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Comparative Analysis of Financial Performance and Asset Quality of Selected District Central Cooperative Banks in Andhra Pradesh

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Abstract:
This study examines the financial performance and asset quality of three District Central Cooperative Banks (DCCBs)—Chittoor, Krishna, and Srikakulam—over the period 2012–13 to 2022–23. Using key indicators like Outstanding Advances, Collections, Overdues, Gross NPAs, and Net NPAs, the study identifies trends, growth patterns, and stability across the institutions. Descriptive statistics such as Mean, Standard Deviation, Coefficient of Variation (CV), and Compound Annual Growth Rate (CAGR) were used, alongside ANOVA tests to detect statistical differences among the banks. The results indicate that while Chittoor DCCB shows relatively stable and controlled performance, Krishna and Srikakulam exhibit higher volatility and risk, particularly in overdue and NPA growth. The study highlights the need for improved credit monitoring and recovery mechanisms in certain DCCBs. The findings are relevant for policymakers, regulators, and cooperative banking institutions aiming to enhance asset quality and operational sustainability
Keywords: District Central Cooperative Banks, DCCBs, Net NPA, Gross NPA, Overdues, Collections, Outstanding Advances, CV, CAGR, ANOVA.

1. Introduction:

District Central Cooperative Banks (DCCBs) play a critical role in rural credit delivery and cooperative finance in India. This study focuses on three selected DCCBs in Andhra Pradesh—Chittoor, Krishna, and Srikakulam—analyzing their asset quality, lending performance, and recovery efficiency over 11 years. Financial metrics such as advances, overdues, collections, and NPAs are examined to assess both growth and risk. The study employs descriptive and inferential statistical tools, including ANOVA, to evaluate inter-bank differences. Findings reveal significant performance disparities, with Chittoor showing relative stability, while Krishna and Srikakulam face challenges of high and volatile NPAs. The research provides critical insights into credit discipline and the financial health of cooperative banking in the region.

2. Review of literature:

2.1.Ali et al. (2020) the quality of bank assets is steadily declining, mostly as a result of poor loan proposal evaluation and the borrowers' poor ability to repay. Due mostly to defaults by Public Sector Undertakings (PSUs), which are frequently supported by government-guaranteed loans, a sizeable amount of Non-Performing Assets (NPAs) in Public Sector Banks (PSBs) are involved in drawn-out legal actions, and another sizeable portion is almost irrecoverable. The researchers advise banks to create a thorough list of defaulters and make sure that the banking industry as a whole may access it.

2.2.Yurttadur et al. (2019) highlight the widespread occurrence of Non-Performing Assets (NPAs) in the banking sector, including in countries like Turkey. Bodla and Verma (2007) emphasize the critical role of robust credit assessment and monitoring systems in mitigating NPA risks. At the macroeconomic level, Wheelock and Wilson (1995) identify deposit insurance, regulatory frameworks, and operational efficiency as key determinants of banking sector failures. Ghosh (2005) further argues that a highly leveraged corporate sector elevates the risk of default, thereby adversely impacting the asset quality of banks.

2.3.Abhishek Kumar Singh and Nayan Aggarwal, et al. (2019) observed that there is an immediate impact on the bank's performance due to the risk of NPAs and NPA have a negative effect and influence on the performance of both public and private banks. They concluded that in during 2018-19 there has been a serious improvement in the asset quality of scheduled commercial banks, as gross NPA ratio has declined from 11.5% to 9.3% as on March 2019. They found that the more important reason behind the increasing NPAs of the public sector banks are that the political interference in the functioning of public sector banks.

2.4. Senthil Arasu, Sridevi et al. (2019) identified that the asset quality in banks, especially the public sector banks is constantly deteriorating causing intolerable stress to banking sector, regulators and therefore the Indian economy. Consistent with them, during their study. 2014 to 18, the gross and net NPAs of both public and private sector banks have increased. They found that there's a big positive relationship between gross NPA and net NPA of public and private sector banks and also negatively significant relationship between NPA and return on assets (ROA). The impact of gross NPA significantly influences the ROA negatively and also net NPA positively influences the ROA of both public and private sector banks. The study recommended to the regulators and respective bank officials to require necessary steps to reduce NPA and improve the recovery mechanism.

2.5.Sunil B. Kapadia &Venu V. Madhav (2019)through their study they identified that due to bad loans a highest amount of banking sector resources are blocked and becoming unproductive. supported their findings it's clear that the number recovered is extremely low and therefore the role of lending dynamism is resulting an rise in NPAs is remains gloomy.

