**Post-Merger and Acquisition Short-run Financial Performance Analysis: A Case study of Selected Companies in India**

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**ABSTRACT**

*In the current scenario corporate restructuring is one of the most widely used tools for the growth and survival of business in a competitive environment across the globe. The word ‘Merger and Acquisition’ frequently comes when we come across in daily news. It improves competitiveness of companies through acquiring greater market share. It also helps for entering in to the new markets and gaining economies of large scale production. The main objective of this paper is to analyze whether the Indian companies have achieved financial performance efficiency during the post-Merger and Acquisition period especially in the areas of profitability and liquidity parameters in the short-run. Paired sample t-test has been performed to determine the significance differences in financial performance standards two years before and two years after the Merger and Acquisition. The result of this study reveals that Merger and Acquisition only increases in the assets and liabilities of the companies but in the real sense it does not add any value to the shareholders’ wealth at least in the immediate short-run.*

**KEY WORDS:** Merger and Acquisition, Profitability, Liquidity, Short-run

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**INTRODUCTION**

From Banking to Oil Exploration and Telecommunication to Power Generation, companies are coming together as never before. Corporate Restructuring through Strategic Alliances including Mergers, Acquisitions, Amalgamations, Arrangements and Takeovers has become integral to Corporate Strategy today. The main objective of any firm is to make profits and enhance returns to owners. Merger and acquisition is increasingly used due to intensifying competition, liberalization, globalization and integration of national and international markets. Corporate restructuring has facilitated thousands of companies to re-establish their competitive advantage and respond more quickly and effectively to new opportunities and unexpected challenges. Under different dynamic situations a profitable growth of business can be achieved successfully if as a strategic tool merger is adopted. Post merger and acquisition short-term financial performance analysis: A case study of selected Companies in India has been undertaken by analysing a host of sample companies working in different private sectors in India.

**OBJECTIVES OF THE STUDY**

The study is being conducted with the following objectives:

1. To examine the impact of Merger and Acquisition on the profitability of Surviving enterprises in different sectors in India in the short-run.
2. To analyze Post-Merger and Acquisition effect on Liquidity Standards of the surviving entities in each sector under review in India in the short-run.

**HYPOTHESIS OF THE STUDY**

**H0:** There is no significant improvement in the profitability positions of the surviving companies in India after the merger and acquisition in the short-run.

**H0:** Post-Merger and Acquisition, there is no significant improvement in the liquidity standards of the surviving companies in India in the short-run.

**RESEARCH METHODOLOGY**

In the present study the convenience sampling method has been used depending upon the availability of data. This empirical study analyses the financial data of selected firms in diversified sectors in India including Steel, Chemical, Telecommunication, Information Technology, Automobile and Power which were merged during the period 2005-2010. In order to judge the financial performance of the merging firms at least two years financial data is required. The required datas have been collected from different websites. The post-merger performance was compared with pre-merger performance and tested for significant differences using paired ‘t’ test. The financial performance of the 7 sample merging firms before and after the M&A deals have been analyzed with the help of the following ratios.

|  |  |  |
| --- | --- | --- |
| **Type** | **Ratio** | **Definition** |
| Profitability Ratio  | Return on Net Worth | PAT/Net Worth |
| Return on Capital Employed | PAT/total assets |
| Liquidity Ratio  | Current Ratio | Current Assets/Current Liabilities |
| Quick Ratio | Liquid Assets / Liquid liabilities  |

**REVIEW OF LITERATURE**

**Beena P.L (2000)** in her research article on ‘An analysis of merger in the private corporate sector in India’, she attempts to analyze the significance of merger and their characteristics. The paper establishes that acceleration of the merger movement in the early 1990s was accompanied by the dominance of merger between firms belonging to the same business group of houses with similar product line.

**Vardhana Pawaskar (2001)** in his research paper on “Effect of Mergers on Corporate Performance in India”, he studied the impact of mergers on corporate performance. The study identified the profile of the profits. The regression analysis explained that there was no increase in the post- merger profits. The study of a sample of firms, restructured through mergers, showed that the merging firms were at the lower end in terms of growth, tax and liquidity of the industry. The merged firms performed better than industry in terms of profitability.

