AN EVALUATION OF FINANCIAL PERFORMANCE BEFORE AND AFTER MERGER AND ACQUISITION OF SELECT INDIAN BANKS: AN EMPIRICAL STUDY

* Dr Nirmala M.

**Anantha Padmanaba S

Abstract:

This research study aims at studying the financial performance of banks before and after the merger by analyzing financial parameters of both target and bidder. The study is descriptive and analytical & consider secondary data of select sample banks merged between 2000 to 2010 which include both public and private sector banks. Statistical tools both descriptive and inferential are applied for analysis. Statistical parameters such as mean, correlation, t-stat, P Value are applied to arrive at results. The results signifies that private banks HDFC and ICICI observed synergies in all parameters compared to public sector banks due to a voluntary merger. On the other hand, the synergies created in few parameters are offset with negative synergies in other parameters for public sector banks due to forced merger of weak and loss making entities.

Keywords:

Mergers and Acquisitions, financial performance of banks, Inferential statistics, Bank key performance parameters.

Introduction

Integration of business entities is a world wide phenomenon and over a couple of decades, it has experienced an unprecedented in transforming the economy. Integration has transformed as one of the strategies of all business entities, being so, the banking industry is not an exception. One such tool of Integration is mergers and acquisitions. Merger and acquisition enhance the value of shareholders for acquirer and target companies and enable to gain greater access to market share, control of price, increased profitability. M&A enable banks to rapid growth in terms of market share, size of the expansion, reduced risk through diversification, synergy benefits,

counter competition, operational and financial economies reduced organizational and business risks, gain tax benefits, entering new markets & geographies, capitalizing on economies of scale, technology and infrastructural facilities utilization to its maximum is a couple of driving force behind mergers and acquisitions (M&A). In the last few decades, M&A is the focal point of business strategy; many business organizations either merge or acquire the weaker in the industry to realize economies of scale, financial synergy, market capitalization and augmented an impressive activity. M&A occurs when two organizations agree to move forward as a single or joint entity for their mutual benefits, while acquisition occurs when



Dr. Nirmala M.Research Supervisor
Canara Bank School of Management Studies
(Post Graduate Department of Management)
Bangalore University, Bengaluru-01"



Anantha Padmanaba .S
Research Scholar
Canara Bank School of Management Studies
(Post Graduate Department of Management)
Bangalore University, Bengaluru-01

an organization purchases some assets, plant, equipment, business unit or shares of other organization or it acquires entire ownership of other organizations (Sherman 2011). This development is the hour of the day, need immediate attention. Though several studies carried out at different times by different individuals and organization, still there is a lot to analyze and interpret the phenomenon in Indian banking sector.

Measuring Financial Performance

There are several approaches for evaluating financial performance of M&A depend on how well the bank utilizes its assets, shareholders' equities and liabilities, revenues and expenses. The performance evaluation of banks is important for all parties including depositors, investors, bank managers, regulators, customers and employees etc. Financial performance of banks under M&A can be measured through the financial ratio(s) using accounting and financial data of pre and post M&A. Rehman and Ahmed (2008) compare the financial ratios to measure the efficiency of banks.

Financial performance can also be measured by Parameters like Deposits, Advances, Investments, Net Profits, Interest earnings, Interest expenses, Total Assets, Total Income, Net interest margin too. The study carried out by measuring overall financial performance by these parameters.

Review of Literature

(Prof. Shivaraj B &Nagesh Mr., 2015), "premerger & post-merger performance evaluation - a case study on united spirits ltd and Shaw Wallace & company ltd." Is a paper for International Journal of World Research. In this paper, the researcher aims at studying the financial performance of United Spirits Ltd and Shaw Wallace & Co ltd merger as an objective

and also to identify synergy from the merger. The study considers four year before and after data for analysis and data type being secondary BSE and Annual reports of companies. Parameters like Equity value to Book value of the stock, Equity value to Earnings, Earnings Per Share, Net profit Margin and EBITDA to Total Liabilities are used in the study. Statistical tools like mean and paired t-test applied to test the hypothesis. The study observed no significant difference in the financial performance of United spirits ltd after acquiring Shaw Wallace & company and concludes that financial synergies were insignificant for acquiring company and merger has no impact on acquiring company.(Abbas, Hunjra, Azam, Ijaz, & Zahid, (2014), "Financial performance of banks in Pakistan after Merger and Acquisition" is for Journal of Global Entrepreneurship Research. In this paper, the researchers trys to evaluate the financial performance of banks operating in Pakistan as an objective. Researcher has used the financial and accounting data of ten banks and analysed the variables profitability and efficiency, leverage and liquidity and pre and post-merger analysis was also carried out. The financial indicators like ROA, ROE, NIM, Spread, EPS, Interest income to Interest to Interest income, It was observed from the results that there was no positive relationship between mergers and acquisition and financial performance of banks in Pakistan and conclude by stating bank M&A during 1/1/2008 to 31/3/2009 period was not doing well. Brajesh Kumar Tiwari (2014), "A case study of merger of Benares state bank ltd. (BSB) with bank of Baroda (BoB)" for Asian journal of management sciences & educationist a study on the performance of bank merger by considering financial parameters like capital Deposits, Investment, Advances etc. Ratio analysis was carried out by researcher to

