A STUDY ON MEGERS AND ACQUISITIONS IN INDIAN SERVICES INDUSTRY- WITH SPECIAL REFERRENCE TO BANKING COMPANIES

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Abstract

Mergers and Acquisition are a commonplace in today's global economy and a leading tool for growth and development. However it contains several issues and challenges overcoming which can be a daunting at times a success story. This research study aims at studying the impact of mergers and acquisitions in India Services Industry with special reference to the Banking companies. To achieve this goal pre-merger and post –merger analysis of key financial parameters specific to banks was used evaluate the selected ratios such as: Return on Assets, Capital Adequacy Ratio, Return on Equity, Net Interest Margin and Loan- to- Assets Ratio. The statistical tools and techniques used are statistical mean and regression analysis. The result reveals that most the financial ratios did not indicate any increase after the mergers and acquisition.

Key word: Merger, Acquisitions, Banks, Financial Ratios, Performance

INTRODUCTION

Overview of the Indian banking sector
Evolution of Indian banking
The aim of this section is to describe the historical development of the Indian Banking sector. The Indian banking system has evolved through four (4) separate stages or phases. The first stages was before 1947 and is describe as the pre-independence period. This stage was characterize by the existence of no entry norms, there by leading to the establishment of several banks. However this phase was also marked by world events such as The Great Depression and World Wars. The aftermath of which result into many bank failures couple with other reasons such as bank mismanagement by managers. It was in this period that Reserve Bank of India (RBI) was set up to response to the increasing bank failures.
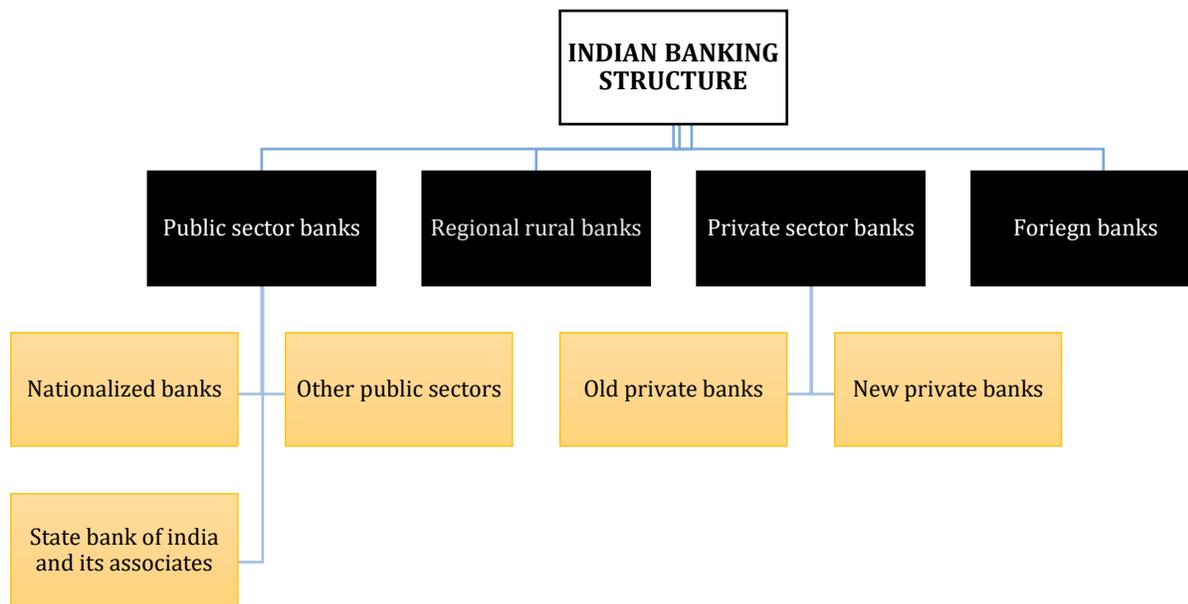
The second stage begins immediately after independence thus called the post-independence era. It started from 1947 and last until 1967. During this period establishment of regulatory norms were the dominant activities. They were designed to respond to banking failures. The Banking Companies Act which is now referred to as "The Banking Regulation Act" was enacted in 19949. Also the RBI was given the power to regulate and oversee the amalgamation of banks.

The third stage from 1967 to 1991 was marked by the nationalization of banks and the promotion of the concept of priority sector lending to sector such as Agriculture and Small Industries. During this time rapid expansion of banks branches was also witnessed, thus enabling banks to acquire Assets that give no income to the bank known as Non-Performing Assets. The final phase, which is still prevailing has been characterize by financial sector reforms and regulations such as; regulated and administered interest rates, high rates of CRR and SLR, low capital and high level of nonperforming loans and large public ownership of banks

Structure of the banking sector
To further analyze the Banking Industry we take a look the Banking structure. The commercial banking system of India has been structured into Public Sector Banks, Private Sector Banks, Regional Rural Banks and Foreign Banks.

