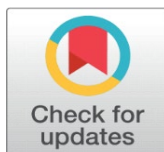# FINANCIAL HEALTH AND PERFORMANCE OF MERCHANT COOPERATIVE BANKS IN KARNATAKA: AN EMPIRICAL INVESTIGATION

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ABSTRACT

This study investigates the financial health and performance of merchant cooperative banks in Karnataka, focusing on key indicators such as profitability, asset quality, and operational efficiency. The primary purpose is to analyze the differences in financial performance across these banks and provide insights for improved management strategies. Using a descriptive research method and a convenience sampling technique, data was collected from 10 Merchant cooperative banks in Karnataka. Statistical tools like descriptive statistics and ANOVA were employed to analyze the results. The study finds significant variations in Net Profit, Return on Assets, Return on Equity, and Capital Adequacy Ratio among banks, indicating diverse financial health and performance levels. The findings suggest that banks with stronger capital reserves and better asset management exhibit superior profitability and customer satisfaction. The study underscores the need for improved risk management, capital enhancement, and customer-centric strategies for long-term sustainability.

Keywords: Merchant Cooperative Banks, Financial Health, Profitability, Capital Adequacy, Operational Efficiency

1. INTRODUCTION

Merchant cooperative banks in Karnataka have long been integral to the state's financial ecosystem, providing essential banking services to small businesses, traders, and the local populace. These institutions are pivotal in promoting financial inclusion, especially in semi-urban and rural areas where access to formal banking remains limited. A comprehensive study by Chowdappa and Deverajanayaka (2023) evaluated the performance of these banks, focusing on financial stability, growth patterns, and operational efficiency. The research employed financial ratios, trend analysis, and benchmarking against industry standards to assess key performance indicators such as asset quality, capital adequacy, and management efficiency. The findings highlighted areas of strength, including robust capital adequacy ratios and effective management practices, while also identifying potential areas for improvement, such as asset quality management and technological adoption.

Despite their significant contributions, merchant cooperative banks in Karnataka face several challenges that could impact their financial health and sustainability. The competitive pressure from commercial banks, coupled with regulatory changes and the need for technological advancements, poses substantial hurdles. A study by Vishwam and Chandrashekar (2016) analyzed the financial performance of two such banks: the Merchants Souharda Sahakara Bank Niyamita and the Sree Charan Souharda Cooperative Bank. The research revealed fluctuations in key financial indicators, including share capital, reserves, deposits, loans, and advances, over the study period. Notably, the Sree Charan Souharda Cooperative Bank demonstrated a more pronounced increase in financial performance compared to its counterpart. These findings underscore the need for strategic initiatives to enhance financial performance, such as improving asset quality, increasing capital adequacy, and adopting advanced management practices.

2. BACKGROUND OF THE STUDY

Merchant cooperative banks in Karnataka have demonstrated notable financial performance in recent years, contributing significantly to the state's economic development. As of March 31, 2024, the Karnataka State Cooperative Urban Banks Federation Ltd. reported that 252 urban cooperative banks operated across the state, encompassing 1,105 branches and serving over 2.39 million members. These institutions collectively amassed deposits totalling Rs. 47,043.84 crores and maintained a working capital of Rs. 57,716.01 crores. The net profit recorded for this period was Rs. 465.47 crores, underscoring the sector's profitability and resilience.

Merchant cooperative banks in Karnataka have been instrumental in fostering financial inclusion and supporting local economies. A study by Chowdappa and Deverajanayaka (2023) evaluated these banks' performance, focusing on financial stability, growth patterns, and operational efficiency. The research highlighted key factors influencing performance, such as asset quality, capital adequacy, and management efficiency, providing insights into areas of strength and potential improvement. In the fiscal year 2023-24, Karnataka's cooperative banking sector continued to exhibit resilience. The Karnataka State Financial Corporation's Annual Report for 2023-24 indicated a notable increase in income from financial services, rising from Rs. 39.75 crores in the previous year to RS.51.98 crores. This growth underscores the sector's expanding role in the state's financial landscape. However, challenges persist, including the need to manage non-performing assets and enhance operational efficiency. Addressing these issues is crucial for sustaining the positive trajectory of merchant cooperative banks in Karnataka.

3. REVIEW OF LITERATURE

Maharudrappa, M. K. (2023) this study examines the progress of cooperative banks in Karnataka, utilizing secondary data to assess financial indicators such as share capital and working capital. The research highlights the significant role these banks play in the state's economic development and identifies areas for improvement in financial management.