analyses data. The Merger of Bank of Baroda with Benares state Bank was studied in the research. It was observed that financial performance especially the efficiency increases after merger. The Study conclude that the capital, Interest, Net profit increase while Deposits, Investment decrease.(Mahesh & Prasad, 2012), "post-merger and acquisition financial performance analysis: a case study of select Indian airline companies", is the paper for international journal of engineering and management sciences. In this paper the researcher had the objective to analyze airline industry after consolidation in 2007-08. The study tries to analyze the impact of M&A on profitability, leverage, liquidity position, and marker standards as parameters of study focusing on Indian context with case study method. Ratio analysis is used to analyze and convenience sampling method was adopted for collecting data paired t-test and correlation were used to analyze the data. It was observed in the study that there was an insignificant improvement in ROA, expense to income, EPS, DPS and conclude but stating there was no improvement after merger and acquisition in financial performance of airline industry.

Research Gap

The term performance has various meaning and defined differently based on the perspective of the research work carried out like accounting, financial, operational so on and so forth. Through review of literature it is evident that many research articles on financial performance analysis based on profitability, liquidity, efficiency, asset quality, capital adequacy, leverage, productivity, growth, ROE, ROA, CAMEL ratios, ratio analysis so on and so forth.

Financial performance be measured by sum of bidder and target bank pre merger parameters like Deposits, Advance, Investments, Net Profit, Interest earnings, Interest expenses, Total Assets, Total Income, Net interest marginof mergers and acquisitions in banking sector are common and crucial and most of studies concentrate only on the factors of bidders' pre and post parameters. But, ignored target pre merger parameters in the studies. This study focus of both target and bidder pre merger performance on par with post merger performance of bidder for better understanding of merger and acquisitions financial performance in the post merger scenario.

Research Objective

• To analyze the financial performance before and after merger and acquisition of select Indian Banks

Scope of Study

The study covers the five years before and after financial statistics for analysis of the select sample banks and only banks merged between 2000 to 2010 considered for study

Research Design

Sources of data

The research is descriptive and analytical the study was carried out by collecting secondary data through Journals, newspapers, articles, publications, financial magazines, official websites, RBI reports, SEBI reports, and financial statements of respective banks. To analyze the financial performance of select Indian banks, an integrated approach was employed using statistical tools like descriptive statistics, Correlation and the multivariate regression model and paired t-test

Sample Universe - The sample universe is banks observed merger and acquisitions during the period from 2000 to 2010 and public and private banks operating in India. 10 banks including both targets and bidder banks for the public and private sector.

Hypothesis

 H_{o} : There is no significant relationship in the financial performance of banks were consider for this study before and after merger and acquisitions.

Data Analysis

Banks' financial variables like Deposits, Advances, Investment, Net profit, Total Assets, Total Income, Interest earned, Interest expended and Net interest margin are used as financial parameters. Descriptive statistics like mean and paired sample t-test and multivariate regression model from inferential statistics were applied for analysis.

Table -1 – Deposits

Sl	Deposits	Mean	Correlation	t Stat	P-value	Inference
1	GTB-OBC-Vt+Vb	31712.44	0.94675	5.09292	0.01463	Significant Difference
	OBC-Vtb	55114.79	0.5 1072	2.09292	0.01.03	Significant Efficience
2	NBL-PNB-Vt+Vb	59751.14	0.98375	9.49022	0.00248	Significant Difference
	PNB-Vtb	123417.02	0.70373			
3	CBOP-HDFC-Vt+Vb	65056.74	0.98739	10.80199	0.00170	Significant Difference
	HDFC-Vtb	212351.17				
4	SBL-ICICI-Vt+Vb	193465.90	0.78628	2.20417	0.11472	No Significant Difference
	ICICI-Vtb	261529.19	0.73020	2,20117		- · · · · · · · · · · · · · · · · · · ·
5	UWB-IDBI-Vt+Vb	19643.65	0.54300	1.12000	0.34430	No Significant Difference
	IDBI-Vtb	84484.21		1.12000		The Significant Difference