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| Nationalized banks | Other public sectors | Old private banks | New private banks |

| State bank of india and its associates |

PUBLIC SECTOR BANKS
Public sector banks are a common type of bank in India. It is a bank where the Government of India have a majority stake. The shareholding position of the government is more than 50% in such banks. The shares of these banks are listed on stock exchange such as National Stock Exchange and Bombay Stock Exchange. As of December 2018, there are a total of 21 Public sector banks in India and 1 state bank of India. The public sector banks are regulated by the Banking regulation Act 1949 under section 51 and also statutes of the parliament.

PRIVATE SECTOR BANKS
Private sector banks in India are those banks where the greater percentage of shares are not held by the Government. Unlike the Public sector banks, here the majority of the equity shares are held by private shareholders. As of December 2018, there were 21 private sector banks in India out of which 12 are classified as old private sector banks and 9 as new private sector banks.

REGIONAL RURAL BANKS (RRBs)
There are 64 regional rural banks in India as of December 2018. Regional Rural Banks are those banks that were created for the purpose of rural credit delivery and also to ensure the goal of financial inclusion is achieved. Unlike public sector banks and private sector banks the capital holding of RRBs are in the ratio of 50:15:35, where the central government holds 50%, relevant state government holds 15% and the remaining 35% is held by the commercial bank that sponsors them. The RRBs are control by Reserve Bank of India (RBI) and supervised by NABARD.

FOREIGN BANKS
Foreign Banks in India are those banks that have their origination and headquarters in other countries but have their branches operating in India. A foreign bank can operate in India through the following ways:
   a)   Through operating branches
   b)   Through wholly owned subsidiaries
   c)   Through subsidiaries with maximum aggregate foreign investment of 74% in private sector bank.

Foreign banks in India are required to invest a sum of $25 million upfront as capital when operating on India. The total number of foreign banks in India as of 2018 stood at 45 by branches and 40 by representative office.

BANKS FINANCIAL STATEMENTS
In order to conduct a study on merger and acquisition and its impact on bank performance. It is important to understand the nature of bank's financial statement as compared to other companies.
Generally the financial statement of banks are not the same with those of a company in any other Industry. The role of banks and their operations enable them to take a considerable amount of financial risk. These risk are reflected on their financial statements as shown below:

a) Greater percentage of banks funds are invested in loans, advances or Investment which are affected by volatility in interest rate.
b) Bank have a very high financial leverage while the operating leverage is very low.
c) Also the high proportion of sources of bank funds are short term in nature thus payable on demand.

To further understand the financial risk borne by bank and how it is different from other firms. Let's explore the nature of item on the bank financial statement:

BANK'S STATEMENT OF POSITION ITEMS
a) Bank Asset.

The primary function of a bank is the role of financial intermediation. Banks generally works in the business of credit creation by lending to the public. Therefore the most important asset on the bank's balance sheet is loan. Another important category of bank assets are investments. Investments plays a major role in economic development of a country through investing in Treasury Securities and other financial markets securities. The final category of bank assets are Reserves. Reserves are cash holdings by banks it comprise of the deposit with Reserve Bank of India and Bank's vault. In summary reserves here refers to the money that the bank keeps on hand and is not loaned out or invested in securities thus does not generated any interest payment.

b) Bank Liabilities

Liabilities for banks are the sources of funds. They can either the deposits of clients or borrowings from other sources that will be used to fund Assets. These Assets are in turn used to earn revenue. The following comprises the major categories of a bank's liability on the statement of financial position:

Deposits
These are deposits to the bank by customers that can be payable on demand. In that case depositors can withdraw their money at will. In India deposits can either be transection or non-transection deposits. Where transection deposits are payable on demand by clients and non-transections deposits are only payable after a fixed period. Deposits represent the primary source of funds for banks thus they form the most important Bank Liability. Some deposits pay interest but most transection deposits pays very little or no interest.

Borrowings
Borrowings comprise the other important category of bank liabilities. They constitute the funds that are borrowed from other banks or financial markets either locally or internationally.

Net worth (Capital)
Banks capital is the combination of the share capital and reserves and surplus. However recent changes in accounting have made it more difficult to measure the net worth of a bank.

BANK'S INCOME STATEMENT
The major component of any income statement is Revenue. However the revenue of banks is derived differently from that of regular companies. The first category of revenue in the banks income statement is Interest Revenue. Interest Revenue captures the interest payments the bank receives on the loans it issues and on investments made. The Interest payments made by the bank on deposits and borrowings are deducted from interest revenue to get the Net Interest revenue or Income.

In addition to the Interest Revenue, another important source of revenue to the bank is the Non Interest Revenue. They are also called fee based income, because they are generated from the fees banks charge for other services render to customers. The Non Interest Expenses are deducted from Non Interest Revenue. The difference is often refer to as "burden" since is mostly a negative figure.

