Industry-Adjusted Post-M&As Operating Performance of Indian Acquirers

Rajeeesh Viswanathan, Neethu T C, Arun T C, Jahira Parveen

Abstract: This paper examines the post-merger and acquisitions (M&As) operating performance of Indian companies occurred during 2006-2012. The study focuses on industry-adjusted operating performance measures using data from 2001 to 2017. With the use of Wilcoxon Ranked Test, the study found the deteriorating post-M&As performance of Indian companies on an average. The mode of payment has a significant role in explaining post-M&As performance. It is found that the post-M&As operating performance is worst in stock financed deals than that of cash financed deals.

Index Terms: Mergers and acquisitions, Operating Performance, Wilcoxon Ranked Test, Mode of Payment

I. INTRODUCTION

M&As become more popular after the introduction of economic reforms 1991 in India. The main motive behind this kind of business combination is to enhance the performance of the acquiring companies. There is a general notion that the combination of two companies will give synergetic gain than being operating as a single entity. But the previous studies have mixed opinion on the outcome of the M&As. Previous studies say the acquiring companies can enhance their operating performance. On the contrary, some studies argue the M&As deteriorating the operating performance of the acquiring companies. In this context, we decided to use different measures to find the post-M&As operating performance. The present study uses industry-adjusted operating performance measures. By employing t-test, the study found the Indian M&As, on an average, decreasing the operating performance of acquiring companies. The study further classified the samples into two on the basis of mode of payment viz cash-financed and stock-financed. There is a significant difference in cash-financed and stock-financed deals while considering the operating performance. Both the deals are decreasing the post-M&As operating performance but the stock financed deals are shoddier than cash financed deals.

II. REVIEW OF LITERATURE AND HYPOTHESIS DEVELOPMENT

The previous studies examined the success through the synergies gained by the combined firms after the M&As. The M&As can be a success through synergies (Larsson and Finelstein, 1999), market monopoly (Sharma and Ho, 2002), economies of scale (Pangarkar and Lim, 2003), etc. The combined firms experiencing a decrease in operating performance due to the problems with resistance to change as well as the problems in process level (Fang et al, 2004). The studies argue the M&As can improve the operating performance of combined firms (Linn and Switzer 2001; Rahman and Limmack, 2004; Powell and Stark, 2005; Kruse et al, 2007, Kumar and Bansal, 2008). On the contrary, there are studies which argue decrease in operating performance after M&As (Dickerson et al 1997; Pawaskar, 2001; Pazarziskis et al., 2006; Mantravadi and Reddy, 2008; Bertrand and Betschinger, 2012). Indian firms are experiencing deterioration of operating performance following M&As transactions (Pawaskar, 2001; Mantravadi and Reddy 2008). Since the present study analyzing the Indian acquirers we expect a deterioration in operating performance after M&As.

H1: The Indian M&As are significantly deteriorating the operating performance

Ghosh (2001) states that the cash financed deals lead the combined firms to higher profitability. The combined firms financed by cash as the mode of payment use the resources more efficiently (Jensen, 1988). Berkovitch and Narayanann(1990) argue the cash financed deals could help the bidders to complete the transactions faster than the stock financed deals and help in achieving more synergetic gain. The previous studies argue that the cash-financed M&As transactions are more beneficial than that of stock financed transactions (Haleblian et al 2009).

H1a: Cash-financed deals are improving post-M&As operating performance than stock financed deals.

III. DATA AND METHODOLOGY

Sample Selection

The present study focuses on the Indian M&As activities during 2005-2013. The deals include domestic M&As, as well as cross-border M&As. The acquiring firms are listed in BSE. The details on transactions extracted from the Bloomberg Database. The data includes the completion date of the M&As deals, mode of payment and the location of the target company. The deals in the financial sector have excluded. The samples are eligible for the study when the firms have financial data available at least four years prior and subsequent to the

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transactions. Hence we collected the data for the years 2001 to 2017. The study uses 326 deals as the final sample. The

**Performance Measures**

The main motive behind M&As is to achieve potential synergy. The expected synergetic gain can be realized after a number of years (Thanos and Papadakis, 2012). The synergy gained by the combined firms can be best identified with the use of accounting measures such as return on equity (ROE), return on assets (ROA), return on capital employed (ROC) etc (Rao Nicholson et al, 2016). This study uses PBDITA, FAT (Fixed Asset Turnover), ROE, ROC and ROA, QR (Quick Ratio) and CR (Current Ratio) to measure the post-M&As operating performance.