ACRONYM- GTB - Global Trust Bank, OBC- Oriental Bank of Commerce, NBL- Nedungadi Bank, PNB-Punjab National Bank, CBOP- Centurion Bank of Punjab, HDFC- HDFC bank, SBL-Sangli Bank ltd., ICICI – ICICI Bank, UWB-United Western Bank, IDBI-IDBI Bank, Vt-Target Bank(Pre M&A), Vb-Bidder Bank(Pre M&A), Vtb-Bidder Bank(Post M&A)

Analysis and Inference: - Deposits are an integral part of the business for the banking sector. Being so, Deposits show high degree of correlation for Centurion Bank of Punjab& HDFC merger followed by Nedungadi bank &Punjab National Bank, Least correlation observed for united western Bank and IDBI bank

It is noticeable from the P Value 0.00170 for HDFC bank and with 0.00248 for Punjab national bank followed by Oriental bank of commerce with 0.01463 have significant differences indicating pre merger Deposits of target bank and acquiring bank have considerable influence in creating synergies from the merger in terms of Deposits.

On the other hand, Sangli Bank with ICICI Bank, P Value- 0.11472 and United Western bank with IDBI bank, P Value- 0.34430 have no significant impact in creating synergies in Deposits from the merger.

Table -2 - Advances

Sl	Advances	Mean	Correlation	t Stat	P-value	Inference
1	GTB-OBC-Vt+Vb	15142.20	0.99001	12.16302	0.00120	Significant Difference
	OBC-Vtb	35452.30	0.57001	12.10302	0.00120	Significant Difference
2	NBL-PNB-Vt+Vb	30337.97	0.98665	10.49210	0.00185	Significant Difference
	PNB-Vtb	79672.59	0.50005	10.19210	0,00100	
3	CBOP-HDFC-Vt+Vb	42312.52	0.99348	15.09135	0.00063	Significant Difference
	HDFC-Vtb	163967.40				
4	SBL-ICICI-Vt+Vb	176191.21	0.91276	3.87013	0.03052	Significant Difference
	ICICI-Vtb	256050.25	0.512,0			
5	UWB-IDBI-Vt+Vb	51698.55	-0.72318	-1.81358	0.16739	No Significant Difference
	IDBI-Vtb	87810.55	3., 23 10	1.01330	3.13737	Two Significant Difference

ACRONYM- GTB - Global Trust Bank, OBC- Oriental Bank of Commerce, NBL- Nedungadi Bank, PNB-Punjab National Bank, CBOP- Centurion Bank of Punjab, HDFC- HDFC bank, SBL-Sangli Bank ltd., ICICI – ICICI Bank, UWB-United Western Bank, IDBI-IDBI Bank, Vt-Target Bank(Pre M&A), Vb-Bidder Bank(Pre M&A), Vtb-Bidder Bank(Post M&A)

Analysis and Inference: Advances being another integral part of the bank business, observes high degree of correlation value of 0.99348 for Centurion Bank of Punjab & HDFC banks followed by Global Trust Bank & Oriental Bank of Commerce with 0.99001. Nedungadi Bank Ltd. & Punjab National Bank with 0.98665 and Sangli Bank Ltd. & ICICI with 0.91276 are recorded after. All four cases indicates that they are significantly correlated in terms of Advances i.e., the pre merger Advances have considerable influence on post merger Advances for these banks

It is evident that, least P value, less than 0.0500 standards was from Centurion Bank of Punjab & HDFC banks with 0.00063 and Global Trust Bank & and Oriental Bank of Commerce witnessing 0.00120 and followed by

Nedungadi Bank Ltd. & Punjab National Bank with 0.00185 and Sangli Bank Ltd. & ICICI bank reports P Value of 0.03052. All these cases the pre merger Advances have considerable influence on post merger Advances there by creating synergy in Advances for respective banks.

However, merger of United Western Bank & IDBI bank showed negative correlation of -0.7238 and P Value of 0.16739 indicating pre merger Advances have no influence on post merger Advances and thereby no synergy created. The positive correlation also depicts that advances have decreased considerably year on year after merger.

Table - 3 – Investments

Sl	Investments	Mean	Correlation	t Stat	P-value	Inference
1	GTB-OBC-Vt+Vb	15546.19	0.72487	1.82251	0.16590	No Significant Difference
	OBC-Vtb	19142.58	0.,2.0,	1102201	0.1000	The Significant Sinerence
2	NBL-PNB-Vt+Vb	26883.43	0.55536	1.15667	0.33115	No Significant Difference
	PNB-Vtb	46607.04				
3	CBOP-HDFC-Vt+Vb	31595.95	0.93552	4.58671	0.01946	Significant Difference
	HDFC-Vtb	79490.21				
4	SBL-ICICI-Vt+Vb	86474.11	0.97337	7.35413	0.00520	Significant Difference
	ICICI-Vtb	152710.84		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		2-8
5	UWB-IDBI-Vt+Vb	14999.15	0.90357	3.65276	0.03542	Significant Difference
	IDBI-Vtb	41444.37	2.2.2007	2.232,0		2.6