BANK'S FINANCIAL STATEMENT V.S. OTHER COMPANY'S FINANCIAL STATEMENT
Banks are intermediaries between two parties. Therefore they make profit from the spread between the rates they received and the rates they pay. In contrast non-banking companies operates to produce goods or services or both and thereby sell them to customers. Given this difference in their nature, it is important to prepare their financial statements in different ways. The following are the notable difference that might impact the financial performance of banks.

1) Banks own relatively few fixed assets compared to no-banking companies. Due to these difference the fixed cost of banks become lower leading to a very low operating leverage.
2) The main objective of preparing Bank financial statement is to report the accurate trade-off between banks profit and risk while that of the other companies are prepared with the objective to report accurate financial position and performance to the shareholders.
3) The scope of bank's financial statement is limited to the banks alone while that of non-banking companies are applicable to various businesses.

OVERVIEW OF MERGER AND ACQUISITION

MEANING

Merger refers to a situation where two or more companies or firms combined to form one entity. It may be in the form of Absorption or consolidation.

Gaughan, 2002. Defines a merger as the process in which two firms combine and only one endures and the merged entity cease to exist.

Nakamura, 2005 as cited in Miyienda 2015. An acquisition takes place when a company attains all or part of the target company's Assets and the target remains as a legal entity after the transaction. Where as in a share acquisition a company buys a certain share of stock in the target company in order to influence the management of the target company.

DIFFERENCE BETWEEN MERGER AND ACQUISITION

The phrase Merger and Acquisition (M&A) are often used as synonyms. But however, there is a slight difference in the two terms.

In actual sense a merger is said to take place when two or more companies or firms agree to combine into a single new company rather than remain separately owned and operate. This process is refer to as a merger of equals. While when one company takes over another and clearly establishes its influence as the new owner is said to be an acquisition. From a legal perspective the merged firm ceases to exist and the acquired firm's stock continues to be traded.

TYPES OF MERGER AND ACQUISITION

Mergers and Acquisition sometimes refer to as amalgamation in India can be classified into several types:

HORIZONTAL MERGER/ INTEGRATION

A horizontal merger represents a merger of firms engaged in the same line of business. This business strategy is used by a firm that seeks growth through acquisitions of firms in similar lines of operations. Most mergers of this nature take place in highly concentrated Industries where fewer firms compete and the synergies are favorable. Because the two firms compete on the same stage of the supply chain, they are able to develop economies of scale by combining operation. It also enable the merged firm to increase its market share and lower its marginal cost. Furthermore, they can offer a wider range of products to their customers without having to invest in new resources. It is important to note that mergers in the Indian Banking Sector are in the nature of horizontal merger for example the merger of Bank of Mathura with ICICI Bank.

VERTICAL MERGER/ INTEGRATION

When firms that engage in different stages of production merged, it is called Vertical Merger or Vertical Integration. Vertical Mergers are a form of business strategy used by companies that seeks to increase their business and have more control over supporting steps in a supply chain. Vertical Merger often enable companies to develop synergies that lead to more efficient reduced costs and increased business operations. However vertical expansion can also be achieve without going for external growth strategy it do not always require a merger of business.

CONGLOMERATE

A conglomerate merger is a merger of conglomerate is a form merger between firms that are involve in totally unrelated business activities. Conglomerate mergers can be of two types; Pure and Mixed. Pure conglomerate merger involve merger of firm with nothing in common. While, mixed conglomerate merger involve a merger of firms that are looking for product extensions or market extensions.

CO-GENERIC

Co-generic as the name implies it represents a merger of firms engaged in related lines of business but do not offer the same products. In this case the companies involved in the merger may have similar technology, markets or even production processes. The acquired firm either becomes an extension of a product line or a market related to the acquiring firm. A product extension merger happens when a new product line from an acquired firm is added to the existing product line of acquiring firm while a market extension merger is when a new or closely related market is added to the acquiring firms existing market through the acquiring firm.

ECONOMIC RATIONALE OF MERGER AND ACQUISITION

1. Synergy
2. Diversification
3. Economies Of Scale
4. Managerial Effectiveness
5. Utilization Of Tax Shields
6. Lower Financing Costs

7.   Strategic Benefit

BACKGROUND OF THE STUDY

Mergers and Acquisitions (M&As) are the most effective and efficient way to enter a new market, add a new product line or increase distribution reach. (Sherma, 2017). In Indian service Industry with reference to Banking services M&As has become the most admired tool or strategy for cooperate restructuring. The Indian banking sector has witnessed a large number of M&As in public sector banks as well as private sector banks. For example, on the 1st April 2017 State Bank of India (SBI) merged with five of its associate banks and BharityaMahila Bank (BMB). Also the two largest private sector bank has undergone merger (i.e. HDFC Bank merger with Centurion Bank of Punjab in 2008 and ICICI Bank merged with Bank of Rajasthan in 2010).

