

# Analytical Study on Profitability and Liquidity in Post Merger Bank

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## ABSTRACT

The primary focal point of the investigation was to assess the profitability and liquidity position of manages an account regarding Pre and post-merger in India. The financial presentation of the Indian financial segment has been assessed utilizing CAMEL approach and Data Envelopment Analysis. The examination has utilized an example size of 10 banks, both national and private banks. Pre and post-merger stages for the period 1998-2016 have been inspected through dissecting financial execution of each bank. The point of this paper is to do the near investigation of effect of mergers and acquisition on liquidity, profitability, proficiency and capital structure of procuring banks in India. The specialist select six instances of merger happened somewhere in the range of 2000 and 2006 in the Indian Banking Sector. Proportions investigation is utilized to analyze the pre and post merger financial execution of procuring Banks. The outcome shows that M&A's are not made contrast in the financial presentation of the getting Banks.

## 1. Introduction

Bank extensions are broadly seen from the specialized marvels of merger and acquisitions, explicitly for those banks that approach ordering statures in universal financial markets. An engaging change is created by bank mergers in the structure of banking industry. Along these lines, Indian banks are building up more branches and auxiliaries to gain neighborhood banks and grow their activities all through the nation. It is comprehended that bidder banks in post-merger stage get helpless banks to contend in the market, and keep up their steadiness as far as profitability and liquidity utilizing mergers and acquisitions.

The financial presentation is assessed from the pre and post-merger of Indian banks. As of late, the financial exhibition has mounted its tallness in post-merger stage. This mounting stature has empowered Indian banks to achieve its targets. Specialists have inspected the financial presentation of Indian banks through merger and acquisitions. ICICI bank Ltd was chosen as a contextual investigation to inspect the particular target. The profitability and liquidity proportions have altogether anticipated the expansion in financial execution of Indian banks. Analyst has analyzed that Indian banks can conceivably achieve their targets and objectives and can decrease their costs to a noteworthy number with the assistance of mergers and acquisitions.

Mergers and Acquisitions keep on being an essential quality in the transformation of the financial administrations industry. The Commercial Banking Sector of India, which has assumed a significant job in the monetary improvement of the nation, is right now going through an energizing and testing stage. With the beginning of monetary changes, the financial part in India has embraced the procedure of mergers and acquisitions to catch different synergistic advantages like economies of scale and degree, even with expanding rivalry from both household just as remote players and fast mechanical improvements.

Merger and acquisition is a significant device for the extension of business in various nations and the scientists from everywhere throughout the world are taking enthusiasm to

work right now. The developing inclination towards (Mergers and Acquisition) everywhere throughout the world has been driven by expanding rivalry. There is a prerequisite to lessen costs, great financial arranging, and development of business. All these could be conceivable with the assistance of Mergers and Acquisitions.

## 2. Literature Review

**Manju RajanBabu (2019)** the primary focal point of the investigation was to assess the profitability and liquidity position of manages an account concerning Pre and post-merger in India. The financial exhibition of the Indian financial area has been assessed utilizing CAMEL approach and Data Envelopment Analysis. The examination has utilized an example size of 17 banks, both national and private banks. Pre and post-merger stages for the period 1998-2016 have been inspected through breaking down financial execution of each bank. The outcomes have assessed that HDFC bank Ltd, Federal bank, and Bank of Baroda were productive as far as the financial presentation when contrasted with different banks. Capital structure and client necessities were improved by the endeavors made by the banks.

**Dr. Nidhi Tanwar (2016)** the exploration shows a near investigation of the pre and post-merger financial and working execution examination of blended banks. Haphazardly four instances of mergers happened in the year from 2006-2010 in the Indian financial division has been taken for the investigation. Camel model (camel represent capital ampleness, resource quality, Managerial productivity, profit quality and liquidity) have been utilized to look at the pre and post-merger financial execution evaluation of procuring banks. So as to test the level of variety, coefficient of variety has applied. The outcomes demonstrated that there is noteworthy contrast in the general execution of blended banks during merger period consequently invalid theory is dismissed.

**Deepak Sahni, SoniyaGambhir (2018)** Merger and Acquisition in Banking division is on ascend in India just as all inclusive. The Indian financial area is the greatest part of the nation and the sufficiency of banking segment assumes

significant job in the advancement of the economy. Data on factors utilizing CAMEL (Capital Adequacy, Asset Quality, Management Quality, Earning Quality and Liquidity) model was gathered from the yearly reports of the chose banks utilizing CAPITA LINE database. Auxiliary data were removed from the financial records of the banks for examinations by thinking about financial records of ten years; involving five-year financial record before the Merger and Acquisition and five-year financial record after the Merger and Acquisition.

