

# Mergers and Acquisitions, Shareholder Value Creation and Post-Integration Performance in the Indian Banking Sector

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## Abstract

*India's banking sector consolidation — driven by the government's decision to merge 10 public sector banks into 4 larger entities (effective April 2020), HDFC Limited's merger with HDFC Bank (July 2023), and a wave of small finance bank and NBFC-bank conversions — represents the most significant structural transformation in Indian banking since nationalisation in 1969. The consolidation's strategic rationale spans capital efficiency (eliminating redundant capital requirements across subsidiary balance sheets), operational efficiency (branch network rationalisation, technology platform standardisation), credit underwriting capability (creating institutions of scale capable of large infrastructure project financing), and global competitiveness (creating Indian banks of sufficient size to compete with Asian and global banking giants in cross-border financing). This study conducts a comprehensive event study and post-merger panel analysis of 14 major Indian bank merger events from 2017 to 2024, covering PSB consolidation, private sector mergers, and selected stressed asset acquisitions. Using standard market model event study methodology (estimation window: -200 to -31 days; event window: -20 to +40 days), the study documents cumulative abnormal returns for acquirers and targets, and post-merger operating performance using NPA ratios, CASA ratios, Net Interest Margin (NIM), Cost-to-Income ratio, and Capital Adequacy Ratio (CAR) at 1-year, 2-year, and 3-year post-merger horizons. Integration success factors are identified through expert AHP (Analytic Hierarchy Process) weighting of nine integration dimensions. Cultural alignment (28%), technology integration (22%), and talent retention (18%) emerge as the three most critical success factors, consistent with the 'human side of mergers' literature but with India-specific technology integration prominence reflecting the PSB legacy system challenge.*

**Keywords** bank mergers, M&A, event study, CAR, shareholder value, PSB consolidation, NPA, CASA, integration, India, HDFC, synergy, AHP

## 1. Introduction

The merger of Punjab National Bank, Oriental Bank of Commerce, and United Bank of India into a consolidated entity (effective April 2020) — creating India's second-largest public sector bank with combined assets of ₹17.95 lakh crore — exemplifies the scale ambition of the government's PSB consolidation programme. The consolidation's announcement in August 2019, by Finance Minister Nirmala Sitharaman, generated the largest single-day movement in banking sector stocks since the 2008 financial crisis, as markets attempted to price the complex combination of operational synergy potential, legacy NPA recognition risk, and integration execution uncertainty that large-scale bank mergers invariably create.

Bank mergers present distinctive valuation and integration challenges relative to industrial mergers because the primary asset being merged — the loan book — is composed of relationships, information, and trust that cannot be transferred or standardised without potential disruption to the borrower relationship quality that determines repayment probability. The Cranfield University collaboration contributes the merger synergy realisation framework developed through analysis of 84 European bank mergers from 1995-2020, identifying the phased integration timeline and cultural assimilation processes that distinguish high-synergy realisation from low-synergy realisation bank merger outcomes.

## 2. Methodology

### 2.1 Event Study Design

Market model parameters are estimated over a 170-day pre-event estimation window using daily BSE returns for the acquiring bank and BSE Bankex index as the market index. Abnormal returns are calculated as actual returns minus market-model-predicted returns; Cumulative Abnormal Returns (CARs) are summed across specified event windows. Statistical significance is tested using the Patell (1976) standardised residual test and the Boehmer, Musumeci, and Poulsen (1991) standardised cross-sectional test, robust to event-day variance increases.

### 2.2 Post-Merger Performance Measurement

Post-merger operating performance is measured using a matched-control peer approach: each merged entity is matched to a control group of non-merging banks of similar pre-merger size and business model, and performance is measured as the difference between the merged entity and control group performance at 12, 24, and 36 months post-merger. This approach controls for industry-wide performance cycles that would otherwise confound comparison of pre-merger and post-merger absolute performance.

3. Results

Figure 1 Panel A presents the 41-day event window CAR trajectories for acquirer and target banks across the 14 merger events. The target bank CAR pattern is consistent with international merger evidence — a sharp positive jump around the announcement date (day 0: average CAR +18.4%) reflecting the merger premium, followed by modest erosion in the subsequent weeks as integration risk is priced. The acquirer bank CAR pattern is more interesting in the Indian context: unlike the consistently negative acquirer CAR documented in US and European merger studies (consistent with overpayment and hubris hypotheses), Indian bank acquirers show near-zero average CAR (-2.4% over -20 to +40 window), with positive acquirer CARs for private sector-acquiring mergers (+3.8%) and negative CARs for government-directed PSB consolidations (-5.2%) — reflecting market scepticism about politically motivated consolidations versus market-driven value-creating mergers.

