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A CRITICAL ANALYSIS OF FINANCIAL POSITION OF MANIPUR STATE COOPERATIVE BANK Ltd.

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Abstract

The Manipur State Cooperative Bank (MSCB) plays a vital role in the rural economy of Manipur, serving as a crucial financial institution for rural inhabitants, especially farmers and small-scale business owners. Through initiatives such as agricultural loans, crop financing, and assistance to cooperative societies, MSCB contributes to improving livelihoods, agricultural output, and rural entrepreneurship. This study focuses on MSCB's financial performance over the last 36 quarters using the CRAMEL framework. Stepwise forward regression analysis was employed to identify the primary factors influencing the bank's financial performance, with return on assets serving as the dependent variable.

Introduction

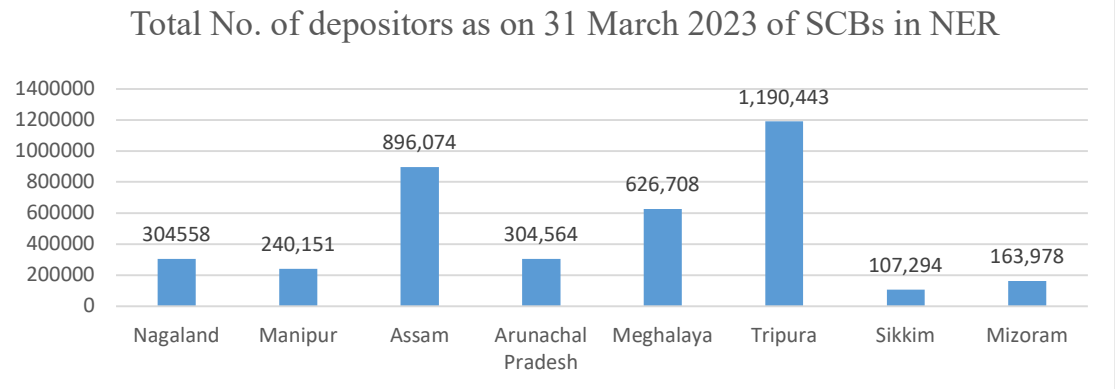
Providing loans to India's agricultural sector poses multiple risks for financial institutions, potentially affecting their stability and profitability. Due to risks like credit, market, production, collateral, policy and regulatory, environmental and climate, and operational risks, many banks often opt to steer clear of agricultural financing altogether. However, the Indian banking regulatory system mandates banks to finance the agriculture sector and other high-risk sectors through Priority Sector Lending (PSL) guidelines established by the Reserve Bank of India (RBI). This requires banks to allocate 40% of their Adjusted Net Bank Credit (ANDC) to such sectors. While this 40% threshold applies to schedule commercial banks, it rises to 75% for Regional Rural Banks and Urban cooperative banks, but for State cooperative banks, the entirety of their lending falls under the PSL umbrella. Considering those factors, the banks operating in the cooperative sector are subjected to a very high level of risk and face huge challenges of market competition. This paper focuses on assessing the financial position of the Manipur State Co-operative Bank (MStCB) Ltd, highlighting its significance within a particularly risky region of India, primarily due to its high Non-Performing Assets (NPA) ratio. Operating in such a context underscores the bank's pivotal role in contributing to the economic development of the state of Manipur.

The Cooperatives Credit Structures in North East Region (NER) of India

The financial systems of numerous countries derive considerable advantages from the presence of Cooperative Credit Institutions. These institutions provide a secure repository for deposits and represent a crucial source of credit for individuals, as well as small and medium-sized enterprises. The enduring success and resilience of Cooperative Credit Institutions are

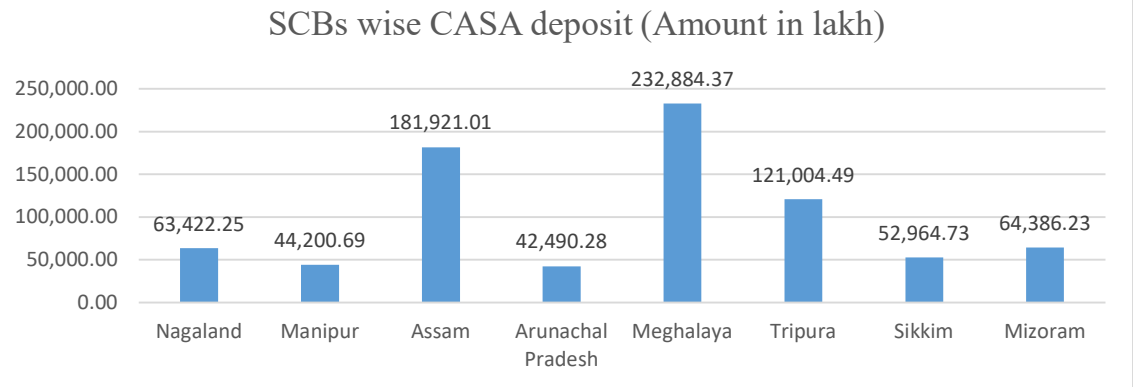
facilitated by their non-profit orientation in many instances, along with their focus on maximizing benefits for their members (McKillop et al., 2020). The principles formulated by Friedrich Wilhelm Raiffeisen for agricultural cooperatives and by the Rochdale Pioneers, inspired by the concepts of Robert Owen, for consumer cooperatives, laid the groundwork for the Indian Co-operative Credit Societies Act of 1904. This legislation drew upon insights and practices from Europe during the latter half of the 19th century. To address challenges such as poverty, agricultural indebtedness, famine, and social unrest, the Indian Colonial Government dispatched representatives to Europe to study how similar issues had been addressed (Münker, 2006). The original purpose of establishing the Cooperative Credit Structure in India was acknowledged, but over time, it encountered several alterations and setbacks due to its operational characteristics. During the era of financial sector reforms, the attention of many policymakers has shifted towards the credit flows facilitated by cooperatives in rural India, emphasizing their sustainability, profitability, and operational efficiency. While commercial banks initiated the reform process earlier, beginning in 1991–1992, the reformation of cooperatives has been slower to progress. This delay can be attributed to the necessity of reaching a consensus among the various state governments overseeing and administering cooperative credit institutions, as well as balancing the interests of diverse groups (Shah, February 2008).

