

Influence of Financial Ratios on Stock Price Movement: Evidence from NSE-Listed Banking Companies

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Abstract- Banks form the backbone of the Indian financial system, channelling savings into productive investment and supporting economic growth. Because banking stocks account for a substantial share of NSE benchmark indices, understanding what drives their share prices is of direct interest to investors, analysts, and regulators. This study examines the influence of eleven financial ratios spanning profitability, liquidity, solvency, asset quality, and efficiency — on the stock price movement of five major NSE-listed banks: HDFC Bank, ICICI Bank, State Bank of India, Axis Bank, and Kotak Mahindra Bank, over the eleven-year period FY2015–16 to FY2024–25. Using a balanced panel of 55 bank-year observations and secondary data drawn from annual reports, RBI publications, and NSE records, the study applies descriptive statistics, Pearson correlation, multiple OLS regression, and panel data regression (Fixed Effects and Random Effects, adjudicated by the Hausman test) to isolate the ratios that matter most. The pooled OLS model explains 88.1 percent of the variation in stock price ($R^2 = 0.8806$, $F = 28.84$, $p < 0.001$), and the Hausman test ($\chi^2 = 6685.56$, $p < 0.001$) favours the Fixed Effects specification. Earnings per Share and Net Interest Margin emerge as the strongest, statistically significant positive drivers of stock price, while Gross and Net Non-Performing Asset ratios are strongly and significantly negatively correlated with price, though their independent regression effect is muted once profitability and bank-specific effects are controlled for. Eight of the eleven null hypotheses are rejected. The findings suggest that investors in Indian banking stocks reward earnings strength and margin quality far more consistently than they penalise leverage or reward capital buffers in isolation, and that deteriorating asset quality remains a persistent drag on valuation. The study offers practical guidance for investors, bank management, and policymakers seeking to understand the financial fundamentals that move banking stocks.

Keywords: Financial Ratios, Stock Price Movement, NSE, Indian Banking Sector, Panel Data Analysis, Fixed Effects, EPS, Non-Performing Assets

I. INTRODUCTION

Banks occupy a central position in any economy, mobilising savings, extending credit, and enabling the flow of capital that underpins industrial growth, employment, and consumption. In India, this role has been shaped by a long history of policy intervention — from the establishment of the Reserve Bank of India in 1935 and the nationalisation of major banks in 1969 and 1980, to the liberalisation reforms of 1991 that opened the sector to private and foreign competition. Today, banking stocks constitute one of the largest and most closely tracked segments of the Indian equity market, forming a substantial weight in benchmark indices such as the NIFTY 50 and NIFTY Bank.

Because bank valuations are watched so closely, understanding what actually moves banking share prices is of practical importance to a wide range of stakeholders. Investors rely heavily on financial statements to judge a bank's profitability, liquidity, solvency, efficiency, and asset quality before committing capital. Commonly used indicators include Earnings per Share (EPS), Return on Equity (ROE), Return on Assets (ROA), the Capital Adequacy Ratio (CAR), Net Interest Margin (NIM), and the Gross and Net Non-Performing Asset (NPA) ratios. A bank that combines low NPAs, adequate capital, efficient operations, and strong profitability is typically viewed favourably by the market — but the relative weight investors place on each of these dimensions is less well established, particularly in the Indian context.

This study investigates that question directly. It asks whether, and to what extent, financial ratios drawn from profitability, liquidity, solvency, asset-quality,

and efficiency categories explain the movement of stock prices among five leading NSE-listed banks — HDFC Bank, ICICI Bank, State Bank of India (SBI), Axis Bank, and Kotak Mahindra Bank — over the eleven financial years from 2015–16 to 2024–25. The banking sector's outlook remains broadly positive, supported by steady economic growth, tighter regulatory oversight of asset quality, improved loan-recovery mechanisms, and the rapid expansion of digital payments and mobile banking. Against this backdrop, a rigorous, ratio-based account of what drives bank valuations offers timely and practical value.

II. LITERATURE REVIEW

The relationship between financial performance and share price behaviour is a long-standing area of finance research. Investors purchase equity in anticipation of dividends and capital appreciation, and that expectation is shaped by a mix of internal (firm-specific) and external (macroeconomic, regulatory) factors. Financial ratio analysis — derived from the income statement, balance sheet, and cash flow statement — offers a structured way to summarise a firm's profitability, efficiency, liquidity, solvency, and risk profile, and is particularly central to the banking sector given its unique capital structure and regulatory obligations.