ACRONYM- GTB - Global Trust Bank, OBC- Oriental Bank of Commerce, NBL- Nedungadi Bank, PNB-Punjab National Bank, CBOP- Centurion Bank of Punjab, HDFC- HDFC bank, SBL-Sangli Bank ltd., ICICI – ICICI Bank, UWB-United Western Bank, IDBI-IDBI Bank, Vt-Target Bank(Pre M&A), Vb-Bidder Bank(Pre M&A), Vb-Bidder Bank(Post M&A)

Analysis and Inference: Industry investments are one of the key element of banking structure. It is clear from the above table that Global Trust Bank & Oriental Bank of Commerce P Value at 0.16590 and Nedungadi Bank Ltd. & Punjab National Bank P Value at 0.33115 and also poor correlation score with 0.55410, 0.72487 and 0.55536 all are far away from 0.99 to 1.00 score Private sector banks have observed reasonably good correlation compared to public banks post merger Investments. It is evident that Sangli Bank Ltd. & ICICI bank observe correlation

value of 0.97337 which is close to 1.00 followed by Centurion Bank of Punjab & HDFC bank with 0.93552 and United Western Bank & IDBI with 0.90357.

The P Value of 0.00520 observed for ICICI bank, 0.01946 for HDFC bank and) .03542 for IDBI bank is less than p. value of 0.05 indicating considerable impact of Pre-Merger Investments on post merger Investment. It can be inferred by the above results that public sector banks have not made considerable Investments post merger as compared to private sector banks.

Table -4 - Net-Profit

Sl	Net profit	Mean	Correlation	t Stat	P-value	Inference
1	GTB-OBC-Vt+Vb	313.00	0.94132	4.83065	0.01691	Significant Difference
	OBC-Vtb	580.67	0.51152	1.05005	0.01071	Significant Bifference
2	NBL-PNB-Vt+Vb	571.71	0.87683	3.15880	0.05092	No Significant Difference
-	PNB-Vtb	1509.39		2112 000		
3	CBOP-HDFC-Vt+Vb	1143.53	0.98296	9.26137	0.00266	Significant Difference
	HDFC-Vtb	4202.68	0.50250			
4	SBL-ICICI-Vt+Vb	3108.83	0.92022	4.07223	0.02672	Significant Difference
	ICICI-Vtb	6755.51	0.52022	,220		
5	UWB-IDBI-Vt+Vb	574.89	-0.90272	-3.63421	0.03589	Significant Difference
	IDBI-Vtb	762.07	3.3 3212	2.03 121	0.02200	Significant Difference

ACRONYM- GTB - Global Trust Bank, OBC- Oriental Bank of Commerce, NBL- Nedungadi Bank, PNB-Punjab National Bank, CBOP- Centurion Bank of Punjab, HDFC- HDFC bank, SBL-Sangli Bank ltd., ICICI – ICICI Bank, UWB-United Western Bank, IDBI-IDBI Bank, Vt-Target Bank(Pre M&A), Vb-Bidder Bank(Pre M&A), Vb-Bidder Bank(Post M&A)

Analysis and Inference:- Net profit or operating profit is an indicator of business being run successfully. Nedungadi Bank Ltd. & Punjab National Bank has observed the correlation value of 0.87683 with no significant relationship in terms of Net profit for Punjab National Bank after merger. However, in all cases registered significant correlation. Centurion Bank of Punjab & HDFC merger has recorded 0.98296 level of correlation followed by Global Trust Bank & Oriental Bank of Commerce with 0.94132. Sangli Bank Ltd. & ICICI bank records 0.92022 correlation is less compared HDFC bank and Though United

Western Bank & IDBI merger observe negative correlation due to the fact that target bank had registered negative Net profit in pre merger period. However, IDBI has performed well in post merger scenario indicating significant difference with P Value recording 0.03589.

HDFC bank accounts P Value of 0.00266 and Oriental Bank of Commerce bank at 0.0191. ICICI bank accounts P Value 0.02672 and IDBI bank with P Value 0.03589. In all the four cases Net profit of pre merger period have considerable impact on post mergerNet profit and thereby creating synergies in Net profit.

