

MEASURING THE FINANCIAL HEALTH AND RISK MANAGEMENT PRACTICES OF SELECT SMALL FINANCE BANKS IN INDIA

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Abstract

The performance, prospective, and role of Small Finance Banks (SFBs) in India are critically examined in this study in light of their dual mandates of financial inclusion and sustainability. The study integrated the CAMEL framework with quantitative analysis on a sample of six major SFBs over the period FY2021–22 to FY2024–25 to assess the financial health and risk management of select small banks. The research employed financial ratio analysis, descriptive statistics, correlation, cointegration (Kao test), and panel regression to assess profitability, asset quality, capital adequacy, and liquidity. The study found that SFBs maintain robust financial stability, with the average Capital Adequacy Ratio (CAR) and a confirmed long-run equilibrium among key financial indicators. However, this stability is masked by significant operational vulnerabilities. Panel regression results conclusively show that Non-Performing Assets (NPA) is the sole statistically significant negative determinant of profitability, highlighting credit risk as the principal threat to financial sustainability. Furthermore, liquidity analysis exposed a critical vulnerability: while the mean Quick Ratio (QR) and the median QR are dangerously low, indicating that most SFBs lack adequate short-term liquid buffers. The study concluded that SFBs are successfully advancing financial inclusion, but its long-term viability is challenged by inconsistent asset quality management and acute short-term liquidity stress. Policy enhancements are necessary to enforce stricter credit risk protocols and mandate higher minimum liquidity buffers to ensure a financially sustainable mechanism for inclusive growth.

Keywords: Financial Health, CAMEL Model, Profitability, and Non-Performance Assets

Introduction

Over the past ten years, the Indian banking industry has endured a substantial growth phase due to a strong focus on financial performance, which has brought underbanked and unbanked people into the official financial system. The Reserve Bank of India's 2015 creation of Small Finance Banks (SFBs) constituted one of the most crucial legislative actions taken in support of achieving this goal. SFBs were designed to reach rural and semi-urban areas where traditional commercial banks had limited penetration and seek out low-income people, small- and medium-sized enterprises, and other marginalized populations with affordably priced financial services, especially insurance, microloans, and savings accounts. A key mandate imposed on SFBs is that at least 75% of their lending must go toward priority sectors (agriculture, MSMEs, low-income households), setting them apart from commercial banks, which typically focus more on large urban markets and corporate lending (Reserve Bank of India 2015).

Despite their critical role in promoting inclusive growth, SFBs face considerable challenges, including high operational costs from wide geographic outreach, managing non-performing assets (NPAs), especially in unsecured and microfinance lending, regulatory compliance burdens, and the difficulty of sustaining profitability while serving underserved segments. Assessing performance through key financial metrics—such as Return on Assets

(ROA), Return on Equity (ROE), Capital Adequacy Ratio (CAR), and NPA ratios—is thus central to understanding their viability and long-term contribution.

Recent data suggest a mixed but cautionary outlook for SFBs. According to *CRISIL*, the ROA for SFBs is expected to decline by about 40 basis points to around 1.7% in FY2025, down from ~2.1% in FY2024, due to narrowing Net Interest Margins (NIMs) and rising credit costs (CRISIL 2024). The Gross NPA (GNPA) ratio is projected to move up to approximately 2.9% by the end-of FY2025, from ~2.3% as of March 2024.¹ Meanwhile, *ICRA* forecasts that SFB growth (in terms of loan and asset growth) will moderate to 18–20% in FY2025, compared to ~24% in FY2024; the microfinance segment is expected to contribute much of the delinquency pressure. Growth is expected to pick up again to around 20–23% in FY2026, supported by diversification into secured lending such as vehicle loans, housing finance, gold loans, and loans against property (ICRA, 2024). These developments suggest that while SFBs are still on a growth trajectory and play a vital part in advancing financial inclusion, there are increasing pressures on profitability, asset quality, and funding. Ensuring sustainable operations will likely depend on their ability to diversify into lower-risk secured asset classes, improve deposit mobilization (especially CASA), maintain strong capital buffers, and enhance cost-efficiency (Industry analysis compiled from RBI publications and financial statements of SFBs 2023–2025). The present study analysed the financial health and market sensitivity with key performance indicators ROA, ROE, CAR, and NPA ratios (CAMEL approach) to assess operational efficiency and its long-term viability and sustainable development in the Indian banking sector.

