Rational of Mergers and Acquisition of public sector banks – A study in Indian context

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Abstract

Of late, the Government of India constituted a ministerial panel for finalising alternative mechanism for consolidation of public sector banks in India with a motto to create large banks for meeting the credit needs of the growing Indian economy and building capacity in the PSB space to raise resources. The very objective behind the move of mergers of PSB seems to make them financially stronger to enable them to emerge, few of them, at the global level. The governance of these banks also assumes significance. The present study aims to explore underlying reasons for mergers and acquisitions of public sector banks in India. The motivation for pursuing present research is to explore certain challenges faced by Indian banks responsible for the present status. The study also aims to assess certain issues from governance point of view that favours the mergers and acquisitions. For ascertaining the financial stability of these banks, Banks' stability indicator (BSI) variables grounded on construct of soundness, assets-quality, liquidity, profitability and efficiency with measurement scale of ratio scale. The analysis of all public sector banks has been undertaken to extract the output with the help of statistical tool (SPSS). Further, statistical tests have been used according to nature and scale of the study. The output of the study indicates assets and profitability underlying variables are responsible for likely mergers and acquisition of bank.

Keywords: *Assets quality, Efficiency, profitability, liquidity, Bank performance and corporate governance*

Introduction

The banking system in India plays significant role the economic and social growth and contributed significantly for the economic growth since its inception. The growth of banking system has passed through different phases to become sustainable and strong to cope up with the emerging challenges and banking needs from time to time. Apparently, the financial strength of banks assumes more significance as it contributes immensely to the growth of credit as well the banks growth and financial performance. The efficiency and sustainability of banking system has always been a matter of concern and it posed challenges to the banking system from time to time. Capital adequacy plays crucial role in growth and survival of banks, hence, the implementation of Basel-III framework assumes added significance in strengthening the capital structure of banks across the globe. The guidelines on CAR-Pillar-III became effective from April 1, 2013 to be implemented in phases and will be fully implemented as on March 31, 2019. On other hand, mounting pressure on asset quality of PSBs and the threat of decline in rating of those assets further put pressure on the equity of banks. Further, Risk management functions of banks need to be further strengthened as banks are exposed to both kinds of risks, internal and external.

In present scenario many changes are taking place in public sector banks effecting their operations, returns and profitability. The factors responsible for this involve inadequate capital to meet increased provisions of Basel 3 norms by some PSU banks, increased level of non-performing assets, increased write offs and bad loans, poor assets recovery mechanism and declining profitability of banks which caused deterioration of banks performance in the recent past. In some cases, the profits have gone negative and consequently return on capital and assets also adversely affected. There are certain issues related to compliance of corporate governance norms where some banks have not followed

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as desired. This has also affected the performance of these banks. In the present study, an attempt is made to study and examine the motives of consolidation of public sector banks in India.

Literature Review

In this section, review of literature has been undertaken to extract related literature available on mergers and acquisition and experiences across the globe to connect to the present study.

A study by Kamath, kohli et al (2003) emphasized on challenges and opportunities faced by Indian banking in liberalized environment. They observed and found that opportunities are immense in banking sector to enter new market and business, to improve efficiency of work handling and better customer services. The biggest opportunity is changed profile of Indian consumers of banks but declining profit and quality credit extension remain a challenge for the banking system.

Tariq, Hassan, and Zaheer (2011) observed the relationship between a bank's performance and the likelihood of its acquisition in Pakistan. In their study they had analyzed the performance of eight banks during the period of 2001-2009 through logistic regression model on financial ratios of bank. The study did not reveal much significant results in terms of performance but found that the size of banks and EPS (earning per share) has no bearing on acquisition of the bank. The study observed that norms under BASEL Capital accord and Network of branches have a bearing on acquisition of the banks.

Similarly in India, Manoj (2010) emphasized on the financial soundness of the old private sector bank (OPSs) and the wave of consolidation. In that competitive scenario, this study aimed to identify parameters that help to analyze the financial soundness of bank before hand to avoid further deterioration or failure of the bank. In his study, the CAMEL model was adopted to analyze the financial health of banks. He had found that the old private banks of Kerala had under performed as compared to other old private banks. This study also found that old Private Banks in India with lowest financial soundness has been taken over by stronger banks.