Table -5 - Interest Earned

Sl	Interest Earned	Mean	Correlation	t Stat	P-value	Inference
1	GTB-OBC-Vt+Vb	3471.64	0.83108	2.58828	0.08120	No Significant Difference
-	OBC-Vtb	4598.89	0.05100	2.20020	0.00120	Two significant Billerence
2	NBL-PNB-Vt+Vb	6212.05	0.98888	11.51684	0.00141	Significant Difference
	PNB-Vtb	10325.24	0.50000			Significant 2 merenee
3	CBOP-HDFC-Vt+Vb	6048.95	0.99761	25.02047	0.00014	Significant Difference
	HDFC-Vtb	22956.92				
4	SBL-ICICI-Vt+Vb	21750.04	0.97056	6.97920	0.00604	Significant Difference
	ICICI-Vtb	33895.48		0.5,720		
5	UWB-IDBI-Vt+Vb	6112.78	-0.88213	-3.24383	0.04771	Significant Difference
	IDBI-Vtb	9330.25		2.21303	0.0.771	Significant Difference

ACRONYM- GTB - Global Trust Bank, OBC- Oriental Bank of Commerce, NBL- Nedungadi Bank, PNB-Punjab National Bank, CBOP- Centurion Bank of Punjab, HDFC- HDFC bank, SBL-Sangli Bank ltd., ICICI – ICICI Bank, UWB-United Western Bank, IDBI-IDBI Bank, Vt-Target Bank(Pre M&A), Vb-Bidder Bank(Pre M&A), Vtb-Bidder Bank(Post M&A)

Analysis and Inference:-Interest Earned is an important source of income apart from other income for any bank. The correlation value of 0.99761 is for Centurion Bank of Punjab & HDFC followed by Nedungadi Bank Ltd. & Punjab National Bank. Sangli Bank Ltd. & ICICI bank accounts for 0.97056 and though negative United Western Bank & IDBI have observed significant P Value of 0.04771 well in the standard of less than 0.05. It is noticeable from Global Trust Bank & Oriental Bank of

Commerce, the correlation value of 0.83108 is not significant indicating a poor relation between pre and post merger Interest earnings.

HDFC bank observes highly significant with P Value of 0.00014 followed by Punjab national bank with 0.00141 then P Value of 0.00604 was recorded for ICICI bank and despite negative Interest earnings, IDBI bank has a significant P Value 0.0477 which is less than 0.05 indicating pre merger Interest earnings of all respective

bank have considerable influence in creating Interest earning synergies in post merger period. However, merger of Global Trust Bank & Oriental Bank of Commerce bank failed to create synergy in Interest earnings and recorded a P Value of 0.08120 more than significance standard of 0.05.

Table - 6 – Interest Expended

Sl	Interest Expended	Mean	Correlation	t Stat	P-value	Inference
1	GTB-OBC-Vt+Vb	2482.61	0.63911	1.43929	0.24567	No Significant Difference
	OBC-Vtb	3007.31	0.00011	1.13,23	0.2.307	The Significant Emerence
2	NBL-PNB-Vt+Vb	4048.35	0.81319	2.42005	0.09416	No Significant Difference
	PNB-Vtb	5655.85		2.12000	0.05 110	The Engineering Difference
3	CBOP-HDFC-Vt+Vb	2853.48	0.98916	11.66644	0.00135	Significant Difference
	HDFC-Vtb	12065.16				
4	SBL-ICICI-Vt+Vb	15836.39	0.97200	7.16496	0.00560	Significant Difference
-	ICICI-Vtb	22254.00	0.5 / 200	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	0.000	Significant 2 morente
5	UWB-IDBI-Vt+Vb	5791.44	-0.91368	-3.89379	0.03005	Significant Difference
	IDBI-Vtb	8272.73	112 1000	3.07377		Significant Billerence

ACRONYM- GTB - Global Trust Bank, OBC- Oriental Bank of Commerce, NBL- Nedungadi Bank, PNB-Punjab National Bank, CBOP- Centurion Bank of Punjab, HDFC- HDFC bank, SBL-Sangli Bank ltd., ICICI – ICICI Bank, UWB-United Western Bank, IDBI-IDBI Bank, Vt-Target Bank(Pre M&A), Vb-Bidder Bank(Pre M&A), Vb-Bidder Bank(Post M&A)

Analysis and Inference: Interest expended is an expense incurred to generate income. Centurion Bank of Punjab & HDFC bank observe 0.98916 of correlation followed by Sangli Bank Ltd. & ICICI bank with 0.97200 and United Western Bank & IDBI recorded negative correlation of -0.91368 but still has a significant influence of pre mergerInterest expenses on post expenses.

HDFC bank has a P Value of 0.00135 is highly significant in Interest expenses. ICICI bank

accounts P Value of 0.00560 and IDBI bank has P Value of 0.03005 less than 0.05 standard of Significance.

However Global Trust Bank & Oriental Bank of Commerce and Nedungadi Bank Ltd. & Punjab National Bank with P Values 0.24567 and 0.09416 respectively have accounted for no significant impact on Interest expenses of pre merger on post mergerInterest expenses.

