- ❖ What are the causes and consequences of NPAs in DCCBs in the districts of Rayalaseema, Coastal, and North Andhra in Andhra Pradesh?
- ❖ What strategies can be adopted by DCCBs to reduce and manage NPAs?

3. STATEMENT OF THE PROBLEM

The problem of Non-Performing Assets (NPAs) in District Cooperative Central Banks (DCCBs) in Andhra Pradesh is a pressing concern. NPAs refer to loans and advances that have become doubtful or have been classified as loss assets. The high level of NPAs in DCCBs can erode their capital base, reduce their lending capacity, and ultimately affect their sustainability.

The problem is particularly pronounced in the districts of Rayalaseema, Coastal, and North Andhra in Andhra Pradesh. The DCCBs in these districts are facing significant challenges in recovering loans and advances, leading to a high level of NPAs. The causes of NPAs in DCCBs are multifaceted. They include poor credit appraisal, inadequate credit monitoring, and lack of effective recovery mechanisms [1]. Additionally, the DCCBs in Andhra Pradesh are also facing challenges related to inadequate funding, poor management, and lack of effective supervision.

The consequences of NPAs in DCCBs are severe. They can lead to a decline in the financial health of the banks, reduce their lending capacity, and ultimately affect their sustainability. Furthermore, NPAs can also have a negative impact on the rural economy, as DCCBs play a critical role in providing credit to farmers and rural communities. Therefore, it is essential to address the problem of NPAs in DCCBs in Andhra Pradesh. This can be achieved by improving credit appraisal and monitoring, strengthening recovery mechanisms, and enhancing supervision and regulation. Additionally, the government and regulatory authorities can also play a critical role in addressing the problem of NPAs in DCCBs by providing adequate funding, training, and technical assistance.

4. OBJECTIVES OF THE STUDY

1. To examine the extent and nature of Non-Performing Assets (NPAs) in District Cooperative Central Banks (DCCBs) in Andhra Pradesh.
2. To identify the causes and consequences of NPAs in DCCBs in the selected districts of Rayalaseema, Coastal, and North Andhra.
3. To analyze the impact of NPAs on the financial performance and sustainability of DCCBs in the selected districts.

4. To examine the role of regulatory bodies and government agencies in addressing the issue of NPAs in DCCBs.

5. To suggest strategies and measures to reduce and manage NPAs in DCCBs in Andhra Pradesh.

6. To identify the best practices and successful models of NPA management in DCCBs in other parts of the country and to suggest their applicability to the selected districts of Andhra Pradesh

5. METHODS AND MATERIALS USED

5.1 Research Design:

This study employs an exploratory and comparative research design to examine the Non-Performing Assets (NPAs) of District Cooperative Central Banks (DCCBs) in Andhra Pradesh.

5.2 Sampling:

The study uses non-probability sampling to select the sample units. A total of 3 DCCBs were selected from the districts of Rayalaseema, Coastal, and North Andhra in Andhra Pradesh.

5.3 Sample Size:

The sample size is N = 3 DCCBs in Andhra Pradesh.

1. Chittoor DCCB
2. Krishna DCCB
3. Srikakulam DCCB

5.4 Selection Criteria:

The DCCBs were selected based on the following criteria:

- ❖ Higher amount of Net capital
- ❖ Higher amount of assets in the year

5.5 Data Collection:

The data was collected from the following sources:

- ❖ Annual reports of the selected DCCBs
- ❖ Financial statements of the selected DCCBs
- ❖ Interviews with the officials of the selected DCCBs

5.6 Data Analysis:

1. The data was analysed using descriptive statistics and inferential statistics. The analysis was done using SPSS software**.**