Mehta & Jha (2020), Kattadiyil & Sisugoswami (2020), Shenbagavalli et al. (2013), and Jayadev & Padma (2020) — have highlighted the growing trend of wilful defaulters in the banking sector. The underlying causes of this issue are diverse. These include instances where banks extend credit to known wilful defaulters, sometimes even in the absence of a valid CIBIL score, and often at high interest rates. In other cases, borrowers are either genuinely unable to repay the loans or are financially capable but deliberately choose not to fulfill their repayment obligations.

2.6.Kattadiyil and Sisugoswami (2020) emphasize that banks often conduct inadequate evaluations during the loan appraisal stage, primarily driven by internal targets. This has led to aggressive lending practices, particularly towards corporate entities.

3. Statement of the Problem

Despite the pivotal role of DCCBs in rural credit delivery, there is limited comprehensive research comparing the financial health, asset quality, and performance gaps among individual DCCBs in Andhra Pradesh over the recent decade. Few studies have systematically used statistical tools such as CV, CAGR, and ANOVA to analyze trends in advances, collections, NPAs, and recoveries at the district bank level. Furthermore, there is a lack of focused analysis exploring the underlying reasons for variations in risk management and credit recovery between different DCCBs. This gap limits policymakers' and stakeholders' ability to design

targeted, evidence-based interventions for improving DCCB operations. Your research addresses this gap by providing comparative, data-driven insights and recommendations for selected DCCBs in Andhra Pradesh.

4. Research Design

The study adopts a quantitative and analytical research design aimed at evaluating and comparing the financial performance and asset quality of selected District Central Cooperative Banks (DCCBs) in Andhra Pradesh.

5. Data Source:

- **Secondary data** collected from:
- Annual reports of DCCBs (Chittoor, Krishna, and Srikakulam)
- NABARD publications
- Reports from RBI and other government financial databases

6. Period of Study:

- **11 financial years**: From **2012–13 to 2022–23**

7. Sample Units:

Three District Central Cooperative Banks:

- **Chittoor DCCB**
- **Krishna DCCB**
- **Srikakulam DCCB**

8. Statistical Tools Used:

- **Descriptive Statistics:**
- **Mean** – to determine the average performance.
- **Standard Deviation (SD)** – to measure the variability.
- **Coefficient of Variation (CV)** – to assess relative risk or volatility.
- **Compound Annual Growth Rate (CAGR)** – to evaluate long-term growth trends.
- **Inferential Statistics:**
- **One-Way ANOVA (Analysis of Variance)** – to test whether there are statistically significant differences in the performance metrics among the three DCCBs.
- **Post-hoc Analysis** – such as Tukey HSD to identify which pairs differ significantly.

9.Scope of the Study:

- The focus is limited to three DCCBs in Andhra Pradesh.
- The study spans 11 financial years, providing comprehensive coverage to observe medium- to long-term trends.

10. Limitations:

- Relies exclusively on secondary data, which may be subject to reporting or classification inconsistencies.
- External factors such as policy changes, natural calamities, or pandemic-related disruptions are not separately analyzed.

Table No:1 Outstanding Advances of Sample DCCBs ₹ in lakh

Year	Chittoor DCCB		Krishna DCCB		Srikakulam DCCB	
	₹	Trend %	₹	Trend %	₹	Trend %
2012-13	53,343		1,13,917		14,628	
2013-14	54,411	2.00	1,40,380	23.23	38,863	165.68

2014-15	50,700	-6.82	1,35,538	-3.45	38,863	0.00
2015-16	48,833	-3.68	2,31,153	70.54	36,819	-5.26
2016-17	52,444	7.39	1,99,546	-13.67	41032	11.44
2017-18	57,981	10.56	2,56,782	28.68	54,350	32.46
2018-19	71,181	22.77	3,20121	24.67	71,896	32.28
2019-20	81,567	14.59	3,50,264	9.42	77,021	7.13
2020-21	1,09,822	34.64	4,45,162	27.09	96,506	25.30
2021-22	1,35,601	23.47	5,74,206	28.99	1,27,162	31.77
2022-23	1,56,392	15.33	6,82,729	18.90	3,13,454	146.50
Mean (₹)	79,297.7		3,13,618.0		82,781.3	
SD (₹)	37,856.0		186409.7		82,877.0	
CV (%)	47.7		59.4		100.1	
CAGR (%)	10.3		17.7		32.1	

Source: Computed from Secondary Data

10.1. Chittoor DCCB:

- **Trend Analysis:**
- The outstanding advances increased from ₹53,343 lakh in 2012–13 to ₹1,56,392 lakh in 2022–23.
- CAGR is 10.3%, indicating a moderate long-term annual growth.
- However, the trend % fluctuates with some negative growth in 2014–15 and 2015–16, followed by a consistent increase from 2016–17 onward.

