International Journal of Statistics and Applied Mathematics

ISSN: 2456-1452 Maths 2024; SP-9(2): 01-04 © 2024 Stats & Maths https://www.mathsjournal.com Received: 01-12-2023 Accepted: 06-01-2024

Bebika Dhruw

Research Scholar, Department of Agricultural Economics, Indira Gandhi Krishi Vishwavidyalaya, Raipur, Chhattisgarh, India

Dr. BC Jain

Department of Agricultural Economics, Indira Gandhi Krishi Vishwavidyalaya, Raipur, Chhattisgarh, India

Dr. VK Choudhary

Professor and Head of the Department of Agricultural Economics, Indira Gandhi Krishi Vishwavidyalaya, Raipur, Chhattisgarh, India

Dr. Roshni Verma

Guest teacher, Department of Agricultural Economics, Indira Gandhi Krishi Vishwavidyalaya, Raipur, Chhattisgarh, India

Corresponding Author: Bebika Dhruw

Research Scholar, Department of Agricultural Economics, Indira Gandhi Krishi Vishwavidyalaya, Raipur, Chhattisgarh, India

Growth pattern of loan disbursement, investment, CD ratio of DCCB in Raipur division of Chhattisgarh state

Bebika Dhruw, Dr. BC Jain, Dr. VK Choudhary and Dr. Roshni Verma

Abstract

In India, the cooperative banking sector is one of the most important partners of the banking structure. Cooperative banks have more reach in rural areas through their huge network of branches in the credit structure. The financial system in India has witnessed significant changes in recent years, particularly in terms of investment growth and loan disbursement. This study examines the correlation between investment growth and loan disbursement, as well as CD ratio trends and their implications for financial stability. Factors influencing the observed growth patterns are discussed, along with comparisons to existing literature. The study's implications on the financial performance of DCCBs in the Raipur Division are also highlighted, with recommendations for improving loan disbursement, investment, and CD ratio growth provided for future research.

Keywords: DCCB, cooperative, growth pattern, loan disbursement, investment, CD ratio

Introduction

A cooperative bank is a financial entity that plays a crucial role in providing financial services to the rural and agricultural sectors. Cooperative banks are often created by local communities to promote financial inclusion and support economic development in rural areas. By providing access to credit and other financial services, cooperative banks help stimulate growth and improve the livelihoods of individuals and communities. These banks do not operate for profit, but rather for the benefit of their members. Additionally, cooperative banks are regulated by specific laws and regulations that differ from those of traditional commercial banks.

A state cooperative bank is a federation of district cooperative banks and primary agricultural credit societies. These institutions work together to provide financial services to farmers, small businesses, and individuals in rural areas. The state cooperative bank acts as a central bank for these smaller entities, helping to coordinate their activities and ensure they are operating effectively within the regulatory framework.

District Central Cooperative Bank Raipur is an example of a district cooperative bank that operates within the state cooperative bank system. It plays a crucial role in providing credit and other financial services to the local community in Raipur. District Cooperative Central Bank (DCCB) Maryadit Raipur in the state of Chhattisgarh was established in the year 1913. The bank's jurisdiction includes the Raipur, Dhamtari, Mahasamund, Gariaband, and Balodabazar Bhatapara districts. At present, 70 branches of the bank are operational. In this way, the bank is continuously expanding its services and area in the interest of farmers. * 550 primary agricultural credit cooperative societies are financed by the bank. The bank's primary focus is on providing financial assistance to farmers and promoting rural development. By supporting agricultural credit cooperative societies, the bank can reach a larger number of farmers and contribute to the growth of the agricultural sector in the region.

Materials and Methods

The study is based on secondary data based on the District Central Cooperative Bank Maryadit, Raipur (C.G.) publication for the years 2011–12 to 2021–22. The data includes information on loan disbursement, investment, and credit deposit ratios. This study aims to analyze the impact of the bank's financial assistance on the agricultural sector's growth and development in the region.

