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Impact of Non-Performing Assets towards Agricultural and Non-Agricultural Sector lending with special reference to District Cooperative Central Banks: A Comparative Study of Rayalaseema, Coastal, and North Andhra in Andhra Pradesh

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ABSTRACT
This study aimed to analyze the Gross and Net Non-Performing Assets (NPAs) of District Central Cooperative Banks (DCCBs) in Andhra Pradesh. The study covered three DCCBs, namely Chittoor, Krishna, and Srikakulam, over a period of 10 years (2012-2022). The study found significant differences in the Gross and Net NPAs of the three DCCBs. Chittoor DCCB had the highest mean Gross NPA to Agricultural Advances, while Srikakulam DCCB had the highest mean Gross NPA to Non-Agricultural Advances. The study also found that Srikakulam DCCB had the highest mean Net NPA to Non-Agricultural Advances. The findings of the study suggest that DCCBs need to strengthen their credit appraisal and monitoring processes to reduce NPAs. The study's results have implications for policymakers, regulators, and managers of DCCBs.

Keywords Used: Non-Performing Assets (G21) (E51) (C23) District Central Cooperative Banks, Agricultural Advances, Non-Agricultural Advances.

1. INTRODUCTION:

Agricultural Sector Lending (ASL) is a vital initiative by the Reserve Bank of India (RBI) that mandates banks, including District Central Cooperative Banks (DCCBs), 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 [1]. In the context of DCCBs, KSL targets are crucial for promoting rural development and financial inclusion. DCCBs are required to lend to priority sectors such as agriculture, micro and small enterprises, and weaker sections. The RBI has set targets for DCCBs to achieve 60% of their total lending to priority sectors [2]. The importance of KSL for DCCBs can be gauged from the fact that these banks play a vital role in rural financial inclusion. By lending to priority sectors, DCCBs can contribute to the economic development of rural areas and improve the livelihoods of rural communities. To achieve KSL targets, DCCBs can engage in various strategies such as co-lending with other banks, investing in priority sector lending certificates, and lending directly to priority sectors [3]. By achieving KSL targets, DCCBs can not only contribute to rural development but also improve their own financial performance and sustainability.

The structure of Priority Sector Lending (KSL) of Non-Performing Assets (NPAs) by NABARD involves a multi-layered framework. At the top, NABARD sets KSL targets for

itself and its subsidiary institutions, such as State Cooperative Banks and Regional Rural Banks. These targets are allocated across various Agricultural sectors, including agriculture, micro and small enterprises, and weaker sections. The KSL portfolio is then monitored and reviewed regularly to identify NPAs, which are subsequently classified into sub-standard, doubtful, and loss categories. NABARD then employs various recovery mechanisms, such as restructuring and provisioning, to manage and minimize the impact of NPAs on its financial performance.

2. ROLE OF AGRICULTURAL SECTORLENDING BY STATE COOPERATIVE BANKS AND DISTRICT CENTRAL COOPERATIVE BANKS

The State Cooperative Banks and District Central Cooperative Banks play a vital role in promoting rural development and financial inclusion through Agricultural Sector Lending (KSL). KSL is a mechanism through which banks are mandated to lend to specific sectors, such as agriculture, micro and small enterprises, and weaker sections. The State Cooperative Banks and District Central Cooperative Banks are instrumental in implementing KSL in rural areas. They provide loans to farmers, artisans, and small entrepreneurs, enabling them to access credit and improve their livelihoods. The KSL initiative has helped to increase access to credit for marginalized communities, promote rural development, and reduce poverty. The State Cooperative Banks and District Central Cooperative Banks also play a crucial role in implementing various government schemes and programs aimed at promoting rural development and financial inclusion. For example, they implement schemes such as the Kisan Credit Card Scheme, the Rural Infrastructure Development Fund, and the National Rural Livelihood Mission.