10.2. Krishna DCCB:

- **Trend Analysis:**
- Outstanding advances rose substantially from ₹1,13,917 lakh in 2012–13 to ₹6,82,729 lakh in 2022–23.
- The CAGR is 17.7%, reflecting high annual growth.
- The trend % shows large fluctuations, especially a remarkable growth of 70.54% in 2015–16, with some years showing a slight decline

10.3. Srikakulam DCCB:

Trend Analysis:

- Outstanding advances soared from ₹14,628 lakh in 2012–13 to ₹3,13,454 lakh in 2022–23.
- CAGR is **32.1%**, the **highest** among the three banks, indicating **rapid and exponential growth**.
- Trend % shows extremely high fluctuations: **165.68% growth in 2013–14**, **no growth in 2014–15**, and a massive jump of **146.5% in 2022–23**.

11. ANOVA Summary Table: Outstanding Advances of DCCBs

Source of Variation	SS (Sum ofSquares)	df	MS (Mean Square)	F-Statistic	P-value
Between Groups	1.06×10^{12}	2	5.32×10^{11}	25.1	<0.0001
Within Groups	7.59×10^{11}	30	2.53×10^{10}		
Total	1.81×10^{12}	32			

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Hypothesis

1. **Null Hypothesis (H_0):** There is no significant difference in the mean outstanding advances among the three DCCBs.
2. **Alternative Hypothesis (H_1):** At least one DCCB has a significantly different mean outstanding advance.

F-value = 25.1 is muchgreater than the critical value (~3.32 for df=(2,30) at α=0.05).
P-value < 0.0001 implies strong evidence against the null hypothesis

Table No:2 Collections of Sample DCCBs ₹ in lakh

Year	Chittoor DCCB		Krishna DCCB		Srikakulam DCCB	
	₹	Trend %	₹	Trend %	₹	Trend %
2012-13	17,643		79,567		5,163	
2013-14	15,683	-11.11	43,657	-45.13	30,029	481.62
2014-15	20,024	27.68	80,330	84.00	30,029	0.00
2015-16	19,548	-2.38	1,04,456	30.03	23,714	-21.03
2016-17	27,080	38.53	1,38,845	32.92	27,636	16.54
2017-18	31,094	14.82	1,71,000	23.16	28514	3.18
2018-19	39,199	26.07	2,02,466	18.40	33,907	18.91
2019-20	41,723	6.44	2,17,745	7.55	33,908	0.00
2020-21	52,644	26.18	2,48,837	14.28	74,597	120.00
2021-22	64,861	23.21	3,05,009	22.57	1,40,984	88.99
2022-23	73,362	13.11	3,37,600	10.69	88,162	-37.47
Mean (₹)	36,623.7		1,75,410.2		46,967.5	
SD (₹)	19,808.8		96,433.0		39,009.0	
CV (%)	54.1		55.0		83.1	
CAGR (%)	13.8		14.0		29.4	

Source: Computed from Secondary Data

11.1. Mean Collections Performance

- Krishna DCCB has the highest average collections (₹1.75 lakh lakh), indicating strong financial performance and consistent credit recovery.
- Srikakulam DCCB outperformed Chittoor DCCB in average collections, despite starting from a much lower base.

11.2. Stability vs. Volatility

- Chittoor and Krishna DCCBs have moderate and similar variability (CV ~54–55%), indicating consistent performance.
- Srikakulam DCCB, with the highest CV (83.1%), shows high volatility, meaning its collection performance has been unstable and fluctuating.

11.3. Growth Performance (CAGR)

- Srikakulam DCCB recorded the highest CAGR (29.4%), driven by a sharp jump in collections from 2020–21 onward.

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- Chittoor (13.8%) and Krishna (14.0%) show moderate and stable growth, reflecting consistent operational improvements.

11.4. Year-wise Trend Insights

- 2013–14: Huge jump in Srikakulam collections (+481.62%), possibly due to targeted recovery drives or policy changes.
- 2016–17 to 2021–22: All banks experienced sustained positive growth in collections.
- 2022–23: Srikakulam suffered a -37.47% drop, suggesting operational or external challenges (e.g., defaulting borrowers, climate or economic shocks).