Table -7 - Total Assets

Sl	Total Assets	Mean	Correlation	t Stat	P-value	Inference
1	GTB-OBC-Vt+Vb	35881.08	0.95590	5.63730	0.01104	Significant Difference
	OBC-Vtb	63731.00	0.55550	2.03730	0.01101	Significant Billerence
2	NBL-PNB-Vt+Vb	67527.24	0.96941	6.84087	0.00639	Significant Difference
	PNB-Vtb	146503.57				5-5
3	CBOP-HDFC-Vt+Vb	86602.72	0.98110	8.78225	0.00311	Significant Difference
	HDFC-Vtb	284264.67	3.5 0110			
4	SBL-ICICI-Vt+Vb	310524.38	0.92330	4.16359	0.02521	Significant Difference
	ICICI-Vtb	474943.35				5
5	UWB-IDBI-Vt+Vb	75705.76	0.71541	1.77348	0.17426	No Significant Difference
	IDBI-Vtb	144213.91				2.5 2.5

ACRONYM- GTB - Global Trust Bank, OBC- Oriental Bank of Commerce, NBL- Nedungadi Bank, PNB-Punjab National Bank, CBOP- Centurion Bank of Punjab, HDFC- HDFC bank, SBL-Sangli Bank ltd., ICICI – ICICI Bank, UWB-United Western Bank, IDBI-IDBI Bank, Vt-Target Bank(Pre M&A), Vb-Bidder Bank(Pre M&A)

Analysis and Inference:- Assets are essential for a business. Centurion Bank of Punjab & HDFC bank have a correlation value of 0.98110 and Nedungadi Bank Ltd. & Punjab National Bank with 0.96941 followed by Global Trust Bank & Oriental Bank of Commerce with 0.95590 and Sangli Bank Ltd. & ICICI bank with 0.92330 and Banaras State Bank & Bank of Baroda with 0.82679 and United Western Bank & IDBI with 0.71541 have poor correlation.

Centurion Bank of Punjab & HDFC bank with P Value of 0.00311 observed high level of significance compared to all other cases. Nedungadi Bank Ltd.&Punjab National Bank with P Value of 0.00639 and Global Trust Bank & Oriental Bank of Commerce with P Value 0.01104 followed by Sangli Bank Ltd. & IDBI bank with P Value of 0.02521 indicating pre merger Total Assets have significant impact on post merger Total Assets in creating synergies from merger. However, Banaras State Bank & Bank of Baroda and United Western Bank & IDBI with P Value of 0.08425 and 0.17426 respectively have no significance in creating synergies after merger.

Table -8 - Total Income

Sl	Total Income	Mean	Correlation	t Stat	P-value	Inference
1	GTB-OBC-Vt+Vb	4013.48	0.86893	3.04082	0.05583	No Significant Difference
	OBC-Vtb	4956.12	0.000,2	2.0.002	0.000	The Significant Enterence
2	NBL-PNB-Vt+Vb	7168.47	0.97627	7.80769	0.00437	Significant Difference
	PNB-Vtb	12056.97		,,,,,,,		8
3	CBOP-HDFC-Vt+Vb	7453.88	0.99841	30.71677	0.00008	Significant Difference
_	HDFC-Vtb	27699.46				3.5
4	SBL-ICICI-Vt+Vb	28254.85	0.94324	4.91947	0.01609	Significant Difference
	ICICI-Vtb	41938.81		.,, .,		3.5
5	UWB-IDBI-Vt+Vb	7089.81	-0.96039	-5.96916	0.00941	Significant Difference
	IDBI-Vtb	10909.47	213 3003	2.5 3510		Significant Difference

ACRONYM- GTB - Global Trust Bank, OBC- Oriental Bank of Commerce, NBL- Nedungadi Bank, PNB-Punjab National Bank, CBOP- Centurion Bank of Punjab, HDFC- HDFC bank, SBL-Sangli Bank ltd., ICICI – ICICI Bank, UWB-United Western Bank, IDBI-IDBI Bank, Vt-Target Bank(Pre M&A), Vb-Bidder Bank(Pre M&A), Vb-Bidder Bank(Post M&A)

Analysis and Inference:- Income is important component of a business. The excess of income over expenses result in profit. Centurion Bank of Punjab & HDFC bank have a correlation value of 0.99841 followed by Nedungadi Bank Ltd.7 Punjab National Bank with 0.97627 and Sangli Bank Ltd. & ICICI bank with 0.94324 have significant relationship for pre merger and post merger incomes of respective banks. however United Western Bank & IDBI correlated but negatively and accounted for 0.00941 P Value less than 0.05 standard for significance. Global Trust Bank & Oriental Bank of Commerce with negligible correlation value of 0.86893 and not significantly correlated.