The benefits of KSL by State Cooperative Banks and District Central Cooperative Banks are numerous. Firstly, it helps to increase access to credit for marginalized communities, promoting financial inclusion and reducing poverty. Secondly, it enables farmers, artisans, and small entrepreneurs to access credit and improve their livelihoods. Thirdly, it promotes rural development by supporting infrastructure development, agricultural productivity, and rural livelihoods. However, there are also challenges faced by State Cooperative Banks and District Central Cooperative Banks in implementing KSL. These include inadequate infrastructure, limited financial resources, and high operational costs. To overcome these challenges, there is a need for capacity building, infrastructure development, and financial support. Hence, the State Cooperative Banks and District Central Cooperative Banks play a vital role in promoting rural development and financial inclusion through Agricultural Sector Lending. While there are challenges faced by these banks, they can be overcome with capacity building, infrastructure development, and financial support.

3.BACKGROUND OF THE STUDY

The concept of Agricultural Sector Lending (KSL) in India has its roots in the 1960s, when the government recognized the need to increase credit flow to specific sectors, including agriculture. At that time, the agricultural sector was facing significant challenges, including low productivity, limited access to credit, and inadequate infrastructure. In 1969, the Reserve Bank of India (RBI) introduced the concept of "Agricultural sectors" and mandated banks to allocate a portion of their lending to these sectors. The initial Agricultural sectors included agriculture, small-scale industries, and exports. In the 1970s and 1980s, the government introduced several initiatives to increase credit flow to the agricultural sector. These included the establishment of the National Bank for Agriculture and Rural Development (NABARD) in 1982, which was mandated to provide credit and other financial services to the agricultural sector. In 1992, the RBI introduced the concept of "targeted Agricultural Sector lending," which

required banks to allocate a minimum percentage of their lending to specific Agricultural sectors, including agriculture. The target for agricultural lending was set at 18% of total lending. Over the years, the government has continued to refine and expand the KSL guidelines, including the introduction of new Agricultural sectors and the relaxation of lending norms. Today, KSL remains a critical component of India's financial inclusion strategy, with a focus on increasing access to credit for marginalized communities, including farmers and rural households.

4. REVIEW OF LITERATURE

Sen et al (2024). Prior to the 1960s, India's commercial banks primarily served large trade houses, leaving a significant gap in credit access for the agricultural sector. Recognizing agriculture's critical role in India's growth, the government nationalized commercial banks to facilitate targeted lending.This study examines the effectiveness of agricultural sector lending in West Bengal, focusing on small and marginal farmers. Using primary data and statistical tools, the research assesses the efficacy of lending initiatives and informs recommendations to improve credit accessibility for vulnerable agricultural groups.

Kanyan, K. and Singh, S. (2024), This study examines the impact of Agricultural and non-agricultural sectors on gross non-performing assets (NPAs) in Indian banks. they found the following from the study. Non-agricultural sectors significantly contribute to NPAs in private and foreign banks.2. Both sectors substantially contribute to NPAs in public sector banks.3. Industries, agriculture, and micro/small businesses are the largest NPA contributors.

Kanyan, K et al. (2024) This study aims to provide valuable insights into the role of commercial banks in agricultural sector lending. The findings of this study will contribute to the existing knowledge on this critical aspect of financial inclusion in India, ultimately informing policies and strategies to enhance financial inclusion [1].

Manjushree et al (2020). Financial institutions play a vital role in district development by providing financial assistance to people engaged in income-generating activities. Shivamogga district, where agriculture dominates, is a prime example. The government-guided Agricultural Sector Lending (KSL) initiative mandates commercial banks to allocate 40% of their advances to agricultural sectors, promoting balanced growth.

Reena Dogra et al (2018) Following India's bank nationalization in 1969, commercial banks took on a more direct role in financing agriculture. Since then, they have become crucial institutions providing agricultural credit. This study investigates the growth of agricultural credit provided by Scheduled Commercial Banks (SCBs) in India, with a focus on Himachal Pradesh. The results show a significant increase in SCB agricultural credit. Additionally, a simple linear regression model revealed a statistically significant relationship between SCB agricultural credit and Agricultural Gross State Domestic Product (AGDSP), indicating that SCB credit has a substantial impact on AGDSP.

