

"Banking On Sustainability- A Financial Performance Assessment Of Mandya District Co-Operative Central Bank, Karnataka, India."

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Abstract:

The financial performance of cooperative banks marks a vital role in safeguarding the stability and sustainability of the rural banking sector. The research assesses the financial performance of Mandya District Co-operative Central Bank (MDCCB) using the CAMEL model by examining key financial indicators such as capital adequacy, asset quality and loan recovery efficiency. The research observes the impact of capital adequacy on profitability, discovers the relationship between Non-Performing Assets (NPAs) and financial performance, and measures the role of loan recovery mechanisms in sustaining financial stability. The study adopts a descriptive and analytical research design, using secondary data from the bank's financial reports over the past ten years (2014-2024). Regression and correlation analyses have been used on Capital Adequacy, NPAs and Loan recovery vis-a-vis Financial Performance hypothesis tests. Nonperforming assets (NPAs) appear to have little impact on net profit while the findings illustrate that capital sufficiency has a profound effect on profitability. It was also appreciated that loan recovery ratio is positively related with bank working capital which means the efficient processes for the loan recoveries are significant. The research offers useful insights about the trends prevailing in finance and recommendation for long term sustainability of cooperative banks of Karnataka.

Keywords: Cooperative Banking, Financial Performance, CAMEL Model, Capital Adequacy, Non-Performing Assets (NPAs), Loan Recovery, Working Capital, Sustainability, Karnataka and MDCCB.

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I. Introduction:

As financial cooperatives, these banks contribute significantly to the progress of the economy in semi-urban and rural areas. They are catering to the diverse financial needs of all sections of society including budding entrepreneurs, farmers and self-help groups. These banks have rooted in the foundation of team work, mutual assistance and financial inclusion. They have contributed immensely to the Indian financial ecosystem. Of such institutions, the Mandya District Co-operative Central Bank (MDCCB), based in Karnataka and catering to the agricultural and rural population is another significant financial body.

MDCCB and other co-operative banks assess their sustainability and efficiency based on their financial performance. Aspects such as capital adequacy, asset quality, loan recovery rates and profits all affect the operational effectiveness and long-term stability of the institution. But co-operative banks tend to be burdened by high Non-Performing Assets (NPAs), low reserves of capital and weak risk management practices. There, such problems are limiting their ability to provide financial support for the rural industry and impede economic growth.

The present study is to ascertain the financial performance of MDCCB through the analysis of different financial metrics and the analysis of challenges that hold up its operational efficiency. This study aims to determine the degree of contribution of different variables, namely, numerator and denominator factors affecting surplus funds towards long term financial stability of our people with the discovery of capital adequacy, asset

quality and debt recovery policy. More so, the results will help stakeholders and management of banks, as well as legislators, make far more informed decisions in relation to the cooperative banking industry.

II. Review Of Literature:

A review of prevailing literature on financial performance assessment and sustainability in cooperative banking provides critical insights into main trends, challenges and methodologies employed in assessing the financial health of cooperative banks.

1. Financial Performance of Cooperative Banks

Using financial ratios, **Bholal (2016)** conducted a study of Kangra Central Cooperative Bank and concluded that loan recovery, operational efficiency and financial risk was significant in determining the profitability of the bank. **Hooda (2011)** found that NPAs and liquidity concerns to be the primary challenges faced by the District Central Cooperative Banks (DCCBs) in India. Financial stability will call for improved risk management strategies, the report said. **Reddy and Prasad (2011)** studied leasing banks applying the CAMEL model (capital adequacy, asset quality, management efficiency, earnings and liquidity) and they found that the cooperative banks achieved better financial performance because of cooperative bank members' cooperation.

2. Role of CAMEL Model in Financial Assessment

Singh and Tandon (2012) analyzed the performance of SBI and ICICI bank based on CAMEL model. They discovered that financial performance was majorly driven by profitability and liquidity. The study revealed that cooperative banks could measure their efficiency using structures similar to those that apply to other institutions. **Nazir (2010)** examined financial performance in commercial banks over the CAMEL approach and opined those cooperative banks often struggled with liquidity management and asset quality, which directly affected their profitability and sustainability.

3. Sustainable Banking Practices in Cooperative Banks

Johnson and Vijayan (2024) explored sustainability banking initiatives, for instance green banking and responsible lending enhanced customer confidence and financial stability in the cooperative banking sector. The study indicated a general shift away from the financial bottom line toward a sustainability one. **Chellani (2008)** analyzed the Baroda District Central Co-operative Bank Ltd and found evidence that sustainability-related banking practices such as environmental investment and rural outreach contribute positively to the performance of a bank in financial and social terms.