Literature Review

Operational efficiency remains a central challenge for India's Small Finance Banks (SFBs), whose foundational mandate is to extend formal banking services to rural, semi-urban, and underserved populations. This developmental mission inherently involves operational complexities. The lack of adequate infrastructure, limited technological penetration, and scarcity of skilled manpower in these regions translate into higher setup and maintenance costs for bank branches. Transaction volumes in such localities also tend to be small, thereby elevating the cost per transaction and constraining branch-level profitability. As observed (Choudhury and Nair, 2020), SFBs in India experience substantially higher operational expenses relative to commercial banks, driven largely by their obligatory physical presence in low-activity markets.

Amid these operational constraints, recent literature highlights the growing potential of digital transformation as a strategic lever for efficiency enhancement. Reddy (2020) emphasizes that the integration of digital and mobile banking platforms can allow SFBs to streamline their operations, mitigate dependency on costly brick-and-mortar networks, and expand outreach through scalable, technology-enabled channels. Patel and Pandey (2020) further argue that rising smartphone penetration and improved internet connectivity in rural India create favourable conditions for SFBs to adopt a digitally driven model. The transition from a branch-centric to a technology-led operational structure can substantially reduce operating costs, improve customer convenience, and enhance overall accessibility to financial services in remote areas. However, operational constraints are compounded by challenges relating to asset quality. Non-performing assets (NPAs) remain a critical structural issue for SFBs, primarily due to the nature of their borrower base, which largely comprises microenterprises, small businesses, and low-income households. Such customers are more vulnerable to income volatility and external shocks, thereby heightening credit risk exposure. Rai and Sharma (2020) found that SFBs consistently report higher NPA ratios compared to commercial banks, reflecting the inherent credit fragility of their clientele. The prevalence of high NPAs not only undermines profitability but also exerts pressure on operational

efficiency by locking capital, increasing provisioning requirements, and limiting the capacity for sustainable growth.

The regulatory framework governing SFBs adds another layer of operational complexity. As mandated by the Reserve Bank of India (RBI), SFBs are required to allocate at least 75% of their adjusted net bank credit (ANBC) toward priority sectors, including agriculture, microenterprises, and low-income groups. While this stipulation reinforces their developmental mandate and promotes financial inclusion, it also limits diversification opportunities and the scope for achieving economies of scale. Sharma and Gupta (2020) note that certain regulatory provisions—such as restrictions on branch expansion, geographical concentration, and product range—act as constraints on growth and financial performance.

Consequently, SFBs tend to experience subdued profitability in their initial stages of development, primarily due to elevated operating costs and high credit risk exposure. Nevertheless, empirical evidence suggests a gradual improvement in efficiency and profitability as these banks expand, diversify their portfolios, and adopt digital innovations. Bansal (2021) contends that the integration of technological solutions, combined with operational scaling and broader customer outreach, enhances the long-term sustainability of SFBs. Over time, digital transformation emerges not merely as a cost-reduction mechanism but as a structural enabler of financial inclusion and profitability.

Overall, SFBs occupy a vital position in India's financial ecosystem, with a primary objective of extending banking services to the unbanked and under-banked segments. Yet, despite regulatory support and rapid network expansion, key questions remain around how efficiently these banks operate, how effectively they control credit risk (particularly NPAs), and how well they balance their social/developmental mission with commercial viability. The research addressed how operational efficiency, financial performance, and risk management are tightly interlinked to improving scale, optimising cost structures, and managing asset quality are all critical for SFBs to fulfil their intended mandate and achieve sustainable growth.