**Dr. Madan Lal Singla (2015)** the job of Indian Banks can be unmistakably recognized in the pre and post progression period. The pre advancement stage is that of improvement of the financial framework. In the post advancement period, there has been a development of items and administrations. One significant change has been to achieve combination through mergers and acquisitions. The impact of merger is relied upon to realize cooperative energy in activities and financial viewpoints. To encourage union and achieve developing solid banks, rules have been surrounded with the goal that the frail banks can exit and merger/amalgamation can be energized. Mergers of banks in India can be either through intentional or mandatory method.

**Mehroz Nida Dilshad (2013)** in particular, this investigation broke down the impacts of banks mergers and their declarations on the costs of stocks. We considered that include banks in Merger and Acquisition from year 2001 to 2010 so as to examine the profits of investor of the objectives and acquirers. Proof here backings that huge total irregular returns were fleeting for the acquirers. Proof of overabundance returns after the merger declaration was additionally seen alongside the spillage of information that brought about the ascent of stock costs not many days before the declaration of merger or acquisition. Simultaneously, the consequences of total anomalous returns indicated that target banks earned irregular profits for the merger declaration day.

**3. Methodology**

**Period of Study**

The examination expects to look at the pre and post-merger period among Indian financial industry for chose banks. These banks are chosen to quantify the profitability and liquidity for pre and post-merger stages for the period 1998-2016.

**Source of Data**

The data is gathered for each bank from its yearly reports and diverse financial reports of associations. CAMEL rating framework and Data Envelopment Analysis (DEA) are utilized to quantify the profitability and liquidity of chose banks. Data envelopment investigation (DEA) is considered as a multifaceted profitability examination model, which is utilized to quantify the overall efficiencies of dynamic units (DMUs).

Also, straight programming strategies depend on the non-parametric methodology of data envelopment examination that is utilized to evaluate the efficiencies of broke down units.

Information sources and yields of dynamic units are estimated through data envelopment way to deal with measure subjectively and quantitatively.

Various dynamic units are spoken to through though; information sources and yields are spoken to through m and s separately (Table 1). Conditions (An) and (B) are referenced underneath to speak to the information and yield parameters.

**Table 1 Data Envelopment Indexes**

Title	Sign	Interval;
Input	i	1,2,3,4
Output	r	1
Decision Making Unit	j	1,2,3

$$X_i = (X_{1i}, \dots, X_{mi})^T \geq 0 \quad (A)$$

$$Y_j = (Y_{1j}, \dots, Y_{sj})^T \geq 0 \quad (B)$$

**The CAMEL Model**

CAMEL is a model which is utilized for the presentation assessment of banks. The abbreviation "CAMEL" alludes to the five parts to be specific Capital sufficiency, Asset quality, Management, Earnings and Liquidity. For applying the model five principle measurements of execution (Capital sufficiency, Assets Quality, Management Efficiency, Earning Quality and Liquidity) are evaluated.

**C:Capital Adequacy:** Capital Adequacy Ratio, Total Advances. to total Asset Ratio, Govt. Securities to total investment.

**A: Asset Quality:** Total Advance to Total Deposit Ratio, Credit Deposit Ratio, and Investment deposit Ratio, Cash Deposit Ratio, and Net NPA to Net Advances.

**M: Management Efficiency:** Business per Employee, Profit per employee.

**E: Earning Quality:** Dividend Payout Ratio, Return on Assets, Operating profit by average working fund, Return on equity, Return on Net Worth, Net Profit to total funds, P/E Ratio.

**L: Liquidity:** Liquid Assets to Total Assets, Approved Securities to Total Assets, Liquid Assets to Demand Deposits, Liquid Assets to Total deposits.