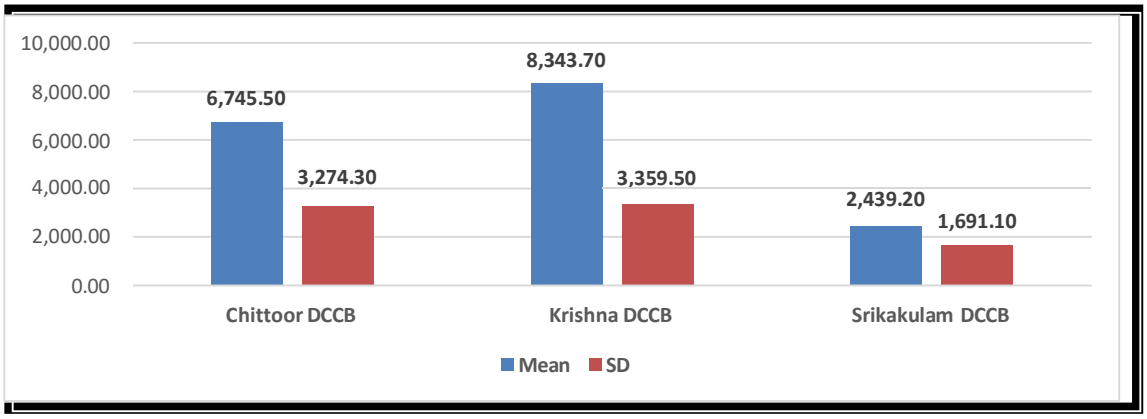
Table No:1

Statement of Gross NPAs and their Trend of Sample DCCBs

₹ in lakh

Years	Chittoor DCCB		Krishna DCCB		Srikakulam DCCB	
	₹	Trend %	₹	Trend %	₹	Trend %
2012-13	3,642		4,839		1,499	
2013-14	2,843	-21.93	6,949	43.61	410	-72.67
2014-15	2,500	-12.07	10,360	49.08	410	0.00
2015-16	3,923	56.90	4,863	-53.05	1,823	344.98
2016-17	7,563	92.80	5,419	11.42	1,928	5.76
2017-18	7,155	-5.39	5,543	2.30	2,173	12.71
2018-19	8,441	17.97	8707	57.07	2,549	17.29
2019-20	10,060	19.17	11,075	27.20	4,702	84.51
2020-21	11,008	9.42	11,005	-0.63	3,289	-30.05
2021-22	10,320	-6.25	14,676	33.35	5,609	70.52
Mean (₹)	6,745.5		8,343.7		2,439.2	
SD (₹)	3,274.3		3,359.5		1,691.1	
CV (%)	48.5		40.3		69.3	
CAGR (%)	11.0		11.7		14.1	

Source: Computed from Secondary Data



Overall Trend:

The data shows that the Non-Performing Assets (NPAs) of the three District Cooperative Central Banks (DCCBs) have been increasing over the years, with some fluctuations.

DCCB-wise Trend analysis:

1. **Chittoor DCCB:** The NPAs of Chittoor DCCB have shown a steady increase over the years, with a Compound Annual Growth Rate (CAGR) of 11.0%. The highest amount of NPAs was recorded in 2020-21, with a value of ₹11,008 lakhs.
2. **Krishna DCCB:** The NPAs of Krishna DCCB have also shown an increasing trend, with a CAGR of 11.7%. The highest amount of NPAs was recorded in 2021-22, with a value of ₹14,676 lakhs.
3. **Srikakulam DCCB:** The NPAs of Srikakulam DCCB have shown a high growth rate, with a CAGR of 14.1%. The highest amount of NPAs was recorded in 2021-22, with a value of ₹5,609 lakhs.

Key Observations:

1. The NPAs of all three DCCBs have been increasing over the years, indicating a growing concern for the banks.
2. The Chittoor DCCB has the highest mean value of NPAs, followed by Krishna DCCB and Srikakulam DCCB.
3. The Srikakulam DCCB has the highest growth rate of NPAs, indicating a need for immediate attention.
4. The NPAs of all three DCCBs have shown high volatility, with a high coefficient of variation (CV) ranging from 40.3% to 69.3%.

Recommendations:

1. The DCCBs should take immediate steps to reduce their NPAs, such as improving their credit appraisal and monitoring processes.
2. The banks should also focus on recovering their bad debts, rather than simply writing them off.
3. The regulatory authorities should closely monitor the NPAs of the DCCBs and take corrective action to prevent their growth.
4. The government should provide support to the DCCBs to help them recover from their bad debts and improve their financial health.