Centurion Bank of Punjab & HDFC bank observed P Value of 0.00008 indicating highly significant synergies of income compared to all other cases. As Nedungadi Bank Ltd. & Punjab National Bank with P Value of 0.00437 and Sangli Bank Ltd. & ICICI bank with 0.01609 followed by United Western Bank & IDBI with P Value 0.00941 are less than 0.05 but comparatively more than HDFC P Value in creating synergies from income component after merger.

Global Trust Bank & Oriental Bank of Commerce have observed a P Value of 0.05583 just above the significant standard and have no significant impact on income after merger.

Table -9 – Net interest margin

Sl	Net interest margin	Mean	Correlation	t Stat	P-value	Inference
1	GTB-OBC-Vt+Vb	989.03	0.92474	4.20834	0.02450	Significant Difference
	OBC-Vtb	1591.58	0.52171	1.20031	0.02 130	Significant Difference
2	NBL-PNB-Vt+Vb	2163.70	0.86451	2.97923	0.05863	No Significant Difference
	PNB-Vtb	4669.39		2.51523		The Significant Difference
3	CBOP-HDFC-Vt+Vb	3195.47	0.99525	17.70074	0.00039	Significant Difference
	HDFC-Vtb	10891.76				
4	SBL-ICICI-Vt+Vb	5913.65	0.93207	4.45619	0.02104	Significant Difference
	ICICI-Vtb	11641.48	0.73207			
5	UWB-IDBI-Vt+Vb	321.34	0.28748	0.51988	0.63907	No Significant Difference
	IDBI-Vtb	1057.52	0.20740	0.51700	0.03701	110 Significant Difference

ACRONYM- GTB - Global Trust Bank, OBC- Oriental Bank of Commerce, NBL- Nedungadi Bank, PNB-Punjab National Bank, CBOP- Centurion Bank of Punjab, HDFC- HDFC bank, SBL-Sangli Bank ltd., ICICI – ICICI Bank, UWB-United Western Bank, IDBI-IDBI Bank, Vt-Target Bank(Pre M&A), Vb-Bidder Bank(Pre M&A), Vtb-Bidder Bank(Post M&A)

Analysis and Inference:- It is the difference of Interest income and Interest expense. Centurion Bank of Punjab & HDFC bank have observed a correlation 0.99525 followed by Sangli Bank Ltd. & ICICI bank with 0.93207 and Global Trust Bank Oriental Bank of Commerce with 0.92474 indicating significant correlation between pre and post merger Interest difference. However, Nedungadi Bank Ltd. & Punjab National Bank, United Western Bank & IDBI have poor correlation with values 0.86451 and 0.28748

Centurion Bank of Punjab & HDFC with P Value of 0.00039 and Sangli Bank Ltd. & ICICI bank

with 0.02104 followed by Global Trust Bank & Oriental Bank of Commerce with 0.02450 indicating pre merger Net interest margin have considerable impact on post merger Net interest margin thereby creating synergies from merger through effective utilization of resources. However, Nedungadi Bank Ltd. & Punjab National Bank and United Western Bank & IDBI have no significant impact in post merger Net interest margin. It is evident that though IDBI bank merger have significant Interest income in post merger period. due to negative losses incurred by United Western Bank in pre merger period is offset by income of IDBI in post merger period.

Findings

- HDFC bank and CBOP merger observed highest significance with 0.00008 for Total Income and 0.00014 for Interest earned and 0.00039 for Net interest margin indicating synergies of Interest income have increased significantly post merger compared to any other bank mergers.
- OBC and Global trust bank merger observed the best synergies compared to other bank mergers in terms of Advances, Total Assets and Deposits with P Value of 0.00120, 0.01104 and 0.01463 respectively. It is evident that post merger Advances increased more than the deposits Total Income increase indicating the positive part of Advances.
- Punjab National Bank and Nedungadi bank ltd., observed synergies in terms of Deposits, Advances and Interest earned with P Value of 0.00248, 0.00185 and 0.00141 respectively. It is evident that Interest earnings have significantly improved after merger compared to

- Deposits and Advances. As Advances are more than Deposits, Interest on Advances increased Interest income for Punjab national Bank
- ICICI bank and Sangli bank ltd. Merger observes the synergies better than other bank mergers in terms of Interest earned, Interest expended and Investments with p Value of, 0.00604, 0.00560 and 0.00520 indicating post merger ICICI bank has significant increase in Interest income but not as effective as Interest expense and Investments.
- IDBI bank and United western bank merger observes negative synergy in Interest expended and positive synergies for Investment and Net profit with P value of 0.03005, 0.03542 and 0.03589 respectively. It is evident that Post merger Interest expense have increased significantly. However, Investments and Net profits also have increased but not as much as Interest expense. It is because of the Negative profits incurred by UWB in pre merger period off set by profits earned by IDBI bank resulted in significance of Interest expense ahead of Net profit and Investment synergies.