1. What is the growth and financial health of Small Finance Banks in India, particularly in terms of profitability, asset quality, and operational efficiency?
2. How can NPA's (Non-Performing Assets) of SFBs have input on its returns in long-term viability?

Objectives of the Study

The primary objective of this research is to critically examine the Small Finance Banks (SFBs) operational efficiency, profitability, and long-term sustainability.

Hypothesis:

The null hypotheses of the study are given below:

H₀: There is no significant long-run impact of select financial performance indicators (CAR, NPA, QR, CR, FATA) on ROA and ROE.

Research Methodology

This study employs a comprehensive and integrated methodology to assess the performance and role of India's Small Finance Banks (SFBs). Adopting a descriptive and analytical research design, it combines quantitative to provide a holistic evaluation of financial performance, operational efficiency, and contribution to financial inclusion. Quantitatively, the widely used CAMEL framework encompassing Capital Adequacy, Asset Quality, Management Efficiency, Earnings, and Liquidity is applied as the structural tool to assess the overall health and robustness of the banks.

Data for the study are drawn primarily from secondary sources. These include annual reports and audited financial statements of selected SFBs, publications from the

Reserve Bank of India (RBI) such as the Financial Stability Report and Progress in Banking in India, industry databases CMIE, Capitaline AWS, academic journal articles, and stock-exchange filings of listed banks. The analysis covers five years (FY2021 through FY2025) to enable consistent capture of recent developments. It has been adopted to select seven major SFBs that have been operational for at least five years and maintain a meaningful geographical footprint and operational scale across India. AU Small Finance Bank, Ujjivan Small Finance Bank, Jana Small Finance Bank, ESAF Small Finance Bank, Suryoday Small Finance Bank, and Capital Small Finance Bank were selected for the study. The main selection criteria were: availability of consistent data, operational scale, geographic and customer-base diversity, and significance in the SFB sector.

The study employs a descriptive research design, integrating the CAMEL model with standard financial ratio techniques to comprehensively evaluate the performance and stability of the selected banks over the period from FY2021 to FY2025. Key ratios considered include the Capital Adequacy Ratio, Non-Performing Assets (NPAs), and other asset quality indicators, as well as the Fixed Assets to Total Assets ratio, Quick Ratio, and Current Ratio for assessing liquidity. Additionally, Return on Assets (ROA) and Return on Equity (ROE) are used to measure profitability. These indicators collectively provide insights into capital structure, asset health, management efficiency, earnings performance, and liquidity position. Further, the study employs correlation analysis to examine the relationships among the key financial variables, the Augmented Dickey-Fuller (ADF) test to verify the stationarity of the panel data, and the Kao residual cointegration test to assess the presence of a long-run equilibrium relationship among the variables. Finally, panel regression analysis (both fixed and random effects models) is conducted to identify the determinants of financial performance and to quantify the impact of CAMEL components and financial ratios on banks' profitability and stability.

In summary, the methodology enables a robust, multi-dimensional evaluation of SFBs, combining structural quantitative analysis with contextual qualitative insight. It provides a foundation for identifying operational and strategic gaps that may impede growth, efficiency, and the fulfilment of the developmental mandate of SFBs.

Financial Health and Risk Management of Small Finance Banks –A CAMEL Model

The CAMEL model significantly influences the financial performance of the banking sector by providing a structured framework to assess and monitor key aspects of a bank's health. By considering earnings, liquidity, efficiency of leadership, asset quality, and capital adequacy, regulators and stakeholders can identify strengths and vulnerabilities within banks. For instance, studies have shown that banks with higher capital adequacy ratios and better asset quality tend to exhibit stronger financial performance and resilience during economic downturns. Conversely, poor asset quality and inefficient management can lead to increased non-performing assets (NPAs) and reduced profitability, adversely affecting a bank's financial stability. Moreover, by preserving appropriate liquidity, banks may defend their operations from future liquidity-related issues by fulfilling their short-term obligations. Overall, the CAMEL model serves as a vital tool for enhancing transparency, fostering investor confidence, and guiding regulatory interventions to promote a robust and stable banking sector.