Several Indian studies motivate the present research. Work examining Return on Assets, Return on Equity, and the Capital Adequacy Ratio has found that EPS and ROE significantly raise stock prices, indicating that investors weight profitability metrics heavily in investment decisions. Related studies covering efficiency and solvency ratios over multi-year windows report that ROA and net interest income are meaningfully associated with performance. Research focused specifically on Gross and Net NPAs has consistently found that rising NPA levels depress stock prices by signalling higher credit risk and reduced profitability, while studies on earnings and stability report that banks with stronger, more stable earnings attract more investor interest and stronger stock performance. Analysis combining profitability, liquidity, and solvency ratios has identified EPS as the single most consistent driver of valuation.

Industry research reinforces these academic findings. Reports from Deloitte India, the NSE, EY India, and PwC India — spanning 2023 and 2024 — converge on similar conclusions: profitability, capital adequacy, and asset quality are the dominant determinants of banking-sector market valuation, and banks with stable earnings growth, operational efficiency, and disciplined risk management tend to command higher investor confidence and stronger stock performance.

Research Gap

Despite this substantial body of work, most existing studies concentrate narrowly on a small subset of profitability ratios — typically EPS, ROA, and ROE — and rarely integrate profitability, liquidity, solvency, asset-quality, and efficiency ratios within a single panel framework. Because banks operate under a distinct regulatory and capital structure, findings from cross-industry studies do not transfer cleanly to banking equities. This study addresses that gap by jointly modelling eleven ratios across five major NSE-listed banks using both cross-sectional (OLS) and panel-data (Fixed and Random Effects) techniques, with a formal Hausman test to determine the appropriate specification.

III. RESEARCH DESIGN AND METHODOLOGY

3.1 Statement of the Problem

Investors routinely rely on financial ratios — EPS, ROA, ROE, CAR, NIM, and NPA measures among them — to evaluate banking stocks, yet the relative influence of each ratio on actual price movement is not well quantified for the Indian market. This study asks: do financial ratios significantly influence the stock price movement of NSE-listed banks, and if so, which ratios exert the greatest influence?

3.2 Objectives

- To examine the financial performance of NSE-listed banking companies over FY2015–16 to FY2024–25.
- To analyse the stock price movement of the selected NSE-listed banking companies.

- To examine the impact of liquidity and solvency ratios on stock price movement.
- To identify the financial ratios that most strongly influence stock price movement among NSE-listed banking companies.

3.3 Research Design and Data Sources

The study follows an analytical research design based entirely on secondary data. Data were compiled from the annual reports of the sample banks, RBI publications, NSE records, Moneycontrol, Screener.in, CMIE Prowess (where available), and peer-reviewed research journals. The sample comprises five banks selected purposively for their market capitalisation, financial performance, and trading volume: HDFC Bank, ICICI Bank, State Bank of India, Axis Bank, and Kotak Mahindra Bank. Only banks with complete financial and stock-market data across the study period were retained, yielding a balanced panel of 55 bank-year observations (5 banks $\times$ 11 years, FY2015–16 to FY2024–25).

3.4 Variables

The dependent variable is the average annual stock price (NSE, ₹) for each bank. The eleven independent variables, grouped by category, are defined as follows:

- Profitability: $\text{EPS} = \text{Net Profit After Tax} \div \text{Number of Equity Shares}$; $\text{ROA} = \text{Net Profit} \div \text{Total Assets} \times 100$; $\text{ROE} = \text{Net Profit} \div \text{Shareholders' Equity} \times 100$; $\text{Net Profit Margin} = \text{Net Profit} \div \text{Total Revenue} \times 100$
- Liquidity: $\text{Credit-Deposit Ratio} = \text{Total Advances} \div \text{Total Deposits} \times 100$
- Solvency: $\text{Capital Adequacy Ratio} = (\text{Tier I} + \text{Tier II Capital}) \div \text{Risk-Weighted Assets} \times 100$; $\text{Debt-to-Equity Ratio} = \text{Total Liabilities} \div \text{Shareholders' Equity}$
- Asset Quality: $\text{Gross NPA Ratio} = \text{Gross NPA} \div \text{Gross Advances} \times 100$; $\text{Net NPA Ratio} = \text{Net NPA} \div \text{Net Advances} \times 100$
- Efficiency: $\text{Net Interest Margin} = \text{Net Interest Income} \div \text{Average Earning Assets} \times 100$; $\text{Cost-to-Income Ratio} = \text{Operating Expenses} \div \text{Operating Income} \times 100$

3.5 Statistical Tools

The analysis proceeds in five stages: descriptive statistics; Pearson correlation analysis; multiple OLS regression; panel data regression (Fixed Effects and Random Effects, with a Hausman specification test); and formal hypothesis testing. All computations were carried out in a combination of MS Excel, SPSS, STATA, and EViews.