Table No:3 Overdues of Sample DCCBs ₹ in lakh

Year	Chittoor DCCB		Krishna DCCB		Srikakulam DCCB	
	₹	Trend %	₹	Trend %	₹	Trend %
2012-13	3,006		9,591		5,189	
2013-14	6,357	111.48	60,072	526.34	5,348	3.06
2014-15	4,978	-21.69	20,996	-65.05	5,348	0.00
2015-16	3,723	-25.21	8284	-60.54	7,011	31.10
2016-17	2,830	-23.99	10,220	23.37	7,878	12.37
2017-18	2,924	3.32	10,637	4.08	2,400	-69.54
2018-19	3,308	13.13	15,651	47.14	3,457	44.04
2019-20	3886	17.47	26,123	66.91	3,456	-0.03
2020-21	4,371	12.48	25555	-2.17	4,806	39.06
2021-22	3,259	-25.44	25,826	1.06	14,067	192.70
2022-23	4,360	33.78	30,772	19.15	9,971	-29.12
Mean (₹)	3,909.3		22,157.0		6,266.5	
SD (₹)	1,064.0		14,905.5		3,368.2	
CV (%)	27.2		67.3		53.7	
CAGR (%)	3.4		11.2		6.1	

Source: Computed from Secondary Data

12. Key Interpretations

12.1.Chittoor DCCB

- Has the lowest mean, lowest volatility (CV 27.2%), and modest CAGR (3.4%).
- Indicates relatively strong control over overdues.
- Despite some yearly fluctuations, the overdue levels are relatively stable.

12.2. Krishna DCCB

- Shows the highest mean overdues (₹22,157 lakh) and highest volatility (CV 67.3%).
- Significant risk of inefficient recovery or ineffective credit discipline.
- Long-term trend (CAGR = 11.2%) confirms worsening financial discipline.

12.3. Srikakulam DCCB

- Moderately high mean with high volatility (CV 53.7%).
- Sharp jumps and falls indicate inconsistent repayment behavior.

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- CAGR = 6.1% indicates some long-term increase, but not steadily.

13. Conclusion

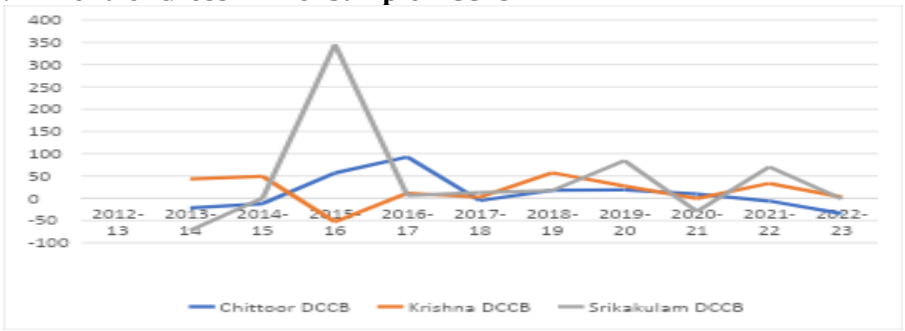
1. Chittoor DCCB maintains the best control over overdues, supported by its low volatility and low CAGR.
2. Krishna DCCB has a serious problem with increasing and inconsistent overdues, with highest average dues and volatility.
3. Srikakulam DCCB is unstable, requiring better recovery mechanisms and stronger monitoring to avoid future risk escalation.

Table No: 4 Gross NPAs and their Trend of Sample DCCBs ₹ in lakh

Year	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
2022-23	6,752	-34.58	15,100	2.89	5,513	-1.71
Mean (₹)	6,746.1		8,957.9		2,718.6	
SD (₹)	3,106.2		3,782.5		1,852.8	
CV (%)	46.0		42.2		68.2	
CAGR (%)	5.8		10.9		12.6	

Source: Computed from Secondary Data

Figure No: 1 Trend of Gross NPA of Sample DCCBs



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Chittoor DCCB shows volatile NPA trends, peaking around 2020–21, followed by a decline. The bank struggled with sharp year-on-year changes—especially in 2015–16 (+56.9%) and 2022–23 (−34.6%). While NPAs have grown moderately over the decade, instability is a concern.

Krishna DCCB shows a consistent upward trend in NPAs, with a major spike in 2014–15 and again post-2018. The standard deviation and CV indicate more stable growth compared to others. However, continuous growth with few declines (e.g., 2015–16 and 2020–21) may indicate systemic credit quality issues.