**Vanitha. S and Selvam. M (2007)** in their research article on “Financial Performance of Indian Manufacturing Companies during Pre and Post Merger”, they analyzed the pre and post merger performance of Indian manufacturing sector during 2000-2002 by using a sample of 17 companies out of 58 (thirty percent of the total population). For financial performance analysis, they used ratio analysis, mean, standard deviation and t-test. They found that the overall financial performance of merged companies in respect of 13 variables were not significantly different from the expectations.

**Pramod Mantravadi & A Vidyasagar Reddy (2008),** in their empirical study “Post-Merger Performance of Acquiring Firms from different Industries in India”, aimed to study the impact of mergers on the operating performance of acquiring corporate in different Industries, by examining some pre-merger and post-merger financial ratios, with the sample of firms chosen as all mergers involving public limited and traded companies in India between 1991 and 2003. The result suggests that there are minor variations in terms of impact on operating performance following mergers in different Industries in India

**Dr. Neena Sinha, Dr.K.P.Kaushik & Ms. Timcy Chaudhury (2010)** in their research article on “Measuring Post Merger and Acquisition Performance: An Investigation of Select Financial Sector Organizations in India”, examines the impact of mergers and acquisitions on the financial efficiency of the selected financial institutions in India. The result of the study indicate that M&A cases in India show a significant correlation between between financial performance and the M&A deal, in the long run, and the acquiring firms were able to generate value.

**Mahesh R. & Daddikar Prasad (2012)** in their research paper on “Post merger and acquisition financial performance analysis: A case study of select Indian Companies” they examine the performance of Indian Airline Companies after the consolidation of Airline sector in the year 2007-2008.The main objective of this paper is to analyze whether the Indian Airline companies have achieved financial performance efficiency during the post merger and acquisition period specifically in the areas of profitability, leverage, liquidity and capital market standards. The findings of this study shows that there is no improvement in surviving company’s return on equity, net profit margin, interest coverage, earnings per share and dividend per share post-merger and acquisition.

**Sonia Sharma (2013)** in her research article“Measuring post merger performance: A study of Metal Industry” attempts to study the impact of merger on the financial performance of merging companies by examining some pre- merger and post- merger financial ratios. The findings showed a marginal but not significant improvement in case of liquidity and leverage but the profitability results showed significant decline in RONW and ROA. The results of this study suggest that in case of M&A, synergy can be generated in long run with the careful usage of the resources. The success of M&A deals depends on post integration process, timely action and to keep check on the costs of integration process.

**RESEARCH GAP**

The present survey of related literature indicates that, a number of studies have been conducted in this area to analyze the pre and post-merger and acquisition financial performance of different companies in India but still there is an existing gap which needs to be studied further. The previous studies were conceptual in nature and their main emphasis was to highlight the merger and acquisition in a general way. A very few studies were conducted in an empirical approach. In this context it becomes very essential to study merger and acquisition in a very specific way. Hence, this study is an attempt to find out the difference in post-merger performance compared with pre-merger in terms of profitability and liquidity parameters in different Industries in India in the short-run.

**DATA ANALYSIS**

In this study it has been tried to analyze and evaluate the performance of entities belonging to different sectors in three broad areas like

**(i) Profitability:** The measure of profitability shows the level of performance of the entity that how efficiently the company is using its assets and resources to earn revenue and to what extent it has been able to maximize shareholders’ value and wealth. For this purpose we have used Return on Capital Employed (ROCE) and Return on Net Worth (RONW) as standards of measure.

1. **Return on Net Worth:** The amount of net income returned as a percentage of shareholders equity. Return on equity measures a corporation's profitability by revealing how much profit a company generates with the money shareholders have invested.

ROE is expressed as a percentage and calculated as:

**Return on Equity = Net Income/Shareholder's Equity**

Net income is for the full fiscal year (before dividends paid to common stock holders but after dividends to preferred stock). Shareholder's equity does not include preferred shares.