The Credit Cooperative Movement commenced in the North East Region with the inception of "Gaonlia Banks" in Assam in 1912. This initiative eventually led to the establishment of the "Assam Cooperative Apex Bank" in 1948, along with seven District Central Cooperative Banks (DCCBs) at the intermediate level and Gaonlia Banks/Primary Agricultural Credit Societies (PACS) at the grassroots level. Subsequently, the cooperative movement expanded to other states within the region through the progressive restructuring of the former Assam State Cooperative Bank. Notably, Sikkim emerged as the youngest state to inaugurate a cooperative bank in the nation and the region, commencing operations in 1998 (Das, 2012). In Manipur, the movement started with the establishment of Manipur State Co-operative Bank (MStCB) Ltd. on 24th June 1956. Today the North East region has eight State Co-operative Banks, with Tripura State Cooperative Bank having the highest number of depositors followed by Assam and Meghalaya. Of the eight State Cooperative banks, three SCBs are Scheduled Banks viz. Tripura State Co-operative Bank, Meghalaya State Co-operative Bank, and Sikkim State Co-operative Bank while others are Non-Scheduled Banks.



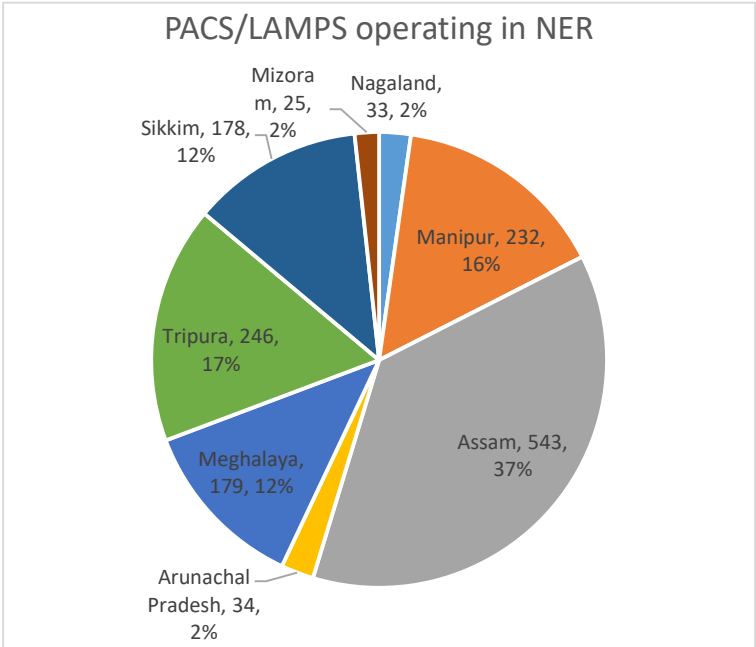
Source: Respective SCBs of NER States.

The ability of a bank to attract CASA deposits reflects its service quality and relationship with depositors. Stronger relationships with depositors lead to better business outcomes, as CASA deposits are considered the most cost-effective and significant source of funds for banks. Among the State Cooperative Banks (SCBs) in the North Eastern Region (NER), Meghalaya Co-Operative Apex Bank Ltd. holds the highest CASA deposit at Rs. 2328.84 crore, followed by Assam Co-Operative Apex Bank Ltd. with Rs. 1819.21 crore, and Tripura State Co-operative Bank Ltd. with Rs. 1210.04 crore as of March 31, 2023. In comparison, Manipur State Co-operative Bank Ltd. holds Rs. 442.01 crore in CASA deposits, ranking just above Arunachal Pradesh State Co-Operative Apex Bank Ltd., which has the lowest CASA deposit at Rs. 424.90 crore.



Source: Respective SCBs of NER States.

In the North East States, Cooperative Credit Structures follow a two-tier system, comprising a State cooperative bank at the state level and Primary Agricultural Credit Societies (PACS) or Large Area Multi-Purpose Societies (LAMPS) at the village level. In contrast, other regions of the country operate on a three-tier structure, which includes a State Co-operative bank at the state level, District Central Co-operative banks at the district level, and PACS at the village level. The North East States have historically adopted a two-tier system due to their smaller populations; however, Assam previously operated on a three-tier cooperative credit structure until August 1973 (RBI, 1977, p. 9). Together 1461 PACS/LAMPS operate in NER, of which 178 societies are Multi-Purpose Co-operative Societies pretending to Sikkim state. Assam state leads with the highest percentage of Primary Agricultural Credit Societies (PACS), accounting for 37% of the total PACS in NER, totaling 543 PACS. Tripura follows with 246 PACS, and



Manipur has 232 PACS.