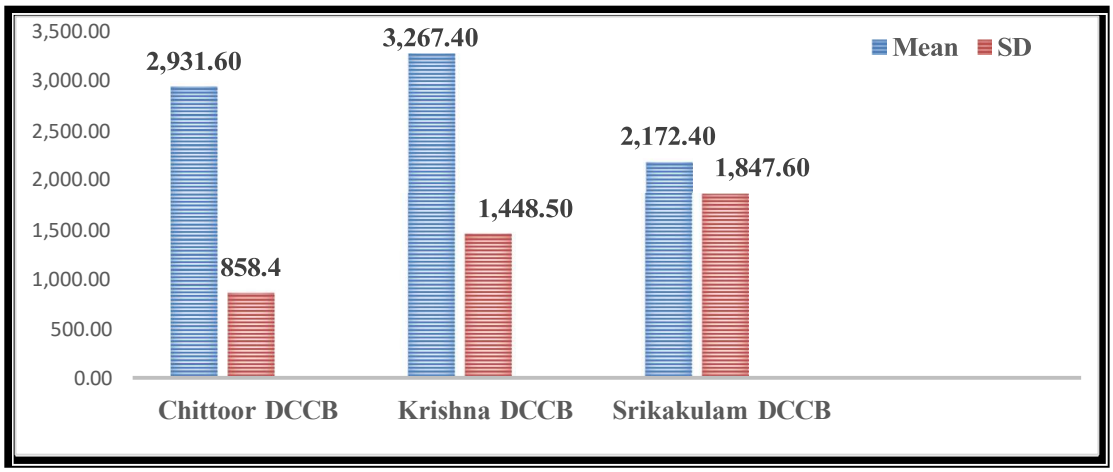
Table :2

Statement of Net NPAs and their Trend of Sample DCCBs

₹ in lakh

Years	Chittoor DCCB		Krishna DCCB		Srikakulam DCCB	
	₹	Trend %	₹	Trend %	₹	Trend %
2012-13	1,810		1,377		432	
2013-14	3,602	99.00	2,131	54.81	446	3.21
2014-15	2,945	-18.26	3,979	86.71	446	0.00
2015-16	1,930	-34.46	1,784	-55.17	833	86.76
2016-17	1,735	-10.08	2,207	23.70	1,442	73.10
2017-18	3,341	92.51	2,461	11.53	1,897	31.59
2018-19	3,287	-1.60	4,009	62.90	4,416	132.78
2019-20	2,862	-12.94	4,956	23.62	5,695	28.97
2020-21	4,293	50.02	4,216	-14.94	2,661	-53.27
2021-22	3,511	-18.22	5,555	31.77	3,456	29.85
Mean (₹)	2,931.6		3,267.4		2,172.4	
SD (₹)	858.4		1,448.5		1,847.6	
CV (%)	29.3		44.3		85.0	
CAGR %)	6.8		15.0		23.1	

Source: Computed from Secondary Data



Overall Trend:

The data shows that the advances of the three District Cooperative Central Banks (DCCBs) have been increasing over the years, with some fluctuations.

DCCB-wise Trend:

1. **Chittoor DCCB:** The advances of Chittoor DCCB have shown a moderate growth rate, with a Compound Annual Growth Rate (CAGR) of 6.8%. The highest amount of advances was recorded in 2020-21, with a value of ₹4,293 lakhs.
2. **Krishna DCCB**: The advances of Krishna DCCB have shown a high growth rate, with a CAGR of 15.0%. The highest amount of advances was recorded in 2021-22, with a value of ₹5,555 lakhs.
3. **Srikakulam DCCB**: The advances of Srikakulam DCCB have shown a very high growth rate, with a CAGR of 23.1%. The highest amount of advances was recorded in 2019-20, with a value of ₹5,695 lakhs.

Key Observations:

1. The advances of all three DCCBs have been increasing over the years, indicating a growing demand for credit in the rural areas.
2. The Krishna DCCB has the highest mean value of advances, followed by Chittoor DCCB and Srikakulam DCCB.

3. The Srikakulam DCCB has the highest growth rate of advances, indicating a high demand for credit in the district.

4. The advances of all three DCCBs have shown high volatility, with a high coefficient of variation (CV) ranging from 29.3% to 85.0%.

Recommendations:

1. The DCCBs should continue to focus on providing credit to the rural areas, as there is a growing demand for credit in these areas.