**Table-1 (Return on Net Worth)**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name of the Company** | **Before Merger** | **After Merger** | **D** | **D2** |
| **TATA STEEL** | 43.935 | 12.156 | -31.779 | 1009.905 |
| **TATA CHEMICALS** | 20.11 | 12.515 | -7.595 | 57.68403 |
| **TATA MOTORS** | 28.355 | 19.72 | -8.635 | 74.56323 |
| **RELIANCE POWER** | 1.2 | 4.72 | 3.52 | 12.3904 |
| **MAHINDRA SATYAM** | 23.98 | 9.58 | -14.4 | 207.36 |
| **JET AIRWAYS** | 21.74 | -147.955 | -169.695 | 28796.39 |
| **BHARTI AIRTEL** | 28.315 | 7.856 | -20.459 | 418.5707 |
| ***TOTAL*** |  |  | **-249.043** | **30576.87** |

 **Source:** Compiled & Computed Data

$$\overbar{D}=\frac{\sum\_{}^{}D}{n}$$

 **= -35.5776**

$$d=\sqrt{\frac{\sum\_{}^{}D^{2}-n(\overbar{D})^{2}}{n-1}}$$

 **= 60.161617**

 $Standard Error(S.E)=\frac{d}{\sqrt{n}}$

 **= 22.738954**

$$t=\frac{\overbar{D}}{S.E}$$

 **= -1.564609**

The above data analysis shows that there is a sharp decline in the return on net worth in all companies except Reliance Power (from 1.2 to 4.72). The overall performance of all companies is negative which is also supported by the t-test given above.

**(b) Return on Capital Employed (ROCE):** It is a financial ratio that measures a company's profitability and the efficiency with which its capital is employed. Return on Capital Employed (ROCE) is calculated as:

ROCE = Earnings Before Interest and Tax (EBIT)

Capital Employed

“Capital Employed” as shown in the denominator is the sum of shareholders' equity and debt liabilities; it can be simplified as (Total Assets – Current Liabilities). Instead of using capital employed at an arbitrary point in time, analysts and investors often calculate ROCE based on “Average Capital Employed,” which takes the average of opening and closing capital employed for the time period.

A higher ROCE indicates more efficient use of capital. ROCE should be higher than the company’s capital cost; otherwise it indicates that the company is not employing its capital effectively and is not generating shareholder value. For analysis we have used the following data.

**Table-2 (Return on Capital Employed)**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name of the Company** | **Before Merger** | **After Merger** | **D** | **D2** |
| **TATA STEEL** | 47.09 | 11.5 | -35.59 | 1266.6481 |
| **TATA CHEMICALS** | 11.335 | 14.445 | 3.11 | 9.6721 |
| **TATA MOTORS** | 24.45 | 16.692 | -7.758 | 60.186564 |
| **RELIANCE POWER** | 1.005 | 2.91 | 1.905 | 3.629025 |
| **MAHINDRA SATYAM** | 26.24 | 16.553 | -9.687 | 93.837969 |
| **JET AIRWAYS** | 18.665 | 7.175 | -11.49 | 132.0201 |
| **BHARTI AIRTEL** | 25.175 | 8.876 | -16.299 | 265.657401 |
| ***TOTAL*** |  |  | **-75.809** | **1831.651259** |

**Source:** Compiled & Computed Data

$$\overbar{D}=\frac{\sum\_{}^{}D}{n}$$

 **= -10.82985714**

$$d=\sqrt{\frac{\sum\_{}^{}D^{2}-n(\overbar{D})^{2}}{n-1}}$$

 **= 12.97851185**

 $Standard Error(S.E)=\frac{d}{\sqrt{n}}$

 **= 4.905416391**

$$t=\frac{\overbar{D}}{S.E}$$

 **= -2.207734528**

The above data analysis shows that there is a sharp decline in the return on capital employed in all companies except Tata chemicals (from 11.335 to 14.445) and Reliance Power (from 1.005 to 2.91). However, the overall performance of all companies is considered negative which is also supported by the t-test given above.