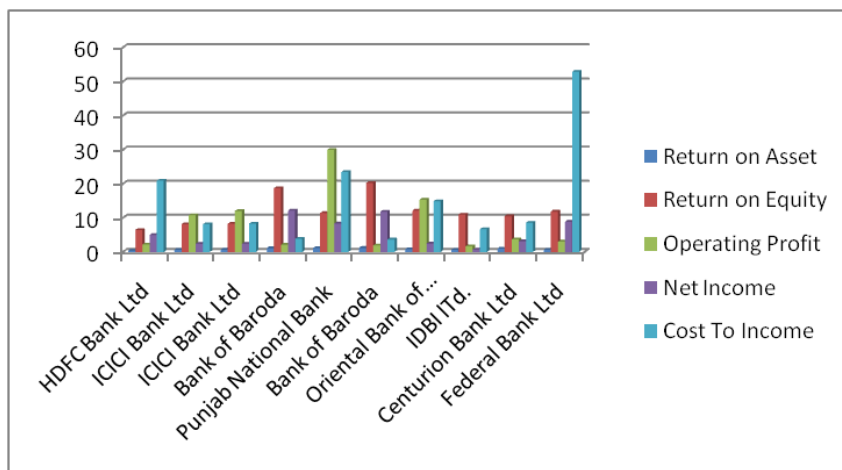
**4. Analysis & Result**

The presentation of banks converging with banks focused for the investigation. The principle factors concentrated principally were profitability and liquidity proportions. These components were estimated through various proportions to show the financial presentation of banks.

**Profitability Ratio**

**Table 2 Pre-merger analysis for Profitability ratios**

Banks	ROA	ROE	Operating profit	Net income	Cost to income
HDFC Bank Ltd	0.352	6.448	2.14	4.98	20.884
ICICI Bank Ltd	0.644	8.122	10.754	2.39	8.116
ICICI Bank Ltd	0.668	8.27	12.004	2.416	8.312
Bank of Baroda	1.108	18.704	2.12	12.144	3.85
Punjab National Bank	1.114	11.422	29.914	8.342	23.464
Bank of Baroda	1.19	20.22	1.906	11.798	3.664
Oriental Bank of Commerce	0.82	12.112	15.32	2.454	14.878
IDBI Ltd	0.602	10.918	1.654	0.702	6.66
Centurion Bank Ltd	0.966	10.48	3.684	3.146	8.546
Federal Bank Ltd	0.656	11.84	3.062	8.856	52.852



**Figure 2 Pre-Merger Analyses for Earnings Quality**

**Table 3 Post-merger Analysis for Profitability Ratios**

Banks	ROA	ROE	Operating profit	Net income	Cost to income
HDFC Bank Ltd	0.52	4.74	2.464	6.406	23.838
ICICI Bank Ltd	0.754	9.89	13.234	2.486	7.488
ICICI Bank Ltd	0.816	9.86	12	2.526	7.242
Bank of Baroda	1.858	14.45	1.738	14.832	3.854
Punjab National Bank	1.676	23.914	834.056	8.652	37.972
Bank of Baroda	0.776	13.248	1.886	15.114	3.424
Oriental Bank of Commerce	2.44	6.816	23.88	3.066	14.154
IDBI Ltd	0.886	10.334	1.706	1.426	5.744
Centurion Bank Ltd	2.01	16.324	3.842	3.65	7.084
Federal Bank Ltd	1.128	12.12	1.846	8.924	51.526

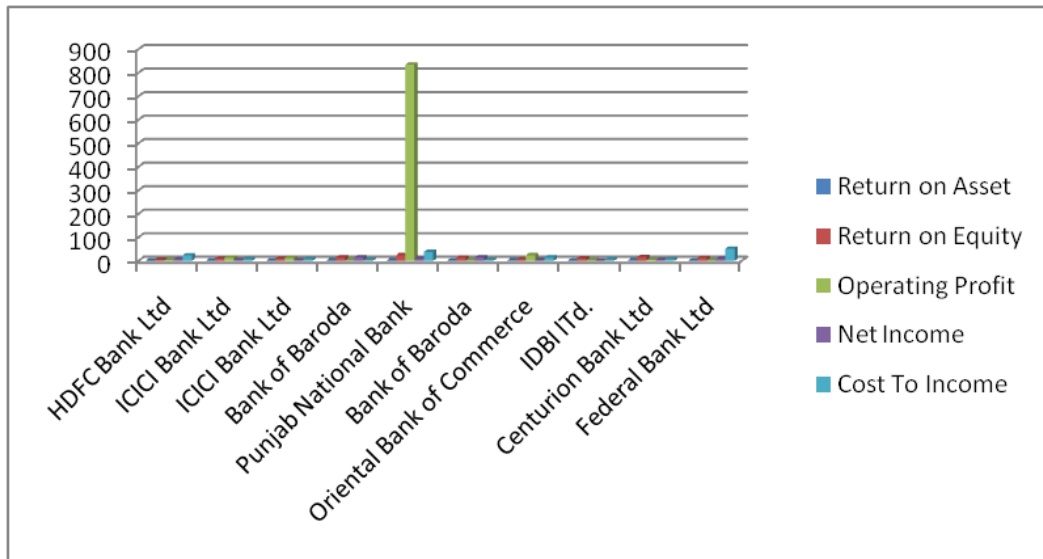


Figure 3 Post-Merger Analyses for Earnings Quality

**Liquidity Ratio**

Liquidity revealed the condition, where an association can acquire reasonable assets by changing its benefits or growing liabilities at a responsible expense. Liquidity is utilized to gauge the observing and control of risk the board rehearses.