2. The DCCBs should also focus on improving their recovery mechanisms, as the high growth rate of advances may lead to an increase in non-performing assets (NPAs).

3. The regulatory authorities should closely monitor the advances of the DCCBs and take corrective action to prevent any adverse effects on the rural economy.

4. The government should provide support to the DCCBs to help them meet the growing demand for credit in the rural areas.

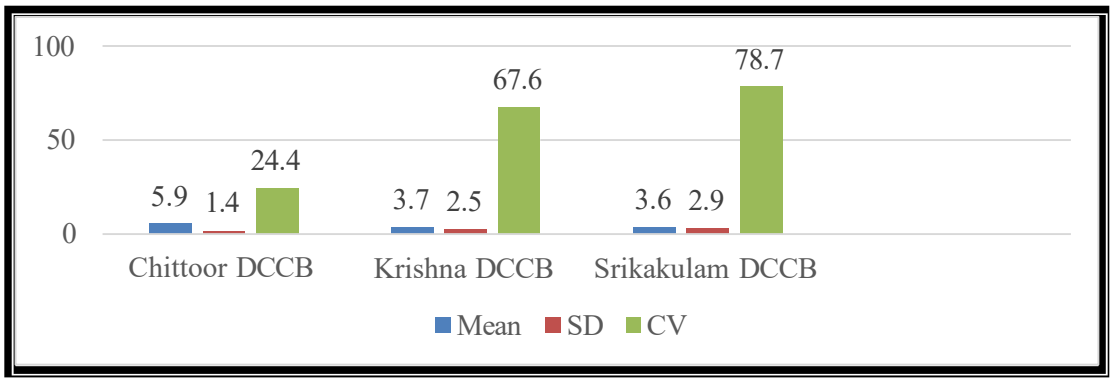
Table No:3

Statement of Gross NPA to Total Advances Ratio of Sample DCCBs

%

Years	Chittoor DCCB	Krishna DCCB	Srikakulam DCCB
2012-13	7.89	3.34	10.41
2013-14	4.12	5.77	0.70
2014-15	4.19	9.92	0.70
2015-16	5.10	2.04	5.23
2016-17	7.54	1.84	3.28
2017-18	6.94	2.00	2.96
2018-19	7.19	2.89	1.47
2019-20	5.80	3.06	4.01
2020-21	5.82	2.64	2.64
2021-22	4.35	3.01	5.10
Mean	5.9	3.7	3.6
SD	1.4	2.5	2.9
CV	24.4	67.6	78.7

Source: Computed from Secondary Data



Trend Analysis

1. The ratio for Chittoor DCCB has fluctuated over the years, with a high of 7.89% in 2012-13 and a low of 4.12% in 2013-14. The mean ratio for Chittoor DCCB is 5.9%, with a standard deviation (SD) of 1.4 and a coefficient of variation (CV) of 24.4%.

2. The Krishna DCCB has shown a more volatile trend, with a high of 9.92% in 2014-15 and a low of 1.84% in 2016-17. The mean ratio for Krishna DCCB is 3.7%, with an SD of 2.5 and a CV of 67.6%.

3. The Srikakulam DCCB has also shown fluctuations, with a high of 10.41% in 2012-13 and a low of 0.70% in 2013-14. The mean ratio for Srikakulam DCCB is 3.6%, with an SD of 2.9 and a CV of 78.7%.

Interpretation

A higher Gross NPA to Total Advances Ratio indicates a higher proportion of non-performing assets, which can be a cause for concern. The ratios for all three DCCBs have fluctuated over the years, indicating some volatility in their asset quality.

The mean ratios for the three DCCBs are relatively close, ranging from 3.6% to 5.9%. However, the SD and CV values indicate that the ratios for Krishna DCCB and Srikakulam DCCB are more volatile than that of Chittoor DCCB.

Overall, the data suggests that the asset quality of the three DCCBs has been somewhat volatile over the years, with some fluctuations in their Gross NPA to Total Advances Ratios.

It's worth noting that the RBI has reported a decline in the gross NPA ratio of banks to 2.8% as of March 2024, which is a 12-year low [1]. However, the NPA ratios of the three DCCBs are higher than this average, indicating some concerns about their asset quality.