Table no. 2.1: No. of PACS/LAMPS affiliated to SCBs of NER as of 31 March 2023.

	Nagaland	Manipur	Assam**	Arunachal Pradesh	Meghalaya	Tripura	Sikkim*	Mizoram
No. of PACS/LAMPS	33	232	543	34	179	246	178	25
No. of Borrowing PACS/LAMPS	0	62	272	22	179	121	73	5
No. of Defaulting PACS/LAMPS	0	0	0	20	130	2	52	0

Source: Respective SCBs of NER States.

* In the case of Sikkim state, Multi-Purpose Co-operative Societies are found in place of PACS/LAMPS.

** Data as of 31 March 2022.

Research Methodology

The analysis of banks' finances is conducted to assess the capacity of a bank's ability to absorb or manage risks within its operating environment. Several tools are used for this evaluation, with the CRAMEL framework being the most prevalent in the banking sector, aligning with Basel regulations most banks are assisted using the same technic. The CRAMEL framework involves evaluating capital adequacy, resource composition, asset quality, management effectiveness, earnings, and liquidity as criteria for analysis.

Capital Adequacy

Capital serves as a buffer to mitigate credit and other risks within a business. The Capital Adequacy Ratio (CAR), also known as the Capital to Risk-Weighted Assets Ratio (CRAR), reflects a bank's ability to fulfill its obligations. As per the Basel III framework, banks in India are mandated to maintain a 9% CRAR. CRAR is crucial to ensure that financial institutions possess a substantial cushion to absorb losses before facing insolvency. This ratio compares both Tier 1 and Tier 2 capital to the risk-weighted assets.

I. CRAR = (Tier 1 capital + Tier 2 capital)/Risk-weighted assets

Another metric to assess is the Net Worth to Net Non-Performing Assets (NNPA) ratio, which signifies the capital coverage available concerning un-provided weak assets. Un-provided weak assets denote the portion of weak assets not accounted for by provisioning cover. This ratio indicates the capacity to absorb unforeseen losses beyond weak assets already addressed through provisioning.

II. Net worth to NNPA = Net worth*100/ NNPA

The Leverage Ratio is determined by dividing a bank's tier 1 capital by its average total consolidated assets. This ratio is used to gauge the financial robustness of a bank. Regulators in India consider a Leverage Ratio of 4.5% or higher as good. The higher the ratio, the better the bank's liquidity to fulfill its financial commitments.

III. Leverage Ratio = Tier I Capital * 100/ Total Assets

Table no. 3.1: Capital Adequacy of Manipur State Cooperative Bank Ltd. (amount in Lakh)

Year	CRAR	Leverage Ratio	Net worth	NNPA	Net worth to NNPA
31.03.15	-18.3	-8.80	4552.66	12755.91	0.4
31.03.16	-19.14	-35.65	4818.70	364.48	13.2
31.03.17	-19.57	-32.25	4568.13	384.05	11.9
31.03.18	-29.94	-34.68	4608.74	546.74	8.4
31.03.19	**18.39**	**14.11**	**15580.03**	**1035.09**	**15.1**
31.03.20	17.11	12.75	15905.24	1446.28	11.0
31.03.21	13.19	9.49	16115.42	2394.43	6.7
31.03.22	27.04	8.24	16186.16	2666.45	6.1
31.03.23	27.34	9.20	16403.49	2690.18	6.1

Source: MStCB Ltd.

Resource Composition

Evaluation of the resource profile focuses on the bank's capability to secure stable funding at competitive rates. In general, banks' businesses are funded through retail Deposits, wholesale deposits, and market borrowings. While in market borrowing it is considerably less compared to the other two sources of funds. Typically, reliance on wholesale funding introduces a level of risk to the funding structure of banks. Heavy dependence on such funding is seen as less favorable compared to retail deposits, given the higher concentration risks and increased likelihood of withdrawal during stressful situations compared to retail funding. Current and Savings Account (CASA) deposits serve as a low-cost funding source for banks. Consequently, banks with a greater share of CASA deposits are anticipated to lower their overall borrowing costs, thereby positively affecting the bank's overall performance.

I. CASA ratio = CASA deposits*100/ total deposits

Retail deposits offer a stable and cost-effective funding source compared to market borrowing and wholesale deposits. Banks that rely heavily on retail deposits are anticipated to demonstrate resilience during periods of liquidity strain, due to the relative stability of this funding source.

II. Retail deposits ratio = Retail deposits (savings + retail term)*100/ total deposits

Table no. 3.2: Resource Composition of Manipur State Cooperative Bank Ltd. (Amount in Lakh)

Year	Saving Deposit	Current Deposit	CASA	CASA Deposits to Total Deposits (in %)	Retail deposits ratio (in %)	Total Deposit
31.03.15	3321.74	1949.77	5271.51	57.31	45.94	9198.71
31.03.16	3733.33	1974.65	5707.98	57.74	76.47	9885.09
31.03.17	4719.83	3331.1	8050.93	66.51	47.41	12104.91
31.03.18	8744.09	5997.06	14741.15	81.71	43.87	18041.12
31.03.19	8690.35	12885.81	21576.16	80.74	29.92	26723.08
31.03.20	14139.22	10957.61	25096.83	77.78	49.13	32268.23

31.03.21	21277.63	18339.17	39616.80	85.54	20.65	46314.11
31.03.22	25377.17	25848.86	51226.03	90.68	21.84	56488.41
31.03.23	22025.45	22175.24	44200.69	88.14	25.61	50147.81

Source: MStCB Ltd.

