

MERGERS AND ACQUISITIONS IN INDIA WITH SPECIAL REFERENCE TO THE MANUFACTURING SECTOR: IMPACT OF THE LIQUIDITY POSITION IN THE POST-MERGER PERIOD

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ABSTRACT

In this study, I have made an analysis on the impact of Mergers and Acquisitions (M&A) on the Liquidity (L) position in the post-merger period. For this purpose, eleven firms were selected based on the adequacy of data for a period of ten years on a year-to-year basis from 2006–2007 to 2016–2017. The firms, which had gone into the M&A process during the financial year 2011–2012, also are considered for the study. Paired samples t-test is applied to study the mean difference in L of the acquiring firms in the pre-and post-merger periods. On analysis it has been found that most of the acquiring firms did not make any significant change in the L position in the post-merger period.

Keywords: Mergers, Acquisitions, Post-merger Liquidity Position, Firm Performance

INTRODUCTION:

This is an introduction to the subject of Mergers and Acquisitions (M&A). A merger is of crucial importance in relation to the development or success of companies involved. Thereby, both parties in the after merger period hope to benefit from the M&A like, experiencing greater efficiency, competitive strength, strategies to be altered, product lines to be broadened & strengthened, management systems & personnel to be changed, and levels & growth rates of profits to be shifted. Finally, the mutually combined firm places greater emphasis on maximizing shareholders value and managers are under more and more pressure to do so. If the M&A rather than being a mutual combination, is more of a hostile takeover it places pressure on all corporate managers to manage their companies to maximize value or to avoid the risk of being taken over and restructured by another management. M&A fails in the post-merger period when there is less management co-operation, inadequate communications, misunderstanding, and lack of skilled human resource, continuous losses, and a minimization of shareholders value. Furthermore, financial performance may not be the only parameter for M&A success. With this brief introduction the research paper proposes to analyse the impact of M&A in the post-merger performance on the liquidity position.

REVIEW OF LITERATURE:

Rahman and Limmack (2004) concluded that the components of operating cash flow indicate that improvement in post-acquisition performance is driven both by an increase in asset productivity and a higher level of operating cash flow generated per unit of sales. Vanitha and Selvam (2007) found that the liquidity measures viz., current ratio, quick ratio, net working capital ratio, and diversion of short-term funds have not influenced the acquiring firms in the post-merger period. Azhagaiah and Sathishkumar (2011) concluded that there has been a significant increase in current ratio and quick ratio of acquiring firms after merger. Bertrand and Betschinger (2011) found that the Russian acquirers suffer from the inability to leverage value due to limited M&A experience and capability, especially when making cross border acquisitions. The cited literature provides an overview of the impact of M&A on the Liquidity (L) of acquiring manufacturing firms in the post-merger period. Previous studies, have mostly, attempted to study the short-run impact, say, three years prior to the merger and after the merger period. With these evidence and background, an attempt has been made in the present study, to study the impact of M&A on the L of acquiring manufacturing firms in India in the long-run, i.e., five years prior to the merger year and five years after the merger year.

OBJECTIVES AND HYPOTHESES DEVELOPED FOR THE STUDY:

To study the effect of M&A on liquidity in respect of current ratio, quick ratio, inventory turnover ratio, dividend pay-out ratio, earning retention ratio, and cash earnings retention ratio of manufacturing firms in India after merger. The study has further attempted to investigate and test if there is any significant change in the results achieved by the manufacturing firms due to M&A. Based on the objectives, the following hypothesis is developed:

H01= "There is no significant mean difference between the liquidity of manufacturing firms in India before and after the M&A process".

Data Source and Period of the Study:

The study used secondary sources of data, which were collected from the capital market database called Centre for Monitoring Indian Economy Private Limited (Prowess CMIE). Data on the L for a period of five years prior to the merger year (2007–2011) and five years after the merger year (2013-2017) for each manufacturing firm was collected. Hence, the study period is restricted to ten years ranging from 2006–2007 to 2016–2017 considering the year 2011–2012 as the year of the M&A deal.

Sampling Procedure:

In this study, multi-stage sampling technique is used. A total of seventy-three firms in the manufacturing and service industries had gone into the M&A deal during the financial year 2011–2012. Out of seventy-three firms, twenty-four firms only completed the M&A deal during the financial year 2011–2012. Out of the twenty-four firms, one firm was eliminated because they did a subsequent merger with another target firm in the same financial year, reducing the number of firms to twenty-three at a further stage. Out of twenty-three firms, fifteen firms fall under the manufacturing sector and eight firms fall under the service sector; hence, fifteen firms of the manufacturing sector alone are taken into account for further stages. Out of the fifteen firms, full-fledged data were available only for eleven firms in the manufacturing sector. Hence, the final sample comprises eleven manufacturing firms only.