Table 1: Financial Health & Risk Management of SFB'S – CAMEL Model

	AU BANK	Capital Bank	ESAF Bank	JANA Bank	Suryoday Bank	Ujjivan Bank
Capital Adequacy	21.64	22.02	21.56	17.41	35.46	23.79
Rank	4	3	5	6	1	2

Asset Quality	2.21	0.53	3.91	2.62	4.09	2.6
Rank	5	6	2	3	1	4
Management Efficiency	2.65	1.38	0.5	1.65	0.53	2.1
Rank	1	4	6	3	5	2
ROE%	16.32	12.82	14.93	12.95	74.11	2.28
Rank	1	4	2	3	6	5
Liquidity	19.16	55.74	32.47	0.03	23.61	25.97
Rank	5	1	2	6	4	3
Sensitivity to Market Risk	2.49	0.45	2.48	1.9	3.09	2.26
Rank	2	6	3	5	1	4
Average	3.17	4.17	3.50	4.50	2.17	3.50
Bank Position	2	4	3	5	1	3

Source: Compiled data

The financial health of SFB's analysis using the CAMEL model. This analysis is structured to provide a detailed understanding of each bank's performance across the five key components: Capital Adequacy, Asset Quality, Management Efficiency, Return on Equity (ROE), Quick Ratio, and Sensitivity to Market Risk. Capital Adequacy is a critical measure of the knack of a bank to resist possible losses and safeguard its financial stability. Suryoday Bank leads with a robust Capital Adequacy Ratio (CAR) of 35.46%, indicating a strong capital buffer. Ujjivan Bank follows with a CAR of 23.79%, while Capital Bank maintains a CAR of 22.02%. AU Bank and ESAF Bank have CARs of 21.64% and 21.56%, respectively. JANA Bank has the lowest CAR at 17.41%, suggesting a need for enhanced capital reserves to mitigate financial risks.

Asset Quality assesses the proportion of non-performing assets (NPAs) in a bank's portfolio, reflecting the effectiveness of credit risk management. Capital Bank demonstrates exceptional asset quality with an NPA ratio of 0.53%, indicating effective credit risk management. ESAF Bank has an NPA ratio of 3.91%, while AU Bank's NPA ratio stands at 2.21%. JANA Bank's NPA ratio is 2.62%, and Ujjivan Bank's ratio is 2.6%. Suryoday Bank exhibits the highest NPA ratio at 4.09%, highlighting potential challenges in asset management. Management efficiency assesses the degree to which a bank utilizes use of its financial resources to produce revenue. ESAF Bank exhibits outstanding efficiency with a ratio of 0.5%, suggesting optimal resource utilization. Suryoday Bank follows with a ratio of 0.53%, while Capital Bank's ratio is 1.38%. AU Bank and Ujjivan Bank have ratios of 2.65% and 2.1%, respectively, indicating areas for operational improvement. JANA Bank has the highest ratio at 1.65%, suggesting potential inefficiencies in resource utilization.

ROE measures a bank's profitability relative to shareholders' equity, indicating the effectiveness of management in generating profits. Suryoday Bank excels with an impressive ROE of 74.11%, reflecting high profitability. AU Bank follows with an ROE of 16.32%, while ESAF Bank's ROE stands at 14.93%. JANA Bank has an ROE of 12.95%, Ujjivan Bank's ROE is 2.28%, and Capital Bank's ROE is 12.82%, suggesting varying levels of profitability across the banks. The Quick Ratio assesses a bank's A temporary liquidity position, which demonstrates that it is capable of covering immediate obligations without having to liquidate long-term assets. Capital Bank leads with a quick ratio of 55.74%, indicating strong liquidity. ESAF Bank follows with a ratio of 32.47%, while Ujjivan Bank's ratio is 25.97%. AU Bank has a quick ratio of 19.16%, and Suryoday Bank's ratio stands at 23.61%. JANA Bank has the lowest quick ratio at 0.03%, raising concerns about its short-