Table 4 Pre-merger analysis for Liquidity Ratio

Banks	Loan 8.04 Assets	Liquid Assets to Total Deposits	Demand Deposits	Customer Deposits	Loan to Customer Deposits
HDFC Bank Ltd	19.236	9.918	21.358	21.358	8.04
ICICI Bank Ltd	9.908	0.05	7.936	7.936	9.92
ICICI Bank Ltd	9.672	0.06	8.336	8.336	10.096
Bank of Baroda	14.496	19.1	0.396	0.396	15.226
Punjab National Bank	6.9	6.88	3.524	3.524	9.336
Bank of Baroda	15.2	20.034	0.374	0.374	15.808
Oriental Bank of Commerce	6.758	25.672	1	1	0.598
IDBI Ltd	8.826	4.3768	0.038	0.038	1.424
Centurion Bank Ltd	0.898	8.61	6.552	6.552	1.172
Federal Bank Ltd	2.39	6.172	0.206	0.206	0.0506

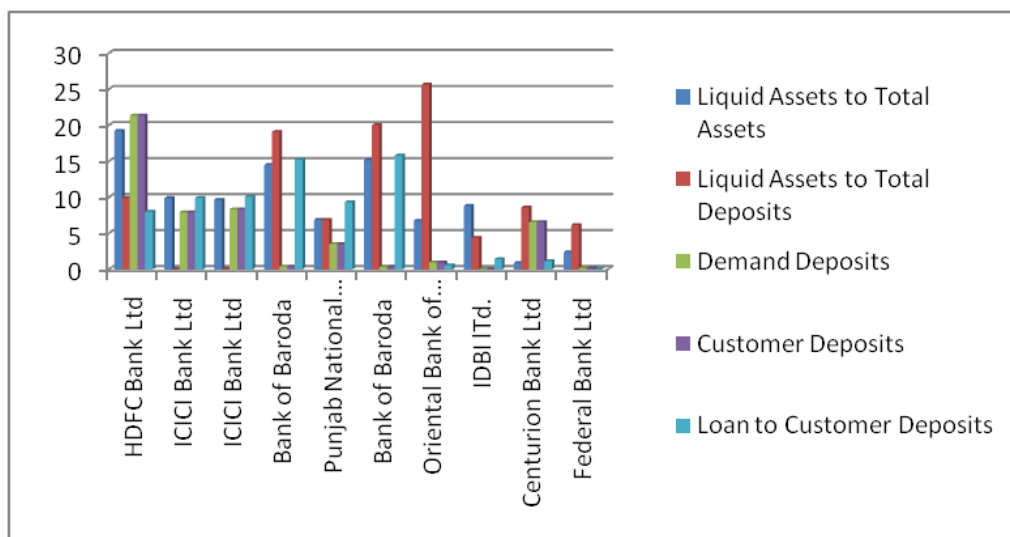
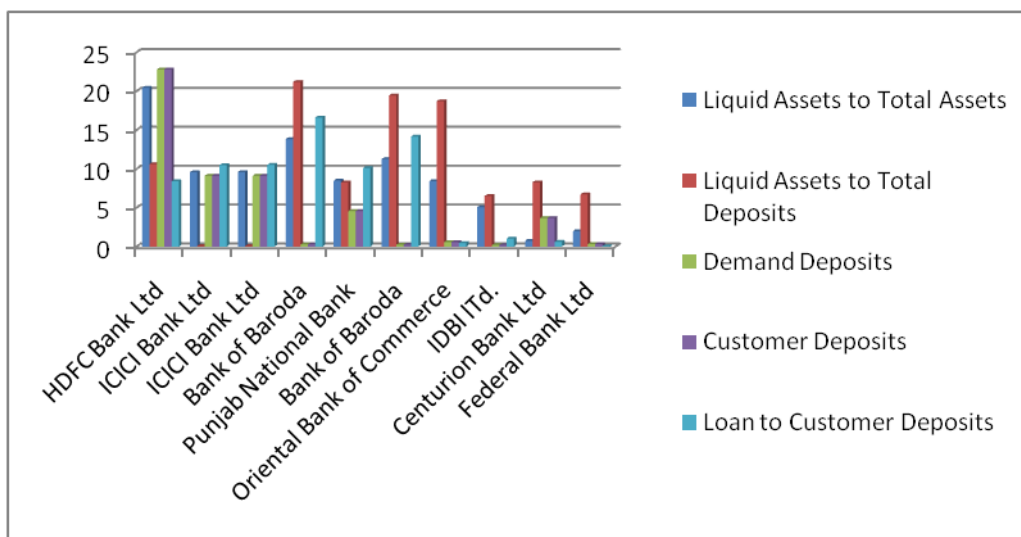