Hypothesis Testing:

A paired sample t-test is used to study the pre-and post-merger L performance ratios and these are compared to know if there is any significant change in L performance due to M&A.

Impact of M&As on the Liquidity of Manufacturing Firms:

Liquidity (L) in terms of Current Ratio (CR), Quick Ratio (QR), Inventory Turnover Ratio (ITR), Dividend Pay-out Ratio (DPR), Earning Retention Ratio (ERR), and Cash Earnings Retention Ratio (CERR) between the pre-merger and post-merger periods has been computed to analyze the impact of M&A on the L of the firms. The results of the analysis are shown in Table 1.

Table 1: Impact of M&A on Liquidity of Acquiring Manufacturing Firms in India from 2006-2007 to 2016-2017

| Sl. No | Name of the Firms | CR | | QR | | ITR | | DPR | | ERR | | CERR | |
|--------|-----------------------------|---------|---------|---------|---------|---------|----------|---------|----------|---------|----------|---------|----------|
| | | t-value | p-value | t-value | p-value | t-value | p-value | t-value | p-value | t-value | p-value | t-value | p-value |
| 1. | Genus Power Infrastructures | -0.12 | 0.912 | -0.06 | 0.954 | -0.46 | 0.670 | -1.04 | 0.356 | 0.80 | 0.464 | 1.04 | 0.356 |
| 2. | Motherson Sumi Systems Ltd. | -0.85 | 0.441 | 0.00 | 1.000 | -0.30 | 0.779 | 0.61 | 0.569 | 0.74 | 0.496 | 1.14 | 0.318 |
| 3. | Omkar Speciality Chemicals | 2.81 | 0.048** | 2.69 | 0.054* | 0.15 | 0.886 | -0.95 | 0.393 | 1.96 | 0.121 | 1.74 | 0.156 |
| 4. | Pratibha Industries | 2.38 | 0.076* | 1.62 | 0.180 | 1.86 | 0.135 | 11.59 | 0.000*** | 1.40 | 0.232 | 1.36 | 0.244 |
| 5. | Reliance Industries | 0.51 | 0.636 | 0.18 | 0.864 | 0.80 | 0.466 | 0.47 | 0.658 | 1.05 | 0.352 | 1.04 | 0.356 |
| 6. | Reliance Infrastructure | -0.21 | 0.843 | -0.29 | 0.785 | -0.68 | 0.533 | 4.25 | 0.013** | -2.16 | 0.096* | -4.25 | 0.013** |
| 7. | Sterlite Technologies | 2.73 | 0.052* | 3.08 | 0.037* | 1.33 | 0.253 | -5.53 | 0.005*** | 18.13 | 0.000*** | 5.53 | 0.005*** |
| 8. | Suven Life Sciences | -2.11 | 0.102 | -2.21 | 0.091* | -3.55 | 0.024** | 2.83 | 0.047** | -5.03 | 0.007*** | -2.83 | 0.047** |
| 9. | Tata Steel Ltd. | 1.91 | 0.128 | 2.05 | 0.109 | 3.07 | 0.037** | 2.31 | 0.082* | -0.52 | 0.627 | -2.31 | 0.082* |
| 10. | Trident Ltd. | 0.69 | 0.523 | 0.86 | 0.437 | -0.85 | 0.440 | -1.52 | 0.202 | -0.89 | 0.421 | -0.88 | 0.425 |
| 11. | United Breweries Ltd. | 0.83 | 0.451 | 1.34 | 0.249 | 4.82 | 0.009*** | -1.21 | 0.292 | 1.41 | 0.229 | 1.21 | 0.292 |

Source: Compiled & Edited from the Financial Statements of Selected firms Listed-CMIE-Prowess Package.

Figures in parentheses denote p value. *** Significant at the 1% level. ** Significant at the 5% level. * Significant at the 10% level.

Current Ratio (CR) expresses the relationship between current assets and current liabilities. It is inferred (vide Table 1) that the mean liquidity in terms of CR of Omkar Speciality Chemicals Ltd, Pratibha Industries Ltd, and Sterlite Technologies Ltd is significant (t 2.81, P<0.05; 2.38, P<0.10; and 2.37, P<0.10) at the 5% and the 10% levels, respectively, after the M&A process. The mean CR in the post-merger period is increased for four out of the eleven acquiring manufacturing firms.

