

# Merger between United Western Bank (UWB) and Industrial Development Bank of India (IDBI): An Analysis from Accounting Point of View

## Abstract

Merger is a combination of two or more companies into one company. In banking industry when two or more banks pool their resources together then merger took place. In IDBI profitability and efficiency position increases in post merger period than pre-merger period, but liquidity remain unchanged and overall performance had improved significantly.

**Keywords:** Merger, Acquisition, Trasferor Bank and Transferee Bank.

## Introduction

In India, the New Economic Policy and subsequently, the financial reforms, the competitiveness among the corporate bodies and the banking institutions has grown to such a point that many financially not- so-strong or rather weak firms have either merged or one company has acquired another in order to effectively face the growing competition and transform their respective witnesses into strengths, threats into opportunities. In this study an attempt has been made to analyze the behavior and performance of the banks which have merged, and to critically examine how far the objectives of merger have been fulfilled.

## Review of Literature

I had reviewed some important literature in the area of merger and some related areas.

Sekhri Vidye (Aug.2011), had studied on the comparison of efficiency of Public, Private and Foreign Banks and also measured change of productivity. Public sector Banks from technical and Operational efficiency point of view much ahead than private and foreign banks. Foreign banks improving their efficiency gradually.

Sinha Rampratap (2011), had found that the temporary difference between public sector Banks and Private sector Bank. They had used Data Envelop Analysis analysis. They found that during 2001-2006, there was a declining trend of Public and Private sector banks technical efficiency.

Akbor Mohaman (2012), had focused on a technical efficiency measurement of the Banks during 1992-2009. He had found that there was a positive relationship between Banks profitability and technical efficiency. It was also found that Islamic Banks were more efficient in exploiting their resources.

Nedunchezhian V.R and Premalatha k. (Jan.2014) in their article an "Analysis of Pre and Post Merger Public sector Bank efficiency: ADE" published in IJARS (vol.3, issue-1) had focused on the comparative of performance assesment of some selected Commercial banks. They had found that Post merger performance of the banks were better than pre merger. Efficiency of the selected banks was increased in pre merger period.

Sinha Pankaj and Gupta Sushant (2011) had compare the Banks performance between pre and post merger period. They had mention that in post merger period there were improvement of EBIT, EPS, Interest coverage, Current ratio and Cost efficiency during post merger period in relation to pre merger period.

Goyal K.A. and Joshi Vijay (2011) in their article gave an overview on Indian Banking performance in post merger period. They had mention that some banks had accepted merger as an expansion strategy to tap the rural market. The article also highlighted on the advantages of merger in banking industry.



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From the literature review summary we can write

1. Most of the articles had mentioned the strategies behind merger and acquisition
2. Few articles had measured the pre-merger and post merger performances of the acquiring banks on the basis of financial ratio analysis only
3. Few articles had mentioned various types of merger, impact of merger and acquisition on banking industry
4. Few articles had mentioned different committee's recommendation on reform in banking industry both in India and abroad

#### **Research Gap**

Few articles have measured pre- and post-merger performance of the selected acquiring banks on the basis of ratio analysis. It is also found that in most cases there was no trend of the ratios; in such case they had not use principal component analysis to identify the leading ratio responsible for change in liquidity, efficiency and profitability.

#### **Objectives of the Study**

The main objectives of the study are:

1. To measure the performance of the selected Acquiring Banks in terms of their Profitability, Liquidity, operating efficiency etc. in the pre- and post- merger periods;
2. To compare the performance of the selected banks in the pre- and post-merger periods and to assess the impact of merger on the bank efficiency.

#### **Sources of Data and Methods for Analysis of Financial Strength and Weaknesses of The Banks**

Financial analysis is the process of identifying the financial strength and weaknesses of any institution by properly establishing relationships by means of ratios between the items of its balance sheet and profit and loss account. Ratio analysis is the most widely used tool of financial analysis.

A ratio is a quotient of two numbers representing certain characteristics of two variables and is an expression of relationship between the two variables. In this study we have judged bank's liquidity position using three ratios, namely, current ratio, liquid ratio and absolute liquid ratio. Current ratio indicates the bank's ability to pay its current liabilities. The formula for current ratio is current assets divided by current liabilities. In case of banking industry the standard norm of 1.5:1 is considered as satisfactory because cash and marketable securities constitute 10% of total current assets. The formula for liquid ratio is liquid assets divided by liquid liabilities. Liquid assets are defined as current assets less other assets. Liquid liabilities are current liabilities less other liabilities and provisions. The rule of thumb for Liquid Ratio is 1:1. Higher ratio (i.e. greater than 1:1) indicates sound financial position and lower ratio (i.e. smaller than 1:1) indicates financial difficulty. Absolute liquid ratio is still a more stringent test of liquidity. It may not be possible to realize amounts from all the loanees and hence the amount of loans and advances is treated as non-liquid asset. The formula for absolute liquid ratio is quick asset divided by liquid liabilities. Quick assets consist of cash and balances

with R.B.I., balances with other banks and money at call and short notice. The standard norm of Absolute Liquid Ratio is 0.5:1.