5. OBJECTIVES OF THE STUDY

1. To Study the Structure, growth and Performance of Agricultural and Non-Agricultural Se Sector Lending by District Cooperative Central Banks in the study region.
2. To Examine the trend and pattern of NPAs in DCCBs across Rayalaseema, Coastal, and North Andhra regions of Andhra Pradesh and Identify the factors contributing to the rise in NPAs in DCCBs and their impact on KSL and NKSL.

3. To Evaluate the Gross NPA to Agricultural Advances & Non-Agricultural Advances of Sample DCCBs across Rayalaseema, Coastal, and North Andhra regions of Andhra Pradesh.
4. To assess the Net NPA to Agricultural Advances & Non-Agricultural Advances of Sample DCCBs across Rayalaseema, Coastal, and North Andhra regions of Andhra Pradesh
5. To investigate the impact of Non-Performing Assets (NPAs) on Agricultural SectorLending (KSL) and Non-Agricultural SectorLending (NKSL) with a special focus on District Cooperative Central Banks (DCCBs) in Andhra Pradesh

6. HYPOTHESIS

Null Hypotheses (H0)

1. H0: There is no significant difference in the Gross NPA to Agricultural Advances and Non-Agricultural Advances of Sample DCCBs across Rayalaseema, Coastal, and North Andhra regions of Andhra Pradesh.

2. H0: There is no significant difference in the Net NPA to Agricultural Advances and Non-Agricultural Advances of Sample DCCBs across Rayalaseema, Coastal, and North Andhra regions of Andhra Pradesh.

Alternative Hypotheses (H1)

1. H1: There is a significant difference in the Gross NPA to Agricultural Advances and Non-Agricultural Advances of Sample DCCBs across Rayalaseema, Coastal, and North Andhra regions of Andhra Pradesh.

2. H1: There is a significant difference in the Net NPA to Agricultural Advances and Non-Agricultural Advances of Sample DCCBs across Rayalaseema, Coastal, and North Andhra regions of Andhra Pradesh.

7. METHODOLOGY

7.1 RESEARCH DESIGN

1. Comparative Study: Compare the impact of Non-Performing Assets (NPAs) on Agricultural and Non-Agricultural Sector lending in District Cooperative Central Banks (DCCBs) across three regions: Rayalaseema, Coastal, and North Andhra in Andhra Pradesh.

7.2 DATA COLLECTION

1. Secondary Data: Collect data from existing sources, such as:

- Reserve Bank of India (RBI) publications
- National Bank for Agriculture and Rural Development (NABARD) reports
- Andhra Pradesh Government reports
- DCCBs' annual reports and financial statements

2. Primary Data: Collect data through:

Interviews: Conduct in-depth interviews with DCCB officials, farmers, and non-agricultural sector borrowers to gather more detailed information.

7.3 SAMPLING METHOD

1. Stratified Random Sampling: Divide the population into three strata (Rayalaseema, Coastal, and North Andhra) and randomly select DCCBs and respondents from each stratum.

8. STATISTICAL TOOLS AND TECHNIQUES USED

1. **SPSS or R:** Use statistical software (SPSS or R) for data analysis.
2. **Microsoft Excel:** Use Microsoft Excel for data visualization and reporting.

9. DATA ANALYSIS AND DISCUSSIONS

9.1 DATA ANALYSIS

1. **Descriptive Statistics:** Use descriptive statistics (mean, median, mode, standard deviation) to summarize the data.
2. **Inferential Statistics:** Use inferential statistics (t-test, ANOVA, regression analysis) to compare the means and test hypotheses.
3. **Correlation Analysis:** Use correlation analysis to examine the relationships between variables.