Net NPA to Total Advances Ratio

Net NPA refers to the result of gross NPA minus doubtful debt provisions and unpaid debts. In order to understand the proportion of net NPA to total advances, the ratio of Net NPAs to Total Advances ratio was calculated by using the following formula and the results are presented in the following table.

Table No: 4

Statement of Net NPA to Total Advances Ratio of Sample DCCBs

%

Years	Chittoor DCCB	Krishna DCCB	Srikakulam DCCB
2012-13	3.92	0.95	3.00
2013-14	5.22	1.77	0.76
2014-15	4.93	3.81	0.76
2015-16	2.51	0.75	2.39
2016-17	1.73	0.75	2.45
2017-18	3.24	0.89	2.58
2018-19	2.80	1.33	2.54
2019-20	1.65	1.37	4.86
2020-21	2.27	1.01	2.14
2021-22	1.48	1.14	3.14
Mean	3.0	1.4	2.5
SD	1.3	0.9	1.2
CV	45.0	66.2	47.7

Source: Computed from Secondary Data

Trend Analysis

- ❖ The Net NPA to Total Advances Ratio of Chittoor DCCB has fluctuated over the years, with a high of 5.22% in 2013-14 and a low of 1.48% in 2021-22. The mean ratio for Chittoor DCCB is 3.0%, with a standard deviation (SD) of 1.3 and a coefficient of variation (CV) of 45.0%.
- ❖ The Krishna DCCB has shown a relatively stable trend, with a high of 3.81% in 2014-15 and a low of 0.75% in 2015-16 and 2016-17. The mean ratio for Krishna DCCB is 1.4%, with an SD of 0.9 and a CV of 66.2%.
- ❖ The Srikakulam DCCB has also shown fluctuations, with a high of 4.86% in 2019-20 and a low of 0.76% in 2013-14 and 2014-15. The mean ratio for Srikakulam DCCB is 2.5%, with an SD of 1.2 and a CV of 47.7%.

Interpretation

A lower Net NPA to Total Advances Ratio indicates better asset quality and lower provisioning requirements. The ratios for all three DCCBs have fluctuated over the years, indicating some volatility in their asset quality. The mean ratios for the three DCCBs are relatively close, ranging from 1.4% to 3.0%. However, the SD and CV values indicate that the ratios for Krishna DCCB and Srikakulam DCCB are more volatile than that of Chittoor DCCB. Overall, the data suggests that the asset quality of the three DCCBs has been somewhat volatile over the years, with some fluctuations in their Net NPA to Total Advances Ratios.

Outcome

- ❖ The outcome of the analysis is that the three DCCBs have different levels of asset quality, with Chittoor DCCB having the highest mean Net NPA to Total Advances Ratio, followed by Srikakulam DCCB and Krishna DCCB.
- ❖ The analysis also suggests that the asset quality of the three DCCBs has been somewhat volatile over the years, with some fluctuations in their Net NPA to Total Advances Ratios. The study recommends that the DCCBs should focus on improving their asset quality by implementing effective credit appraisal and monitoring processes, and by taking proactive measures to recover non-performing assets.

Table No: 5

Statement of Gross NPA to ST Advances Ratio of Sample DCCBs

%

Years	Chittoor DCCB	Krishna DCCB	Srikakulam DCCB
2012-13	9.58	4.10	10.92
2013-14	4.30	8.02	0.72
2014-15	4.29	12.00	0.72
2015-16	5.36	4.17	5.69
2016-17	7.60	2.36	3.63
2017-18	7.00	3.14	3.42
2018-19	7.51	4.07	1.61
2019-20	6.28	5.14	4.26
2020-21	6.13	3.81	3.05
2021-22	4.62	4.78	6.66
Mean	6.3	5.2	4.1
SD	1.7	2.8	3.1
CV	27.2	54.9	76.2

Source: Computed from Secondary Data

The Gross NPA to ST Advances Ratio of the sample DCCBs (District Cooperative Central Banks) reveals some interesting trends. The mean ratio for Chittoor DCCB is 6.3%, with a standard deviation (SD) of 1.7 and a coefficient of variation (CV) of 27.2%. Krishna DCCB has a mean ratio of 5.2%, with an SD of 2.8 and a CV of 54.9%. Srikakulam DCCB has the lowest mean ratio of 4.1%, with an SD of 3.1 and a CV of 76.2%.