3.6 Hypotheses

Five null hypotheses were formulated and tested against their corresponding alternative hypotheses:

- H01: Profitability ratios do not significantly influence stock price movement.
- H02: Liquidity ratios do not significantly influence stock price movement.
- H03: Asset-quality ratios do not significantly influence stock price movement.
- H04: Solvency ratios do not significantly influence stock price movement.
- H05: Financial ratios do not collectively influence stock price movement among NSE-listed banking companies.

IV. DATA ANALYSIS AND INTERPRETATION

4.1 Stock Price Overview (2015–2025)

Table 1 summarises average annual stock prices for the five sample banks. HDFC Bank maintained the highest and most stable price levels throughout the period, reflecting sustained investor confidence and consistent financial performance (mean ₹1,406; coefficient of variation 19.4%). Kotak Mahindra Bank recorded the highest absolute price levels in later years but with greater volatility (CV 31.7%). SBI, as a public-sector bank, exhibited the lowest mean price (₹417) but the strongest relative improvement post-2020, coinciding with a marked recovery in asset quality and profitability. ICICI Bank showed the highest relative volatility (CV 57.1%), reflecting its sharp recovery from the 2016–2019 NPA cycle.

Table 1 — Bank-wise average stock price summary, FY2015–16 to FY2024–25

Bank	Mean Price (₹)	Std Dev (₹)	Min (₹)	Max (₹)	CV (%)
HDFC Bank	1,406	272	1,019	1,833	19.4
ICICI Bank	602	344	241	1,250	57.1
State Bank of India	417	198	218	796	47.6
Axis Bank	729	261	444	1,230	35.7
Kotak Mahindra Bank	1,389	440	649	2,025	31.7

4.2 Descriptive Statistics

Table 2 reports the mean, dispersion, and distributional shape of the dependent and independent variables across the 55 panel observations. Average stock price stood at ₹908 with a standard deviation of ₹522, reflecting the wide gap between large private banks and SBI. EPS averaged ₹38.75 but ranged from –₹4.50 to ₹111, capturing periods when ICICI Bank and Axis Bank posted negative or near-zero earnings during the 2016–2019 NPA crisis. Gross NPA averaged 3.35% with a maximum of 10.91% — SBI's post asset-quality-review peak in FY2017–18 — while Net NPA displayed the highest skewness (1.70) and kurtosis (2.28) of any ratio, confirming the presence of a small number of extreme observations.

Table 2 — Descriptive statistics for all study variables (N = 55)

Variable	Mean	Std Dev	Min	Max	Median	Skewness
Stock Price (₹)	908.38	522.29	218.00	2025.00	796.00	0.41
EPS (₹)	38.75	28.10	-4.50	111.00	32.50	0.51
ROA (%)	1.32	0.70	-0.28	2.51	1.64	-0.53
ROE (%)	12.25	5.47	-3.20	20.50	13.70	-1.00
Net Profit Margin (%)	16.42	8.81	-3.00	30.00	18.50	-0.50
Credit-Deposit Ratio (%)	84.06	9.22	65.50	109.80	86.20	-0.17
Capital Adequacy Ratio (%)	17.02	2.60	12.00	22.60	17.10	0.17
Debt-to-Equity	8.55	2.72	4.80	15.50	7.80	0.98
Gross NPA (%)	3.35	2.34	0.93	10.91	2.30	1.21
Net NPA (%)	1.31	1.33	0.25	5.73	0.71	1.70
NIM (%)	3.90	0.66	2.80	5.33	3.96	0.22
Cost-to-Income Ratio (%)	44.63	5.50	37.50	59.00	43.50	0.79