Srikakulam DCCB has the smallest NPA base, but with the highest CAGR and CV, indicating rapid and erratic growth in bad loans. The NPA jumped by 344.98% in 2015–16 and saw frequent fluctuations. The bank's risk profile appears unstable, raising concerns about credit monitoring and asset quality.

ANOVA Table

Source of Variation	SS (Sum of Squares)	df	MS (Mean Square)	F	P-value
Between Groups	220,220,847	2	110,110,424	4.02	~0.03
Within Groups	273,906,590	30	9,130,220		
Total	494,127,437	32			

The F-value is 4.02, and the p-value is ~0.03, which is less than 0.05.

This indicates that there is a statistically significant difference in the average NPAs among the three DCCBs at the 5% level.

There is sufficient evidence to conclude that at least one bank's average Gross NPA is significantly different from the others. A post-hoc test (like Tukey's HSD) would be recommended to pinpoint which specific pairs differ.

Table No:5 Net NPAs and their Trend of Sample DCCBs ₹ in lakh

Year	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
2022-23	1,868	-46.79	6,491	16.85	3,767	9.00
Mean (₹)	2,835.0		3,560.5		2,317.3	
SD (₹)	875.2		1,683.1		1,817.5	
CV (%)	30.9		47.3		78.4	

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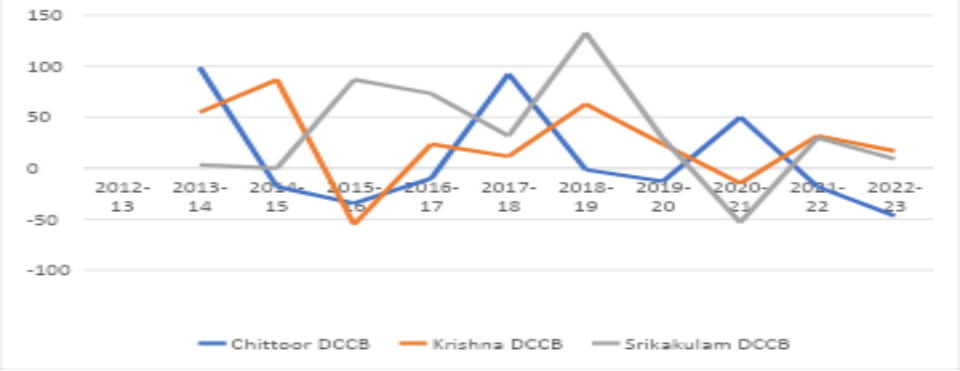
CAGR (%)	0.3		15.1		21.8	

Source: Computed from Secondary Data

Figure No:2 Net NPAs and their Trend of Sample DCCBs



14. Interpretation of Net NPAs and Their Trend – Sample DCCBs

The table highlights the Net Non-Performing Assets (NPAs) of three District Central Cooperative Banks (DCCBs): Chittoor, Krishna, and Srikakulam over an 11-year period. It also includes key statistical indicators such as mean, standard deviation (SD), coefficient of variation (CV), and compound annual growth rate (CAGR).

14. 1. Chittoor DCCB

- Fluctuating trend with steep rises (e.g., 2013–14: +99%) and sharp declines (e.g., 2022–23: –46.79%).
- The average Net NPA over the period is ₹2,835 lakh.
- CV is 30.9%, indicating moderate variability and better stability compared to others.
- The CAGR is very low (0.3%), meaning that over the long term, Chittoor has been relatively successful in containing its NPA growth.
- Interpretation: Chittoor DCCB shows better control over NPAs, despite short-term spikes.

14.2. Krishna DCCB

- **T**he trend shows both growth and decline phases, but the general direction is upward.
- Mean Net NPA is ₹3,560.5 lakh – the highest among the three.
- CV is 47.3%, indicating moderate instability.
- CAGR is 15.1%, which reveals that Krishna DCCB has experienced a consistent long-term rise in its Net NPAs.
- Interpretation: Krishna DCCB needs stronger recovery mechanisms and better credit appraisal practices to reverse the trend of growing NPAs.

14.3. Srikakulam DCCB

- Initially had the lowest NPAs, but the trend shows rapid and unstable increases from 2015–16 onward.
- Several years of high double-digit growth in NPAs, peaking at 132.78% in 2018–19.
- Mean Net NPA is ₹2,317.3 lakh, with a very high standard deviation (₹1,817.5 lakh).
- CV is 78.4%, the highest, indicating high variability and instability.
- CAGR of 21.8% – significantly higher than the other two banks.