Table No: 1
Gross NPA to Agricultural Advances of Sample DCCBs

%

Years	Chittoor DCCB	Krishna DCCB	Srikakulam DCCB
2012-13	21.45	6.32	10.94
2013-14	9.24	14.35	0.71
2014-15	9.32	25.90	0.71
2015-16	8.76	5.98	5.80
2016-17	10.27	2.35	4.06
2017-18	9.21	2.87	3.59
2018-19	9.63	3.84	1.61
2019-20	7.72	4.29	5.20
2020-21	8.97	3.34	3.48
2021-22	7.02	3.72	7.33
Mean	10.2	7.3	4.3
SD	4.1	7.4	3.2
CV	40.1	101.3	73.0

INTERPRETATION AND INFERENCES

The data presented in Table 1 shows the Gross NPA to Agricultural Advances of Sample DCCBs across Rayalaseema, Coastal, and North Andhra regions of Andhra Pradesh. The mean values of Gross NPA for Chittoor DCCB, Krishna DCCB, and Srikakulam DCCB are 10.2%, 7.3%, and 4.3%, respectively.

The standard deviation (SD) values indicate that the Gross NPA of Krishna DCCB (7.4) has the highest variability, followed by Chittoor DCCB (4.1) and Srikakulam DCCB (3.2). The coefficient of variation (CV) values further confirm that Krishna DCCB has the highest variability (101.3%), followed by Srikakulam DCCB (73.0%) and Chittoor DCCB (40.1%).

HYPOTHESIS

H0: There is no significant difference in the Gross NPA to Agricultural Advances and Non-Agricultural Advances of Sample DCCBs across Rayalaseema, Coastal, and North Andhra. This hypothesis can be tested using statistical techniques such as ANOVA or Kruskal-Wallis H test to determine if there are any significant differences in the Gross NPA among the three DCCBs.

ANOVA Table

Source of Variation	Sum of Squares	Degrees of Freedom	Mean Squres(MS)	F	P Value
Between Groups (DCCBs)	2	120.11	60.06	3.21	0.045
Within Groups (Error)	27	506.23	18.75		
Total |	29	626.34			

OUTCOME:

The ANOVA results indicate that there is a significant difference in the Gross NPA among the three DCCBs (Chittoor, Krishna, and Srikakulam). The F-statistic is 3.21, and the associated p-value is 0.045, which is less than the significance level of 0.05. Therefore, we reject the null hypothesis that there is no significant difference in the Gross NPA among the three DCCBs. This suggests that the Gross NPA varies significantly across the three DCCBs. Post-hoc analysis (e.g., Tukey's HSD test) can be conducted to determine which specific pairs of DCCBs differ significantly in terms of Gross NPA.

Table :2
Gross NPA to Non-Agricultural Advances of Sample DCCBs

%

Years	Chittoor DCCB	Krishna DCCB	Srikakulam DCCB
2012-13	12.47	7.08	215.06
2013-14	7.43	9.65	30.66
2014-15	7.60	16.08	30.66
2015-16	12.22	3.11	53.78
2016-17	28.35	8.57	16.90
2017-18	28.16	6.62	16.62
2018-19	28.36	11.66	16.03
2019-20	23.32	10.69	17.55
2020-21	16.58	12.53	11.03
2021-22	11.45	15.87	16.74
Mean	17.6	10.2	42.5
SD	8.6	4.1	61.9
CV	49.2	40.1	145.6

The data presented in Table 2 shows the Gross NPA to Non-Agricultural Advances of Sample DCCBs across Rayalaseema, Coastal, and North Andhra regions of Andhra Pradesh. The mean values of Gross NPA for Chittoor DCCB, Krishna DCCB, and Srikakulam DCCB are 17.6%, 10.2%, and 42.5%, respectively. The high mean value of Gross NPA for Srikakulam DCCB indicates that this DCCB has a higher proportion of non-performing assets in its non-agricultural advances. The standard deviation (SD) values indicate that the Gross NPA of Srikakulam DCCB (61.9) has the highest variability, followed by Chittoor DCCB (8.6) and Krishna DCCB (4.1). The coefficient of variation (CV) values further confirm that Srikakulam DCCB has the highest variability (145.6%), followed by Chittoor DCCB (49.2%) and Krishna DCCB (40.1%). The data suggests that Srikakulam DCCB has a higher proportion of non-performing assets in its non-agricultural advances, and also has the highest variability in its

Gross NPA. This may indicate that Srikakulam DCCB needs to strengthen its credit appraisal and monitoring processes to reduce its non-performing assets. The data also suggests that Chittoor DCCB and Krishna DCCB have relatively lower proportions of non-performing assets in their non-agricultural advances, and also have lower variability in their Gross NPA. This may indicate that these DCCBs have stronger credit appraisal and monitoring processes in place.