By examining trends in loan disbursement and investment, we can assess the effectiveness of the bank's support in promoting rural development and improving farmers' livelihoods. We will use some statistical tools like average, minimum, maximum, and CAGR to provide a comprehensive analysis of the bank's performance over the years.

The compound annual growth rate (CAGR) will help us understand the annual growth rate of the agricultural sector and the bank's financial assistance. This will provide valuable insights into the sustainability and impact of the bank's support for rural development. Formula of CAGR: CAGR = (Ending Value/Beginning Value)^(1/Number of Years) - 1. By calculating this, we can determine the average annual growth rate of the agricultural sector and assess the bank's contribution to its development.

Results and Discussion

Loan disbursement: The analysis of loan disbursement trends will allow us to evaluate the bank's effectiveness in reaching rural communities and supporting agricultural activities. Understanding the distribution of loans across different sectors will provide a comprehensive view of the bank's impact on rural development.

Table 1: Growth Pattern changes in loan disbursement for the year 2011-12 to 2021-22

District central cooperative bank, Raipur (Amount in crore)						
Year	Short	Medium	Long	Total	Growth	
	term	term	term	loan	pattern	
2011-12	371.12	2.21	6.12	379.45	_	
2012-13	454.48	1.34	2.46	458.28	120.77	
2013-14	555.51	1.54	5.51	562.56	122.75	
2014-15	772.34	1.17	3.37	776.88	138.10	
2015-16	750.57	0.57	1.45	752.59	96.87	
2016-17	826.96	0.39	1.87	829.22	110.18	
2017-18	817.31	0.22	1.46	818.99	98.77	
2018-19	970.56	1.50	1.85	973.91	118.92	
2019-20	1114.17	4.06	1.52	1119.75	114.97	
2020-21	1313.24	2.44	1.05	1316.73	117.59	
2021-22	1417.65	19.36	4.80	1441.81	109.50	
Average	899.28	3.26	2.53	905.07	114.84	
Max	1417.65	19.36	5.51	1441.81	138.10	
Min	454.48	0.22	1.05	458.28	96.87	
CAGR	14%	24%	-2%	14%		

The District Central Cooperative Bank in Raipur has seen a steady growth pattern in its loans over the past decade. From 2011-2012 to 2020-2021, the bank's short-term Short-term loan growth has been more volatile, with a maximum of 5.51% in 2021–22 and a minimum of 1.05% in 2017–18. Despite this volatility, the average annual growth rate for short-term loans from 2011 to 2022 remains positive at 14%. Medium-term loan growth has shown a steady increase, with an average annual growth rate of 24% from 2011 to 2022. This indicates a strong and consistent upward trend in medium-term loan growth over the years. The long-term total loan growth pattern from 2011 to 2022 shows an average annual growth rate of 14%, with a maximum growth of 19.36% in 2021-22 and a minimum growth of 0.22% in 2017–18. This indicates a fluctuating but overall positive trend in total loan growth over the years. Overall, the data suggests that medium-term loans have experienced the highest growth rate compared to short-term and long-term loans. This trend may indicate a shift in borrowing preferences towards medium-term financing options. Growth pattern analysis also reveals that short-term loans have shown more stability in growth rates compared to long-term loans, which have experienced more variability. This information can be valuable for financial institutions in understanding the changing demand for different loan terms and adjusting their lending strategies accordingly.

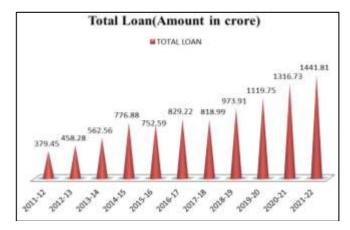


Fig 1: Total loan

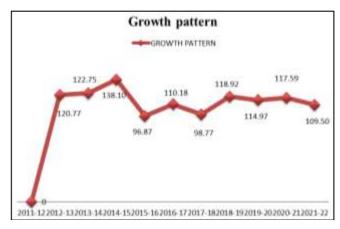


Fig 2: Growth pattern in total loan

Table 3: Growth Pattern changes in investment for the year 2011-12 to 2021-22

District Central Cooperative Bank, Raipur (Amount in crore)					
Year	Investments	Growth Pattern			
2011-12	1383.97	_			
2012-13	1476.13	106.66			
2013-14	1801.27	122.03			
2014-15	1721.29	95.56			
2015-16	1861.51	108.15			
2016-17	1943.02	104.38			
2017-18	2261.72	116.40			
2018-19	3042.16	134.51			
2019-20	3239.99	106.50			
2020-21	4197.13	129.54			
2021-22	4565.11	108.77			
Average	2499.39	113.25			
Max	4565.11	134.51			
Min	1383.97	95.56			
CAGR	13%				