term liquidity position. This component evaluates a bank's exposure to market fluctuations and its ability to manage such risks. Suryoday Bank exhibits the highest sensitivity at 3.09%, indicating greater exposure to market risks. AU Bank follows with a sensitivity of 2.49%, while Ujjivan Bank's sensitivity stands at 2.26%. ESAF Bank has a sensitivity of 2.48%, and Capital Bank's sensitivity is 0.45%. JANA Bank has the lowest sensitivity at 1.9%, suggesting a lower exposure to market risks. Suryoday Bank demonstrates a strong overall performance, particularly in capital adequacy and profitability.

AU Bank and ESAF Bank also show robust financial health, with strengths in liquidity and asset quality, respectively. Ujjivan Bank and Capital Bank have areas for improvement, especially in profitability and asset quality. JANA Bank, while maintaining a strong capital base, faces challenges in asset quality and liquidity, which could impact its financial stability. This analysis underscores the importance of a balanced approach across all financial metrics to ensure sustained growth and stability in the banking sector.

Table 2: Correlation Analysis between Financial Variables of SFB's

	CAR	NPA	QR	CR	FATA
CAR	1				
NPA	0.588*	1			
CR	-0.359*	-0.004*	1		
QR	0.081*	-0.179*	-0.677*	1	
FATA	-0.082*	-0.118*	-0.097*	-0.010*	1

Source: Compiled Data

* 5% significance level

The correlation analysis provides valuable insights into the relationships among key financial indicators—Capital Adequacy Ratio (CAR), Non-Performing Assets (NPA), Quick Ratio (QR), Current Ratio (CR), and Fixed Assets to Total Assets (FATA). The Capital Adequacy Ratio (CAR) shows a moderate positive correlation with Non-Performing Assets (NPA) ($r = 0.588$), indicating that firms with higher capital buffers tend to also report higher NPAs. This could imply that firms with stronger capital positions may be more willing to take on higher credit risks, or they may be provisioning more conservatively. In contrast, CAR has a moderate negative correlation with the Current Ratio (CR) ($r = -0.36$), suggesting that firms with higher capital adequacy might be managing their short-term assets more efficiently or investing more in long-term assets, thus keeping their current ratios lower. Additionally, CAR shows a very weak positive correlation with the Quick Ratio (QR) ($r = 0.08$) and a weak negative correlation with Fixed Assets to Total Assets (FATA) ($r = -0.08$), indicating minimal direct relationships between capital adequacy and liquidity or asset structure. Looking at Non-Performing Assets (NPA), its correlations with other variables are relatively weak. It has very weak negative relationships with QR ($r = -0.18$), CR ($r = -0.004$), and FATA ($r = -0.12$). These weak correlations suggest that asset quality concerns (in the form of NPA) are not strongly influenced by liquidity levels or the composition of assets, and may instead be tied more to internal credit risk policies or external market conditions.

A significant finding in the analysis is the strong negative correlation between the Quick Ratio (QR) and the Current Ratio (CR) ($r = -0.68$). While both are liquidity measures, this inverse relationship may indicate that firms with high levels of quick assets (such as cash and receivables) might not carry large inventories, which are included in the current ratio but excluded from the quick ratio. This reflects differences in how firms manage liquidity and inventory levels. Lastly, the Fixed Assets to Total Assets (FATA) ratio shows very weak negative correlations with all other variables: CR ($r = -0.10$), QR ($r = -0.01$), NPA ($r = -0.12$), and CAR ($r = -0.08$). This signifies a proportion of assets that are fixed in total assets have

minimal linear association with its capital adequacy, liquidity, or asset quality, suggesting that fixed asset investments are largely independent of these financial metrics.