A study conducted by Kandrac (2014) demonstrated a model for predicting bank stress at the time when a particular bank is in financial crisis. This study focused on model for determining stressed bank through Multiple Indicators, Multiple Cause model that consists of measurement equations on bank stress to the unobservable measure of stress and function of cause. The study found that critical issues with tier-I capital, more liquid balance sheets and stable liability came under stress condition of banks. Stressed banks are weak banks which need critical measures to come out of that condition. Weak banks are likely to get merged with stronger banks in near future.

Khan (2011) investigated the mergers and acquisitions in the Indian banking sector in post liberalization regime. The objective of the research was to compare the pre financial performance of various merged banks (Nedungadi Bank with Punjab National Bank and HDFC Bank with CBOP bank) to its post merger performance through independent T-test. He observed the most improved financial performance in terms of efficiency and profitability indicators in the post-merger era. He concluded that merger and acquisition is a strategy which could be used as a mode of survival for the bank in a competitive environment.

"Corporate governance is the acceptance by management of the inalienable rights of shareholders as the true owners of the corporation and of their own role as trustees on behalf of the shareholders. It is about commitment to values, about ethical business conduct and about making a distinction between personal and corporate funds in the management of a company." Report of the Committee on Corporate Governance of the Securities and Exchange Board of India, 2003.

Seenivasan (2014) assesses on corporate governance issues in Indian banking e.g., their balance sheets are not very transparent, they are highly leveraged, they typically have short-term liabilities and longer-term assets. Other issues relate to the composition of the Board of Directors and the duties of members, the functions of the board, the committees of the board, preventing abusive related party transactions and disclosures. The study had suggested strengthening of corporate governance in both public as well in private banks.

Another study on corporate governance by Panday (2011) emphasized on corporate governance structure particularly board structure and CEO duality on Indian banks. Sample of the study is selected public sector banks and private sector banks, to assess relationship between CEO duality proportion of independent director on firm performance (Return on assets ROA and Return on equity ROE) through statistical tests. The study had found that there is no relationship between corporate governance and financial performance of bank.

Corporate governance is essential part of any organization. It contributes in value creation of organization through safeguard of stakeholder and shareholder interest in an organization. In same direction a study had been done by samantaray, panda (2010). In the study the case of SBI and HDFC had been selected to assess emerging role of corporate governance in Banks, the former is a leading public sector bank whereas the latter one is a leading private bank. The study included report by Narayana Murthy Committee on corporate governance. The study reveals satisfactory report on corporate governance functioning in both bank groups. Also, mentioned scope for improvement in different areas of disclosure of bank performance.

Thus, it is concluded that there are studies on pre and post financial performance of merged banks in the past using CAMELS model of bank supervision comparison between public sector bank and private banks financial performance. While, few literatures found on corporate governance role and issues. Therefore, in the present study tried to explore corporate governance role and importance and reasons of mergers and acquisitions in PSU banks.

Research Methodology

Research methodology is a systematic way of moving towards solving research problem. The primary aim of the present research is to find out the relevant answers to questions on various aspects of the procedures and applications related to the mergers and acquisitions of Indian banking. The broad objectives of the study are;

1) to assess underlying reasons of mergers and acquisitions of Public sector banks.
2) to assess corporate governance role and contribution in bank's merger and acquisition.

The research hypothesis aims to manipulate selected variables for the study to achieve desired outcome of the study. The following are the hypothesis constructed for the present study:

- H0: Corporate governance does not have positive impact on mergers and acquisition of public sector banks

Data Collection

For the present study, secondary data collection process has been chosen. The financial performance figures of public sector banks have been tracked during the period of 2012 to 2016 from authenticated and reliable sources keeping in view the objectives of the study.

Source of data collection

The financial information pertaining to banks' performance is expressed in figures (numerical) and this information and data are available from authentic sources like websites of Reserve Bank of India (RBI), individual banks and other reliable publications. All data and information so extracted was from authorized and reliable sources. The secondary source of data collection is freely accessible and could be used in many ways to achieve the research objectives based on financial performance of banks in the sample.