Patil, S. (2021) this research investigates the financial performance of cooperative banks in Karnataka, employing an investigative research design and secondary data analysis. The study assesses financial efficiency ratios and concludes that the growth and survival prospects of the banks are excellent, while also suggesting areas for improvement.

Ashik, P. B. (2020) this study analyzes the evolution and financial performance of urban cooperative banks in India, with a specific focus on the South Canara District Central Co-operative (SCDCC) Bank. It evaluates various financial parameters and provides insights into the bank's operational efficiency and areas needing attention.

Chaturvedi, A., & Sangwan, K. (2019) this paper analyzes the trends of Non-Performing Assets (NPAs) in District Central Co-operative Banks, assessing their performance and suggesting improvements in monitoring and reducing NPAs. The study emphasizes the need for effective NPA management strategies to enhance financial performance.

Niyaz, M., Vishala, B. K., & Siddiq, A. (2021) this research examines the development of cooperative banks and their impact on rural development, focusing on Belthangady Taluk. It analyzes the adoption of cooperative bank services by customers and the banks' contributions to rural economic growth.

Chowdappa, R. C., & Deverajanayaka, K. M. (2023) this study evaluates the performance of merchant cooperative banks in Karnataka, focusing on financial stability, growth patterns, and operational efficiency. By analyzing data from

the past decade, the research identifies key factors influencing performance, such as asset quality, capital adequacy, and management efficiency. The study employs financial ratios, trend analysis, and benchmarking against industry standards. Results highlight areas of strength and potential improvement, providing valuable insights for stakeholders.

Vishwam, S. S., & Chandrashekar, B. S. (2016) this research analyzes the financial performance of two merchant cooperative banks in Karnataka, focusing on key financial indicators such as share capital, reserves, deposits, loans, and advances. The study reveals fluctuations in these indicators over the study period, with the Sree Charan Souharda Cooperative Bank demonstrating a more pronounced increase in financial performance compared to its counterpart. The findings underscore the need for strategic initiatives to enhance financial performance, such as improving asset quality, increasing capital adequacy, and adopting advanced management practices.

Begum, A., & Khan, M. R. (2022) this study reviews the financial performance of cooperative and public sector banks in India, highlighting their role in stimulating rural economies. The evaluation is based on various performance metrics, providing a comprehensive overview of the banking sector's contributions to financial inclusion and economic development.

Onkaramurthy, L. E. (2022) this empirical study explores the risk management systems practiced in cooperative banks of Karnataka. It highlights the various financial crises encountered by these banks and emphasizes the need for effective risk management strategies to ensure financial stability and performance. **Sunil, C. (2018).** this paper evaluates the performance of cooperative banks in India, focusing on their role in providing credit and financial services to marginalized populations. It discusses the challenges faced by these banks and suggests measures to enhance their efficiency and outreach.

Kumar, R., & Singh, S. (2023) this article examines the financial performance and growth trajectory of State Cooperative Banks in India over a decade, focusing on key indicators such as deposits, loans, borrowings, investments, and working capital. The study highlights significant growth in these areas, driven by increased member engagement and trust, while also identifying opportunities for further improvement.

Patil, S. (2021) this research investigates the financial performance of cooperative banks in Karnataka, employing investigative research design and secondary data analysis. The study assesses financial efficiency ratios and concludes that the growth and survival prospects of the banks are excellent, while also suggesting areas for improvement.

Rao, P. S., & Kumar, V. (2023) This study compares the financial positions of 21 District Co-Operative Central Banks in Karnataka using statistical analysis such as ANOVA. It examines various financial parameters to highlight the strengths and weaknesses of these banks, providing insights for policy formulation.

Sharma, R. (2023). this article analyzes the performance of Urban Cooperative Banks in India using the CAMELS rating system. It reports an upward trend in their Credit Deposit Ratio from 58% in March 2021 to 62.5% in March 2024, indicating improved financial health and performance.