**(ii) Liquidity:** It is the degree to which an asset or security can be bought or sold in the market without affecting the asset's price. Liquidity is characterized by a high level of trading activity. Assets that can be easily bought or sold are known as liquid assets. It also explains the convertibility an asset to cash quickly. For the purpose of testing the liquidity position before and after the merger we have used the following ratios:

1. **Current Ratio:** The current ratio is a popular financial ratio used to test a company's liquidity (also referred to as its current or working capital position) by deriving the proportion of current assets available to cover current liabilities. The concept behind this ratio is to ascertain whether a company's short-term assets (cash, cash equivalents, marketable securities, receivables and inventory) are readily available to pay off its short-term liabilities (notes payable, current portion of term debt, payables, accrued expenses and taxes). In theory, the higher the current ratio, the better is the liquidity position. But a high current ratio is not necessarily good, and a low current ratio is not necessarily bad. Higher and excess liquidity position is not a good sign because it implies that the entity is unable to its resources in profitable investments.

$$Current Ratio=\frac{Current Asset}{Current Liabilities}$$

**Table-3 (Current Ratio)**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name of the Company** | **Before Merger** | **After Merger** | **D** | **D2** |
| **TATA STEEL** | 0.755 | 1.386 | 0.631 | 0.398161 |
| **TATA CHEMICALS** | 0.53 | 1.115 | 0.585 | 0.342225 |
| **TATA MOTORS** | 1.055 | 0.734 | -0.321 | 0.103041 |
| **RELIANCE POWER** | 0.65 | 1.645 | 0.995 | 0.990025 |
| **MAHINDRA SATYAM** | 4.38 | 1.773 | -2.607 | 6.796449 |
| **JET AIRWAYS** | 1.59 | 0.6483 | -0.9417 | 0.88679889 |
| **BHARTI AIRTEL** | 0.545 | 0.42 | -0.125 | 0.015625 |
| ***TOTAL*** |  |  | **-1.7837** | **9.53232489** |

 **Source:** Compiled & Computed Data

$$\overbar{D}=\frac{\sum\_{}^{}D}{n}$$

 **= -0.254814286**

$$d=\sqrt{\frac{\sum\_{}^{}D^{2}-n(\overbar{D})^{2}}{n-1}}$$

**= 1.230027957**

$Standard Error(S.E)=\frac{d}{\sqrt{n}}$

 **= 0.464906869**

$$t=\frac{\overbar{D}}{S.E}$$

 **= -0.548097486**

The above table shows that there is a marginal increase in the position of current ratio of two firms namely Tata Steel (from 0.755 to 1.386) and Tata Chemicals (0.65 to 1.645) but still these are not ideal as we take 2:1 is an ideal liquidity position. The overall liquidity positions of all firms have declined which is supported by the t-test.

**(b) Quick Ratio:** An indicator of a company’s short-term liquidity. The quick ratio measures a company’s ability to meet its short-term obligations with its most liquid assets. For this reason, the ratio excludes inventories from current assets, and is calculated as follows:

$$Quick Ratio=\frac{(Current assets – inventories-Prepaid Expenses) }{Current Liabilities}$$

The quick ratio measures the rupee amount of liquid assets available for each rupee of current liabilities. Thus, a quick ratio of 1.5 means that a company has Rs.1.50 of liquid assets available to cover each Rs.1 of current liabilities. The higher the quick ratio, the better the company's liquidity position. Also known as the “acid-test ratio" or "quick assets ratio."

**Table-4 (Quick Ratio)**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name of the Company** | **Before Merger** | **After Merger** | **D** | **D2** |
| **TATA STEEL** | 0.375 | 0.848 | 0.473 | 0.223729 |
| **TATA CHEMICALS** | 2.81 | 5.625 | 2.815 | 7.924225 |
| **TATA MOTORS** | 1.12 | 0.706 | -0.414 | 0.171396 |
| **RELIANCE POWER** | 0.65 | 1.79 | 1.14 | 1.2996 |
| **MAHINDRA SATYAM** | 5.635 | 1.746 | -3.889 | 15.124321 |
| **JET AIRWAYS** | 1.59 | 0.633 | -0.957 | 0.915849 |
| **BHARTI AIRTEL** | 0.555 | 0.41 | -0.145 | 0.021025 |
| ***TOTAL*** |  |  | **-0.977** | **25.680145** |