The data in the table shows a consistent growth pattern in investments made by the District Central Cooperative Bank, Raipur, over the years. The bank has experienced significant growth in investments, with an average compound annual growth rate (CAGR) of 13%, indicating a positive trend for further investment. The average investment made by the bank over the period was approximately 2499.39, with the highest

investment recorded in 2021–22 at 4565.11 and the lowest in 2014–15 at 1383.97. This data suggests strong financial performance and strategic investment decisions by the bank. The growth pattern of investment made by the District Central Cooperative Bank, Raipur, reflects a well-managed portfolio and a commitment to maximizing returns for its stakeholders. The consistent increase in investments demonstrates the bank's ability to adapt to market conditions and capitalize on growth opportunities.

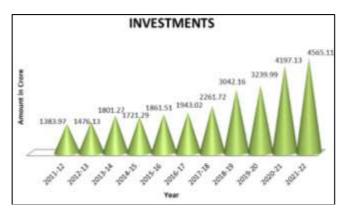


Fig 3: Investment for the years 2011-12 to 2021-22

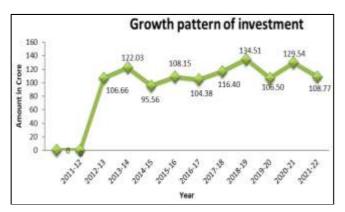


Fig 4: Growth Pattern of investment for the study period

Table 4: Growth pattern in CD ratio for the year 2011-12 to 2021-22

Year	Deposit	Credit	CD	Growth Pattern
2011-12	1324.59	350.73	3.78	_
2012-13	1551.60	365.78	4.24	112.32
2013-14	1696.10	380.74	4.45	105.02
2014-15	1698.87	412.82	4.12	92.38
2015-16	1682.37	417.10	4.03	98.01
2016-17	1881.52	432.72	4.35	107.80
2017-18	2006.24	557.14	3.60	82.82
2018-19	3339.92	676.44	4.94	137.12
2019-20	3060.61	319.38	9.58	194.09
2020-21	3451.8	344.68	10.01	104.50
2021-22	3965.35	427.47	9.28	92.63
AVERAGE	2332.63	425.91	5.67	112.67
MAX	3965.35	676.44	10.01	194.09
MIN	1324.59	319.38	3.60	82.82
CAGR	12%	2%	9%	-2%

The District Central Cooperative Bank in Raipur has been a vital financial institution for the region, providing essential banking services to the local community. In recent years, the bank has seen a significant increase in deposits and credits, with the amount reaching crore. The growth pattern of the bank's credit and advances has been steady, reflecting the growing confidence of customers in its services. Additionally, the bank's CD growth pattern has also been positive,

indicating that it is a reliable investment option for those looking to grow their saving. Overall, the District Central Cooperative Bank in Raipur has established itself as a trusted financial partner for both individuals and businesses alike. Its commitment to providing excellent customer service and innovative banking solutions has helped it grow into one of the most respected institutions in the region. Over the years, Raipur's District Central Cooperative Bank has experienced consistent growth. The bank was saw a drop of 3.78 per cent in 2011-12 while having deposits of ₹ 1324.59 crore and credit (advances) around ₹ 350.73 crore. Yet, with a growth rate of 4.24 per cent the year after, deposits increased to ₹1551.60 crore and credit increased to ₹ 365.78 crore. The pattern persisted over the following few years, with deposits and credit steadily rising each year, peaking at respectively ₹ 3965.35 crore and ₹ 676.44 crore in 2018–19 with growth rates of 10.01 per cent and 137.12 per cent. While the minimum deposit was ₹ 1324.59 crore and the minimum credit was ₹ 425.91 crore, the average deposit was about ₹ 2332.63 crore and the average credit was approximately ₹ 425.91 crore.