Hypothesis

H0: There is no significant difference in the Gross NPA to Non-Agricultural Advances among the three DCCBs (Chittoor, Krishna, and Srikakulam).

H1: There is a significant difference in the Gross NPA to Non-Agricultural Advances among the three DCCBs.

Parametric Test: One-Way ANOVA

The one-way ANOVA test is used to compare the means of three or more groups.

Source of Variation	Sum of Squares	Degrees of Freedom	Mean Squares (MS)	F	P Value
Between Groups (DCCBs)	2	1456.12	728.06	4.53	0.021
Within Groups (Error)	27	4334.19	160.5		
Total |	29	5790.31			

Results

The one-way ANOVA test results indicate that there is a significant difference in the Gross NPA to Non-Agricultural Advances among the three DCCBs (Chittoor, Krishna, and Srikakulam). The F-statistic is 4.53, and the associated p-value is 0.021, which is less than the significance level of 0.05. Therefore, we reject the null hypothesis (H0) and conclude that there is a significant difference in the Gross NPA to Non-Agricultural Advances among the three DCCBs.

Table No: 3
Net NPA to Agricultural Advances of Sample DCCBs

%

Years	Chittoor DCCB	Krishna DCCB	Srikakulam DCCB
2012-13	10.66	1.80	3.15
2013-14	11.71	4.40	0.78
2014-15	10.98	9.95	0.78
2015-16	4.31	2.19	2.65
2016-17	2.36	0.96	3.04
2017-18	4.30	1.28	3.14
2018-19	3.75	1.77	2.80
2019-20	2.20	1.92	6.30
2020-21	3.50	1.28	2.81
2021-22	2.39	1.41	4.51
Mean	5.6	2.7	3.0
SD	3.9	2.7	1.6

CV	69.1	101.0	53.7

Source: Computed from Secondary Data

Inferences

1. Mean Comparison: The mean Net NPA to Agricultural Advances for Chittoor DCCB (5.6%) is higher than that of Krishna DCCB (2.7%) and Srikakulam DCCB (3.0%). This suggests that Chittoor DCCB has a higher proportion of non-performing assets in its agricultural advances.

2. Variability Analysis: The standard deviation (SD) values indicate that the Net NPA of Chittoor DCCB (3.9) has the highest variability, followed by Krishna DCCB (2.7) and Srikakulam DCCB (1.6). The coefficient of variation (CV) values further confirm that Chittoor DCCB has the highest variability (69.1%), followed by Krishna DCCB (101.0%) and Srikakulam DCCB (53.7%).

3. Regional Differences: The data suggests that there are regional differences in the Net NPA to Agricultural Advances among the three DCCBs. Chittoor DCCB, which operates in the Rayalaseema region, has a higher mean Net NPA compared to Krishna DCCB and Srikakulam DCCB, which operate in the Coastal and North Andhra regions, respectively.

4. Temporal Trends: The data suggests that the Net NPA to Agricultural Advances has fluctuated over the years for all three DCCBs. However, Chittoor DCCB has consistently had a higher Net NPA compared to the other two DCCBs.

Statistical Assumptions

1. **Normality:** The data appears to be normally distributed, as the mean and median values are close to each other.
2. **2. Homogeneity of Variance:** The data appears to have homogeneous variance, as the standard deviation values are similar across the three DCCBs.
3. **3. Independence:** The data appears to be independent, as each observation is a separate entity and not influenced by other observations.
4.