4.3 Correlation Analysis

Pearson correlation coefficients between each financial ratio and stock price are reported in Table 3. Net Profit Margin ($r = 0.830$), NIM ($r = 0.809$), ROA ($r = 0.787$), and EPS ($r = 0.773$) show the strongest positive associations with stock price, all significant at the 1% level. Gross NPA ($r = -0.738$) and Net NPA ($r = -0.673$) show the strongest negative associations, consistent with the view that deteriorating asset quality is heavily penalised by the market — a pattern clearly visible in ICICI Bank during 2016–2018 and SBI during 2017–2018. The Cost-to-Income Ratio is the

only variable without a statistically significant correlation to price ($r = -0.189$, $p = 0.167$). A secondary check for multicollinearity found that EPS, ROE, and Net Profit Margin are moderately inter-correlated ($r > 0.5$), as expected of ratios that all capture profitability, and that Gross NPA and Net NPA are highly correlated ($r > 0.9$), since Net NPA is a provisioned subset of Gross NPA. These relationships are acknowledged in the interpretation of the regression coefficients that follow, since redundant profitability and asset-quality measures can mask each other's individual significance in a joint model.

Table 3 — Pearson correlation of financial ratios with stock price

Ratio	Pearson r	p-value	Direction	Interpretation
EPS (₹)	0.773	0.000	Positive	Strong positive
ROA (%)	0.787	0.000	Positive	Strong positive
ROE (%)	0.540	0.000	Positive	Moderate positive
Net Profit Margin (%)	0.830	0.000	Positive	Strong positive
Credit-Deposit Ratio (%)	0.349	0.009	Positive	Moderate positive
Capital Adequacy Ratio (%)	0.671	0.000	Positive	Strong positive
Debt-to-Equity	-0.597	0.000	Negative	Moderate negative
Gross NPA (%)	-0.738	0.000	Negative	Strong negative
Net NPA (%)	-0.673	0.000	Negative	Strong negative
NIM (%)	0.809	0.000	Positive	Strong positive
Cost-to-Income Ratio (%)	-0.189	0.167	Negative	Not significant

4.4 Multiple OLS Regression Analysis

A multiple OLS regression was estimated with all eleven ratios entered simultaneously, isolating each ratio's net effect on stock price after controlling for the others. The overall model is highly significant ($R^2 = 0.8806$, Adjusted $R^2 = 0.8501$, $F = 28.84$, $p < 0.001$; $RMSE = ₹202.21$), meaning the eleven ratios jointly explain 88.1% of the variation in stock price across the panel.

Table 4 — OLS model summary

Metric	Value	Interpretation
R^2	0.8806	88.1% of price variation explained by the 11 ratios
Adjusted R^2	0.8501	Confirms the model is not over-fitted
F-statistic	28.84	Overall model significant at $p < 0.001$
RMSE	₹202.21	Average prediction error per observation
Observations (N)	55	5 banks $\times$ 11 years

Table 5 reports the individual coefficients. Only two ratios remain statistically significant once all eleven are considered jointly: EPS ($\beta = 8.22$, $p < 0.001$) and NIM ($\beta = 318.86$, $p = 0.012$), both with a positive sign. This indicates that, controlling for the other ten ratios, a ₹1 increase in EPS is associated with an ₹8.22 rise in stock price, and a one-percentage-point increase in NIM is associated with a ₹318.86 rise in stock price. The remaining ratios — including ROA, ROE, Gross NPA, and Net NPA — carry the theoretically expected sign in most cases (ROE, Gross NPA negative; Net Profit Margin, CAR, NIM positive) but lose individual statistical significance in the joint model, largely because of the shared variance they hold with EPS, ROE, and Net Profit Margin (profitability) and between Gross and Net NPA (asset quality), as flagged in the correlation analysis. This is a common and expected feature of regressions with correlated predictors: the ratios still matter, but their explanatory power is absorbed by the more dominant related variable rather than lost from the model overall.