**Performance Benchmarks**

The present study uses benchmark performance to isolate the impact of M&As on operating performance. The benchmark controls for industry effect (Healy et al, 1992). For setting up the benchmark performance an industry portfolio has been formed for each acquiring company. The portfolio reconstructed for each year to control for industry size. The firms with a median value of cash flow selected as the control firm. PBDITA, FAT, ROE, ROA, ROC, QR, and CR are calculated before and after M&As for each control firm and sample firm. The difference in operating performance of control firms and sample firms treated as the industry adjusted operating performance. The Wilcoxon signed ranked test uses to test the significance in post-M&As operating performance.

**IV. RESULTS AND DISCUSSIONS**

**Post-M&As Operating Performance**

Table 1 depicts the change in operating performance after M&As. The measures are raw operating performance measures and don’t adjust for the industry effect. The results state that the M&As in India negatively impacting the operating performance of the acquiring firms. The only measure which is increased significantly after M&As is PBDIT (6.884). That is the mere profit of the combined firm is increasing drastically after the M&As. But the success of M&As in operating performance can’t be generalized with the use of profit.

The profitability ratios ROE (-2.371), ROC (-6.694) and ROA (-6.539); the solvency ratios QR (-2.891) and CR (-2.097) are significantly decreasing after M&As. The results thus reject the null hypothesis and accept the alternative hypothesis that the M&As deteriorating the operating performance.

**Table 1. Change in Operating Performance**

<table>
<thead>
<tr>
<th>Measure</th>
<th>Pre-M&amp;A</th>
<th>Post-M&amp;A</th>
<th>t-Stat</th>
</tr>
</thead>
<tbody>
<tr>
<td>PBDITA</td>
<td>9870.0122</td>
<td>23207.2532</td>
<td>6.884***</td>
</tr>
<tr>
<td>FAT</td>
<td>542.4044</td>
<td>559.1530</td>
<td>0.388</td>
</tr>
<tr>
<td>ROE</td>
<td>15.5654</td>
<td>4.4676</td>
<td>-2.371***</td>
</tr>
<tr>
<td>ROC</td>
<td>14.4826</td>
<td>8.6245</td>
<td>-6.694***</td>
</tr>
<tr>
<td>ROA</td>
<td>9.8438</td>
<td>5.8737</td>
<td>-6.539***</td>
</tr>
<tr>
<td>QR</td>
<td>1.5940</td>
<td>1.1269</td>
<td>-2.891***</td>
</tr>
<tr>
<td>CR</td>
<td>2.0070</td>
<td>1.5630</td>
<td>-2.097***</td>
</tr>
</tbody>
</table>

***, ** significant at 1% and 5 % level

**Post-M&As Industry Adjusted Operating Performance**

Table 2 shows the change in industry-adjusted operating performance after M&As. The important fact is that the profitability measures of the sample firms outstrip their industry peers before the M&As deals. PBDITA (5.221), ROE (2.947), ROC (10.557) and ROA (10.952) are supporting this argument. But the QR (-3.269) and CR (-3.394) have a negative value which indicates the solvency measures are better for the control firms than the sample firms prior to the M&As deals and it continues as such in the post-M&As period also. The ROE (-0.109) in post-M&As period is negative for the sample firms. ROC (3.474) and ROA (3.530) having positive value in the post-M&As period but when compared to the pre-M&As period it is reduced that means the difference between the operating performance of the benchmark firms and sample firms have reduced in the post-M&As period.

All the industry adjusted measures are decreasing significantly after M&As except for IAPBDITA. The industry adjusted IAPBDITA (6.893) significantly increased after M&As. The IAFAT (-3.863), IAROE (-2.497), IAROC (-6.647), IAROA (-6.975), and IACR (-1.700) are significantly decreasing after M&As. The results support the null hypothesis that the M&As deteriorating the operating performance after M&As.