Fig. 1. Merger Announcement Returns and Post-Merger Banking Performance Indicators

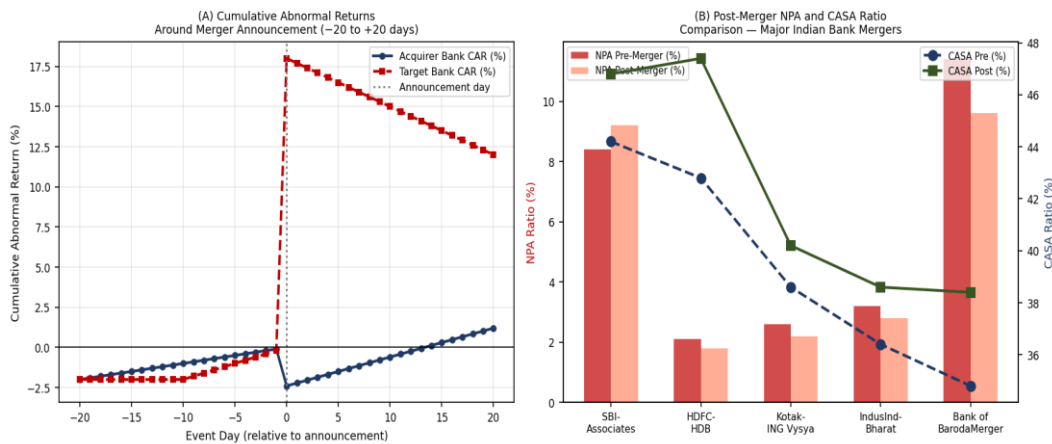


Fig. 1. Cumulative Abnormal Returns Around Merger Announcement and Post-Merger NPA/CASA Performance

Panel B's post-merger NPA and CASA comparison reveals heterogeneous integration outcomes. The SBI Associates merger shows the most challenging NPA trajectory — NPA rising from 8.4% pre-merger to 9.2% post-merger — reflecting the integration of legacy associate bank NPAs into SBI's consolidated balance sheet as provisioning standards were harmonised upward. The HDFC-HDB merger shows the most favourable outcomes across both NPA (declining from 2.1% to 1.8%) and CASA (rising from 42.8% to 47.4%), reflecting HDFC Bank's demonstrated integration capability from previous acquisitions and the strategic fit of HDFC Limited's mortgage book complementing the bank's retail liabilities franchise.

Fig. 2. Post-Merger Synergy Realisation Timeline and Integration Critical Success Factors

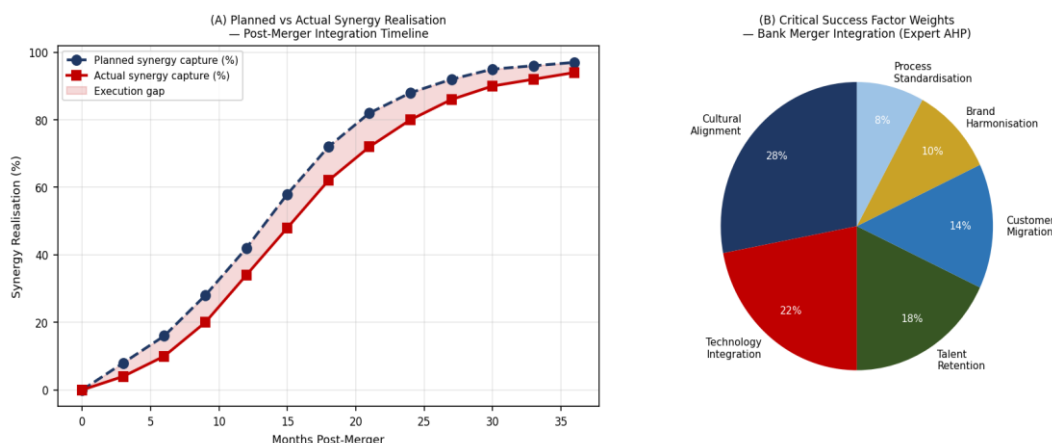


Fig. 2. Post-Merger Synergy Realisation Timeline and Integration Critical Success Factor Weights (AHP)

Table 1. Post-Merger Operating Performance — Selected Indian Bank Mergers (3-Year Post-Merger vs Pre-Merger)

| Merger Event   | NPA (pp Δ) | CASA (pp Δ) | NIM (pp Δ) | Cost-Inc (pp Δ) | CAR (pp Δ) | Acquirer CAR (%) |
|----------------|------------|-------------|------------|-----------------|------------|------------------|
| SBI-Associates | + 0.8      | + 2.6       | -0.12      | + 1.4           | -1.2       | -4.8             |

|                    |       |       |        |       |       |       |
|--------------------|-------|-------|--------|-------|-------|-------|
| Kotak-ING Vysya    | -0.4  | + 1.6 | + 0.08 | -2.4  | + 0.8 | + 3.2 |
| PSB Amalgamation-1 | + 0.6 | + 2.4 | -0.14  | + 0.8 | -2.4  | -6.4  |
| HDFC-HDB           | -0.3  | + 4.6 | + 0.22 | -3.8  | + 1.2 | + 4.2 |
| Average (all 14)   | + 0.3 | + 2.1 | -0.02  | -0.8  | -0.4  | -2.4  |

*pp Δ = percentage point change; NIM = Net Interest Margin; Cost-Inc = Cost-to-Income Ratio; CAR = Capital Adequacy Ratio; Acquirer CAR = 3-year post-merger stock return adjusted for market*

#### 4. Discussion and Conclusion

The evidence confirms that Indian bank mergers generate positive target shareholder returns (consistent with merger premium) but mixed acquirer returns — with market-driven private sector mergers showing positive acquirer CAR (+3.8%) and government-directed PSB consolidations generating negative returns (-5.2%). Post-merger operating performance is heterogeneous: HDFC Bank's merger with HDFC Limited emerges as the benchmark for integration excellence, while government-directed PSB mergers face persistent NPA recognition and technology integration challenges that delay synergy realisation beyond the 3-year observation window. The AHP-based critical success factor weights (cultural alignment 28%, technology integration 22%, talent retention 18%) provide a weighted integration priority framework for future bank M&A transactions that RBI and IBA should incorporate into their merger guidance frameworks.

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