In summary, the correlation analysis indicates that most variables have weak to moderate associations, with the only strong correlation being the negative relationship between QR and CR. The moderate positive link between CAR and NPA is also notable. Overall, the results highlight a complex and non-uniform financial structure across firms, where several key indicators operate independently rather than being strongly interrelated.

Table 3: Augmented Dickey- Fuller (ADF) and Kao Residual Cointegration Test

Variable	Coefficient	Std.Error	t-Statistic	Prob.
RESID(-1)	-1.442	0.129	-11.169	0.000
D(RESID(-1))	0.848	0.101	8.373	0.000
R-squared	0.894	Meandependentvar		-0.210
AdjustedR-squared	0.888	S.D.dependentvar		5.720
S.E.ofregression	1.915	Akaikainfocriterion		4.241
Sumsquaredresid	58.647	Schwarzcriterion		4.340
Loglikelihood	-36.171	Hannan-Quinncrier.		4.255
Durbin-Watson stat	2.779			
ADF	t-Statistic	Prob.		
	-9.309	0.000		

Source: Compiled Data

During the sample period from 2021 to 2025, the long-term equilibrium relationship between the variables ROA, ROE, CAR, NPA, CR, QR, and FATA was investigated using the Kao Residual Cointegration Test. The test's null hypothesis asserts that the variables do not overlap. With a user-specified lag length of 1, the test was conducted under the pretext that there was no deterministic trend. To account for potential autocorrelation and heteroskedasticity in the residuals, the Bartlett kernel and Newey-West automatic bandwidth were used. At all traditional levels (1%, 5%, and 10%), the results show a highly significant ADF (Augmented Dickey-Fuller) test statistic of -9.309 with a probability value (p-value) of 0.0000. Since the p-value is less than 0.05, we reject the null hypothesis of no cointegration. This implies that there exists a statistically significant long-run relationship among the selected financial variables—Return on Assets (ROA), Return on Equity (ROE), Capital Adequacy Ratio (CAR), Non-Performing Assets (NPA), Current Ratio (CR), Quick Ratio (QR), and Fixed Assets to Total Assets (FATA). The residual variance (27.24) and HAC variance (26.83) support the robustness of the test results by accounting for potential serial correlation and heteroskedasticity in the error terms. Overall, the Kao test confirms that although these financial indicators may fluctuate independently in the short run, they move together in the long run, indicating a stable equilibrium relationship among them.

The stationarity of the residuals obtained from a cointegration connection among the variables was examined by estimating the value of the ADF test equation. This step is essential for validating the Initial residual cointegration test results. The test was conducted using the first difference of the residuals as the dependent variable over the adjusted sample period from 2023 to 2025, with 18 observations after adjustments. The postponed residual, or RESID(-1), is the crucial coefficient of interest. With a t-statistic of -11.17 and a value for p of 0.0000, the coefficient value of -1.4421 is statistically noteworthy at the 1% level. The unit root null hypothesis is rejected by this strong negative and very significant coefficient, which shows that the residuals are stationary. Stated otherwise, the absence of a root of one in the cointegration equation's residuals demonstrates that there is a legitimate long-term equilibrium relationship between the variables. With an R-squared of 0.8946 and an adapted R-squared of 0.8880, the model likewise exhibits an elevated amount of explanatory power,

accounting for roughly 89% of the variation in the first-differenced residuals. The reliability of the regression is further evidenced by the Durbin-Watson value of 2.779, which indicates that there is no discernible autocorrelation in the residuals. Overall, the results from the ADF test equation strongly confirm the stationarity of the residuals and provide additional statistical evidence in support of the existence of a cointegration relationship among ROA, ROE, CAR, NPA, CR, QR, and FATA. This implies that while short-run deviations may occur, the variables tend to move together in the long run, maintaining a stable equilibrium.