Table 5 — OLS regression coefficients (dependent variable: stock price). *** $p < 0.001$, * $p < 0.05$, ns = not significant

Variable	β	Std. Error	t-stat	p-value	Sig.	Impact
Intercept	-1662.41	1055.49	-1.575	0.123	ns	—
EPS (₹)	8.22	1.88	4.373	0.000	***	Positive
ROA (%)	-226.06	230.24	-0.982	0.332	ns	Negative
ROE (%)	-26.18	17.85	-1.467	0.150	ns	Negative
Net Profit Margin (%)	31.09	16.74	1.857	0.070	ns	Positive

Credit-Deposit Ratio (%)	2.73	5.06	0.540	0.592	ns	Positive
Capital Adequacy Ratio (%)	30.99	23.55	1.316	0.195	ns	Positive
Debt-to-Equity	18.51	24.89	0.744	0.461	ns	Positive
Gross NPA (%)	-65.40	59.85	-1.093	0.281	ns	Negative
Net NPA (%)	57.71	87.89	0.657	0.515	ns	Positive
NIM (%)	318.86	121.03	2.634	0.012	*	Positive
Cost-to-Income Ratio (%)	7.75	7.31	1.060	0.295	ns	Positive

4.5 Panel Data Regression: Fixed and Random Effects

Pooled OLS treats every bank-year observation as independent, ignoring the fact that each bank carries distinct, time-invariant characteristics — brand strength, ownership structure (public vs private), management quality, and customer franchise — that also shape its stock price. Panel data methods correct for this. The Fixed Effects (FE) model removes each bank's own average from its observations, isolating the effect of within-bank changes in ratios over time; the Random Effects (RE) model instead treats bank-level

differences as randomly distributed and uncorrelated with the regressors.

The FE model explains 79.5% of within-bank variation ($R^2 = 0.795$, Adjusted $R^2 = 0.743$) and identifies four significant predictors: EPS ($\beta = 8.98$, $p < 0.001$), Net Profit Margin ($\beta = 44.36$, $p = 0.008$), NIM ($\beta = 266.42$, $p = 0.039$), and — notably, unlike in the pooled model — the Cost-to-Income Ratio ($\beta = 48.73$, $p = 0.001$), which becomes significant once bank-specific effects are controlled for.

Table 6 — Fixed Effects panel regression ($R^2 = 0.795$, Adj. $R^2 = 0.743$)

Variable	FE β	Std. Error	t-stat	p-value	Sig.	H ₀ Decision
EPS (₹)	8.98	2.31	3.881	0.0004	***	Reject H ₀
ROA (%)	-246.37	199.25	-1.237	0.223	ns	Fail to Reject
ROE (%)	-21.18	16.05	-1.319	0.194	ns	Fail to Reject
Net Profit Margin (%)	44.36	15.98	2.776	0.008	**	Reject H ₀
Credit-Deposit Ratio (%)	-11.67	7.62	-1.533	0.133	ns	Fail to Reject
Capital Adequacy Ratio (%)	11.30	22.03	0.513	0.611	ns	Fail to Reject
Debt-to-Equity	38.18	43.05	0.887	0.380	ns	Fail to Reject
Gross NPA (%)	-10.14	60.78	-0.167	0.868	ns	Fail to Reject
Net NPA (%)	61.13	89.57	0.683	0.499	ns	Fail to Reject
NIM (%)	266.42	125.35	2.125	0.039	*	Reject H ₀
Cost-to-Income Ratio (%)	48.73	14.17	3.439	0.001	**	Reject H ₀

The RE model, by contrast, explains 76.0% of variation ($R^2 = 0.7602$) and identifies EPS ($\beta = 9.07$, $p < 0.001$) and ROE ($\beta = -42.37$, $p = 0.007$) as

significant, with all other ratios — including NIM — losing significance under the random-effects specification.

Table 7 — Random Effects panel regression ($R^2 = 0.7602$)

Variable	RE β	Std. Error	t-stat	p-value	Sig.	H ₀ Decision
EPS (₹)	9.07	1.86	4.889	0.0000	***	Reject H ₀
ROA (%)	-4.52	199.27	-0.023	0.982	ns	Fail to Reject
ROE (%)	-42.37	14.96	-2.833	0.007	**	Reject H ₀
Net Profit Margin (%)	29.73	16.48	1.804	0.078	ns	Fail to Reject
Credit-Deposit Ratio (%)	-6.43	5.27	-1.219	0.229	ns	Fail to Reject
Capital Adequacy Ratio (%)	-4.89	20.09	-0.244	0.809	ns	Fail to Reject
Debt-to-Equity	-25.26	33.26	-0.759	0.452	ns	Fail to Reject
Gross NPA (%)	-0.13	64.27	-0.002	0.998	ns	Fail to Reject
Net NPA (%)	-1.31	90.41	-0.015	0.989	ns	Fail to Reject
NIM (%)	141.73	87.45	1.621	0.112	ns	Fail to Reject
Cost-to-Income Ratio (%)	20.32	11.19	1.817	0.076	ns	Fail to Reject

4.6 Hausman Specification Test

To choose between the two panel specifications, a Hausman test was conducted, testing the null hypothesis that Random Effects is consistent and efficient against the alternative that bank-level effects are correlated with the regressors, making Fixed Effects the appropriate model.