These ratios indicate that the asset quality of the DCCBs has been somewhat volatile over the years. The high CV values for Krishna DCCB and Srikakulam DCCB indicate that their ratios have been more volatile than that of Chittoor DCCB. In comparison, the gross NPA ratio of commercial banks in India has fallen to a 12-year low of 2.8% as of March 2024 [1]. This suggests that the DCCBs have a higher proportion of non-performing assets compared to commercial banks.

Gross NPA to MT Loans Ratio

In order to understand the position of NPAs in terms of gross NPA on medium term advances, the ratio of gross NPA to medium term advances are calculated by using the formula.

$$\text{Gross NPA to Medium term Advances Ratio} = \frac{\text{Gross NPA}}{\text{Medium term Advances}}$$

Table No: 6

Statement of Gross NPA to MT Loans Advances of Sample DCCBs

Years	Chittoor DCCB	Krishna DCCB	Srikakulam DCCB
2012-13	3.37	36.66	68.14
2013-14	4.42	113.92	6.11
2014-15	10.97	34.42	6.11
2015-16	16.48	0.36	140.23
2016-17	84.03	0.09	0.69
2017-18	76.12	0.06	0.27
2018-19	153.48	0.10	NA
2019-20	36.19	0.08	1.85

2020-21	67.53	0.09	1.31
2021-22	469.09	0.08	1.21
Mean	92.2	18.6	22.59
SD	140.6	36.6	46.3
CV	152.5	196.9	204.9

Source: Computed from Secondary Data

The Gross NPA to MT Loans Advances Ratio of the sample DCCBs (District Cooperative Central Banks) reveals some alarming trends.

Trend Analysis

The mean ratio for Chittoor DCCB is 92.2%, with a standard deviation (SD) of 140.6 and a coefficient of variation (CV) of 152.5%. This indicates a high level of volatility in the ratio over the years. Krishna DCCB has a mean ratio of 18.6%, with an SD of 36.6 and a CV of 196.9%. Srikakulam DCCB has a mean ratio of 22.59%, with an SD of 46.3 and a CV of 204.9%.

Interpretation

A high Gross NPA to MT Loans Advances Ratio indicates a high proportion of non-performing assets, which can be a cause for concern. The ratios for all three DCCBs have been highly volatile over the years, indicating significant fluctuations in their asset quality. The high CV values for all three DCCBs indicate that their ratios have been highly volatile over the years. This suggests that the DCCBs have been facing significant challenges in managing their non-performing assets.

Outcome

The outcome of the analysis is that the three DCCBs have significant differences in their Gross NPA to MT Loans Advances Ratios, with Chittoor DCCB having the highest mean ratio. The high volatility in the ratios over the years indicates significant challenges in managing non-performing assets. The study recommends that the DCCBs should focus on improving their asset quality by implementing effective credit appraisal and monitoring processes, and by taking proactive measures to recover non-performing assets.

Gross NPA to Other Advances Ratio

Gross NPA to other advances ratio shows the proportion of gross NPA on other type of loans for the selected DCCBs. The ratio of gross NPA to other loans was calculated by using the following formula. The results are given in the following table.

$$\text{Gross NPA to Other Advances Ratio} = \frac{\text{Gross NPA}}{\text{Other Advances}}$$