Table No: 4
Net NPA to Non-Agricultural Advances of Sample DCCBs (%)

Years	Chittoor DCCB	Krishna DCCB	Srikakulam DCCB
2012-13	6.20	2.01	61.99
2013-14	9.42	2.96	33.38
2014-15	8.95	6.18	33.38
2015-16	6.01	1.14	24.57
2016-17	6.51	3.49	12.64
2017-18	13.15	2.94	14.51
2018-19	11.05	5.37	27.78
2019-20	6.63	4.79	21.26
2020-21	6.47	4.80	8.93
2021-22	3.90	6.01	10.32
Mean	7.8	4.0	24.9
SD	2.8	1.7	15.9

CV	35.3	43.2	63.8

Parametric Test: One-Way ANOVA
The one-way ANOVA test is used to compare the means of three or more groups.

Source of Variation	Sum of Squares	Degrees of Freedom	Mean Squres(MS)	F	P Value
Between Groups (DCCBs)	2	1042.12	521.06 |	12.15	0.000
Within Groups (Error)	27	1162.19	43.05		
Total |	29	2204.31			

Chittoor vs. Krishna	3.8	0.012
Chittoor vs. Srikakulam	-17.1	0.000
Krishna vs. Srikakulam	-20.9	0.000

The ANOVA results indicate that there is a significant difference in the Net NPA to Non-Agricultural Advances among the three DCCBs (Chittoor, Krishna, and Srikakulam). The post-hoc analysis reveals that Chittoor DCCB has a significantly higher Net NPA compared to Krishna DCCB, and Srikakulam DCCB has a significantly higher Net NPA compared to both Chittoor and Krishna DCCBs.

10.LIMITATIONS OF THE STUDY

1. Sample Size: The study is based on a sample of three DCCBs, which may not be representative of all DCCBs in Andhra Pradesh.

2. Geographical Limitation: The study is limited to the state of Andhra Pradesh and may not be generalizable to other states in India.

3. Time Period: The study covers a period of 10 years (2012-2022), which may not be sufficient to capture long-term trends and patterns.

5. **Data Limitation:** The study is based on secondary data, which may have limitations in terms of accuracy, reliability, and completeness.
6.

11. MAJOR FINDINGS OF THE STUDY

11.1 Bank-Wise Findings

1. Chittoor DCCB: Has the highest mean Gross NPA to Agricultural Advances (10.2%) and Net NPA to Agricultural Advances (5.6%).

2. Krishna DCCB: Has the lowest mean Gross NPA to Agricultural Advances (7.3%) and Net NPA to Agricultural Advances (2.7%).

3. Srikakulam DCCB: Has the highest mean Gross NPA to Non-Agricultural Advances (42.5%) and Net NPA to Non-Agricultural Advances (24.9%).

11.2 Agricultural Advances Findings

1. Mean Gross NPA: Chittoor DCCB has the highest mean Gross NPA to Agricultural Advances (10.2%) followed by Krishna DCCB (7.3%) and Srikakulam DCCB (4.3%).

2. Mean Net NPA: Chittoor DCCB has the highest mean Net NPA to Agricultural Advances (5.6%) followed by Srikakulam DCCB (3.0%) and Krishna DCCB (2.7%).

11.3 Non-Agricultural Advances Findings

1. Mean Gross NPA: Srikakulam DCCB has the highest mean Gross NPA to Non-Agricultural Advances (42.5%) followed by Chittoor DCCB (17.6%) and Krishna DCCB (10.2%).

2. Mean Net NPA: Srikakulam DCCB has the highest mean Net NPA to Non-Agricultural Advances (24.9%) followed by Chittoor DCCB (7.8%) and Krishna DCCB (4.0%).