M&As have played a vital role in the transformation of the Indian Banking Sector since the 1960s.In 1968, the Government of India has issued an ordinance for the nationalization of 14 large commercial banks. These fourteen banks, back then contained a whopping 85% of the total bank deposit in India. Six more banks were nationalized in 1980, as a result 91% of the banking sector came under direct control of the Indian Government. However in the year 1993 the Government of India made a turn towards merger of banks instead of nationalization of banks. The first ever merger between nationalized banks was the merger of New Bank of India with Punjab National Bank (PNB). (IBPSExamAdda, 2015). To continue the trend of bank mergers the Government of India has constitute a panel to consider and oversee mergers among the country's state-run banks. This action is line with the suggest to reduce the number of public sector banks to 3 or 4 large banks which will be develop as international banks at the top.

The motive behind mergers and acquisitions in banking sector is unique to a particular bank merger deal. Stephen & Rhoades, 1989, noted market share of the target and per capita income standout as attractive to acquiring firms but growth and profit do not. Their findings do not point to any single motive for bank acquisition. However, Awdeh&Moussawi 2011, cited the following main motives to bank mergers and acquisitions: a) synergy b) elimination of inefficient management c) increase market share or market power d) entry into new markets e) bank M&As to avoid banking crises.

This study will investigate the Mergers and Acquisitions in Indian services industry with special reference to banking companies. The research will adopt ex-post studies approach to evaluate the impact of M&As on firm performance. In current literature the impact of M&As on bank performance have widely been discussed. However not much concentration has been paid to the fact that the financial statement of banks are somehow different from other companies. Therefore this paper will employ the common bank indicators analysis on parameters such as Net Interest Income, Capital Adequacy, Asset Quality, Operating Efficiency Indicators and Profit Efficiency Indicators.

This paper is presented as follows, Chapter 2 covers the literature review both theoretical and empirical review. Chapter 3 contain the methodology and the data used to address the main research question. Chapter presents the research findings and analysis and the paper will end with Chapter 5 where conclusions are drawn.

RESEARCH OBJECTIVE

To establish the effect of mergers and acquisition on the performance of banks in India

NEED OF THE STUDY

The literatures have shown that most of the works have been done on trends, policies and analysis of financial ratios which are not specific to the banking industry. Whereas profitability and financial ratios specific to banking industry are not given due importance. The present study would go to investigate the detail of Merger and Acquisitions (M&As) with greater focus on the Indian banking sector. The study will also discuss the pre and the post-merger performance of banks using the bank specific factors. An attempt is made to predict the future of the ongoing Merger and Acquisitions (M&As) on the basis of financial performance of Indian banking sector.

LITERATURE REVIEW

IMPACT OF MERGER AND ACQUISITION ON BANK PERFORMANCE
THEORITICAL REVIEW
Scholars have cited many theories that back the rationale of mergers. The following theories on Mergers and Acquisitions will be discussed in this paper: Synergy Theory, Market Power Theory, Asymmetry of Information Theory and Agency Theory. **SYNERGY THEORY**

The first theory this paper will examine in this review is synergy theory. This theory asserts that the amount of economic benefit that comes out of a merger and acquisition depends on the resources at the disposal of the merging firms, proportionate to the total amount of available resources in a given economy, and the availability of opportunities for the firms to use the said resources (Chatterjee, 1986).Theory of synergy, suggest that mergers are expected to raise a firm's cash flow and also increase its value through synergy. Synergy increases firm's economies of scales and combined the advantages of two firms. Synergy emanates from the increased revenue as a result of up selling or cross selling, savings in tax and cost reduction.

MARKET POWER THEORY

The second theory is known as the market power theory. According to this theory, market power is defined as the potential of one or several market participants to influence the nature of production, quality, and price the market (Montgomery, 1985). Therefore, market power can result in uncompetitive high profits that are risk free. Based on this theory, mergers reduce the number of banks in the market, thus shrinking competition. This leads to higher concentration in the market in a manner that increases the market power of the banking industry. Therefore, banks are able to increase prices and gain more profit. So mergers are expected to impact positively on the performance of both bidders and targets.

ASYMMETRY OF INFORMATION THEORY

The other theory is the information asymmetry theory. Moeller et al, 2007 argues that mergers have a negative impact on stock returns because an announcement of mergers gives signals to the market that the stocks of a firm is overvalued. Under this theory, mergers are likely to affect the performance of bidders negatively.

AGENCY THEORY

The final theory that explains the reasons why firms merge is the agency theory. Agency theory argues that managers always have incentives to ensure that their organizations grow beyond their size. This growth increases the power of a manager by increasing the amount of resources they control. Furthermore, the growth leads to increased compensation for managers (Jensen, 1986). According to this theory, managers resort to mergers for their own personal benefit without any consideration of economic reasons.