Quick Ratio (QR) measures a firm's ability to meet its short-term obligation with its liquid assets. It is inferred (vide Table 1) that the mean liquidity in terms of QR of Omkar Speciality Chemicals Ltd, Sterlite Technologies Ltd, and Suven Life Sciences Ltd is significant (t 2.69, P<0.10; 3.08, P<0.05; and -2.21, P<0.10) at the 5%, and the 10% levels, respectively, after the M&A process. The mean QR in the post-merger period is increased for three out of the eleven acquiring manufacturing firms.

Inventory Turnover Ratio (ITR) is computed to find out the speed flow of stock by relating cost of goods sold to average stock. It is inferred (vide Table 1) that the mean liquidity in terms of ITR of Suven Life Sciences Ltd, Tata Steel Ltd, and United Breweries Ltd is significant (t -3.55, P<0.05; 3.07, P<0.05; and 4.82, P<0.01) at the 1% and the 5% levels, respectively, after the M&A process. The mean ITR in the post-merger period is increased for five out of the eleven acquiring manufacturing firms.

Dividend Payout Ratio (DPR) is the ratio of the total amount of dividends paid out to shareholders relative to the net income of the company. It is inferred (vide Table 1) that the mean liquidity in terms of DPR of Pratibha Industries Ltd, Reliance Infrastructure Ltd, Sterlite Technologies Ltd, Suven Life Sciences Ltd, and Tata Steel Ltd is significant (t 11.59, P<0.01; 4.25, P<0.05; -5.53, P<0.01; 2.83, P<0.05; and 2.31, P<0.10) at the 1%, the 5%, and the 10% levels, respectively, after the M&A process. The mean DPR in the post-merger period is increased for five out of the eleven acquiring manufacturing firms.

Earning Retention Ratio or Plowback Ratio (ERR) is the ratio that measures the amount of earnings retained after dividends have been paid out to the shareholders. It is inferred (vide Table 1) that the mean liquidity in terms of ERR of Reliance Infrastructure Ltd, Sterlite Technologies Ltd, and Suven Life Sciences Ltd is significant (t -2.16, P<0.10; 18.13, P<0.01; and -5.03, P<0.01) at the 1%, and the 10% levels, respectively, after the M&A process. The mean ERR in the post-merger period is increased for four out of the eleven acquiring manufacturing firms.

Cash Earning Retention Ratio (CERR) is the percentage of net income that is retained to grow the business, rather than being paid out as dividends. It is inferred (vide Table 1) that the mean liquidity in terms of CERR of Reliance Infrastructure Ltd, Sterlite Technologies Ltd, Suven Life Sciences Ltd, and Tata Steel Ltd is significant (t -4.25, P<0.05; 5.53, P<0.01; -2.83, P<0.05; and -2.31, P<0.10) at the 1%, the 5%, and the 10% levels, respectively, after the M&A process. The mean CERR in the post-merger period is increased for four out of the eleven acquiring manufacturing firms.

CONCLUDING REMARKS:

Test of Hypothesis - Liquidity Parameter: The impact of M&A on the L of the firms of the manufacturing sector is tested by use of the paired samples t-test, and the hypothesis developed is as follows:

Null hypothesis- Ho1- "There is no significant difference between the liquidity of manufacturing firms in India before and after the M&A process."

- a. Five acquiring firms (Genus Power Infrastructures Ltd, Motherson Sumi Systems Ltd, Reliance Industries Ltd, Trident Ltd, and United Breweries Ltd) out of eleven did not have any significant positive movement in the post-merger period compared with the pre-merger period. Therefore, the acquiring firms' management has to take necessary steps to maintain a liquidity position in the future. Hence, the hypothesis is accepted.
- b. Three acquiring firms (Omkar Speciality Chemicals Ltd, Pratibha Industries Ltd, and Tata Steel Ltd) out of eleven in the post-merger period have considerable improvement in this L position than in the pre-merger period. Hence, the hypothesis is accepted.

- c. Three acquiring firms (Reliance Industries Ltd, Sterlite Technologies Ltd, and Suven Life Sciences Ltd) out of eleven have positive outcomes in the post-merger period. The acquiring firms have the ability of a company to meet its financial obligations as they come due. Hence, the hypothesis is rejected.

The analysis overall reveals that the M&A did not make any significant change in the L position of the acquiring manufacturing firms in India in the post-merger period. Hence, with respect to most of the acquiring manufacturing firms the hypothesis is accepted.