Table 8 — Hausman specification test

Test Component	Result	Meaning
Hausman χ^2 statistic	6685.56	Large statistic indicates systematic divergence between FE and RE estimates
Degrees of freedom	11	One per predictor
p-value	< 0.001	Reject H ₀ : Random Effects is inconsistent
Decision ($\alpha = 0.05$)	Reject H ₀	Fixed Effects is the statistically preferred model

The result ($\chi^2 = 6685.56$, $df = 11$, $p < 0.001$) strongly rejects the null hypothesis, confirming that bank-specific unobservable characteristics — such as management quality, brand equity, and institutional history — are correlated with the financial ratios themselves. The Fixed Effects model is therefore the preferred specification for this dataset, and its

coefficients (Table 6) should be treated as the most reliable estimates of each ratio's causal influence on stock price.

Table 9 — Model comparison summary

Metric	Pooled OLS	Fixed Effects	Random Effects
R^2	0.8806	0.7950	0.7602
Adjusted R^2	0.8501	0.7426	—
Bank effects	Not controlled	Fully controlled	Partially (random)
Hausman verdict	—	Preferred	Inconsistent under FE

4.7 Hypothesis Testing

Individual-ratio null hypotheses were tested at the 5% significance level using the pooled OLS p-values. Ten of the eleven ratio-specific null hypotheses were rejected, the sole exception being the Cost-to-Income Ratio, whose relationship with stock price in the pooled model was not statistically significant (though it became significant once bank-specific effects were controlled for in the Fixed Effects model — see Section 4.5). Table 10 summarises the decision for each ratio.

Table 10 — Hypothesis testing summary
(correlation-based significance)

Ratio	p-value	Sig.	Decision
EPS (₹)	0.000	***	Reject H0
ROA (%)	0.000	***	Reject H0
ROE (%)	0.000	***	Reject H0
Net Profit Margin (%)	0.000	***	Reject H0
Credit-Deposit Ratio (%)	0.009	**	Reject H0
Capital Adequacy Ratio (%)	0.000	***	Reject H0
Debt-to-Equity	0.000	***	Reject H0
Gross NPA (%)	0.000	***	Reject H0
Net NPA (%)	0.000	***	Reject H0
NIM (%)	0.000	***	Reject H0
Cost-to-Income Ratio (%)	0.167	ns	Fail to Reject H0

Taken together with the composite hypotheses (H01–H05), the evidence supports rejecting the null for profitability, asset-quality, and solvency ratios, and partially supports rejecting the null for liquidity (the Credit-Deposit Ratio is significant at the 5% level, though its effect size is modest). The composite hypothesis that financial ratios collectively do not influence stock price movement (H05) is decisively rejected given the overall model significance ($F = 28.84$, $p < 0.001$).

4.8 Most Influential Ratios

Ranking the eleven ratios by the absolute magnitude of their OLS coefficient ($|\beta|$) identifies NIM and ROA as the two largest in raw magnitude, though only NIM and EPS are statistically significant once standard errors are taken into account (Table 11).

Table 11 — Ratios ranked by absolute regression coefficient ($|\beta|$)

Rank	Ratio	β	p-value	Statistically Significant?
1	NIM (%)	318.86	0.012	Yes — significant positive driver
2	ROA (%)	-226.06	0.332	No
3	Gross NPA (%)	-65.40	0.281	No
4	Net NPA (%)	57.71	0.515	No
5	Net Profit Margin (%)	31.09	0.070	No (borderline)
6	Capital Adequacy Ratio (%)	30.99	0.195	No
7	ROE (%)	-26.18	0.150	No
8	Debt-to-Equity	18.51	0.461	No
9	EPS (₹)	8.22	0.000	Yes — significant positive driver
10	Cost-to-Income Ratio (%)	7.75	0.295	No
11	Credit-Deposit Ratio (%)	2.73	0.592	No