EMPIRICAL REVIEW

INTERNATIONAL LITERATURE

According to the Global research report 17% of the cross border merger deals between 1996 and 1998 has added shareholders value, while 30% of the deals produced no discernible difference, with 53% of the deals resulting into destroyed value **(KPMG, 1999)**. This research report was conducted in two parts as follows; Firstly research amongst directors of Companies participating in major M&A deals. A sample of 107 participants comprising of Board members from company population of 700 cross border deals around the world. Secondly, analysis against an objective benchmark of M&A success determined by the change in the lead company's shareholder value. Similarly using both Ex-Ante (i.e. studies which try to assess merger performance indirectly by analyzing the reactions of the stock after the merger announcement) and Ex-Post studies (i.e. that the use of direct assessment by analyzing the effects of merger on real firm performance generated from accounting data). **Schank 2000,** revealed that it is unlikely that mergers among large banks as well as acquisitions of small banks by large banks are able to create much economic wealth. In addition His findings shows that such mergers and acquisitions do not generally create positive shareholders return. Also **Yusuf &Sheidu, (2015),** after studying M&As in Nigerian banking industry for the period 2004-2005 collecting data from audited annual financial reports of 89% of consolidated banks (three years before the year of merger) and 24 consolidated banks (three years after the year of merger) concluded that banks merger do not, necessarily give rise to improved financial performance. They arrived at this conclusion by considering the Return on Equity (ROE) of various banks as dependent variables and the M&As that took place amongst the banks across the time frame as independent variables. The method of analysis they employed where Chow test for structural break and t-Statistic test.

Kuriakose& Varghese, 2013, conduct a review of existing studies on merger efficiency issues, drawing their sample from US, EU and India banking sector. To examine the US and EU banking sector they used event study methodology and pre and post-performance using accounting data approach. They conclude that whilst European Union have recorded several efficiency gains in the bank acquisition and the value creation for bidders. The Indian corporate sector recorded a substantial decline in the after merger cash flows. Further studies to measure the impacts of M&As on US banking industry using TARP banks (i.e. banks that received government financial support during the 2007-09 crisis) and Non TARP recipients as the sample size excluding Thriffs and FDIC. **King and kong 2016,** reviewed various methodologies and results of literatures. They develop a hypotheses based on this literatures by applying operating cash flow analysis and common bank indicators analysis such as; profit and efficiency indicators, net interest income operating efficiency, asset quality and capital adequacy. The main empirical results leads to the conclusion that operating performance deteriorate significantly for the three years post-merger period. Thus revealing a difference in merger motivation for TARRP and Non TARP banks. Moreover, in her analysis of M&As in UK banking industry and their impact on the shareholders wealth **Zisi 2014,** employed

event study methodology using the market model, the market adjusted model and constant mean model to conclude that the target firms present a high positive abnormal return due to the M&A event while they notice a negative reaction for the bidder bank. The research findings also shows an overall gain for the combine entities due the fact that bidder's loss is compensated by the targets' gains. Her sample size contains banks merger in UK from period 1990 to 2003, data was collected from SDC and DataStream program to calculate the return of the selected banks (i.e. return index and stock return).

After conducting a scholastic research on the effect of M&As on firm performance **Ghosh S. and Dutta S. 2016,** found out three interesting conclusions.

- It reveals that so far the studies conducted in the field of M&As have primarily concentrated on different financial parameters, cross cultural integration process and problems in cross border M&As

- They also found out that, India is at per with the rest of the world as far as research on different financial aspects of M&As are concerned.

- Finally they suggest that future studies on M&As should focus more on the impact of M&As on qualitative issues.

Before arriving at this findings they used a comparative analysis of Indian M&As against those occurring in other countries. Their sample comprises of 108 articles published between 2005 and 2015 performance parameters such as; Accounting measures of performances, Stock market performance measures and qualitative performance measures were the technics applied.

INDIAN LITERATURE

There is no significant improvement in the performance of SBI after the merger. The merger was mainly in the interest of the public **(Jayashree, 2016.)**. He applied probabilistic judgmental sampling technique by collecting secondary data such as; Gross profit Margin, Operating Profit Margin Return on Capital Employed Return on Equity and Debt Equity Ratio.

Lyngdoh, 2017, examined the top private sector banks in India by comparing the financial performance of HDFC and ICICI bank. His findings shows that HDFC bank's performance and financial soundness is better than ICICI bank. However this study was conducted during the period of 2012/13 to 2016/17.

In another study on the impact of merger of Centurion bank of Punjab on the financial performance of HDFC bank. **(Rajamini& Ramakrishnan, 2015)** find out that after merger financial ratios such as; GPM, NPM, ROCE, ROE and DER has all indicate raising trend while OPM indicates an inconsistent result. In a similar research **Devarajappa, 2012**, noted the same findings.

Kuriakose&Senamraju, 2013, argues, after analyzing the contribution and adequacy of exchange ratios. For 10 post reform era merger deals out of 25 bank mergers that took place during the period. Target banks got under paid and therefore the significant increase in the share prices of target banks around merger announcement cannot be attributed to valuation. The 10 banks merger deals were the ones that have derived purchase consideration for the target bank's shareholders. Also the swap ratio where analyzed in in two ways contribution analysis adjusted with the numbers of shares and relative contribution analysis.