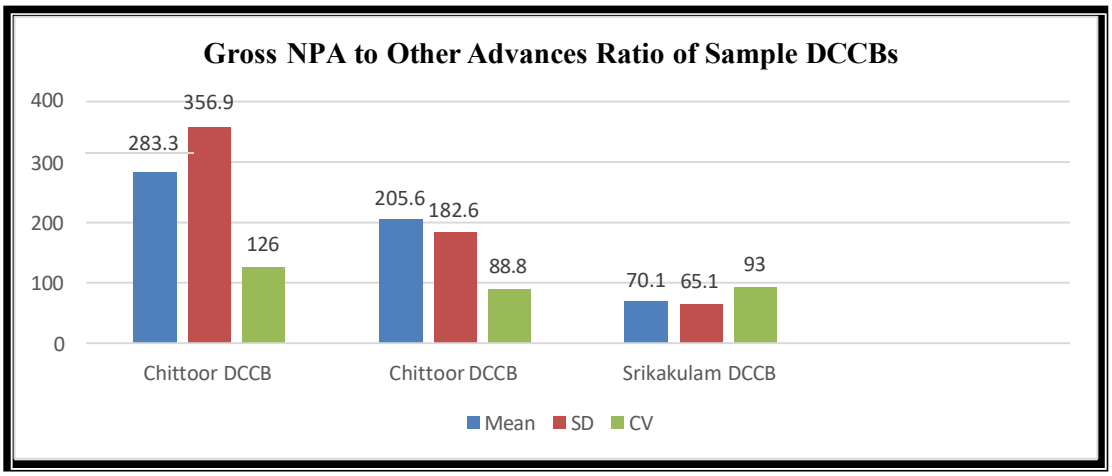
Table No:7

Statement of Gross NPA to Other Advances Ratio of Sample DCCBs

%

Years	Chittoor DCCB	Krishna DCCB	Srikakulam DCCB
2012-13	51.34	18.07	228.85
2013-14	125.70	20.60	30.66
2014-15	197.17	58.24	30.66
2015-16	114.97	4.52	64.83
2016-17	1017.90	309.99	64.40
2017-18	887.77	86.79	104.72
2018-19	171.33	365.53	16.03
2019-20	76.80	458.04	110.49
2020-21	115.85	397.88	23.62
2021-22	74.46	336.37	26.39
Mean	283.3	205.6	70.1
SD	356.9	182.6	65.1
CV	126.0	88.8	93.0

Source: Computed from Secondary Data



The Gross NPA to Other Advances Ratio of the sample DCCBs (District Cooperative Central Banks) reveals some alarming trends.

Trend Analysis

The mean ratio for Chittoor DCCB is 283.3%, with a standard deviation (SD) of 356.9 and a coefficient of variation (CV) of 126.0%. This indicates a high level of volatility in the ratio over the years. Krishna DCCB has a mean ratio of 205.6%, with an SD of 182.6 and a CV of 88.8%. Srikakulam DCCB has a mean ratio of 70.1%, with an SD of 65.1 and a CV of 93.0%.

Interpretation

A high Gross NPA to Other Advances Ratio indicates a high proportion of non-performing assets, which can be a cause for concern. The ratios for all three DCCBs have been highly volatile over the years, indicating significant fluctuations in their asset quality. The high CV values for all three DCCBs indicate that their ratios have been highly volatile over the years. This suggests that the DCCBs have been facing significant challenges in managing their non-performing assets.

Outcome

The outcome of the analysis is that the three DCCBs have significant differences in their Gross NPA to Other Advances Ratios, with Chittoor DCCB having the highest mean ratio. The high volatility in the ratios over the years indicates significant challenges in managing non-performing assets. The study recommends that the DCCBs should focus on improving their asset quality by implementing effective credit appraisal and monitoring processes, and by taking proactive measures to recover non-performing assets. The study also suggests that the DCCBs should consider implementing the following measures to reduce their non-performing assets:

- ❖ Improving credit appraisal and monitoring processes
- ❖ Enhancing recovery mechanisms
- ❖ Providing training to staff on credit management
- ❖ Implementing a robust risk management framework

By implementing these measures, the DCCBs can reduce their non-performing assets and improve their overall financial health.

6. FINDINGS:

Gross Non-Performing Assets (NPA)

- ❖ Krishna DCCB had the largest gross NPA, followed by Chittoor DCCB. However, Srikakulam DCCB's gross NPA grew at a faster pace (CAGR: 14.1%).
- ❖ Srikakulam DCCB's net NPA growth rate was higher (CAGR: 23.1%) than the other DCCBs.

Gross NPA to Total Advances Ratio

- ❖ Chittoor DCCB's ratio was 5.9%, indicating inefficient collection management and lack of loan application scrutiny.
- ❖ Krishna DCCB's ratio was moderate, ranging from 1.84 to 9.92%.
- ❖ Srikakulam DCCB's ratio fluctuated between 0.70% and 10.41%.