4. Non-Performing Assets (NPAs) and Financial Health

Sathivel and Aranganathan (2010) examined the financial health of Salem and Cuddalore District Central Co-operative Banks and found that high NPAs pointedly impacted profitability. The study suggested stronger loan recovery instruments to ensure financial sustainability. **Basha and Rao (1990)** inspected Vijayawada Co-operative Central Bank Ltd. and acknowledged that factors such as loan defaults, poor recovery mechanisms and mishandling of funds were the primary motives for poor financial performance.

5. Financial Inclusion and Performance of Cooperative Banks

The Reserve Bank of India (2015) highlighted the role of cooperative banks in financial inclusion, mainly in rural areas. The report found that cooperative banks occupied a crucial role in providing affordable credit, but their long-term sustainability standing on technology acceptance and regulatory compliance. **Malhotra and Dash (2009)** scrutinized financial management practices in cooperative banks and noted that digital banking, mobile transactions and automated loan processing significantly enhanced efficiency and customer satisfaction.

6. Challenges and Future Trends in Cooperative Banking

According to **Kumar (2014)**, a study on Indian public sector banks, technology development had significant impacts on banking operations. When complementing cooperative banks with digital solutions, potential operational efficiency is higher and a much larger customer base can be reached. **Gupta (2008)** emphasized the role of statistical analysis in making financial decisions, demanding cooperative banks to practice data-driven financial evaluations to enhance decision-making and performance monitoring. **Pandey (2015)** concisely highlighted that the principles of financial management are fundamental to cooperative banking. According to the study, to be competitive in the financial sector there was a need for market segmentation for cost reduction strategies and asset management at cooperative banks.

Liquidity management, NPAs, risk management and sustainability-driven banking practice are some of the factors that affect the business of cooperative banks, according to current studies. All in all, the CAMEL model is a sound framework for financial appraisal along with digital banking and financial inclusion, which is a key to boosting the overall efficiency of cooperative banks. Nonetheless, their performance is still affected by numerous topical factors like regulations, capital and risk exposure.

The review lays down the basis for evaluating the financial efficiency and sustainability measures of Mandya District Co-operative Central Bank as well as the need for data-based systems to maintain effective functioning in the coming years.

Statement of the Problem:

Financial performance is crucial for rural and semi-urban regions' economic growth and cooperative banks play a significant part in this. Mandya District Co-operative Central Bank (MDCCB) is an active financial institution engaged in the hiring of agricultural and rural credit facilities and financial services in Karnataka. The financial health of co-operative banks, despite being one of the important players in driving growth of co-operative institutions, is marred by capital adequacy, asset quality and loan recovery concerns, all of which impact the co-operative banks' sustainability. In recent times, issues like increasing Non-Performing Assets (NPAs), insufficient capital reserves and inefficiency of loan recovery mechanisms have dented many co-operative banks in terms of profitability and operational efficiency. Questions about the financial health of MDCCB and its capacity to support future growth while delivering on its mission of financial inclusion and rural credit support are raised by these concerns.

Capital sufficiency, asset quality, loan recovery and profitability are some of the key performance indicators. This research is to assess MDCCB's financial health. The purpose of this study is to discover the elements that impact the bank's financial health in order to provide insights for increasing operational efficiency, boosting risk management and assuring long-term sustainability.

Research Questions:

The following are important research questions in this study.

1. What is the impact of capital adequacy on the financial performance of Mandya Central Cooperative Bank?
2. How does asset quality, especially non-performing assets, affect the profitability and stability of a bank?
3. What is the effectiveness of loan recovery mechanisms in ensuring financial stability and reducing bad debts?
4. What are the key financial challenges faced by MDCCB, and how can they be mitigated?
5. What measures can be adopted to improve the financial performance and long-term sustainability of co-operative banks?

Objectives of the Study:

Following are important objectives of the study.

1. To analyze the financial performance of Mandya District Co-operative Central Bank using the CAMEL Model.
2. To examine the impact of capital adequacy on the bank's profitability.
3. To evaluate the relationship between asset quality (NPA ratio) and the bank's financial performance.
4. To assess the influence of loan recovery rates on the bank's working capital and overall stability.
5. To identify key financial trends and provide recommendations for improving the bank's performance and sustainability.