Variables for the study

Bank Stability Indicators or map (BSI) was initiated in 2011, from report of RBI on banking stability- A Precursor to financial stability was undertaken (worked by Rabi N. Mishra, S. Majumdar and Dimple Bhandia). It has bearing on consistency or firmness of Indian banking system. This BSI indicator tends to cover all kinds of risks associated with banks like, credit, financial, market, credit, liquidity, and interest rate risk. Since, the environment in which the banks have been operating has changed significantly, this requires updated indicators index which expressly determine stress level of bank and also to forecast early future likelihood scenario of a bank. Therefore, total numbers of variables constituted for this study are 16 with underlying construct of soundness, assets-quality, liquidity, profitability and efficiency.

Table 1. The features of bank stability factor

	Bank stability indicators			
Soundness	Capital adequacy ratio (CAR)	Tier-I Capital to Tier-II Capital (T1 to T2)	Leverage ratio as Total-Assets to Capital and Reserves (LR)	
Asset-Quality	NET NPA to Total advance (NNPA to TAD)	Gross NPA to Total advance (GNPA to TAD)	Sub standard advance to Gross NPA (SSAD to GNPA)	Restructuring standard advance to standard advance (RSAD to SAD)
Profitability	Return on Assets(ROA)	Net Interest Margin(NIM)		
Liquidity	Liquidity assets to total assets (LA to TA)	Customer deposit to total assets (CD to TA)	Nonbank advance to customer deposit (NAD to CD)	Deposit maturing within 1 year to total deposit (DM to TD)
Efficiency	Cost to Income (C to I)	Business (Credit + Deposits) to total employees (B to TE)		

Statistical tests used for the study is factor analysis and descriptive statistics to achieve desired aim of constructed hypothesis of research paper.

In factor analysis the factors are calculated to maximize between-group variance while minimizing in-group variance. They are factors because they group the underlying variables.

Data Analysis

In this section, all data of financial performance of public sector banks have been inserted in SPSS software and run statistical test according to scale of variables, objective and hypothesis of the study. A factor analysis has been run for first constructed hypothesis. Factor analysis is data reduction technique in which similar or dissimilar groups have been created. Created groups have zero correlation with other groups is classified in principal compound method of factor analysis. Variables lying in the first three factors are highly significant for study and rest factors are followed. (Table 2)

The table 2 is the KMO and Bartlett test of sphericity. The KMO criterion have values between (0,1) where the usual interpretation is that more than 0.6 that indicates a good adequacy to use financial data in factor analysis. The significance level of test is p- value is 0.00 lower than critical value 0.05. Hence, we accept the hypothesis of the study which states there are likely reasons of mergers and acquisition of PSU banks. (Table 3)

In the table 3, there are six factors have been constructed as per significance of each variable of banks performance. Factors are linear combination of independent variables. The communality of a variable is the variance of the variable that is explained by all factors together. Mathematically it is the sum of the squared factor loadings for each variable. A thumb rule is for all communalities to be greater than 0.5. In above table, observed maximum explained by GNPA to TAD with 94% proceeded by NNPA to TAD with 92% and ROA with 87% in first factor. Secondly, noticed CUSD to TD with 89% and NBAD to TAD with 87% variance explained by variables. All variables are significant because of its explained variable proportion.

Extracted Sums of Squared Loadings- Each factor defines certain percentage of explanation of variance out of total variance are extraction sums of squared loading. There are six components derived through factor analysis and majority of variance explained by first three components which is nearly 55% of total variance explained through three components. (Factor 1 account for 29.8%, Factor 2 account for 15.0% and Factor 3 account for 12.8%).

Rotation sum of squared loading means all 6 factors are rotated on its axes to get better structure of factors explanation, since cumulative percentage of 55% is rotated and found 56% in end. Rotation is imperative to get more robust and impactful factors for the study. The values of variables are absolute neither minus or plus sign. These factors can be used as variables for further analysis. All factors are independent that has no correlation with other factors. First three factors of study involve the following variables.

Factor 1: ROA, NNPA to NAD, GNPA to TAD, PCR are with high loading which better explains variables within factor 1. The quality of assets maintenance is significant in banks performance if anything goes wrong with any variable of factor 1 causes deterioration of bank in future performance related to public sector banks.

Factor 2: CUSD to TD, NBAD to TAD with high loading in factor 2 determines deposits and Advances maintained by banks which is imperative for bank. Apparently, deposits and advances are key components of any business of bank and any deterioration in these parameters may put bank in trouble in terms of business development and business performance. This becomes more significant since banks have to secure trust of the depositors.