 **Source:** Compiled & Computed Data

$$\overbar{D}=\frac{\sum\_{}^{}D}{n}$$

 **= -0.139571429**

$$d=\sqrt{\frac{\sum\_{}^{}D^{2}-n(\overbar{D})^{2}}{n-1}}$$

 **= 2.063321905**

 $Standard Error(S.E)=\frac{d}{\sqrt{n}}$

 **= 0.779862377**

$$t=\frac{\overbar{D}}{S.E}$$

 **= -0.178969306**

The above table shows that there is a marginal increase in the position of quick ratio of two firms namely Tata Steel (from 0.375 to 0.848) and Tata Chemicals (from 2.81 to 5.625) but still these are not ideal as we take 1:5 is an ideal liquidity position. The overall liquidity positions of all firms have declined which is supported by the t-test.

**INFERENCE**

1. The tabulated value of *t* for 6 *d.f.* and at 5% level of significance for a two-tailed test is 2.447.Since calculated value of*‘t’* is less than tabulated t, it is not significant at 5% level of significance. Hence, the data do not provide any evidence against the null hypothesis which may be accepted. We may, therefore, conclude that there is no improvement in the growth rate of Return on Net Worth after the merger and acquisition.
2. The tabulated value of *t* for 6 *d.f.* and at 5% level of significance for a two-tailed test is 2.447.Since calculated value of*‘t’* is less than tabulated t, it is not significant at 5% level of significance. Hence, the data do not provide any evidence against the null hypothesis which may be accepted. We may, therefore, conclude that there is no significant increase in the Return on Capital Employed after the merger and acquisition.
3. The tabulated value of *t* for 6 *d.f.* and at 5% level of significance for a two-tailed test is 2.447.Since calculated value of*‘t’* is less than tabulated t, it is not significant at 5% level of significance. Hence, the data do not provide any evidence against the null hypothesis which may be accepted. We may, therefore, conclude that there is no significant improvement in the Current Ratio after the merger and acquisition.
4. The tabulated value of *t* for 6 *d.f.* and at 5% level of significance for a two-tailed test is 2.447.Since calculated value of*‘t’* is less than tabulated t, it is not significant at 5% level of significance. Hence, the data do not provide any evidence against the null hypothesis which may be accepted. We may, therefore, conclude that there is no significant increase in the Quick Ratio after the merger and acquisition.

**FINDINGS**

The main findings of the study are as follows:

1. There is no significant impact of merger and acquisition on the profitability of surviving entities in different sectors in India in the short-run.
2. There is no improvement in the liquidity standards of the surviving companies after merger and acquisition in each sector under study in India in the short-run.

**SUGGESTIONS**

1. Companies should focus on scientific research and development to reap the fruits of innovation and new technological developments.
2. Companies may enter into the new markets to exploit opportunities.
3. Companies with adequate resources can do well by improving the quality of products and services.
4. Companies should focus on core strength and efficient allocation of managerial capabilities and infrastructure.
5. Companies in the manufacturing and trading sectors can use promotional activities like sales promotion and personal selling to increase sales.
6. Companies may reduce the price of their products to attract buyers.
7. If a viable unit becomes sick, a healthy company can merge with it so as to reap the benefits of the hidden potentials of the sick unit.
8. The two companies having different strategies and objectives will not fit together. It may lead to conflict with one another which should be taken care up by the management.
9. The expectation of results too quickly may not be able to achieve to the expectation. This may cause to downgrade the confidence of the acquirer.

**CONCLUSION**

The study reveals that average financial ratios of sample companies in Indian industries did not reflect any significant improvement in case of profitability and liquidity parameters. The results suggests that operating financial performance of all mergers in the sample from Indian industries had declined following mergers as there was a decline in both the profitability ratios and liquidity ratios. In other words, the Mergers and Acquisitions have resulted only in the increase in the assets and liabilities of the companies but in the real sense they do not add any value to the shareholders’ wealth at least in the immediate short-run. The profitability results have shown significant decline. The liquidity position is not so encouraging. In case of Merger and Acquisition synergy can be possible in the long run with the careful usage of resources, accurate valuation of the target and estimating the future prospects. The success of merger and acquisition deals depends on post integration process, timely action and to keep check on the costs of integration process.

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