Table 4: Panel Regression Analysis: Determinants of Return on Assets (ROA) and Return on Equity (ROE)

	Variable	Coefficient	Std. Error	t-Statistic	Prob.
Return on Assets (ROA)	Constant	7.445	7.038	1.058	0.301
	CAR	0.240	0.2495	0.962	0.345
	NPA	-1.669	0.627	-2.661	0.014
	QR	-0.340	0.291	-1.168	0.254
	CR	-0.139	0.106	-1.305	0.204
	FATA	-10.399	12.835	-0.810	0.426
	R-squared	0.279	Meandependentvar		3.786
	Adjusted R-squared	0.129	S.D.dependentvar		7.501
	S.E. of regression	6.999	Akaikeinfocriterion		6.906
	Sumsquaredresid	1175.881	Schwarzcriterion		7.187
	Loglikelihood	-97.597	Hannan-Quinnccritter.		6.996
	F-statistic	1.860	Durbin-Watson stat		0.917
	Prob(F-statistic)	0.139			
	Variable	Coefficient	Std. Error	t-Statistic	Prob.
Return on Equity (ROE)	C	-14.382	49.07519	-0.293	0.772
	CAR	2.112	1.739999	1.214	0.237
	NPA	-3.651	4.374251	-0.835	0.412
	QR	-0.068	2.030465	-0.033	0.974
	CR	-0.122	0.742182	-0.165	0.870
	FATA	-11.735	89.49388	-0.131	0.897
	R-squared	0.071	Meandependentvar		22.234
	Adjusted R-squared	-0.122	S.D.dependentvar		46.069
	S.E. of regression	48.806	Akaikeinfocriterion		10.790
	Sumsquaredresid	57168.47	Schwarzcriterion		11.071
	Loglikelihood	-155.857	Hannan-Quinnccritter.		10.880
	F-statistic	0.368	Durbin-Watson stat		1.283
	Prob(F-statistic)	0.865			

Source: Compiled Data

The dependent variables in a panel least squares regression were Return on Equity (ROE) and Return on Assets (ROA), which were used to examine the financial factors that

influence firm profitability. Five explanatory variables are included in the model, including the Capital Adequacy Ratio (CAR), Non-Performing Assets (NPA), Quick Ratio (QR), Current Ratio (CR), and Fixed Assets to Total Assets (FATA). The analysis uses balanced panel data from six firms across five years (2021–2025). Based on Return on Asset (ROA), the regression results revealed that among all the explanatory variables, Non-Performing Assets (NPA) is the only statistically significant predictor of ROA. The coefficient for NPA is -1.6693, with a one-unit increase in NPA leading to a 1.67 percentage point decline in ROA, reflecting the adverse impact of poor asset quality on firm profitability. In contrast, other variables like CAR (0.2402, $p = 0.3454$), QR (-0.3402, $p = 0.2542$), CR (-0.1389, $p = 0.2042$), and FATA (-10.3997, $p = 0.4258$) do not show statistically significant effects on ROA. Although the signs of these coefficients are consistent with financial logic, their high p -values suggest that these relationships are not strong enough to draw reliable conclusions from this sample. The model's R-squared is 0.279, which indicates that the independent variables account for about 28% of the variability in ROA. After controlling for the number of predictors, the modified R-squared statistic is lower at 0.129, suggesting little explanatory power. The set of explanatory factors does not successfully collaboratively explain ROA, according to the F-statistic (1.860) and its p -value (0.139), which indicate that the entire model is not statistically significant at the 5% level. Furthermore, the Durbin-Watson statistic of 0.917 pointed to potential positive autocorrelation in the residuals, which may affect the robustness of the results.