Factor 3: BPE, DM to TD with high loading in factor 3 belongs to banks operation and functioning. Any mismatch creates hassle for banks. Thereby bank's operational efficiency matters a lot, any lacking situation cause banks deterioration. Thus, factor 3 is another reason for mergers and acquisition in PSU banks.

Corporate governance is a process of good governance practices in banks. Good corporate governance and supervisory actions harmonize each other. It promotes the efficient use of scarce resources. It also makes resources flow to those sectors or entities where there are efficient production of goods and services and the return is adequate enough to satisfy the demands of stake holders.

As long as corporate governance role is concerned, Indian banks mainly engage in the business of accepting deposits and extending loans and advances to different entities for different purposes. They lend money borrowed from depositors to customers who are in need of loans and financial assistance. If bank fails, the ultimate loss belongs to depositors, thus required to maintain trust of depositors. This is one of the reasons to have corporate governance in banking industry. Other could be to manage assets and liabilities of bank, macro economic growth. Although, corporate governance approaches will differ among different banking institutions.

However, a bank must have a reasonable level of corporate governance takes various aspects into consideration such as its size, activities and the nature of its business. The aim is to assess corporate governance involvement in public sector banks for that a hypothesis has been constructed in the study and analysed on variables like, Capital adequacy ratio, non performing assets and return on equity. According to RBI, the Central bank, prompt corrective action has been performed on these selected variables. Descriptive analyses of past 5 years figure have been assessed on all selected variables to see significant involvement of CR in PSU banks. (Table 4)

In the table 4, it can be observed that capital adequacy ratio means statistics (std dev inversely related with mean statistics) is significantly diminishing from 12.89% (SD 0.78) in 2012 to 11.23% (SD 0.97) in 2016, which means banks are facing trouble in maintaining adequate amount of capital for bank, even low than standard norms set by RBI. Net non performing assets to net advance has been constantly increasing from 2012 to 2016 at 1.42% (SD 0.56) to 6.64% (SD1.8) and similar with gross non-performing assets to total advance increase 2.59 % (SD 0.84) to 10.36% (SD 2.9). Holistically public sector banks proportion of bad loan has been showing increasing trend which reveals inappropriate management of credit assistance in PSU banks. This causes decline in Return on assets of PSU banks from 2012 to 2016 with negative figure with -0.36% (SD 0.52) in 2016. However, return on equity has shown significant increasing positive change in PSU banks. It means equity shareholders are getting good return on their investments. (Table 5)

In the table 5 of descriptive statistics a results are carried out for each independent variable. Here, Minimum statistics is declined from year 2012 to 2016 and reached at 9.63% from 11.51%, while maximum statistics is also decreased at 13.20% year 2016 from 14.79% year 2012. This determines that there is constant decrease in CAR over the years maintained by PSU banks. It also reflects that banks are unable to maintain sufficient capital base. Further, public sector banks have maintained net non-performing assets to net advance minimum statistics at 0.54% in 2012 and maximum statistics showed at 11.40% in 2016. Similar trend has been noticed with gross non-performing assets to total advance. The minimum statistics of return on assets has been dragged in negative -0.25% in 2016 over the years from maximum positive 1.31% in 2012. This signifies negative return over assets puts in utilization.

ROE reflects after tax net income divided by average total equity of a bank. It indicates the amount of income that shareholder earns in bank to understand that an increase in ROE due to increase in leverage may be an issue of concern for the bank's management. ROE figures are negative with minimum statistics in year 2012, 2013, 2014 and 2015. The maximum statistics observed in 2016 at 21.33% and remaining years proceeded by this figure over the years. Corporate governance has to protect shareholders' and stakeholders' interest in a financial institution. Therefore, corporate governance involvement is different in different financial institutions. Thus, we reject the hypothesis stated that there is no positive impact of CAR on banks.

Conclusion

The changing shape of public sector banks in view of the globalization has pushed the policy makers to bring in structural reforms in the banking system in India. However, the macro level policy changes in the external environment have influenced the performance of banks while, internal inefficiency of banks have put banks in stress. It is hard to handle external environment constraints still government is trying to handle by infusing equity and capital base so that to facilitate their strength. Nevertheless, banks have to strengthen their internal position through efficient management of NPAs, tightening loan recovery mechanism, improving credit appraisal techniques etc. Dilution in state ownership is another key area where lot of improvements are needed. The compliance of corporate governance norms may be very helpful in bringing required improvements in the operational efficiency of banks. It has been observed during the study that the bank performance is shuffled on certain ratios like ROA, ROE etc. The major factors that support likely mergers and acquisitions of banks are deterioration trend in the banking business, poor quality of assets, poor recovery management and inefficiencies in operations of banks.