By analyzing financial parameters such as growth in total assets, growth in profit, growth in revenue, growth in deposits and growth in number of employees through statistical mean and T-test on a sample of merged banks in the post liberalization. **Dutta & Dawn, 2012**, noted the performance of merged banks in terms of growth of stated parameter was not different from the research expectation.

Evaluating the cause and effect relation between merger and performance of four (4) bank mergers deal namely IDBI Bank, Indian Overseas Bank, ICICI Bank and HDFC bank. **Patel & Patel, 2015**, concluded that mergers have a beneficial impact on the performance of Indian Banks. Furthermore **Gandhi, 2012,** also revealed that the overall impact of mergers and acquisitions is positive on Indian banking sector. In his study he considered six bank merger deals three from public sector and other three from private sector for the period 2006 to 2008

Verma, 2015, conducted a study on value addition by Indian banks, through economic value added approach and market value added approach. His studies revealed that most of the public sector banks have not been very encouraging and disappointed the stock market investors. He also found out that private banks such as HDFC better than other competitors.

Mergers and Acquisitions can either be in the form of forced merger or voluntary merger. In the Indian banking industry the cases of forced mergers neither the bidder nor the target bank's shareholders have benefited while in the case of voluntary mergers the bidder bank's shareholders have a gained more than those of the target bank. **(Sensarma, 2015.)**. However, further studies on voluntary amalgamations in Indian banking sector has found out that in most cases the final swap/exchange ratio between the bidder and target bank are not justified to their financials. **Kuriakose&Narasimham.** In their research methodology they used the concept of exchange ratio, since there are only few cases of voluntary amalgamations a case study method was implemented on both exogenous and

endogenous secondary data.

Every M&A needs a well-planned strategy for it to be successful. The strategies adopted by an organization during a merger can determine the post-merger result. **Paul and kuraikose, 2014**, has conducted a study on the strategic and financial similarities of bank mergers, and their findings revealed that banks are dissimilar in most of the key areas and these might have an adverse impact on the post-merger performance

GAP IN THE LITERATURE

From my analysis of various literatures and theories on merger and acquisition, have observed that most mergers and acquisition in the bank sector result can into three different result that is merger can generate either Positive result, Neutral result or Negative result. The literatures and their various result can be classified as follows;

a) Studies on the impact of mergers and acquisition on banks post-merger performance shows a negative returns in the long run. This could be because most bidders usually outperform the markets before the event, implying that their position becomes worse after the merger. In contrast it does result into wealth creation for the target banks shareholders.

b) Another classification of the literatures are the studies that were conducted on the effect of mergers on profitability and efficiency. This studies revealed that mergers improve profitability and efficiency of banks. However accounting analysis show a majority significant negative impact.

c) The final classification of the literature is studies on the impact of mergers on the stock market performance shows a rather more neutral result, this could be attribute to external factors.

Finally the analysis revealed the followings gaps in the literature; Most of the papers did not give much importance to Banking Industry specific factors and the unique nature of the banks financial statements was not also given due consideration. I suggest future research should concentrate on the effect of Merger and Acquisition on Bank Specific Indicators.

RESEARCH METHOLOGY

INTRODUCTION

This research aims to establish if the financial performance improve after Mergers and Acquisitions in Indian banking sector. The research methodology employed is the descriptive research design in order to explain the variation between pre-merger accounting ratios and post-merger accounting ratios. The population and sample size of the study, data collection, hypothesis testing, analysis techniques, and the analytical model to be utilized in the study are identified below.

RESEARCH DESIGN AND SAMPLE SIZE

The research methodology employed is the descriptive research design in order to explain the variation between pre-merger accounting ratios and post-merger accounting ratios and their impact on the financial performance of the merged banks. This type of design will enable the study to depict whether mergers and acquisitions do have an impact on the financial performance of banks in India. The population under study will consist of all the banks in India. There are 152 Commercial Banks in India currently. 22 of which are public sector banks, 21 are private sector, 64 are regional rural banks and 45 are foreign banks operating in India. Most of this banks have engaged in mergers and acquisitions in efforts to improve financial performance and maximize shareholder value. However the sample size of this study will comprise of bank merger deals that happened in India between the years of 2010 to 2018. They include the followings:

NAME OF THE BANKS ACQUIRED	NAME OF THE BANKS GOT MERGED	YEAR OF THE MERGER
State Bank of India	BharatiyaMahila Bank (BMB)	2017
State Bank of India	State Bank of Travancore (SBT)	2017
State Bank of India	State Bank of Bikaner and Jiapur (SBBJ)	2017
State Bank of India	State Bank of Hyderabad (SBH)	2017
State Bank of India	State Bank of Mysore (SBM)	2017
State Bank of India	State Bank of Patiala (SBP)	2017
Kotak Mahindra Bank	ING Vyasa Bank	2014
ICICI Bank	Bank of Rajasthan Ltd	2010

DATA COLLECTION AND PARAMETERS

The type of data used in this study are only secondary sources of data will be will obtained from financial reports of the banks in India that are part of the select sample size. These statements are accessed through the respective bank websites. The Data of interest includes financial parameters such as; Return on Asset, Capital Adequacy Ratio, Return on Equity, Net Interest Margin and Loan-to-Assets Ratio.