- Interpretation: Srikakulam DCCB shows signs of serious deterioration in asset quality and requires urgent intervention to prevent a financial crisis.

14.4. Overall Interpretation

- Chittoor DCCB shows stability and effective control of Net NPAs.
- Krishna DCCB indicates a steady increase in NPAs and requires improvement in credit risk management.
- Srikakulam DCCB is in a critical position, with rapidly rising and highly volatile NPAs, demanding immediate attention from regulators and bank management.

ANOVA Table

Source of Variation	SS (Sum of Squares)	df	MS (Mean Square)	F-value	P-value
Between Groups	12,374,232.7	2	6,187,116.3	3.04	0.066
Within Groups	61,079,418.2	30	2,035,980.6		
Total	73,453,650.9	32			

Since the P-value (0.066) > 0.05, we fail to reject the null hypothesis at the 5% level of significance.

However, the P-value is close to 0.05, suggesting a marginal difference may exist.

There is no statistically significant difference in the average Net NPAs among the three DCCBs at the 5% level. However, the differences are nearing significance, indicating that Krishna and Srikakulam DCCBs may have higher average NPAs over time, which merits further investigation

15. Key Findings

15.1. Outstanding Advances

- Krishna DCCB reported the highest mean outstanding advances (₹3.13 lakh lakh) with a CAGR of 17.7%, indicating strong credit expansion.
- Srikakulam DCCB showed the highest CAGR (32.1%), reflecting rapid growth in advances, but also high volatility (CV 100.1%).
- Chittoor DCCB had a moderate CAGR (10.3%) with relatively stable growth.

15.2. Collections

- Krishna DCCB had the highest average collections (₹1.75 lakh lakh), indicating strong recovery efforts.
- Srikakulam showed very high CAGR in collections (29.4%), but also highest volatility (CV 83.1%), suggesting inconsistency.
- Chittoor's collections were moderate and steady, with a CAGR of 13.8% and CV of 54.1%.

15.3. Overdues

- Krishna DCCB exhibited high overdue levels (mean ₹22,157 lakh) and very high CV (67.3%), signaling poor recovery discipline.
- Srikakulam's overdues were inconsistent and unstable, while Chittoor maintained low and stable overdues (CV 27.2%).

15.4. Gross and Net NPAs

- Srikakulam DCCB had the highest CAGR for both Gross (12.6%) and Net NPAs (21.8%), and also the highest volatility, indicating deteriorating asset quality.
- Krishna DCCB showed consistently increasing NPAs, especially Net NPAs (mean ₹3,560.5 lakh; CAGR 15.1%).
- Chittoor DCCB demonstrated better NPA control, with low CAGR (Net NPA = 0.3%) and CV (30.9%).

15.5. ANOVA Results

- Outstanding Advances and Gross NPAs showed statistically significant differences among DCCBs (P-value < 0.05).
- Net NPAs showed marginal significance (P = 0.066), implying potential differences warranting deeper investigation.

16. Suggestions

16.1 For Chittoor DCCB:

- Continue existing credit monitoring systems and recovery mechanisms.
- Improve growth in advances without compromising asset quality.

16.2 For Krishna DCCB:

- Strengthen recovery mechanisms to reduce overdues and Net NPAs.
- Improve credit appraisal and post-disbursement monitoring to curb rising bad loans.

16.3 For Srikakulam DCCB:

- Immediate intervention is needed to manage volatile overdues and NPAs.
- Implement stricter loan screening, risk grading, and borrower profiling tools.
- Develop a more structured recovery plan and monitor collection efficiency periodically.

16.4 Policy Recommendations:

- NABARD and state cooperative authorities should conduct regular audits and provide targeted support to banks showing higher financial risk.
- Encourage digitization and MIS integration for real-time credit tracking.

17. Conclusion

1. The comparative analysis reveals stark differences in the financial performance and asset quality of the selected DCCBs. While Chittoor DCCB has maintained relative stability with modest growth and controlled NPAs, Krishna and Srikakulam DCCBs exhibit growing asset quality concerns. Srikakulam, in particular, shows alarming volatility and rapid NPA growth.
2. The findings underscore the urgent need for better credit risk management, systematic recovery practices, and regulatory supervision to safeguard the financial health of cooperative banks. Strengthening the operational efficiency and governance structure of DCCBs is essential for sustaining rural credit delivery and financial inclusion in India.

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