Conclusion

HFDC Bank observed P Value less than 0.05 indicating synergies in all the parameters. ICICI Bank witnesses P Value less than 0.05 signifying synergies in all the parameters except Deposits. IDBI Bank P Value less than 0.05 noticing synergies in Investment, Net profit, Interest earnings, Interest expended and Total Income. But, not significant in Deposits, Advances, Total Assets and NIM. OBC Bank P Value less than 0.05 specify synergies in

Deposits, Advances, Net profit, Total Assets and NIM. But, Not significant in Investments, Interest earned, Interest expended and Total Income. PNBbans'P value less than 0.05 comprehend synergies in Deposits, Advances, Interest earned, Total Assetsand Total Incomes. But not significant in Investments, Net profit, Interest expended and NIM.

HDFC Bank followed by ICICI Bank ascertains synergies in all parameters indicating successful post merger performance compared to other bank indicating voluntary mergers have positive synergies compared to forced mergers their by merger success. The negative performance of weak banks affect the overall performance of strong banks evident from IDBI and United western bank merger. Negative profits and volume impacted on post merger performance, is evident form NBL and Punjab National Bank.

The success of merger depends on creating synergies in all parameters than in only few parameters of performance. HDFC bank and ICICI bank are the examples in creating synergies in all parameters of financial performance than other banks is evidences for successful mergers executed.

References

- Abbas, q., hunjra, a. I., azam, r. I., ijaz, m. S., &zahid, m. (2014). Financial performance of banks in pakistan after merger and acquisition, 1–15
- Fatima, t., shehzad, a., sciences, a., & sciences, a. (2014). An analysis of impact of merger and acquisition of financial performance of banks: a case of pakistan, 5, 29–36.
- Hunjra, a. I., saeed, r., &ijaz, m. S. (2014). Analysis of pre and post merger and

- acquisition financial performance of banks in pakistan, 6(4), 177–190.
- Banik, b. P., & das, p. C. (2013). Comparison of financial performance of state owned commercial banks: a case study of bangladesh, 2(2), 423–428
- Ongore, v. O. (2013). Determinants of financial performance of commercial banks in kenya, 3(1), 237–252.
- Joshi, v., & author, c. (2012). Merger and acquisition in banking industry: a case study of, 2, 30–40.
- Chaudhary, k., &sharma, m. (2011). Performance of indian public sector banks and private sector banks: a comparative study, 2(3), 122413.
- Mahesh, r., & prasad, d. (2012). Post merger and acquisition financial performance analysis: a case study of select indian airline companies, 3(3), 362–369.
- Alexandru, C., Genu, G., Romanescu, M.L. (2008), The Assessment of Banking PerformancesIndicators of Performance in Bank Area. MPRA Paper No. 11600.
- Athanasoglou, P.P., Sophocles, N.B., Matthaios, D.D. (2005) Bank-specific, industry-specific and macroeconomic determinants of bank profitability. Working paper, Bank of Greece. 1(1), 3-4.

Weblinks

https://www.sbi.co.in

http://www.bankofbaroda.co.in/fin/fin_fy2003_balsheet.asp

https://www.hdfcbank.com/htdocs/common/pdf/corporate/financialreport2002-3.pdf

- https://www.icicibank.com/aboutus/annual.pag
- https://www.idbi.com/pdf/annualreport/Annual Report 2004-2005.pdf
- https://www.obcindia.co.in/obcnew/site/inner.a spx?status=2&menu id=66#
- https://www.pnbindia.in/
- http://www.moneycontrol.com/financials/punjabnationalbank/balance-sheet/PNB05
- http://www.banknetindia.com/banking/gtb2.ht
- http://economictimes.indiatimes.com/statebank-of-india/balancesheet/companyid-11984.cms
- http://www.moneycontrol.com/financials/stateb ankindia/balance-sheet/SBI
- https://www.cmie.com/
- https://www.rbi.org.in/

- https://link.springer.com/article/10.1186/s4049 7-014-0013-4
- http://www.iiste.org/Journals/index.php/JPID/a rticle/view/12032
- http://www.indianjournaloffinance.co.in/index.php/IJF/article/view/85843
- http://www.journalijar.com/article/2556/perfor mance-of-indian-public-and-private-sector-banks--a-comparative-study/
- http://www.econjournals.com/index.php/ijefi/article/view/334/pdf
- https://www.google.co.in/?gfe_rd=cr&ei=2tFj WaqjBvDI8Aeh3IaABQ#q=PERFORMA NCE+EVALUATION+OF+BANK+MER GERS+AND++ACQUISITIONS+