Asset Quality

Deterioration in asset quality can result in increased credit costs, impacting returns and diminishing the capacity within the capital structure to absorb losses. Consequently, this could hamper growth prospects and jeopardize solvency. The assessment of asset quality hinges on the extent of gross non-performing assets (GNPAs) and the potential strain within the standard loan portfolio. GNPAs represent the value of on-balance sheet loans or advances where the borrower has not made payments for at least 90 days. Additionally, restructured advances encompass loans that have undergone modifications in terms such as changes to payment periods, amounts, or installment rates, rollover of credit facilities, sanction of additional credit or funds for defaulted accounts, and settlement agreements where the payment period exceeds three months.

GNPA% = GNPAs / Gross advances

Table no. 3.3: Asset Quality of Manipur State Cooperative Bank Ltd. (Amount in Lakh)

Year	NNPA	GNPA	GNPA/Gross Advance (in %)	Gross Advance
31.03.15	12755.91	12755.91	95.68	13331.7
31.03.16	364.48	12226.29	90.53	13505.5
31.03.17	384.05	12017.8	90.82	13233.11
31.03.18	546.74	12118.31	83.28	14551.65
31.03.19	1035.09	2299.61	32.64	7044.48
31.03.20	1446.28	3162.10	29.52	10711.24
31.03.21	2394.43	4110.24	35.33	11633.4
31.03.22	2666.45	4406.76	31.21	14121.92
31.03.23	2690.18	4876.54	24.07	20262.64

Source: MStCB Ltd.

Management Effectiveness

Assessing management quality involves scrutinizing its business strategies, adaptability to market shifts, risk tolerance, and competence in terms of regulatory prospects, all of which are crucial aspects of credit risk evaluation. This evaluation includes understanding the management's objectives, philosophies, and strategies that influence both business and financial outcomes.

The Credit-Deposit (CD) ratio of a bank is a financial indicator that measures the percentage of deposits utilized for lending and investment activities. It is determined by dividing the bank's total loans by its total deposits. This ratio reflects the extent to which deposited funds are allocated towards lending, as opposed to being kept in reserve. A higher CD ratio indicates a more aggressive lending strategy, whereas a lower ratio suggests a more cautious approach.

I. CD ratio =Total advances to total deposits

Business per employee evaluates the amount of deposits excluding inter-bank deposits and adding advances (such as retail deposits and loans combined), then correlates it with the total number of employees to gauge the productivity of each employee in generating business for the bank.

II. Business per employee (Deposits + Advances) / Number of Staff

Return on Net Worth (RoNW) reflects the Bank's ability to generate profits based on the amount invested by shareholders. RoNW is a measure of profitability presented as a percentage, calculated by dividing the Bank's net income by its shareholders' equity.

III. Return on net worth (RoNW)= Net Profit * 100/ Net Worth

Table no. 3.4: Management Effectiveness of Manipur State Cooperative Bank Ltd.

(Amount in Lakh)

Year	Total Deposit	Total Advance	CD Ratio (in %)	Net Profit/ Loss	RoNW (in %)	No of Employee	Business Per Employee
31.03.15	9198.71	13331.7	145	-644.2	-14.15	87	258.97
31.03.16	9885.09	13505.5	137	-7357.43	-152.68	106	220.67
31.03.17	12104.91	13233.11	109	15.81	0.35	103	246.00
31.03.18	18041.12	14551.65	81	1.16	0.03	96	339.51
31.03.19	26723.08	7044.48	26	64.5	0.41	94	359.23
31.03.20	32268.23	10711.24	33	199.96	1.26	87	494.02
31.03.21	46314.11	11633.4	25	201.18	1.25	86	673.81
31.03.22	56488.41	14121.92	25	459.15	2.84	144	490.35
31.03.23	50147.81	20262.64	40	366.1	2.23	136	517.72

Source: MStCB Ltd.

Earnings

Profits play a crucial role in bolstering the necessary capital for expansion and cushioning against losses, reflecting the ability to appropriately value expected risks. Profits also directly impact the ability to draw in capital. Examination of this aspect involves evaluating return on assets (ROA) as a vital measure of earnings, indicating the returns generated by a bank or financial institution on its assets. The higher the RoA value the bank is considered to be better and a value of 1% or higher is considered good.

- RoA = Net Profit * 100/ Avg. Working Fund

The Operating Margin of a bank is a financial metric of how efficiently and profitably it conducts its core operations. It represents the percentage of revenue retained after subtracting operating expenses, including salaries, rent, utilities, and other day-to-day costs. A higher operating margin suggests adept cost management and greater profitability from the bank's fundamental business activities.