**Table 2. Change in Industry Adjusted Operating Performance**

<table>
<thead>
<tr>
<th>Measure</th>
<th>Pre-M&amp;A</th>
<th>Post-M&amp;A</th>
<th>t-Stat</th>
</tr>
</thead>
<tbody>
<tr>
<td>IAPBDITA</td>
<td>5.221(a)</td>
<td>6.347(b)</td>
<td>6.893***</td>
</tr>
<tr>
<td>IAFAT</td>
<td>-1.027</td>
<td>-4.390(a)</td>
<td>-3.863***</td>
</tr>
<tr>
<td>IAROE</td>
<td>2.947(a)</td>
<td>-0.109</td>
<td>-2.497**</td>
</tr>
<tr>
<td>IAROC</td>
<td>10.557(a)</td>
<td>3.474(a)</td>
<td>-6.647***</td>
</tr>
<tr>
<td>IAROA</td>
<td>10.952(a)</td>
<td>3.530(a)</td>
<td>-6.975***</td>
</tr>
<tr>
<td>IAQR</td>
<td>-3.269(a)</td>
<td>-3.087(a)</td>
<td>-0.654</td>
</tr>
<tr>
<td>IACR</td>
<td>-3.394(a)</td>
<td>-3.714(a)</td>
<td>-1.700***</td>
</tr>
</tbody>
</table>

(a) Significant at 1% level which shows the difference in operating performance is significant between control firms and sample firms.

***, ** Significant at 1%, 5% and 10% level which shows the operating performance significantly changes after M&As.

**Post-M&As Industry Adjusted Operating Performance – Cash financed vs Stock Financed**

Table 3 presents the results of difference in post-M&As industry-adjusted operating performance between cash financed and stock-financed M&As. The mode of payment has a vital role in the success of M&As. The cash-financed deals, as well as the stock-financed deals, deteriorating the industry adjusted post-M&As operating performance, but there is a significant difference between both methods. IAPBDITA is increasing for cash financed (3.624) and stock-financed deals (5.850) deals. But the combined firms make more profit when the deals financed by stock. IAROE (-2.039), IAROC (-2.188), and IAROA (-2.175) significantly decrease after the cash financed transactions. The IAROE (-1.909), IAROC (-6.541), and IAROA (-6.359) are significantly decreasing subsequent to the M&As transactions. The IAQR (0.832) and IACR (0.944) are increasing after cash-financed deals but show no significant difference, but the IAQR (-3.655), and IACR (-2.890) are decreasing significantly after the stock financed M&As.

The stock financed deals outperform the cash financed deals in case of IAPBDITA (-2.226) and IAFAT (-1.623). The cash financed M&As deals outperform the stock financed deals in case of
IAROC (4.353), IAROA4.184), IAQR (4.487), and IACR (3.834). The difference between the stock financed and cash-financed deals are significant in these industry-adjusted operating performance measures. The study rejects the null hypothesis and accepts the alternative hypothesis in this case because the cash financed deals are improving the operating performance after M&As.

| Table A: Changes in Industry Adjusted Operating Performance: Cash-Financed vs Stock-Financed |
|---------------------------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
|                                       | IAPREDTA | IAPREDTJ | IAPREDH | IAPREDI | IAPREDK | IAPREDG |
| Cas only                              | 3.613**  | 3.613**   | 3.613** | 3.613** | 3.613** | 3.613** |
| Stock only                            | 5.600**  | 5.600**   | 5.600** | 5.600** | 5.600** | 5.600** |

*Significant at 1% and 5% level which shows the difference in the operating performance between cash financed and stock financed deals.

V. CONCLUSION

The present study contributes to the existing literature on M&As in India by analyzing the industry adjusted post-M&As operating performance of acquiring companies from 2005 to 2013. We found on an average the M&As deteriorating the operating performance of acquiring companies. The findings consistent with the previous studies which argue the negative impact of M&As on operating performance of combined firms (Dickerson et al 1997; Pawaskar, 2001; Pazarskis et al., 2006; Mantravadi and Reddy, 2008; Bertrand and Betschinger, 2012). The raw operating performance measures, as well as the industry-adjusted operating performance measures, of acquiring companies decreasing significantly after M&As. The second part of the study analyses the impact of mode of payment in post-M&As operating performance. The present study founds the cash financed M&As transactions generate higher profitability than stock financed M&As transactions and these results are consistent with previous studies (Jensen, 1988; Berkovich and Narayan, 1990; Ghosh, 2001; Halebian et al 2009).

The managers should focus on the cash financed deals because the cash financed deals help in generating more profitability than the stock financed deals. The present study has several limitations; only public limited companies selected as samples for the present study. The further studies can be done on private limited companies. The study uses only five-year data prior and subsequent the M&As transactions. Further studies can use data for longer timeframe thus the results can be clearer.

REFERENCES