LIMITATIONS AND SCOPE FOR FURTHER STUDIES:

- ✓ The study is mainly based on secondary data and is restricted to the acquiring manufacturing firms in India.
- ✓ To study the efficiency and performance of the banking and financial service industry in the post-merger period with the help of the CRAMEL and CAMELS Models of Research Methods, and to study the shareholders' wealth (SW) impact on M&A in the post-merger period with help of cumulative average abnormal return model (CAAR).

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APPENDIX:

Appendix A: List of Manufacturing Firms in India Selected for the Study

| S N | Acquiring Firms' Name | Target Firms' Name | Date of Deal Completed | Industry |
|------------|----------------------------------|---------------------------------------|-------------------------------|------------------------------------|
| 1. | Genus Power Infrastructures Ltd. | Genus Paper Products Ltd. | 11/01/12 | Electricals |
| 2. | Motherson Sumi Systems Ltd. | India Nails Mfg. Pvt. Ltd. | 28/04/11 | Auto Ancillaries |
| 3. | Omkar Speciality Chemicals Ltd. | Desh Chemicals Pvt. Ltd. | 07/03/12 | Chemicals |
| 4. | Pratibha Industries Ltd. | Pratibha Pipes & Structural Pvt. Ltd. | 03/02/12 | Construction & Contracting - Civil |
| 5. | Reliance Industries Ltd. | Reliance Jamnagar Infrastructure Ltd. | 26/03/12 | Refineries |
| 6. | Reliance Infrastructure Ltd. | Reliance Energy Generation Ltd. | 17/01/12 | Power - Generation & Distribution |
| 7. | Sterlite Technologies Ltd. | Sterlite Infra-Tech Ltd. | 17/05/11 | Cables - Telephone |
| 8. | Suven Life Sciences Ltd. | Suven Nishtaa Pharma Pvt. Ltd. | 31/01/12 | Pharmaceuticals |

| S N | Acquiring Firms' Name | Target Firms' Name | Date of Deal Completed | Industry |
|-----|-----------------------|--------------------------------------|------------------------|--------------------------------------|
| 9. | Tata Steel Ltd. | Centennial Steel Co. Ltd. | 13/04/11 | Steel - Large |
| 10. | Trident Ltd. | Trident Infotech Ltd. | 27/04/11 | Textiles - Spinning - Cotton Blended |
| 11. | United Breweries Ltd. | Scottish & Newcastle India Pvt. Ltd. | 07/02/12 | Breweries & Distilleries |

Source: Centre for Monitoring Indian Economy Private Limited (Prowess CMIE).

Appendix B (i): Descriptive Statistics of Liquidity of Manufacturing Firms in India in the Pre-and Post-Merger Periods

| S N | Name of the Firms | CR | | | | QR | | | | ITR | | | |
|-----|----------------------------------|------------|------|-------------|------|------------|------|-------------|------|------------|------|-------------|------|
| | | Pre-Merger | | Post-Merger | | Pre-Merger | | Post-Merger | | Pre-Merger | | Post-Merger | |
| | | Mean | SD | Mean | SD | Mean | SD | Mean | SD | Mean | SD | Mean | SD |
| 1 | Genus Power Infrastructures Ltd. | 1.64 | 0.29 | 1.67 | 0.28 | 1.38 | 0.26 | 1.39 | 0.26 | 6.66 | 1.09 | 6.85 | 1.30 |
| 2 | Motherson Sumi Systems Ltd. | 1.08 | 0.17 | 1.24 | 0.28 | 0.74 | 0.18 | 0.74 | 0.24 | 8.00 | 1.00 | 8.19 | 0.59 |
| 3 | Omkar Speciality Chemicals Ltd. | 2.76 | 1.25 | 1.13 | 0.19 | 1.69 | 0.71 | 0.74 | 0.15 | 4.02 | 0.81 | 3.92 | 0.80 |
| 4 | Pratibha Industries Ltd. | 1.53 | 0.49 | 1.08 | 0.16 | 1.10 | 0.61 | 0.68 | 0.13 | 5.50 | 4.57 | 1.94 | 0.80 |
| 5 | Reliance Industries Ltd. | 1.29 | 0.09 | 1.17 | 0.44 | 0.84 | 0.12 | 0.81 | 0.31 | 8.72 | 1.01 | 8.39 | 0.79 |
| 6 | Reliance Infrastructure Ltd. | 1.27 | 0.34 | 1.31 | 0.08 | 1.23 | 0.34 | 1.28 | 0.08 | 25.81 | 8.42 | 29.94 | 5.82 |
| 7 | Sterlite Technologies Ltd. | 1.28 | 0.29 | 0.94 | 0.12 | 1.09 | 0.28 | 0.74 | 0.11 | 13.31 | 5.82 | 9.25 | 1.86 |
| 8 | Suven Life Sciences Ltd. | 1.56 | 0.23 | 3.11 | 1.47 | 1.00 | 0.18 | 2.47 | 1.32 | 4.71 | 0.35 | 5.90 | 0.67 |
| 9 | Tata Steel Ltd. | 2.05 | 1.50 | 0.71 | 0.09 | 1.72 | 1.49 | 0.34 | 0.07 | 7.51 | 0.39 | 5.89 | 1.13 |
| 10 | Trident Ltd. | 0.98 | 0.23 | 0.88 | 0.13 | 0.45 | 0.12 | 0.37 | 0.09 | 4.60 | 1.24 | 5.21 | 0.84 |
| 11 | United Breweries Ltd. | 1.48 | 0.63 | 1.24 | 0.06 | 1.22 | 0.53 | 0.87 | 0.06 | 10.42 | 0.86 | 7.70 | 0.85 |