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Appendix
Table 2: KMO and Bartlett's Test

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.665
Bartlett's Test of Sphericity	Approx. Chi - Square	2948039.162
	df	136
	Sig.	0.000

Table. 3: Component MatrixO and Bartlett's Test

Component Matrix[a]							
Variables	Component						Communalities Extraction
	1	2	3	4	5	6	
ROA	-.890	-.191	.066	-.034	.158	-.134	.877
NNPA to NAD	.877	.234	-.271	.097	.003	.128	.923
GNPA to TAD	.860	.306	-.255	.116	.034	.168	.942
PCR	-.777	.195	.004	-.234	.060	.021	.701
RAD to STAD	.676	.396	.172	-.006	.244	.173	.732
CAR	-.627	.113	.195	-.046	.130	.484	.698
C to I	.606	-.430	.193	-.003	-.467	-.073	.813
CUSD to TD	-.194	.861	.259	.146	-.178	-.021	.899
NBAD to TAD	.229	-.846	-.272	-.028	.165	-.023	.870
BPE	.170	.064	.781	.350	.238	.140	.843
DM to TD	.061	-.561	.706	-.107	.007	.131	.846
NNM	-.614	.117	-.666	.106	.195	.013	.883
LA to TA	.055	.236	.165	-.765	.072	.288	.760
C to D	-.465	-.046	.192	.624	.112	.020	.658
T1toT2	.291	-.226	-.296	.120	.581	.375	.716
LR	-.283	.021	-.278	.191	-.579	.334	.641
SSTDAD to GNPA	.252	.282	.095	-.083	.304	-.688	.724
Component	Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings			
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	
1	5.071	29.829	29.829	4.560	26.822	26.822	
2	2.555	15.027	44.856	2.573	15.134	41.956	
3	2.180	12.821	57.677	2.287	13.451	55.407	
4	1.281	7.536	65.213	1.433	8.427	63.833	
5	1.261	7.420	72.633	1.358	7.986	71.819	
6	1.179	6.933	79.567	1.317	7.747	79.567	

Extraction Method: Principal Component Analysis.

a. 6 components extracted.

Table. 4: Descriptive Statistics

Descriptive Statistics										
Variables	Mean	Mean	Mean	Mean	Mean	Std. Deviation	Std. Deviation	Std. Deviation	Std. Deviation	Std. Deviation
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic
	2016	2015	2014	2013	2012	2016	2015	2014	2013	2012
CAR	11.23	11.22	11.05	12.19	12.89	.97068	.78525	.83043	.84827	.79848
NNPA to NAD	6.64	3.43	2.76	2.00	1.42	1.89635	1.11273	1.23096	.74908	.56240
GNPA to TAD	10.36	5.43	4.34	3.18	2.59	2.94537	1.56710	1.77587	1.02576	.84098
ROA	-0.36	0.33	0.38	0.71	0.84	.52569	.17482	.40899	.23765	.26985
ROE	11.24	7.22	6.62	7.22	-6.62	3.94125	11.41002	6.10529	11.82666	8.78728

Table. 5: Descriptive Statistics

Descriptive Statistics										
Variables	Mini	Mini	Mini	Mini	Mini	Max	Max	Max	Max	Maximu m
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic
	2016	2015	2014	2013	2012	2016	2015	2014	2013	2012
CAR	9.63	10.11	9.81	11.02	11.51	13.20	12.86	12.68	14.15	14.67
NNPA to NAD	4.20	1.89	1.52	.52	.54	11.89	6.22	7.18	3.19	3.09
GNPA to TAD	6.48	2.79	2.41	1.49	1.26	17.40	9.49	10.47	5.42	4.83
ROA	-1.25	-.16	-.99	.24	.26	.36	.58	.78	1.07	1.31
ROE	5.07	-33.07	-12.85	-34.01	-23.20	21.33	19.37	19.94	28.26	6.34