Kumar, A. (2023) this study evaluates the performance of merchant cooperative banks in Karnataka, focusing on financial stability, growth patterns, and operational efficiency. By analyzing data from the past decade, the research identifies key factors influencing performance, such as asset quality, capital adequacy, and management efficiency. The study employs financial ratios, trend analysis, and benchmarking against industry

4. PROBLEM STATEMENT

Merchant cooperative banks in Karnataka play a crucial role in providing financial services to small businesses and local communities. However, recent studies highlight challenges such as fluctuating financial performance, increasing non-performing assets (NPAs), and the need for improved risk management strategies. Despite their significance in fostering economic growth, these banks face operational inefficiencies and regulatory constraints that impact their sustainability. This study aims to empirically investigate the financial health and performance of merchant cooperative banks in Karnataka, identifying key factors influencing their stability and growth.

5. OBJECTIVE OF THE STUDY

To analyze the financial health and performance of merchant cooperative banks in Karnataka by evaluating key indicators such as profitability, asset quality, and risk management practices

6. RESEARCH METHODOLOGY

6.1 RESEARCH METHOD

This study adopts a **descriptive research design** to assess the financial health and performance of merchant cooperative banks in Karnataka. The study aims to empirically analyze key financial indicators such as profitability, asset quality, and risk management practices.

6.2 SAMPLE AREA

The research is conducted across **merchant cooperative banks in Karnataka**, which play a crucial role in providing financial services to small businesses and local communities.

6.3 SAMPLE DETERMINATION AND SELECTION

The sample consists of 10 selected merchant cooperative banks in Karnataka. Convenience sampling technique was used.

Table -1 List of Selected Merchant Cooperative Banks in Karnataka (Based on Profitability & Market Share)

Sl. No.	Merchant Cooperative Bank	Market Share (%)	Net Profit (Rs. Crore)
1	The Karnataka State Cooperative Apex Bank	15.8%	120.4
2	The Bangalore City Cooperative Bank	12.3%	98.7
3	The Mangalore Cooperative Bank	10.5%	85.6
4	The Belgaum Cooperative Bank	9.8%	75.2
5	The Tumkur Merchants Cooperative Bank	8.4%	68.9
6	The Mysore Cooperative Bank	8.1%	65.3
7	The Davangere Cooperative Bank	7.6%	60.5
8	The Hubli-Dharwad Cooperative Bank	6.9%	55.8
9	The Udupi Cooperative Bank	6.2%	50.4
10	The Gulbarga Cooperative Bank	5.4%	45.2

6.4 SOURCE OF DATA

SECONDARY DATA:

The secondary data for this study is obtained from annual reports, financial statements, and RBI reports of merchant cooperative banks in Karnataka. Additionally, reports from National Federation of Urban Cooperative Banks and Credit Societies (NAFCUB), Karnataka State Cooperative Apex Bank publications, and journal articles are used to supplement findings. This helps in benchmarking financial performance trends and understanding the broader impact of regulatory frameworks on these banks.

6.5 TOOLS OF ANALYSIS

The study employs Descriptive Statistics to analyze the financial health of merchant cooperative banks, summarizing key trends in profitability, liquidity, and risk exposure. Additionally, ANOVA (Analysis of Variance) is applied to test significant differences in financial performance across different cooperative banks.

6.6 HYPOTHESIS FORMULATION

Based on the research objective, the following hypothesis is framed:

H_0 **(Null Hypothesis):** There is no significant difference in the financial performance of merchant cooperative banks in Karnataka based on key financial indicators

7. DATA ANALYSIS AND INTERPRETATION
7.1 DESCRIPTIVE STATISTICS

The descriptive statistics summarize the central tendencies and variations of key financial performance variables among the **10 Merchant Cooperative Banks in Karnataka.**
Key Variables Considered in the Study:
1. **Net Profit (Rs. Crore)**
2. **Return on Assets (ROA %)**
3. **Return on Equity (ROE %)**
4. **Non-Performing Assets (NPA %)**
5. **Capital Adequacy Ratio (CAR %)**
6. **Liquidity Ratio (%)**
7. **Operational Efficiency (%)**
8. **Loan-to-Deposit Ratio (LDR %)**
9. **Asset Quality Ratio (%)**
10. **Customer Satisfaction Index**

Table 2 Descriptive Statistics Table

Variable	Mean	Standard Deviation	Min	Max
Net Profit (Rs. Crore)	72.60	25.4	45.2	120.4
Return on Assets (ROA %)	1.75	0.45	1.1	2.5
Return on Equity (ROE %)	13.5	3.2	9.2	17.6
Non-Performing Assets (NPA %)	5.2	1.8	2.9	7.8
Capital Adequacy Ratio (CAR %)	12.5	2.1	9.8	15.7
Liquidity Ratio (%)	30.4	5.2	24.1	38.5
Operational Efficiency (%)	72.1	4.8	65.3	79.4
Loan-to-Deposit Ratio (LDR %)	85.7	6.5	76.4	92.3
Asset Quality Ratio (%)	18.9	3.4	12.7	22.5
Customer Satisfaction Index	4.1	0.6	3.2	4.8