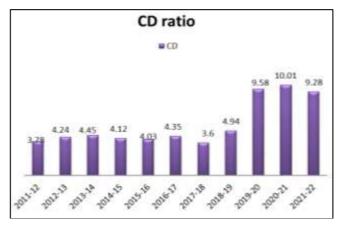


Fig 5: Credit deposit ratio

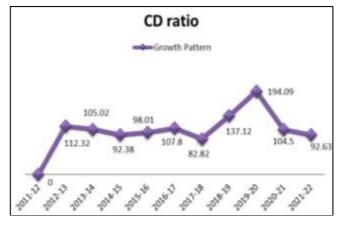


Fig 5: Growth pattern of CD ratio

Conclusion

From the above study, it can be concluded that financial institutions should consider offering more medium-term loan options to meet the growing demand from borrowers. Additionally, monitoring and analyzing growth patterns in different loan terms can help institutions make informed decisions about their lending practices to remain competitive in the market. The District Central Cooperative Bank, Raipur, has shown a consistent and positive trend in its investment decisions, indicating a sound financial strategy. This bodes well for the bank's future sustainability and success in the

competitive banking industry. The credit-deposit ratio has shown steady growth over the past decade, with some fluctuations along the way. This indicates a healthy trend in the financial sector's ability to lend and attract deposits.

Recommendation for DCCB Raipur: Continue to monitor and analyze market trends to make informed lending decisions, ensuring continued growth and success in the competitive banking industry. Additionally, consider diversifying investment portfolios to mitigate risks and capitalize on emerging opportunities in the market.

References

- Anonymous 2011-12 to 2021-22 Annual Reports of DCCBs in India. Basic Data
- 2. Anonymous 2011-12 to 2021-22 Annual Reports of DCCB, Raipur of Chhattisgarh state in India.
- 3. Chander R, Chandel JK. A Comparative Evaluation of Financial Performance of District Central Co-operative Banks in Haryana (India). The Journal of Indian Management and Strategy. 2012;17(1):4-18.
- 4. Dayanandan R, Shashikumar R. Performance evalution of the Central Cooperative Banks in Kerala. Ind. Co-op. Rev. 1999;31(2):196-201.
- 5. Ray M, Shantnu R. An analysis of District Central Cooperative Banks (DCCBs) & State Co-operative Banks (SCBs). Journal of emerging technologies innovative research (JETIR), 2014, 9(3).
- 6. Mahendran A, Moges Tadesse. Liquidity Ratio of the District Central Cooperative Banks in Tirunelveli Region, Tamilnadu. International Journal of Social Science, Arts, and Humanities. 2015;1(1):4-9.
- 7. Pramendra Karwasra JC, Raju Kumawat, Vinay Mehla. Financial Performance of the Hisar District Central Co-Operative Bank. International Journal of Agriculture Sciences. 2017;9(1):3610-3613.
- Sahu M, Raghuwanshi JS, Jaulkar AM. A Study on Utilization Pattern and Diversion of Loan of District Co-Operative Agriculture and Rural Development Bank of Hoshangabad District of Madhya Pradesh. International Journal of Agricultural Science and Research (IJASR) ISSN(P): 2250-0057; ISSN(E): 2321-0087. 2017 Apr;7(2):405-412
- 9. Sen S. Performance of the State Co-operative Bank in India: An Overview. Vol. III. 2010;2:17-28.
- 10. Sujatha V. Financial Performance of the Krishna Cooperative Central Bank Ltd. Indian Cooperative Review. 2007;45(1):9-24.
- 11. Suryawanshi JR. A Study of Critical Analysis of Agricultural Finance Disbursement by Maharashtra State Co-Operative Bank, International Journal of Management and Social Science Research Review. 2018;1(45):123-130.