- Operating Margin= Operating Profit * 100/ Avg. Working Fund

The Net Interest Margin (NIM) of a bank is a financial indicator that assesses the variance between the interest income gained from loans, securities, and other interest-bearing assets, and the interest expenses incurred from deposits and other interest-bearing liabilities. It represents the net income derived from interest as a proportion of the bank's interest-earning assets. A higher NIM signifies that the bank is generating more revenue from its interest-

generating endeavors compared to its interest-related costs, demonstrating greater profitability in its fundamental banking functions. NIM of 3% or above is considered good for banks.

- Net Interest Margin (NIM)= Yield on Assets - Cost of Funds

Table no. 3.5: Management Effectiveness of Manipur State Cooperative Bank Ltd.

Year	ROA (in %)	NIM (in %)	Operating Margin (in %)
31.03.15	-2.13	2.63	0.91
31.03.16	-23.06	2.00	-0.75
31.03.17	0.05	1.67	-0.63
31.03.18	0.0025	1.01	-0.22
31.03.19	0.19	3.20	1.10
31.03.20	0.51	3.34	1.65
31.03.21	0.46	3.55	1.09
31.03.22	0.82	3.38	1.29
31.03.23	0.59	3.89	1.69

Source: MStCB Ltd.

Liquidity

Financial institutions must adhere to RBI regulations by maintaining a minimum liquidity coverage ratio (LCR). This ratio assesses the capability to address any net funding run-off during a 30-day stress period by utilizing high-quality liquid assets.

LCR = High Quality Liquid Assets (HQLA) / 100*{Total Net cash outflows over the next 30 calendar days; 75% of total expected cash outflows}

Table 3.6: Liquidity Coverage Ratio (LCR) of Manipur State Cooperative Bank Ltd.

(Amount in Lakh)

Sl.No.	FY (quarterly)	HQLA	Net cash outflows over the next 30 calendar days*	LCR (in %)
1	31.03.2019	27,560.76	1,277.12	2158.05
2	30.06.2019	29,946.81	1,712.31	1748.91
3	30.09.2019	30,011.01	1,468.20	2044.08
4	31.12.2019	29,096.85	3,045.88	955.29
5	31.03.2020	31,428.83	1,607.48	1955.16
6	30.06.2020	29,762.33	1,496.08	1989.36
7	30.09.2020	26,942.13	1,628.29	1654.63
8	31.12.2020	31,001.39	1,990.38	1557.56
9	31.03.2021	45980.07	2,346.49	1959.53
10	30.06.2021	36,525.22	2,137.42	1708.85
11	30.09.2021	38,012.35	1,988.98	1911.15
12	31.12.2021	43,197.72	1,633.91	2643.82
13	31.03.2022	54,425.38	2,568.64	2118.84
14	30.06.2022	41,060.22	1,859.61	2208.00
15	30.09.2022	48,057.44	2,608.02	1842.68
16	31.12.2022	38,460.62	2,171.73	1770.97
17	31.03.2023	44,023.87	2,330.10	1889.36

18	30.06.2023	36,804.47	2,826.86	1301.95
19	30.09.2023	39,505.78	2,261.32	1747.03
20	31.12.2023	37,291.40	2,121.52	1757.77

Source: MStCB Ltd. *No of days used for calculation is 28 days.

Stepwise forward regression analysis was utilized to determine the most influential factors among the 11 variables impacting the bank's financial performance, with return on assets as the dependent variable.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.203[a]	0.041	-0.072	0.66966	0.041	0.365	2	17	0.699
2	.636[b]	0.405	0.246	0.56175	0.363	4.579	2	15	0.028
3	.654[c]	0.427	0.163	0.59178	0.023	0.258	2	13	0.776
4	.999[d]	0.999	0.997	0.03247	0.571	1436.479	3	10	0
5	1.000[e]	0.999	0.999	0.02461	0.001	4.702	2	8	0.045

a. Predictors: (Constant), Networth, CRAR
b. Predictors: (Constant), Networth, CRAR, Retail_deposit_ratio, CASA_to_Total_Deposit
c. Predictors: (Constant), Networth, CRAR, Retail_deposit_ratio, CASA_to_Total_Deposit, GNPA_to_Gross_Advance, GNPA
d. Predictors: (Constant), Networth, CRAR, Retail_deposit_ratio, CASA_to_Total_Deposit, GNPA_to_Gross_Advance, GNPA, RoNW, Business_per_employee, Net_Profit_Loss
e. Predictors: (Constant), Networth, CRAR, Retail_deposit_ratio, CASA_to_Total_Deposit, GNPA_to_Gross_Advance, GNPA, RoNW, Business_per_employee, Net_Profit_Loss, NIM, Operating_margin.

Model 1 has a relatively low R-squared value (0.041), suggesting that the predictors (Networth and CRAR) explain only a small proportion of the variance in the dependent variable.

Model 2 shows a substantial increase in R-squared (0.405), indicating that the addition of predictors (Retail_deposit_ratio and CASA_to_Total_Deposit) significantly improves the model's explanatory power.

Model 3 and subsequent models show further improvements in R-squared, indicating that the inclusion of additional predictors (such as GNPA_to_Gross_Advance, GNPA, RoNW, Business_per_employee, Net_Profit_Loss, NIM, and Operating_margin) continues to enhance the model's predictive accuracy.

The Adjusted R-squared values help account for the number of predictors in each model, ensuring that improvements in fit are not solely due to the addition of more variables.

The F Change statistics provide evidence of the overall significance of model improvements, with significant F-values indicating that the model changes are statistically meaningful.