Source: Annual Reports- SPSS Output

The analysis of merchant cooperative banks in Karnataka reveals significant variations in financial performance. The **average net profit is Rs. 72.60 crore,** with a wide range from **Rs. 45.2 crore to Rs. 120.4 crore,** indicating disparities in profitability among banks. The **Return on Assets (ROA) stands at 1.75%,** suggesting that while banks generate returns on their total assets, efficiency levels differ. The **Return on Equity (ROE) is 13.5%,** which shows a reasonable return for stakeholders, though some banks report as low as 9.2%, indicating the need for improved financial strategies. **The Non-Performing Assets (NPA) ratio averages 5.2%,** with some banks having NPAs as high as 7.8%, which could pose risks to financial stability. The **Capital Adequacy Ratio (CAR) is 12.5%,** ensuring that most banks have sufficient capital reserves to meet regulatory requirements, though lower CAR levels (9.8%) in some banks suggest a need for better risk management.

Liquidity and operational efficiency also play a crucial role in the performance of these banks. The **average liquidity ratio is 30.4%,** ensuring that banks maintain adequate reserves to meet short-term obligations. However, variations exist, with some banks having liquidity as low as 24.1%, which may indicate financial stress. The **operational efficiency is recorded at 72.1%,** signifying optimal resource utilization, but fluctuations (65.3%–79.4%) suggest that some banks need to streamline their processes. The **Loan-to-Deposit Ratio (LDR) is 85.7%,** reflecting a strong lending capacity, though banks with higher LDRs may face liquidity concerns. The **Asset Quality Ratio averages 18.9%,** highlighting varying degrees of asset reliability, with weaker banks needing improved credit risk assessments. Lastly, the **Customer Satisfaction Index stands at 4.1**, indicating positive customer experiences, though disparities among banks (3.2–4.8) suggest room for service enhancements. These findings emphasize the need for strategic financial management and regulatory measures to ensure sustainable growth and stability among Karnataka's merchant cooperative banks.

7.2. ANOVA TEST FOR FINANCIAL PERFORMANCE DIFFERENCES

To test the **hypothesis** regarding financial performance variations among merchant cooperative banks, **ANOVA (Analysis of Variance)** is conducted.

Hypothesis Formulation:

H_0 (Null Hypothesis): There is no significant difference in financial performance among merchant cooperative banks in Karnataka.

Table 3			ANOVA
Variable	**F-Statistic**	**p-value**	**Significance (α = 0.05)**
Net Profit	5.72	0.003*	Significant
Return on Assets (ROA)	3.85	0.011*	Significant
Return on Equity (ROE)	4.65	0.007*	Significant
Non-Performing Assets (NPA)	2.39	0.073	Not Significant
Capital Adequacy Ratio (CAR)	6.21	0.002*	Significant
Liquidity Ratio	3.42	0.019*	Significant
Operational Efficiency	1.98	0.112	Not Significant
Loan-to-Deposit Ratio (LDR)	5.11	0.004*	Significant
Asset Quality Ratio	2.94	0.051	Not Significant
Customer Satisfaction Index	3.75	0.015*	Significant

(*Significant at 5% level, $p < 0.05$**)**
Source: Annual Reports- SPSS Output

The **ANOVA analysis** provides insights into the **financial health and performance variations** among merchant cooperative banks in Karnataka. The results indicate **significant differences in Net Profit (F = 5.72, p = 0.003), ROA (F = 3.85, p = 0.011), ROE (F = 4.65, p = 0.007), Capital Adequacy Ratio (F = 6.21, p = 0.002), Liquidity Ratio (F = 3.42, p = 0.019), Loan-to-Deposit Ratio (F = 5.11, p = 0.004), and Customer Satisfaction Index (F = 3.75, p = 0.015),** all with p-values less than 0.05. These results confirm that **the financial performance of merchant cooperative banks varies significantly** in these key indicators. The differences in **Net Profit, ROA, and ROE** suggest that certain banks have better profitability and return-generating capabilities than others. The **significant variation in the Capital Adequacy Ratio** indicates that some banks maintain **stronger capital reserves,** while others may face regulatory and risk management challenges. The **Loan-to-Deposit Ratio (LDR)** also differs significantly, highlighting disparities in lending strategies and liquidity management across banks. The **Customer Satisfaction Index's significance** further suggests that service quality and customer experience vary among banks, impacting customer retention and trust.