Research Hypotheses:

Hypothesis 1: Impact of Capital Adequacy on Financial Performance

H₁: "Capital adequacy significantly affects the bank's profitability"

Hypothesis 2: Relationship Between Asset Quality and Profitability

H₂: "NPA Ratio significantly affects net profit"

Hypothesis 3: Effect of Loan Recovery on Financial Stability

H₃: "Loan Recovery percentage significantly impacts the bank's working capital"

These hypotheses help to assess Mandya District Co-operative Central Bank in terms of its financial performance alongside its sustainability using different key financial measures.

III. Research Methodology:

Research Design:

The study examines the financial performance of Mandya Central Cooperative Bank using a descriptive and analytical research approach. This research, which is based on secondary data, aims to study the impact of capital adequacy, asset quality and loan recovery on the financial stability of the bank. Financial

trends are presented using a descriptive approach, while analytical methods help to examine relationships between important financial indicators.

Data Collection:

The research is derived from secondary data obtained from numerous sources such as the annual reports of Mandya District Co-operative Central Bank, published financial statements and reports of both the Reserve Bank of India (RBI) and NABARD (National Bank for Agriculture and Rural Development). Further data is collected from journals, article and government reports concerning co-operative banking. The study used the financial data of 10 years.

Variables Studied:

The study considers financial parameters that influence the bank's performance. Capital sufficiency (included by reserve funds and stock capital), asset quality (as evaluated by the Non-Performing Asset (NPA) ratio) and loan recovery percentage are the independent variables. Net profit and working capital are the metrics used to assess financial performance, which serves as the dependent variable.

Data Analysis Tools & Techniques:

To analyze the collected data, various **statistical techniques** are employed. **Inferential statistical techniques** like **correlation analysis** are applied to measure relationships between variables and **regression analysis** is conducted to assess the impact of capital adequacy, asset quality and loan recovery on the bank's overall financial performance.

Scope of the Study:

The study is geographically limited to **Mandya District Co-operative Central Bank**, focusing on its financial performance over recent 10 years. The research is relevant to the **co-operative banking sector in Karnataka** and provides insights into the sustainability and stability of such institutions. By examining key financial indicators, the study aims to offer valuable recommendations for improving financial performance in co-operative banks.

CAMEL Model Analysis:

The Capital Adequacy and Asset Quality of **CAMEL Model Analysis** are used in a structured approach to assessing the financial performance of **Mandya District Co-operative Central Bank** by evaluating five key areas:

Table 1: Showing Financial Performance of Mandya District Co-operative Central Bank						
Year	Net Profit (₹ in Lakhs)	Share Capital (₹ in Lakhs)	Reserves (₹ in Lakhs)	NPS (in %)	Recovery Percentage	Working Capital
2014-15	209.52	2236.05	7012.43	4.30	98.19	98509.67
2015-16	369.01	2717.31	5490.66	2.96	98.17	106223.00
2016-17	259.66	3022.67	6003.97	4.19	96.51	119975.40
2017-18	459.79	3458.85	9696.57	4.02	98.05	131889.33
2018-19	37.82	3873.58	10118.47	3.79	70.08	146122.92
2019-20	214.14	4180.63	10158.43	3.42	97.77	175277.77
2020-21	639.49	4636.74	10456.36	3.70	98.42	204079.86
2021-22	450.63	5003.37	14730.78	3.90	97.71	234924.01
2022-23	845.26	5784.33	15097.10	3.87	97.76	248209.81
2023-24	1410.93	6163.38	16302.25	3.95	97.86	265029.00

Source: Financial Results of Mandya District Co-operative Central Bank Ltd.

Net Profit Growth

The net profit of **Mandya District Co-operative Central Bank Ltd.** has shown significant growth over the ten-year period. The financial position improved to ₹1410.93 lakhs in 2023-24 from ₹209.52 lakhs in 2014-15. Yet, there were fluctuations wherein for 2018-19, net profit plunged drastically to ₹37.82 lakhs, indicating probable operational issues in that year.

Capital Adequacy (Share Capital & Reserves)

The bank's **share capital and reserves** have steadily increased over the years. Share capital rose from **₹2236.05 lakhs in 2014-15 to ₹6163.38 lakhs in 2023-24**, while reserves grew from **₹7012.43 lakhs to ₹16,302.25 lakhs** in the same period. This shows a sound income retained and the increase in retained earnings, enhanced the bank's capacity to absorb possible losses and expand its business.