Overall, the progression of R-squared values and associated F-statistics across the models suggests that the Manipur State Cooperative Bank's financial performance is influenced by a combination of factors, including Capital Adequacy Ratio (CRAR), worth, Casa to Total Deposit ratio, Gross Non-Performing Assets (GNPA) to Gross Advance ratio, Return on Net Worth (RoNW), Business per Employee, Net Profit/Loss, Net Interest Margin (NIM), and

Operating Margin. As such for the bank to have a sound financial position, it has to take care of the four important monitoring parameters of the CRAMEL framework Capital Adequacy; Resource Composition; Asset Quality; Management Effectiveness, and Earnings.

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ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	0.328	2	0.164	0.365	.699[b]
	Residual	7.624	17	0.448		
	Total	7.951	19			
2	Regression	3.218	4	0.804	2.549	.082[c]
	Residual	4.733	15	0.316		
	Total	7.951	19			
3	Regression	3.399	6	0.566	1.617	.219[d]
	Residual	4.553	13	0.35		
	Total	7.951	19			
4	Regression	7.941	9	0.882	837.107	.000[e]
	Residual	0.011	10	0.001		
	Total	7.951	19			
5	Regression	7.946	11	0.722	1192.813	.000[f]
	Residual	0.005	8	0.001		
	Total	7.951	19			

a. Dependent Variable: ROA

b. Predictors: (Constant), Networth, CRAR
c. Predictors: (Constant), Networth, CRAR, Retail_deposit_ratio, CASA_to_Total_Deposit
d. Predictors: (Constant), Networth, CRAR, Retail_deposit_ratio, CASA_to_Total_Deposit, GNPA_to_Gross_Advance, GNPA
e. Predictors: (Constant), Networth, CRAR, Retail_deposit_ratio, CASA_to_Total_Deposit, GNPA_to_Gross_Advance, GNPA, RoNW, Business_per_employee, Net_Profit_Loss
f. Predictors: (Constant), Networth, CRAR, Retail_deposit_ratio, CASA_to_Total_Deposit, GNPA_to_Gross_Advance, GNPA, RoNW, Business_per_employee, Net_Profit_Loss, NIM, Operating_margin

Interpreting the results

In Model 1, the regression model is not statistically significant (p = 0.699), indicating that the predictors (Networth and CRAR) do not have a significant overall effect on ROA.

In subsequent models (Models 2, 3, 4, and 5), the regression models become increasingly significant, with decreasing p-values. This suggests that the inclusion of additional predictors improves the overall explanatory power of the models.

Models 4 and 5 show highly significant F-values (p < 0.001), indicating that the regression models with multiple predictors (including Retail_deposit_ratio, CASA_to_Total_Deposit, GNPA_to_Gross_Advance, GNPA, RoNW, Business_per_employee, Net_Profit_Loss, NIM, and Operating_margin) provide a highly significant explanation of the variability in ROA.

The R-squared values in the Model Summary table can be used in conjunction with the ANOVA results to assess the proportion of variance in ROA explained by each model and the additional explanatory power gained by adding more predictors.

Overall, the ANOVA results suggest that the regression models with multiple predictors are highly significant in explaining the variability in ROA for the cooperative bank.

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	0.98	10.847		0.09	0.929
	CRAR	0.024	0.033	0.215	0.731	0.475
	Networth	-5.24E-05	0.001	-0.022	-0.075	0.941
2	(Constant)	-21.662	11.866		-1.825	0.088
	CRAR	0.045	0.029	0.398	1.562	0.139
	Networth	0.002	0.001	0.794	2.13	0.05
	CASA_to_Total_Deposit	-0.106	0.037	-1.093	-2.827	0.013
	Retail_deposit_ratio	0.001	0.004	0.072	0.344	0.736
3	(Constant)	-7.732	33.25		-0.233	0.82
	CRAR	0.05	0.039	0.449	1.28	0.223
	Networth	0.001	0.002	0.409	0.466	0.649
	CASA_to_Total_Deposit	-0.112	0.045	-1.154	-2.504	0.026
	Retail_deposit_ratio	0.001	0.006	0.056	0.206	0.84

	GNPA_to_Gross_Advance	0.009	0.054	0.058	0.156	0.878
	GNPA	0	0.001	0.444	0.457	0.655
4	(Constant)	-0.266	2.182		-0.122	0.905
	CRAR	-0.004	0.003	-0.035	-1.501	0.164
	Networth	5.29E-05	0	0.022	0.379	0.713
	CASA_to_Total_Deposit	-0.005	0.003	-0.054	-1.648	0.13
	Retail_deposit_ratio	0	0	-0.009	-0.584	0.572
	GNPA_to_Gross_Advance	-0.002	0.004	-0.015	-0.536	0.603
	GNPA	-5.89E-07	0	-0.001	-0.018	0.986
	RoNW	3.714	0.31	12.146	11.995	0
	Business_per_employee	3.60E-05	0	0.005	0.227	0.825
	Net_Profit_Loss	-0.021	0.002	-11.182	-11.048	0
5	(Constant)	-0.94	1.694		-0.555	0.594
	CRAR	-0.007	0.003	-0.059	-2.205	0.059
	Networth	8.43E-05	0	0.036	0.786	0.455
	CASA_to_Total_Deposit	-0.002	0.003	-0.017	-0.495	0.634
	Retail_deposit_ratio	0	0	-0.013	-0.992	0.35
	GNPA_to_Gross_Advance	-0.002	0.003	-0.011	-0.487	0.639
	GNPA	-1.22E-05	0	-0.022	-0.473	0.649
	RoNW	3.528	0.263	11.539	13.406	0
	Business_per_employee	-3.62E-05	0	-0.006	-0.211	0.838
	Net_Profit_Loss	-0.02	0.002	-10.615	-12.259	0
	NIM	-0.032	0.015	-0.055	-2.098	0.069
	Operating_margin	0.09	0.031	0.098	2.897	0.02