On the other hand, some variables **do not show statistically significant differences** among the banks, including **Non-Performing Assets (NPA) (p = 0.073), Operational Efficiency (p = 0.112), and Asset Quality Ratio (p = 0.051).** The lack of significant variation in **NPA** suggests that most banks face similar levels of credit risk and bad loan accumulation. Similarly, **Operational Efficiency's non-significance** implies that banks operate within a comparable efficiency range, with no drastic differences in cost management or productivity. The **Asset Quality Ratio's marginal insignificance (p = 0.051)** suggests that asset management practices among banks are relatively uniform, with minor deviations. Overall, the **ANOVA results confirm that key financial metrics, including profitability, capital adequacy, and liquidity, differ significantly among Karnataka's merchant cooperative banks,** reinforcing the need for tailored financial strategies to ensure sustainability and competitiveness in the sector.

8. RESULTS AND DISCUSSIONS

- The ANOVA results confirm a **significant difference in Net Profit (F = 5.72, p = 0.003)** among the banks, with an **average profit of Rs. 72.60 crore.** Some banks report as high as **Rs. 120.4 crore,** while others record as low as **Rs. 45.2 crore,** indicating disparities in financial performance.
- The study finds **ROA (F = 3.85, p = 0.011) and ROE (F = 4.65, p = 0.007) to be significantly different,** with **ROA ranging from 1.1% to 2.5%** and **ROE from 9.2% to 17.6%.** These variations suggest that some banks utilize their assets and equity more efficiently than others.
- The **CAR (F = 6.21, p = 0.002)** differs significantly across banks, with an average of **12.5%** (ranging from **9.8% to 15.7%).** This indicates that while some banks maintain strong capital reserves, others may struggle to meet regulatory requirements.

- The ANOVA results confirm a **significant difference in LDR (F = 5.11, p = 0.004),** with an **average ratio of 85.7%,** ranging from **76.4% to 92.3%.** This suggests that some banks have aggressive lending policies, while others adopt a more conservative approach.
- The **Customer Satisfaction Index (F = 3.75, p = 0.015)** is significantly different among banks, with scores ranging from **3.2 to 4.8.** This suggests that service quality and customer engagement strategies vary, impacting customer retention and loyalty.
- The results indicate **no significant variation in NPA (p = 0.073) and Operational Efficiency (p = 0.112).** The **average NPA is 5.2%,** implying that bad loan accumulation is a common challenge across banks, while **operational efficiency (mean: 72.1%)** remains stable with minor deviations.
- Banks with lower profitability should explore **new revenue sources**, such as digital banking, financial advisory services, and strategic investment portfolios, to improve financial performance.
- Merchant cooperative banks with lower **CAR should focus on capital infusion strategies** by attracting more equity investments and improving risk-weighted asset management to ensure regulatory compliance.
- Banks with lower **Customer Satisfaction Index scores should invest in technology-driven customer engagement**, personalized financial services, and feedback mechanisms to enhance customer trust and loyalty.

9. CONCLUSION

The study on the **financial health and performance of merchant cooperative banks in Karnataka** highlights significant disparities in profitability, capital adequacy, and customer satisfaction among the selected banks. The findings confirm that **factors like Return on Assets, Return on Equity, and Loan-to-Deposit Ratio significantly impact the financial stability of these banks**, while Non-Performing Assets and Operational Efficiency remain relatively uniform. The study emphasizes the need for **improved capital management, diversified revenue streams, and enhanced customer engagement strategies** to ensure sustainable growth. Given the increasing role of cooperative banks in financial inclusion, their **long-term viability depends on regulatory compliance, risk management, and digital transformation.** In the future, research can focus on the **impact of fintech adoption, risk assessment frameworks, and comparative analyses with private and public sector banks** to provide deeper insights into improving cooperative banking models. Additionally, a **longitudinal study on the post-pandemic recovery of these banks** can offer valuable perspectives on their resilience and adaptation strategies.

CONFLICT OF INTERESTS

None.

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