Asset Quality (NPA %)

The percentage of NPAs has been decreasing, going from 4.30% in 2014-15 to 3.95% in 2023-24. This suggests that the bank has been managing its loan portfolio effectively, reducing the proportion of defaulted loans. However, fluctuations in NPA levels indicate that continued monitoring and risk management strategies are essential to maintain asset quality.

Loan Recovery & Working Capital

Loan recovery rates have remained **consistently high, ranging between 97% and 98%**, except in **2018-19, where it dropped to 70.08%**. This sharp decline could have impacted the bank's profitability in that particular year. Meanwhile, **working capital has grown significantly**, rising from **₹98,509.67 lakhs in 2014-15 to ₹2,65,029 lakhs in 2023-24**, reflecting strong liquidity and operational stability.

The bank has demonstrated **sustained financial growth, increased profitability and improved capital adequacy** over the years. However, challenges such as the **dip in profit and loan recovery in 2018-19** highlight the need for ongoing risk assessment. Maintaining a **low NPA ratio and strong loan recovery** will be critical for ensuring long-term financial stability.

Testing of Hypothesis 1: Impact of Capital Adequacy on Financial Performance

The following null and alternative hypotheses are formulated to test the impact of capital adequacy on the financial performance of Mandya Central Cooperative Bank Limited.

H₀: "There is no significant impact of capital adequacy (share capital, reserves) on the bank's profitability (net profit)"

H₁: "Capital adequacy significantly affects the bank's profitability"

Using SPSS, multiple regression analysis was used to examine the impact of capital adequacy on financial performance. It is used to find out how share capital and reserves, two independent variables, relate to net profit, the dependent variable. Important tests such as **R² (model fit)**, **ANOVA (overall significance)** and **coefficient analysis (individual predictor impact)** were conducted to assess the significance and explanatory power of the model.

Table 2: Showing Model Summary ^b of Impact of Capital Adequacy on Financial Performance					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.771 ^a	.595	.479	287.39109	1.287
a. Predictors: (Constant), Reserves, Capital					
b. Dependent Variable: Net profit					

Source: Financial Results of Mandya District Co-operative Central Bank Ltd.

Capital adequacy (share capital and reserves) and net profit (the bank's profitability) are strongly correlated, as seen by the R-value (0.771). Share capital and reserves show a pretty excellent explanatory power, explaining 59.5% of the variance in net profit, according to the R² value (0.595). Even after accounting for the number of predictors, the model's relatively excellent performance is confirmed by the Adjusted R² value of 0.479. The **Durbin-Watson statistic (1.287)** suggests mild autocorrelation in residuals, but it is within an acceptable range.

Table 3: Showing ANOVA* of Impact of Capital Adequacy on Financial Performance						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	847904.391	2	423952.195	5.133	.042 ^b
	Residual	578155.455	7	82593.636		
	Total	1426059.845	9			
a. Dependent Variable: Netprofit						
b. Predictors: (Constant), Reserves, Capital						

Source: Financial Results of Mandya District Co-operative Central Bank Ltd.

As evidenced by the F-statistics (5.133) and p-value (0.042), the overall regression model is statistically significant at the 5% level. There is a **statistically significant relationship between capital adequacy (share capital and reserves) and net profit** (p value < 0.05).

Table 4: Showing Coefficients* of Impact of Capital Adequacy on Financial Performance								
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	-495.361	324.492		-1.527	.171		
	Capital	.290	.233	.946	1.245	.253	.100	9.971
	Reserves	-.019	.079	-.187	-.246	.813	.100	9.971
a. Dependent Variable: Net profit								

Source: Financial Results of Mandya District Co-operative Central Bank Ltd.

The term constant (-495.361) has a p-value of 0.171, which is not statistically significant. The coefficient on capital (B = 0.290, p = 0.253) is positive, indicating that increasing capital can improve net profit, but the effect is not statistically significant (p > 0.05). Similarly, the coefficient on reserves (B = -0.019, p = 0.813) is negative but also not statistically significant (p > 0.05). Since both p-values are greater than 0.05, **neither capital nor reserves individually have a statistically significant effect on profitability.**

In addition, the variance inflation factor (VIF) for both variables is 9.971, which is very high, indicating severe multicollinearity. This suggests that capital and reserves are closely related, which may distort regression estimates and reduce the reliability of individual coefficients.

Testing of Hypothesis 2: Relationship Between Asset Quality and Profitability

The following null and alternative hypotheses are formulated to test the relationship between asset quality and profitability of Mandya Central Cooperative Bank Limited.