Figure 4 Pre-Merger Analyses for Liquidity

**Table 5 Post-Merger Analyses for Liquidity Ratio**

Banks	Liquid Assets to Total Assets	Liquid Assets to Total Deposits	Demand Deposits	Customer Deposits	Loan to Customer Deposits
HDFC Bank Ltd	20.446	10.616	22.772	22.772	8.42
ICICI Bank Ltd	9.562	0.096	9.12	9.12	10.5
ICICI Bank Ltd	9.594	0.1	9.128	9.128	10.538
Bank of Baroda	13.816	21.194	0.28	0.28	16.6
Punjab National Bank	8.492	8.268	4.57	4.57	10.098
Bank of Baroda	11.2592	19.448	0.246	0.246	14.156
Oriental Bank of Commerce	8.416	18.718	0.594	0.594	0.462
IDBI Ltd	5.092	6.528	0.212	0.212	1.024
Centurion Bank Ltd	0.74	8.27	3.668	3.668	0.638
Federal Bank Ltd	2	6.728	0.336	0.336	0.066



**Figure 5 Post-Merger Analyses for Liquidity Ratio**

**Liquid Assets to Total Assets**

After post-merger years, Liquid Assets to Total Assets for ICICI Bank Ltd has demonstrated huge execution after post-merger years. The viability of ICICI Bank Ltd in pre and post-merger was 9.553 for Liquid Assets to Total Assets. Though, Liquid Assets to Total Assets was 9.447 in post-merger years. A negative effect has been seen about Liquid Assets to Total Assets for post-merger years.

**Liquid Assets to Total Deposits**

The examination has watched better for the liquidity after the merger years. 8% was the normal incentive for fluid resources for all out stores for the years 2006-2010. The exhibition of Federal Bank Ltd was analyzed 7% Liquid advantages for complete stores for the year in 2009; while, 2% was accounted for in 2010 (Table 4 and Table 5).

**Demand Deposits**

The examination has assessed the presentation if ICICI Bank Ltd by thinking about the liquidity. 9% request stores accounted 9% after the post-merger years. Also, the investigation dissected that IDBI Ltd has supported its interest stores at 0.212% for the years 2006-2010. The exhibition was investigated in the wake of getting the focused on bank. The examination has uncovered the interest stores of Federal Bank Ltd at 0.336% for the years 207-2011. In spite of the fact that,

the investigation has indicated upgrade in the interest stores for the Indian Overseas Bank at 7% in the wake of converging with different banks for the years 2008-2011.

**Customer Deposits**

The investigation further uncovered the better of client stores, credit to client stores and request stores for IDBI Ltd. Centurion Bank Ltd was considered for the financial presentation assessment. The presentation of ICICI Bank, Centurion Bank of Punjab Ltd, and HDFC Bank Ltd has been inspected for the liquidity in the wake of blending focused on banks.

**Loan to Customer Deposits**

Various banks have gained diverse financial execution. Indian Overseas Bank has gained significant execution for the fluid resources for all out stores, request stores and client stores in the wake of converging with Bharat Overseas Bank Ltd. Credit to Customer Deposits for Kotak Mahindra Bank was higher in post-merger years than pre-merger years.

**5. Conclusion**

Albeit, blended patterns were additionally seen in the investigation of acquirer banks. Profit for total assets benefit per worker and absolute resource development rate proportions in post-merger years were watched for resource

quality execution in ICICI bank. Working benefit was possibly low in the post-merger years when contrasted with pre-merger years. Mergers and Analytical in the financial segment summons high premium essentially for the way that following quite a while of exacting guidelines, facilitating of the possession and control guidelines has prompted an influx of M&A in banking industry all through the world. Mechanical advancement and financial deregulation have assumed a

significant job in quickening the procedure of merger and acquisition in Indian financial industry. It was discovered that the greater part of the proportions identified with capital sufficiency, Earning quality and Asset Quality have performed well however the majority of the proportions identified with Management quality and liquidity proportions have not performed well.

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