RETURN ON ASSET (ROA)

This ratio is considered an important measure of profitability. It shows the per rupee profit a Bank earns on its Assets. Since bank assets largely consist of money the bank loans out and bear interest earnings. The per rupee return is an important standard of bank management. The ROA is computed as a bank's Net after-tax Income divided by its Total Assets. The is expressed as terms of percentage

$$ROA = \frac{NETINCOMEAFTERTAX}{TOTALASSETS}$$

CAPITAL ADEQUACY RATIO (CAR)

Capital Adequacy Ratio (CAR) is also called Capital -to- Risk weighted assets ratio (CRAR) is used to protect depositors and promote the stability and efficiency of financial systems. CAR is a measurement of a banks available capital expressed as a percentage of a bank's risk weighted credit exposures.

$$CAR = \frac{TEIR\ 1\ CAPITAL + TEIR\ 2\ CAPITAL}{RISKWEIGHTEDASSETS}$$

RETURN ON EQUITY (ROE)

Return on Equity is a standard measure of performance. It is considered as measure of how effective and efficient management is using a Bank's assets to create profits. ROE is a measure of financial performance calculated by dividing net income by shareholders equity.

$$ROE = \frac{NETINCOME}{SHAREHOLDERSEQUITY}$$

NET INTEREST MARGIN (NIM)

Net Interest Margin (NIM) is specially an important indicator of performance in the banking Industry. It reveals a bank's net income on interest earning assets such as Loans and Investments. Interest income from such Assets are the primary source of revenue for bank. This standard is a key performance indicator of a banks overall profitability. Generally the higher the margin the more profitable the Banks is. NIM is calculated as the sum of interest and investment incomes less related expenses divided total of earning assets. The result is express in terms of percentage.

$$NIM = \frac{INTERESTINCOME - INTERESTEXPENSES}{TOTALEARNINGSASSETS}$$

LOAN-TO-ASSETS RATIO (LAR)

Another variable that will be used in this study is the Loan to Assets Ratio, this ratio is a banking sector specific key performance indicator that can be used to obtain a complete analysis pf a banks bank's operations. It can be calculated as follows:

$$LAR = \frac{TOTALLOANS}{TOTALASSETS}$$

ANALYTICAL MODELING AND HYPOTHESIS TESTING

The research study will evaluate its objective by constructing a financial model to determine the relationship between the select banks key performance indicators from the financial reports and expressed in terms of financial performance. In order to achieve the goal of this analysis the study will employ multiple linear regression method and statistic mean. Multiple linear regressions help to outline the relation between a dependent variable and a number of independent variables. It also assist in the determination of the extent to which the total variation of the dependent variable is influenced by the change in the independent variables. The general formula of the multiple linear regression model to be used in this study is stated below;

$$Y_i = \beta_0 + \beta_1 x_{i1} + \beta_2 x_{i2} + \dots \beta_p x_{ip} + \varepsilon_i \text{ for } i = 1, 2, \dots n.$$

Where;

Y_i	= Return on Assets (ROA)
β_0	= Constant term (y-intercept)
$\beta_1, \beta_2, \beta_3 \beta_4$	= Slope Coefficient of the indpendent variable
X1	= Capital Adequacy Ratio (CAR)
X2	= Return On Equity (ROE)
X3	= Net Interest Margin (NIM)

| X**4** | = Loan-to-Assets Ratio (LAR) |
| ε | = Error term/residuals |

The following null hypotheses are formulated to determine the improvements in the pre-merger financial performance of banks

H1: There is no significant change in the capital adequacy ratio pre and post- merger& acquisition of banks in India

H2: There is no significant change in the return on equity pre and post- merger& acquisition of banks in India

H3: There is no significant change in the net interest margin pre and post- merger& acquisition of banks in India

H4: There is no significant change in the loan-to-assets ratio pre and post- merger& acquisition of banks in India

ANAYLSIS AND FINDING

This section consist of the data analysis, the result of the hypothesis testing and the findings from the statistical mean. Descriptive study approach, financial ratio analysis and as well as tools such as the statistical t-test were utilized to analysis the data. The relationship between the parameters are also examined with use of correlation.

DATA ANALYSIS

The methods to be used in the estimation are accounting ratio analysis and to determine the correlation between the dependent variable (ROA) and each of the independent variable (CAR, ROE, NIM, and LAR) the statistic test will be utilized with the help of probability associated with the variables.

The aim of this estimation is to help in estimating the variables of the regression and test the level significance. For that the study will develop the coefficients, standard errors term, t statistic value and threshold of significance. Financial ratios of the pre-merger and post-merger will be compared. The ratio that form the parameters of the study (i.e. three(3) years before the year of the merger and acquisition and three (3) years after the year of merger and acquisition) will be summed up excluding the year of the merger because of the involvement of a number of factors that makes comparison difficult. Finally by analyzing the results from these findings, it will be possible to establish the relationship of financial performance of the concerned banks between pre and post-mergers and acquisition in order to arrive at a rational conclusion.