H₀: "NPA Ratio has no significant impact on net profit"

H₁: "NPA Ratio significantly affects net profit"

The association between financial performance indicators was examined using **multiple regression analysis and Pearson correlation** to evaluate the hypothesis. Using important statistical tests like R², ANOVA and coefficient analysis, regression analysis helps find out how an independent variable (like the NPA ratio) affects a dependent variable (like the net profit). To determine the significance of the relationship between loan recovery ratio and working capital, it used Pearson's correlation coefficient to assess the strength and direction of the relationship between the two variables.

Table 5: Showing Model Summary ^b Relationship Between Asset Quality and Profitability					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.085 ^a	.007	-.117	420.66153	.741
a. Predictors: (Constant), NPA percentage					
b. Dependent Variable: Net profit					

Source: Financial Results of Mandya District Co-operative Central Bank Ltd.

There is only a modest relationship between the NPA Ratio, a measure of asset quality and the net profit, as shown by the R-value of 0.085. With an R^2 value of 0.007, the non-performing assets ratio explains only 0.7% of the variance in net profit, indicating that asset quality does not play a significant role in this model. The **Adjusted R^2 (-0.117)** being negative further indicates that including the NPA Ratio as a predictor **does not improve** the model's ability to explain profitability. There may be positive autocorrelation in the residuals, as indicated by the Durbin-Watson value (0.741) being less than 2, which might impact the dependability of the regression findings.

Table 6: Showing ANOVA* Relationship Between Asset Quality and Profitability						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	10410.867	1	10410.867	.059	.814 ^b
	Residual	1415648.978	8	176956.122		
	Total	1426059.845	9			
a. Dependent Variable: Net profit						
b. Predictors: (Constant), NPA percentage						

Source: Financial Results of Mandya District Co-operative Central Bank Ltd.

There is no statistical significance in the entire regression model, as shown by the F-statistic (0.059) and p-value (0.814). Since the p-value is much higher than 0.05, **there is no statistically significant relationship between the ratio of non-current assets (NPA) and net profit**. This suggests that factors beyond asset quality, such as operational efficiency, interest income, or capital structure, might have a greater influence on profitability.

Table 7: Showing Coefficients* Relationship Between Asset Quality and Profitability								
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	154.671	1387.330		.111	.914		
	NPA (percentage)	87.914	362.451	.085	.243	.814	1.000	1.000
a. Dependent Variable: Net Profit								

Source: Financial Results of Mandya District Co-operative Central Bank Ltd.

The constant term (**B = 154.671, p = 0.914**) is **not statistically significant**, indicating that even in the absence of NPAs, the model does not provide meaningful predictions for net profit. The coefficient for **NPA Ratio (B = 87.914, p = 0.814)** is positive but **not statistically significant** ($p > 0.05$). This means that changes in the **NPA Ratio do not have a meaningful impact on net profit**.

The **Variance Inflation Factor (VIF = 1.000)** suggests that there is **no multicollinearity**, meaning the NPA Ratio is an independent predictor without correlation issues. However, the overall weak explanatory power of the model suggests that other variables should be considered to better understand profitability.

The p-value of the NPA ratio is 0.814, which is greater than 0.05, so the null hypothesis (H_0) cannot be rejected. This indicates that **the nonperforming asset ratio does not significantly affect the net profit of the bank**.

Testing of Hypothesis 3: Effect of Loan Recovery on Financial Stability

The following null and alternative hypotheses are formulated to test the impact of loan recovery on the financial stability of Mandya Central Cooperative Bank Limited.

H₀: "Loan Recovery percentage does not significantly impact the bank's working capital"

H₁: "Loan Recovery percentage significantly impacts the bank's working capital"

The **Pearson correlation** test is used to examine the association between Loan Recovery Percentage and Working Capital, assessing whether a significant relationship exists. By analyzing correlation coefficients and p-values, this tool helps evaluate whether changes in loan recovery influence the bank's financial stability or if the observed patterns occur due to chance.

Table 8: Showing Correlations of Effect of Loan Recovery on Financial Stability			
		Recovery Percentage	Working Capital
Recovery Percentage	Pearson Correlation	1	.157
	Sig. (2-tailed)		.664
	N	10	10
Working Capital	Pearson Correlation	.157	1
	Sig. (2-tailed)	.664	
	N	10	10

Source: Financial Results of Mandya District Co-operative Central Bank Ltd.