In this study we have measured banks profitability position using eight ratios, namely, Earning per share (EPS), Dividend per share (DPS), Net Asset Value per share, Dividend Pay-out ratio.

In this study we have also judged bank's performance efficiency using Efficiency ratio includes Cost – Income ratio and Operational Cost to Total Asset ratio. r. Credit-deposit ratio is obtained by dividing total loans and advances outstanding by total deposit outstanding. It indicates the fund deploying capacity of the bank through loans and advances. Operational ratio includes Return On Asset% (ROA%) and Return On Equity % (ROE %).

Margin ratio includes yield on Investment, Yield on advances and Spread.

Capital Adequacy ratio (CAR) includes CAR (Basle-I) and CAR(Basle-II).

Growth ratio includes Net Profit growth and Advances growth.

Liquidity ratio includes CD ratio, Interest expended to Interest earned, Investment to Deposit ratio. Asset quality includes Net NPA to Net Advances.

#### **Major Findings**

United Western Bank (UWB) was an Indian bank founded in 1936 that IDBI Bank acquired in 2006 in a rescue. The Reserve Bank of India placed UWB under a moratorium to protect the interest of public and depositors as growing losses eroded its capital.

#### **Operational or Financial Ratio**

In operational ratio analysis of UWB, it was found that all the Earning Per Share, Dividend Per share and Dividend Payout ratio were inclined over the study period.

In IDBI also EPS, DPS and D/P ratio were inclined, but amount of EPS, DPS and D/P of IDBI were much higher than UWB. In post merger period of IDBI, the amount of EPS, DPS and D/P ratio were much higher than pre merger period.

#### **Margin Ratio**

In Margin ratio analysis it was found that in Yield on advance and Yield on Investment, there were no trend.

But in case of IDBI Yield on advance ratio, Yield on Investment and interest spread ratio were declined in post merger period than pre merger period

#### **.Performance Ratio**

In Performance ratio analysis of UWB, there was no trend of Return on Asset (%) and Return on Equity (%).

But in ROA (%) of IDBI, there was decline in trend. In post merger period ROA (%) was declined drastically. In ROE, it was fluctuated time to time, in last 4 years of post merger period, there was decline in trend.

#### **Capitalization Ratio**

In Capitalization ratio analysis, it was found that the CAR as per Basel I norm was always above the standard norm except last year.

In IDBI Bank it was found that CAR as per Basel I was always above the standard norm. The CAR as per Basel II norm, it was in rising trend (see Table-10)

**Efficiency Ratio**

In efficiency ratio analysis of UWB, it was found that total asset was in decreasing trend, but in last 4 years it was no trend. But in NPA to Total Advance, it was fluctuated time to time.

In case of IDBI Bank, it was found that Operating cost to total cost was increased up to year 2004, and then it was declined.

**Liquid Ratio**

All the liquid ratios were fluctuated time to time over the study period.

**Factor Analysis of Liquidity, Profitability, Efficiency and Overall Performance Position of the Transferee Banks**

In the above section the bank's liquidity, profitability and efficiency positions had been analyzed by using the relevant ratios for each of these positions and the performance of the bank was assessed on the basis of these positions. But it can be safely said that not all these three factors with their all constituent ratios are not equally important in determining performance of the bank. Someone of these factors may be more important than others in the sense of its explaining power or predictive power. Further, all the ratios may not move in the same direction to derive valid conclusion. An attempt is made here to club the homogeneous ratios in the form of either liquidity or profitability or efficiency ratio through factor analysis and then special type of regression equation (namely regression equation with dummy dependent variable) has been estimated to assess the performance of the bank over time.