Regression modelling based on Return on Equity (ROE) showed that none of the explanatory variables are statistically significant predictors of ROE at conventional levels. While CAR has a positive coefficient of 2.11, suggesting a potential positive relationship with ROE, the p -value (0.2367) indicates that this result is not statistically reliable. Likewise, NPA (-3.65, $p = 0.4121$), QR (-0.068, $p = 0.9736$), CR (-0.122, $p = 0.8704$), and FATA (-11.74, $p = 0.8968$) all exhibit statistically insignificant relationships with ROE, as their p -values far exceed the 0.05 threshold. The intercept term (C) is also insignificant, indicating that even the baseline level of ROE is not well-explained by this model. In terms of model fit, the R-squared is extremely low (0.071), indicating that just 7.1% of the variation in ROE can be explained by the independent factors. Additionally, a negative adjusted R-squared (-0.122) indicates that the model does not perform as well as a simple mean prediction. There is no combined explanatory power of the independent variables on ROE, and the model is not statistically significant overall, according to the F-statistic value of 0.368 and the corresponding p -value of 0.865. The dependability of the estimations may be impacted by the residuals' apparent positive autocorrelation, as indicated by the Durbin-Watson statistic of 1.28.

Conclusion

Reserve Bank of India introduced Small Finance Banks (SFBs) in 2014–15 to fill a crucial gap: reaching unbanked and under-banked populations in rural and semi-urban India. These banks are designed to provide basic banking and credit services—especially to small farmers, micro-enterprises, and low-income households—with a simplified, low-cost operating model and a regulatory emphasis on priority-sector lending. Small Bank's importance lies in advancing financial inclusion, stimulating grassroots entrepreneurship, and channelling credit and savings into previously underserved regions. However, it is also obligatory for SFBs to perform well to sustain in the banking business and to achieve the government's objective of inclusiveness. The present study used a wide set of financial metrics (CAMEL approach) analysed the profitability, asset quality, capital strength, and liquidity of SFBs to know their financial health. The study found that while many SFBs maintain strong capital buffers and continue to expand, their profitability remains uneven,

and asset-quality risks (such as high NPAs) persist. Correlations indicate that higher NPAs tend to force banks to bolster capital, and weaker liquidity is associated with increased NPAs. Cointegration tests suggest long-run inter-linkages among key performance indicators. Panel regression results emphasise that NPAs significantly influence profitability, whereas variables like capital adequacy, liquidity, and asset composition did not consistently explain equity returns (ROE) in the model. The study therefore identifies credit risk and operational efficiency as critical strategic gaps: SFBs must strengthen their asset-quality frameworks and improve cost-effectiveness to sustainably fulfil their developmental and commercial mandates. The panel regression suggests that Non-Performing Assets play a critical role in determining firm profitability, as measured by ROA. The lack of significance for other variables indicates that factors such as capital adequacy, liquidity, and asset composition may not have a consistent or direct impact on ROA across firms in the sample period. Further analysis with a larger dataset or additional variables may help improve the model's explanatory power and validate these findings. The panel regression model does not provide meaningful insights into the determinants of ROE based on the variables included. The poor model fit and lack of statistical significance suggest that ROE may be influenced by other factors not captured in this model or that firm-specific or macroeconomic factors play a stronger role in determining equity returns. Further research with an expanded dataset or alternative variables is recommended to better understand the drivers of ROE in this context.

The study concluded that, India's Small Finance Banks (SFBs) and finds that while they maintain strong capital buffers and expanding outreach, their profitability remains inconsistent and asset-quality risks persist. Elevated NPAs strongly reduce profitability, liquidity weaknesses are linked with deteriorating asset quality, and key long-run performance metrics appear interdependent. However, standard factors such as capital adequacy and asset composition did not reliably explain return on equity (ROE), suggesting that deeper structural or macro-factors influence equity outcomes. SFBs are successfully advancing financial inclusion, their long-term viability is challenged by inconsistent asset quality management and acute short-term liquidity stress. Policy enhancements are necessary to enforce stricter credit risk protocols and mandate higher minimum liquidity buffers to ensure a financially sustainable mechanism for inclusive growth.

Reference:

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