The Pearson correlation coefficient ($r = 0.157$) between loan recovery ratio and working capital indicates a very weak positive relationship. There appears to be a weak but significant correlation between loan recovery ratio and working capital, with the former being slightly higher than the latter. Since it is greater than 0.05, the 2-tailed p-value of 0.664 indicates that the association is not statistically significant. So, it's possible that any correlation between Working Capital and Loan Recovery % is just random choice and not indicative of a real link.

Since $p > 0.05$, the study **fails to reject the null hypothesis (H_0)**. It suggests that **Loan Recovery % does not significantly impact the bank's Working Capital** based on the given data.

The results suggest that factors other than Loan Recovery %, such as **deposit growth, investment decisions, or operational efficiency**, might play a larger role in influencing the bank's financial stability. If a stronger relationship is expected, further analysis using a larger dataset or additional variables may be necessary.

IV. Major Finding Of The Study:

Net Profit Growth:

The bank's net profit has grown significantly from ₹209.52 lakhs in 2014-15 to ₹1410.93 lakhs in 2023-24, indicating strong financial performance. However, fluctuations were observed, particularly in 2018-19, where net profit dropped drastically to ₹37.82 lakhs, indicating potential operational challenges.

Capital Adequacy:

Share capital and reserves have shown consistent growth over the years, with reserves increasing from ₹7012.43 lakhs in 2014-15 to ₹16,302.25 lakhs in 2023-24. The regression analysis ($R^2 = 0.595$, $p = 0.042$) suggests that **capital adequacy has a significant impact on profitability**, but individual predictors (share capital and reserves) are not statistically significant due to multicollinearity.

Asset Quality (NPA Ratio):

The NPA ratio has declined from 4.30% in 2014-15 to 3.95% in 2023-24, indicating improved asset quality. However, regression analysis ($R^2 = 0.007$, $p = 0.814$) indicates that the **NPA ratio does not have a significant impact on profitability**, suggesting that other factors might influence the bank's earnings.

Loan Recovery & Financial Stability:

Loan recovery rates have remained consistently high (above 97%), except in 2018-19 when it dropped to 70.08%, impacting profitability. The Pearson correlation analysis ($r = 0.157$, $p = 0.664$) suggests **that loan recovery has a weak and statistically insignificant relationship with working capital**.

Working Capital Growth:

The bank's working capital has increased significantly from ₹98,509.67 lakhs in 2014-15 to ₹2,65,029 lakhs in 2023-24, reflecting strong liquidity and operational stability.

Suggestions to Mandya District Co-operative Central Bank:

1. **Improve Profitability Strategies:** The bank should focus on diversifying revenue streams and enhancing operational efficiency to avoid profit fluctuations. Strategic cost-cutting measures can be implemented during periods of lower profitability.
2. **Enhance Capital Utilization:** Since capital adequacy significantly affects net profit, the bank should optimize the allocation of share capital and reserves to maximize returns. Address multicollinearity issues by restructuring financial strategies to ensure capital is efficiently deployed.
3. **Strengthen Asset Quality Management:** Although NPAs are declining, the bank should implement stricter credit risk assessment procedures to further minimize bad loans. Introducing AI-driven credit evaluation and monitoring tools can help predict and mitigate loan defaults.
4. **Improve Loan Recovery Strategies:** Since loan recovery does not significantly impact working capital, the bank should reassess its credit collection policies. Strengthening legal and negotiation mechanisms for recovering overdue loans can ensure financial stability.
5. **Expand Digital and Technological Innovations:** Investment in digital banking services and automation could help to improve efficiency and customer experience, boosting financial performance. Smarter choices might be made if data analytics and artificial intelligence were more widely used in financial risk management and forecasting.

V. Conclusion:

The Mandya District Co-operative Central Bank has reported that profitability, capital adequacy and working capital has been on high growth in the past few years. However, crucial issues such as profit volatility, the low correlation between loan repayment and financial stability and the need to further strengthen asset quality persist. This study reveals that the capital adequacy ratio has a positive significance on profit and the NPA ratio and the loan recovery have little effect on the performance. The bank must concentrate on optimizing asset deployment, improving asset quality management and capitalizing on technology for financial advantages to maintain long-term expansion. These steps will help the bank be more financially resilient and sustainable in the long term.

Limitations of the Study:

The study is based on second-hand data, which is fundamentally limited by the availability and quality of financial reports. The findings are also limited to Mandya District Co-operative Central Bank and may not be totally generalized to other co-operative banks. In addition, external factors like economic environment, government policies and regulatory changes are not distinctly modelled but may have an effect on financial performance.

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