HYPOTHESIS TESTING

This part could not be complete due to some technical difficulties

RESULTS OF STATISTICAL MEAN

TABLE: 1:   STATE BANK OF INDIA (SBI)

FINANCIAL PARAMETERS	PRE-MERGER	POST-MERGER
ROA	2.23%	1.96%
CAR	18.13%	17.26%
ROE	16%	13.20%
NIM	4.92%	4.60%
LAR	56.80%	60.00%

Table1: Shows that most the ratios of SBI after the merger in 2017 indicates a decrease as follows; ROA from 2.23% to 1.96%, CAR from 18.13% to 17.26%, ROE from 16% to 13.20%, and NIM from 4.92 to 4.60%. However LAR shows and increase 56.8% to 60% after the merger.

Source: researcher's own findings (mean values)

TABLE: 2:   KOTAK MAHINDRA BANK

FINANCIAL PARAMETERS	PRE-MERGER	POST-MERGER
ROA	2.23%	1.96%
CAR	18.13%	17.26%
ROE	16%	13.20%
NIM	4.92%	4.60%
LAR	56.80%	60.00%

➤ Table2: Reveals that ROA decrease from 2.23% to 1.96%, CAR decrease from 18.13% to 17.26%, ROE decrease from 16% to 13.20% and NIM also falls from 4.92% to 4.60% all shows a decrease after the merger of Kotak Mahindra bank. Whilst LAR depicts an increase after the merger.

Source: Researcher's Own Findings (Mean Values)

TABLE: 3:   ICICI BANK

FINANCIAL PARAMETERS	PRE-MERGER	POST-MERGER
ROA	0.97%	1.37%
CAR	13.70%	19.93%
ROE	10.70%	11.20%
NIM	2.28%	2.80%
LAR	56.76%	53.00%

➤ Table3: indicates that ratios such as ROA, CAR, ROE, NIM all shows an increase after the merger. ROA from 0.97% to 1.37%, CAR from 13.70% to 19.93%, ROE from 10.70% to 11.20%, NIM from 2.28% to 2.80% with exception LAR which fall from 56.76% to 53%.

Source: Researcher's Own Findings (Mean Values)

FINDINGS

The findings reveals that the ratios i.e. mean values shows an inconsistent outcome as a result of merger and acquisition in the Indian banking sector. Out of three merger deals that form the sample size only the merger of ICICI Bank indicates an increase. The other two deals i.e. SBI and KMB however rather shows a decrease. An important point to note in the case of SBI only one year after the merger is included due the fact that the merger happens in 2017. The implications of this result on bank performance are as follows;

ROA

Return on Assets is an important ratio for banks. As banks are highly leveraged even a relatively low ROA to 2% may represent substantial revenues and profit for a bank.

Capital Adequacy Ratio consist of two types of capital in its measurement, tier 1 capital which can absorb losses without a bank being required to cease trading and tier capital which can absorb losses in the event of a winding-up and so provides a lesser degree of protection to depositors.

On the part of Return on Equity, shareholder's equity is equal to a company assets minus its debt, therefore ROE could be thought of as the return on net assets. ROE is expressed as a percentage and can be calculated for any company if net income and equity are both positive numbers. Net income is calculated before dividends paid to common shareholders and after dividends to preferred shareholders and interest to lenders.

Net Interest Margin (NIM) is also an important indicator of banks performance. NIM can be influence by numerous factors such as the interest rates charged by the bank and the source of the bank's assets. Finally banks with a relatively higher loan to Assets ratio derive more of their income from loans and investments, while banks with lower levels of loans –to- assets derive a relatively larger portion of their total incomes from more diversified, noninterest earning sources such as asset management or trading. Banks with lower loan to Assets ratio may far better when interest rates are low or credit its tight. They may also fare better during economic downturns.

SUMMARY OF THE FINDINGS

After comparing ROA with pre and post-merger period on an average, it is seen that the ratio has decrease. The CAR on an average has also decrease when post-merger period is compared with pre-merger period. The ROE has declined and NIM has shown an insignificant change after merger. LAR has increased after merger.

CONCLUSION

Bank mergers and acquisitions are aimed at amplifying efficiency, enhancing competitive advantage, achieving synergy and improving shareholder's value. Mergers and Acquisitions pursue the profitability, liquidity and solvency objectives of an organization. The study was carried out to determine whether improvements occur in the

post-merger and acquisition period. The analysis and results show that banking companies did not performed well in the post- merger and acquisition era as compared to the pre-merger and acquisition era. This is supported by the fact that merging and acquisition had an insignificant impact on the ROA. Which is the overall standard measure of financial performance due to the statistical significance it has on other ratios.

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