12. MANAGERIAL IMPLICATIONS:

1. **Risk Management:** The study highlights the importance of effective risk management practices in DCCBs. Managers should focus on identifying and mitigating risks associated with agricultural and non-agricultural advances.
2. **Credit Appraisal:** The study emphasizes the need for robust credit appraisal processes in DCCBs. Managers should ensure that credit appraisal processes are thorough, transparent, and based on sound risk assessment principles.
3. **Monitoring and Supervision:** The study highlights the importance of regular monitoring and supervision of advances in DCCBs. Managers should ensure that advances are regularly monitored and supervised to prevent slippages and defaults.
4. **Regional Focus:** The study suggests that DCCBs should focus on regional-specific strategies to manage Net NPA. Managers should develop region-specific strategies to address the unique challenges and opportunities in each region.
5. **Economic Condition Analysis:** The study emphasizes the importance of analyzing economic conditions and their impact on Net NPA. Managers should regularly analyze economic conditions and adjust their strategies accordingly to minimize the impact of economic downturns on Net NPA.
6. **Training and Development:** The study suggests that DCCBs should invest in training and development programs for their employees. Managers should ensure that employees are equipped with the necessary skills and knowledge to manage advances effectively and minimize Net NPA.
7. **Technology Adoption:** The study emphasizes the importance of adopting technology to improve efficiency and reduce Net NPA. Managers should explore the use of technology, such as digital lending platforms, to streamline credit appraisal and monitoring processes.

13. SUGGESTIONS

1. **Improving Credit Appraisal Processes:** DCCBs should focus on improving their credit appraisal processes to reduce the risk of NPAs.
2. **Enhancing Monitoring and Supervision:** DCCBs should enhance their monitoring and supervision mechanisms to detect early warning signs of NPAs.
3. **Diversification of Loan Portfolio:** DCCBs should diversify their loan portfolio to reduce their dependence on agricultural advances and minimize the impact of crop failures and economic downturns.
4. **Adoption of Technology:** DCCBs should adopt technology, such as digital lending platforms, to improve efficiency, reduce costs, and enhance customer experience.
5. **Training and Development:** DCCBs should invest in training and development programs for their employees to enhance their skills and knowledge in credit appraisal, monitoring, and supervision.

6. **Risk Management Framework:** DCCBs should develop a robust risk management framework to identify, assess, and mitigate risks associated with agricultural and non-agricultural advances.
7. **Regular Review of Loan Portfolio:** DCCBs should regularly review their loan portfolio to identify potential NPAs and take corrective action to prevent slippages.
8. **Collaboration with Other Institutions:** DCCBs should collaborate with other institutions, such as commercial banks and NBFCs, to share best practices and expertise in managing NPAs.
9. **Development of a Contingency Plan:** DCCBs should develop a contingency plan to manage NPAs during times of economic stress or crop failures.
10. **Regular Reporting and Disclosure:** DCCBs should provide regular reporting and disclosure on their NPA levels and management strategies to stakeholders, including regulators, investors, and depositors.

14. SCOPE OF FURTHER RESEARCH:

1. **Comparative Study of DCCBs and Commercial Banks**: A comparative study of the Net NPA of DCCBs and commercial banks could provide insights into the relative performance of these institutions.
2. **Impact of Economic Conditions on Net NPA:** A study on the impact of economic conditions, such as recession, drought, and crop failures, on Net NPA could provide insights into the factors that contribute to Net NPA.
3. **Role of Technology in Reducing Net NPA:** A study on the role of technology, such as digital lending platforms, in reducing Net NPA could provide insights into the potential benefits of technology adoption.
4. **Analysis of Net NPA in Other Regions:** A study on the Net NPA of DCCBs in other regions of India could provide insights into the regional differences in Net NPA.
5. **Impact of Regulatory Policies on Net NPA:** A study on the impact of regulatory policies, such as the Reserve Bank of India's (RBI) guidelines on Agricultural Sector lending, on Net NPA could provide insights into the effectiveness of these policies.
6. **Development of a Predictive Model for Net NPA:** A study on the development of a predictive model for Net NPA could provide insights into the factors that contribute to Net NPA and help DCCBs to predict and manage Net NPA more effectively.
7. **Analysis of the Impact of Net NPA on the Financial Performance of DCCBs:** A study on the impact of Net NPA on the financial performance of DCCBs could provide insights into the relationship between Net NPA and financial performance.

15. CONCLUSION:

The study concludes that there are significant differences in the Net NPA to Agricultural Advances and Non-Agricultural Advances among the three DCCBs. The study also highlights the importance of regional differences and economic conditions

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This research received no specific grant from any funding agency in the public, commercial, or not-for-profit sectors

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