Net NPA to Total Advances Ratio

- ❖ Chittoor DCCB's ratio was high, indicating inefficient collection management and lack of proper loan scrutinization.
- ❖ Krishna DCCB's ratio was low, suggesting higher provisions for bad debts and potential write-off of advances.
- ❖ Srikakulam DCCB's ratio fluctuated between 0.76-3%.

Gross NPA to Short-Term Advances Ratio

- ❖ Chittoor DCCB had a higher ratio, with the highest ratio between 2012-13 and 2016-17 to 2020-21.
- ❖ Krishna DCCB had a moderate ratio.

Gross NPA to Medium-Term Advances Ratio

- ❖ Chittoor DCCB had a higher ratio (92.2) compared to other DCCBs.
- ❖ Krishna DCCB had a lower ratio.

Gross NPA to Other Advances Ratio

- o Chittoor DCCB had the highest range (51.34%-1017.90%).
- o Krishna DCCB's ratio fluctuated significantly (205.6, 182.6%, 88.8%).
- o Srikakulam DCCB's ratio (160.3%-110.49%) was lower (70.1%).

7. Suggestions for Improvement

1. **Enhance Credit Appraisal Mechanisms**: Krishna DCCB, Chittoor DCCB, and Srikakulam DCCB should enhance credit appraisal mechanisms, implement NPA management strategies, and consider restructuring loans for borrowers facing financial difficulties.
2. **Strengthen Risk Management:** Srikakulam DCCB should increase bad loan provisions, strengthen risk management, implement a robust NPA recovery strategy, invest in advanced credit monitoring systems, revise the credit appraisal process, enhance customer engagement, and explore strategic partnerships with financial experts.
3. **Improve Collection Management:** Chittoor DCCB should enhance collection management to decrease Gross NPA to total advances ratio, while Srikakulam DCCB should monitor Gross NPA ratios, adopt proactive communication, strengthen risk management, and improve credit monitoring systems.
4. **Implement Robust Risk Management Practices:** Chittoor DCCB should improve its collection management strategies, including specialized recovery teams, automated systems, regular follow-ups, loan appraisals, bad debt provisions, risk management, loan restructuring, staff training, and open communication with borrowers.
5. **Leverage Technology for Loan Tracking and Recovery Management**: Chittoor and Krishna DCCBs should improve credit appraisal processes, diversify loan portfolios, intensify recovery efforts, adopt robust risk management practices, strengthen staff training, engage with borrowers, and leverage technology for loan tracking and recovery management.

The study's key findings reveal that:

- ❖ Krishna DCCB has the largest gross non-performing asset (NPA), followed by Chittoor DCCB. However, Srikakulam DCCB's NPA growth rate is the highest (CAGR: 23.1%), potentially leading to more bad debts.
- ❖ Chittoor DCCB's Gross NPA to total advances ratio is 5.9%, indicating inefficient collection management and lack of loan application scrutiny.
- ❖ Krishna DCCB's Gross NPA to total advances ratio is moderate, with a 3.7% ratio, while Srikakulam DCCB's ratio fluctuates significantly.
- ❖ Chittoor DCCB has a higher Gross NPA to short-term advances ratio, while Krishna DCCB has a moderate ratio.
- ❖ All other DCCBs have high Gross NPA to other advances ratios.

These findings suggest that the DCCBs need to improve their credit appraisal processes, enhance collection management, and strengthen risk management practices to mitigate the risk of non-performing assets.

8. CONCLUSION:

The study on Non-Performing Assets (NPAs) of District Cooperative Central Banks (DCCBs) in Andhra Pradesh reveals several key findings. Krishna DCCB has the largest gross NPA, followed by Chittoor DCCB. Srikakulam DCCB's NPA

growth rate is the highest (CAGR: 23.1%), potentially leading to more bad debts [1]. Chittoor DCCB's Gross NPA to total advances ratio is 5.9%, indicating inefficient collection management and lack of loan application scrutiny. The study highlights regional variations in NPA levels, with Rayalaseema, Coastal, and North Andhra districts showing different trends. To mitigate the risk of NPAs, DCCBs should enhance credit appraisal processes, improve collection management, and strengthen risk management practices. Implementing robust risk management practices, such as regular audits and stress testing, can also help identify potential NPAs early on. **Future studies can focus on analysing the impact of NPAs on the financial performance of DCCBs and exploring strategies to improve asset quality.**

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