- Dependent Variable: ROA

In Model 1, only CRAR has a non-trivial standardized coefficient, suggesting it has a relatively more significant impact on the dependent variable compared to other predictors. However, its p-value is high, indicating it may not be statistically significant.

In subsequent models, additional predictors are introduced. In Model 2, besides CRAR, Networth, and Casa to Total Deposit also show significant impact on the dependent variable (although Casa to Total Deposit has a relatively low p-value).

Models 3, 4, and 5 introduce more predictors, but the interpretation remains similar, with some variables showing significant impact while others do not.

Overall, the analytical results suggest that the cooperative bank's performance (or the dependent variable under analysis) is influenced by a combination of factors, including Capital Adequacy Ratio (CRAR), Net worth, Casa to Total Deposit ratio, Gross Non-Performing Assets (GNPA) to Gross Advance ratio, Return on Net Worth (RoNW), Business per Employee, Net

Profit/Loss, Net Interest Margin (NIM), and Operating Margin. However, the significance of these factors varies across models, indicating potential complexities in the bank's financial performance.

Excluded Variablesa						
Model		Beta In	t	Sig.	Partial Correlation	Collinearity Statistics
						Tolerance
1	CASA_to_Total_Deposit	-1.126[b]	-3.093	0.007	-0.612	0.283
	Retail_deposit_ratio	.218[b]	0.901	0.381	0.22	0.976
	GNPA_to_Gross_Advance	.152[b]	0.479	0.638	0.119	0.587
	GNPA	.036[b]	0.043	0.966	0.011	0.085
	RoNW	1.038[b]	18.898	0	0.978	0.852
	Business_per_employee	-.354[b]	-1.148	0.268	-0.276	0.583
	Net_Profit_Loss	1.039[b]	17.346	0	0.974	0.843
	NIM	.478[b]	2.203	0.043	0.482	0.977
	Operating_margin	.827[b]	5.839	0	0.825	0.954
	HQLAs	-.550[b]	-1.805	0.09	-0.411	0.535
	LCR	-.232[b]	-0.954	0.354	-0.232	0.96
2	GNPA_to_Gross_Advance	.162[c]	0.571	0.577	0.151	0.513
	GNPA	.537[c]	0.727	0.479	0.191	0.075
	RoNW	.963[c]	17.913	0	0.979	0.615
	Business_per_employee	-.154[c]	-0.43	0.674	-0.114	0.328
	Net_Profit_Loss	.959[c]	16.461	0	0.975	0.616
	NIM	.527[c]	2.454	0.028	0.548	0.644
	Operating_margin	.821[c]	4.884	0	0.794	0.556
	HQLAs	-.191[c]	-0.478	0.64	-0.127	0.261
	LCR	.013[c]	0.053	0.958	0.014	0.756
3	RoNW	.965[d]	18.368	0	0.983	0.593
	Business_per_employee	-.207[d]	-0.492	0.632	-0.141	0.264
	Net_Profit_Loss	.962[d]	16.938	0	0.98	0.593
	NIM	.536[d]	2.199	0.048	0.536	0.571
	Operating_margin	.855[d]	4.515	0.001	0.793	0.493
	HQLAs	-.288[d]	-0.48	0.64	-0.137	0.13
	LCR	.053[d]	0.179	0.861	0.052	0.549
4	NIM	-.024[e]	-0.746	0.475	-0.241	0.134
	Operating_margin	.069[e]	1.905	0.089	0.536	0.081
	HQLAs	-.065[e]	-1.77	0.11	-0.508	0.082
	LCR	.012[e]	0.767	0.463	0.248	0.523
5	HQLAs	-.083[f]	-1.347	0.22	-0.454	0.018
	LCR	-.001[f]	-0.072	0.945	-0.027	0.43

a. Dependent Variable: ROA

b. Predictors in the Model: (Constant), Networth, CRAR
c. Predictors in the Model: (Constant), Networth, CRAR, Retail_deposit_ratio, CASA_to_Total_Deposit
d. Predictors in the Model: (Constant), Networth, CRAR, Retail_deposit_ratio, CASA_to_Total_Deposit, GNPA_to_Gross_Advance, GNPA
e. Predictors in the Model: (Constant), Networth, CRAR, Retail_deposit_ratio, CASA_to_Total_Deposit, GNPA_to_Gross_Advance, GNPA, RoNW, Business_per_employee, Net_Profit_Loss
f. Predictors in the Model: (Constant), Networth, CRAR, Retail_deposit_ratio, CASA_to_Total_Deposit, GNPA_to_Gross_Advance, GNPA, RoNW, Business_per_employee, Net_Profit_Loss, NIM, Operating_margin

i. Return on Assets (ROA): The ROA is a key indicator of the bank's financial performance, representing its ability to generate profits from its assets. The significant predictors in the models suggest that factors like Return on Net Worth (RoNW), Net Profit/Loss, Net Interest Margin (NIM), and Operating Margin are important drivers of ROA for the cooperative bank.