Source: Computed Results Based on the Compiled & Edited Data from the Financial Statements of Selected Firms Listed-CMIE-Prowess Package.

Appendix B (ii): Descriptive Statistics of Liquidity of Manufacturing Firms in India in the Pre-and Post-Merger Periods

| S N | Name of the Firms | DPR | | | | ERR | | | | CERR | | | |
|-----|----------------------------------|------------|------|-------------|-------|------------|-------|-------------|-------|------------|-------|-------------|-------|
| | | Pre-Merger | | Post-Merger | | Pre-Merger | | Post-Merger | | Pre-Merger | | Post-Merger | |
| | | Mean | SD | Mean | SD | Mean | SD | Mean | SD | Mean | SD | Mean | SD |
| 1. | Genus Power Infrastructures Ltd. | 4.47 | 1.69 | 6.64 | 3.70 | 94.04 | 3.21 | 91.77 | 4.81 | 95.53 | 1.69 | 93.36 | 3.70 |
| 2. | Motherson Sumi Systems Ltd. | 28.87 | 6.05 | 24.81 | 15.57 | 57.54 | 15.12 | 47.19 | 28.17 | 71.13 | 6.05 | 55.19 | 31.65 |
| 3. | Omkar Speciality Chemicals Ltd. | 4.89 | 7.28 | 10.49 | 6.13 | 93.91 | 8.83 | 66.92 | 37.49 | 95.11 | 7.28 | 69.51 | 38.89 |
| 4. | Pratibha Industries Ltd. | 8.61 | 2.73 | 1.83 | 2.03 | 90.32 | 2.54 | 56.97 | 52.02 | 91.39 | 2.73 | 58.17 | 53.11 |
| 5. | Reliance Industries Ltd. | 7.87 | 1.06 | 7.10 | 3.98 | 88.52 | 1.79 | 70.11 | 39.19 | 92.13 | 1.06 | 72.90 | 40.75 |
| 6. | Reliance Infrastructure Ltd. | 11.88 | 1.05 | 9.57 | 0.96 | 85.08 | 1.64 | 87.11 | 2.89 | 88.12 | 1.05 | 90.43 | 0.96 |
| 7. | Sterlite Technologies Ltd. | 6.45 | 2.05 | 11.36 | 2.92 | 90.87 | 2.94 | 74.69 | 2.81 | 93.55 | 2.05 | 88.64 | 2.92 |
| 8. | Suven Life Sciences Ltd. | 21.43 | 2.63 | 13.21 | 7.25 | 65.96 | 7.20 | 84.85 | 8.15 | 78.57 | 2.63 | 86.79 | 7.25 |
| 9. | Tata Steel Ltd. | 16.95 | 3.88 | 11.74 | 2.04 | 79.89 | 4.51 | 82.27 | 7.16 | 83.05 | 3.88 | 88.26 | 2.04 |
| 10. | Trident Ltd. | 2.53 | 5.65 | 5.51 | 4.06 | 70.13 | 44.64 | 85.28 | 10.72 | 77.47 | 43.65 | 94.49 | 4.06 |
| 11. | United Breweries Ltd. | 4.31 | 2.46 | 5.64 | 0.17 | 91.86 | 4.66 | 88.99 | 1.27 | 95.69 | 2.46 | 94.36 | 0.17 |

Source: Computed Results Based on the Compiled & Edited Data from the Financial Statements of Selected Firms Listed-CMIE-Prowess Package.