**Factor Analysis of Industrial Development Bank of India**

**Liquidity Factor**

To construct liquidity factor, four ratios namely current ratio, Cash ratio, Cash to Deposit and Loan to Deposit ratio have been clubbed through factor analysis and it is observed from the table below that Second principal component (or factor) represents 81.3% of the total sampling variations of the three related ratios and its Eigen value is 3.983. As the Eigen value of the second factor is only greater than one, so according to Kaiser's criterion only second principal component is to be chosen as the liquidity factor. It should be mentioned in this connection that according to Kaiser's criterion only those principal components will be chosen whose Eigen values are greater than one. Further Bartlett's test of sphericity is estimated to be 25.952, which is found to be significant at 1% probability level; this implies that here principal component analysis is a fruitful exercise in clubbing the basic ratios (e.g. current ratio, Cash ratio, Cash to Deposit and Loan to Deposit ratio). From the values of the last column of the table (related to factor matrix in factor 1) it is also observed that in the constructed first principal component the contributions of the basic three ratios are very high (more than 80%).

Factor (F)	Eigen Value	Percent of Variation	Factor Matrix in Factor 1
1	.565	8.8	.8576 (Current ratio)
2	1.983	81.3	.8641 (Cash ratio)
3	.369	5.3	.8773 (Cash to Deposit)
4	.1756	4.6	.8815 (Loan to Deposit ratio)

Bartlett's test of sphericity is estimated to be 25.952\*

**Efficiency Factor**

To construct principal component for efficiency factor, two basic variables, namely, Operating Cost to Total assets and NPA to total advance ratio have been clubbed and applying Kaiser's criterion (Eigen value >1), first principal component has been selected as efficiency factor which represents more than 78.76% of the sample variations of the related basic three variables (see the following table). Further, Bartlett's test of sphericity is estimated to be 31.17, which is found to be significant at 1% probability level, implying that principal component analysis is here required to club the variables of efficiency ratio.

Factor (F)	Eigen value	Percent of variation	Factor Matrix in Factor 1
1	1.220	78.761	.848 (Operating Cost to Total assets)
2	.329	21.239	.836 (NPA to total advance)

Bartlett's test of sphericity = 27.29

In the constructed principal component for efficiency factor, the contributions of the basic variables are more than 80% (being positive or negative according to their nature).

**Profitability Factor**

Similarly, through factor analysis, the principal component for profitability factor has been constructed and the results are presented in the following table. Here Bartlett's test of sphericity is estimated to be 47.586, which is found to be significant at 1% probability level and so principal component analysis may be statistically accepted here.

Factor (F)	Eigen value	Percent of variation	Factor Matrix in Factor 1
1	2.811	95.85	.8565 (Yield on advance)
2	1.15	3.74	.8802 (Yield on Investment)
3	.23	.41	.808 (Interest spread)

Bartlett's test of sphericity =47.586

On the basis of Kaiser's criterion (Eigen value >1), first principal component has been selected and it explains 95.85% of the total sampling variation of the basic variables. The constructed principal component signifies the combined effect of the

profitability ratios and in this principal component contributions of the basic variables are not less than 80% (see last column of the table).

**Performance Factor**

Similarly, through factor analysis, the principal component for Performance factor has been constructed and the results are presented in the following table. Here Bartlett’s test of sphericity is estimated to be 23.398, which is found to be significant at 1% probability level and so principal component analysis may be statistically accepted here.

Factor (F)	Eigen value	Percent of variation	Factor Matrix in Factor 1
1	1.778	99.53	.869 (Return on assets)
2	.025	.47	.885 (Yield on Capital Employed)

Bartlett’s test of sphericity =23.998

On the basis of Kaiser’s criterion (Eigen value >1), second principal component has been selected and it explains 99.53% of the total sampling variation of the basic variables. The constructed principal component signifies the combined effect of the profitability ratios and in this principal component contributions of the basic variables are not less than 85% (see last column of the table).

Let F<sub>1</sub>, F<sub>2</sub> and F<sub>3</sub>, F<sub>4</sub> be the constructed principal components representing the liquidity, efficiency, profitability and Performance conditions of the bank respectively.

After the construction of the principal components, regression of Dichotomous dependent variable (D which is ‘0’ for pre-liberal and ‘1’ for liberal period) has been estimated on the respective first principal components of liquidity (F<sub>1</sub>), efficiency (F<sub>2</sub>), profitability (F<sub>3</sub>) and Performance (F<sub>4</sub>). The estimated regression results are presented below:

$$\begin{aligned}
 & \bar{R}^2 = .950^* \\
 & [F=1.522] \\
 & D = 4.323^* + .126F_1^{74.7\%} + .165F_2^{**} + .275F_3^{**} + .504F_4^{***} \\
 & \quad (11.104) (.015) \quad (.928) \quad (.101) \quad (.781) \\
 & DW=.398
 \end{aligned}$$

**Conclusion**

Finally from the regression result it is observed that, Efficiency, Profitability and Overall Performance of the bank increases significantly between pre-merger and merger period; but Liquidity of Industrial Development Bank of India remains unchanged between pre-merger and merger period.

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