ii. Asset Quality: Variables related to asset quality, such as Gross Non-Performing Assets (GNPA) and the GNPA to Gross Advance ratio, appear in some models but may not consistently show significant relationships with ROA. This could indicate that asset quality management is an area that the bank needs to monitor closely to ensure healthy financial performance.

iii. Capital Adequacy: The presence of variables like Net Worth and Capital to Risk-Weighted Assets Ratio (CRAR) as predictors suggests that capital adequacy is considered in assessing the bank's financial condition. A higher CRAR typically indicates better resilience to financial risks.

iv. Operational Efficiency: Variables like Business per Employee and Operating Margin are significant predictors in some models, indicating the importance of operational efficiency in enhancing ROA. Efficient operations can lead to lower costs and higher profitability.

v. Funding Structure: Variables like Retail Deposit Ratio and Casa to Total Deposit Ratio are significant predictors in some models, suggesting that the bank's funding structure plays a role in its financial performance. A higher reliance on retail deposits and a favorable mix of Casa deposits may positively impact ROA.

Overall, the analysis suggests that the Manipur State Cooperative Bank's financial condition is influenced by a combination of factors including asset quality, capital adequacy, operational efficiency, and funding structure. To maintain and improve its financial health, the bank should continue to monitor these factors closely, implement sound risk management practices, and focus on enhancing operational efficiency and profitability.

Conclusion

The summary of regression model analyses for the Manipur State Cooperative Bank shows a gradual enhancement in the ability to explain variations in financial performance as additional predictors are incorporated:

Progression of Models:

- Model 1 started with a low R-squared value of 0.041, indicating minimal explanatory power with initial predictors like Net worth and CRAR.

- Model 2 saw a significant increase in R-squared to 0.405, with the addition of predictors like Retail_deposit_ratio and CASA_to_Total_Deposit, significantly boosting the model's explanatory scope.
- Further Models (3, 4, and 5) continued to exhibit increased R-squared values, suggesting improved model accuracy from including additional predictors such as GNPA_to_Gross_Advance, GNPA, RoNW, Business_per_employee, Net_Profit_Loss, NIM, and Operating Margin.

Statistical Significance:
- Early models initially exhibited limited statistical significance, with Model 1 not being significant ($p = 0.699$).
- This significance improved markedly as more predictors were added, with later models (Models 4 and 5) showing highly significant F-values ($p < 0.001$).

Influence of Predictors:
- Early predictors like CRAR had modest impacts, but as more predictors were included, factors like Networth, CASA to Total Deposit ratio, and other financial metrics began to show significant influence.

Complex Influences:
- The analyses across various models suggest that the bank's financial health is intricately linked to multiple factors including capital adequacy, asset quality, operational efficiency, and profit margins. This complexity underscores the need for a comprehensive approach to financial assessment and strategy.

Adjusted R-squared and F Change Statistics:
- The use of adjusted R-squared values indicates that improvements in model performance were valid and not merely due to the addition of more variables.
- F Change statistics affirm the statistical robustness of model improvements, confirming each successive model as a better fit.

Conclusion remark of Manipur State Cooperative Bank:

- For the bank to have a sound financial position, it has to take care of the five important monitoring parameters of the CRAMEL framework viz. Capital Adequacy; Resource Composition; Asset Quality; Management Effectiveness and Earnings.
- In terms of Capital Adequacy, the bank has consistently upheld the mandated minimum CRAR of 9% set by regulators in India since 2019, with slight improvement despite a minor dip in 2021. Similarly, the Leverage Ratio stood at 9.20% as of March 31st, 2023, surpassing the 4.5% benchmark and deemed satisfactory.
- In terms of Resource Composition, the bank has made notable advancements, particularly in CASA mobilization, witnessing a remarkable 754% growth over the last 36 quarters, commencing from March 31, 2015. Moreover, as of December 31, 2023, the proportion of retail deposits stands at 62.01%, signalling the bank's adeptness in garnering low-cost and dependable funding resources.

- The bank's Asset Quality indicates a concerted effort to manage the previously elevated Gross Non-Performing Assets (GNPA), which accounted for approximately 96% of total advances before undergoing restructuring in 2018. However, the current GNPA to Gross Advance ratio of 20.29% as of December 31, 2023, is relatively high, necessitating a focused management approach.
- The assessment of the Bank's Management Effectiveness considered Deposits, Advances, CD ratio, RoNW, and Business per employee. It was noted that deposits and advances have experienced significant growth. However, the CD ratio remains a concern as it falls below the desired threshold of 60%. Additionally, there is potential for enhancement in Business per employee.
- The bank's Earnings parameter was evaluated using ROA, NIM, and Operating Margin. There is considerable room for enhancement in ROA, given its fluctuation over the last 36 quarters, with seven quarters surpassing the desired level of 1%. Conversely, the NIM has shown improvement, surpassing the desired 3% level, reflecting the bank's proficiency in mobilizing low-cost funds. However, the Operating Margin requires focused attention from management to identify factors affecting it within the bank.

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