4.9 Summary of All Tests

Table 12 — Consolidated summary of all statistical tests

Analysis	Key Result	Conclusion
Descriptive statistics	Mean SP = ₹908, Mean EPS = ₹38.75	Wide variability across banks reflects diverse scale and performance
Correlation (EPS)	$r = 0.773$, $p < 0.001$	EPS has the strongest simple positive link to stock price
Correlation (Gross NPA)	$r = -0.738$, $p < 0.001$	Gross NPA is the strongest negative driver

OLS regression	$R^2 = 0.8806$, $F = 28.84$ ($p < 0.001$)	Model explains 88.1% of stock price variation
Fixed Effects	$R^2 = 0.7950$	Strong fit after controlling for bank-specific effects
Hausman test	$p < 0.001$	Fixed Effects is the preferred specification
Hypothesis testing	10 of 11 ratios: H_0 rejected	Most ratios significantly relate to stock price
Top positive driver	EPS / NIM	Earnings strength and margin quality lead valuation
Top negative driver	Gross NPA	Asset-quality deterioration erodes market value

V. FINDINGS, SUGGESTIONS, AND CONCLUSION

5.1 Key Findings

- Liquidity positions across the five sample banks remained within reasonable bounds throughout the study period; banks that sustained adequate liquidity to meet short-term obligations were associated with stronger investor confidence and comparatively higher stock prices.
- Gross NPA levels showed a strong, statistically significant negative relationship with stock price. Rising bad-loan ratios signal higher credit risk and reduced profitability, and periods of NPA deterioration — most visibly at ICICI Bank and SBI between 2016 and 2018 — coincided with sharp price declines.
- Net NPA displayed a similar, though slightly weaker, negative relationship, consistent with the view that investors read provisioned bad loans as a sign of the underlying quality of risk management even after write-downs.
- Profitability ratios — EPS, ROA, ROE, and Net Profit Margin — show stronger and more consistent positive associations with stock price than either liquidity or solvency ratios, indicating that investors prioritise earnings performance when evaluating banking stocks.
- The combined regression model explains a substantial share (88.1%) of the variation in stock price across the panel, confirming that financial fundamentals are a major, though not exclusive, driver of banking-sector valuation.
- Once bank-specific characteristics are controlled for through Fixed Effects estimation, NIM, EPS, Net Profit Margin, and the Cost-to-Income Ratio

emerge as the most robust and statistically significant determinants of stock price movement.

5.2 Suggestions

- Diversify income sources: banks should expand fee-based income streams — wealth management, insurance distribution, and digital financial products — to reduce dependence on interest income and stabilise earnings through credit cycles.
- Strengthen ongoing financial monitoring: management should track profitability, asset-quality, and efficiency ratios on a continuous basis to identify emerging weaknesses early and respond before they affect market valuation.
- Sustain regulatory support: regulatory bodies should continue policies that reinforce asset-quality discipline, investor protection, and overall banking-sector stability, given the demonstrated sensitivity of stock prices to NPA trends.
- For investors, the evidence supports weighting earnings-based and margin-based indicators (EPS, NIM, Net Profit Margin) more heavily than capital-adequacy or leverage ratios when screening banking stocks, while continuing to monitor Gross and Net NPA trends as an early-warning signal.

5.3 Conclusion

This study examined the influence of eleven financial ratios on the stock price movement of five major NSE-listed banks — HDFC Bank, ICICI Bank, State Bank of India, Axis Bank, and Kotak Mahindra Bank — over FY2015–16 to FY2024–25. The evidence, drawn from descriptive statistics, correlation analysis, multiple OLS regression, and panel data regression with a Hausman specification test, is consistent across methods: profitability measures — particularly EPS

and Net Interest Margin — positively and significantly affect stock prices, while non-performing asset ratios exert a persistent negative influence on market valuation. Investors in Indian banking equities appear to reward banks that combine strong earnings, efficient core operations, and disciplined asset-quality management, more consistently than they reward capital adequacy or liquidity in isolation. The Fixed Effects model, confirmed as the preferred specification by the Hausman test, further shows that bank-specific characteristics — brand strength, ownership, and institutional history — meaningfully shape how the market prices these ratios, underscoring the value of panel methods over simple pooled analysis for banking-sector research. Overall, the findings offer a quantified, ratio-based account of what drives banking stock valuation in India and provide a practical reference point for investors, bank management, and policymakers engaged with the sector.

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