CHAPTER – V

RESULTS AND DISCUSSION

As mentioned in the Methodology chapter, the primary and secondary data were collected and analyzed based on the objectives framed for this study. The results are discussed under four headings:

A. Macro Economic Factors Influenced Indian Cross Border Acquisitions
B. Financial Assessment of Cross Border Acquisitions
C. Stock Performance due to Acquisition Announcements
D. Employee’s Perception Regarding the Implications of Cross Border Acquisitions.

A. MACRO ECONOMIC FACTORS INFLUENCED INDIAN CROSS BORDER ACQUISITIONS

The macro economic variables taken into consideration to identify their impact on cross border acquisitions are GDP, Inflation, Exchange rate and Interest rate of India for the past 24 years (from 1992 to 2015) which indicates the trend after the major economic reforms of India. The data used for calculating the regression equation is given in Appendix – E. After running the regression between the dependent and the macro economic variables, the regression equation derived is:

\[
\text{Cross Border Acquisition} = -181.728 + 8.411 \times \text{GDP} - 3.098 \times \text{Inflation} - 15.797 \times \text{Exchange Rate} - 4.766 \times \text{Interest Rate}
\]

It is found that the coefficient of determination is \(0.75 (R^2 = 0.75)\); which infers that about 75 percent of the variation in Cross Border Acquisitions is explained by the selected macro – economic variables of the study. The standard error (\(u\)) estimated is 1.20. \(F = 18.334\), states that the regression equation is statistically significant with 99.5 percent level of confidence. The t-statics and the corresponding p-values of the independent variables are given in the table 5.1 below.
Table 5.1: Result based on Regression

<table>
<thead>
<tr>
<th>Independent Variables</th>
<th>Co-efficient</th>
<th>t - value</th>
<th>p - value</th>
</tr>
</thead>
<tbody>
<tr>
<td>GDP</td>
<td>8.411</td>
<td>5.808</td>
<td>0.000***</td>
</tr>
<tr>
<td>Inflation</td>
<td>-3.098</td>
<td>-4.007</td>
<td>0.0007***</td>
</tr>
<tr>
<td>Exchange Rate</td>
<td>-15.797</td>
<td>-5.122</td>
<td>0.000***</td>
</tr>
<tr>
<td>Interest Rate</td>
<td>-4.766</td>
<td>-1.708</td>
<td>0.104</td>
</tr>
</tbody>
</table>

Note: * denotes p ≤ 0.05, ** denotes p ≤ 0.01, *** denotes p ≤ 0.001

From the table, it can be inferred that all the independent variables have a statistically significant relationship with the dependent variable except interest Rate. GDP, Inflation and Exchange Rate are statistically significant with 99.5 percent level of confidence. The model further states that except GDP, all the other variables negatively influence Indian Cross Border Acquisition.

The findings from previous research state that, merger and acquisition waves are always influenced by macro-economic factors, especially GDP. Study by Steiner (1975) and Guerard (1985, 1989) identified positive relation between merger and acquisition and GDP, which approves with the above evaluation.

McKinnon (1973) in his study mentioned that when inflation is increasing, it is expensive to hold money; hence the net return from investment decreases. High inflation rates in the home country dampens domestic acquisitions by negatively affecting the firm’s profitability thereby decreasing return on investments and escalating cost of capital. Alternative choice for a firm is to invest in foreign countries where inflation is lesser. Lower inflation rates in the host country comparative to home country will aid boost the profitability ratio of the acquiring firm (Boateng et al., 2014). Thus, Inflation has a negative relation with outbound acquisitions.

Vasconcellos and Kish (1996) suggest that the relative strength or weakness of the domestic currency pari-pasu the foreign currency plays a key role in the merger and acquisition decision making process. Exchange rate has impact on the effective price of the transaction, its financing, the cost of managing the acquired firm and the profits to be repatriated to the acquirer firm (Weston et al., 1990). When the exchange rate is low in
the home country (value of local currency is high), we tend to pay less when purchasing a foreign company thereby increasing the acquisition activity and vice-versa.

The result indicates that the Indian companies acquired foreign companies when India’s GDP is high; the value of Indian rupee is more which means when the rupee is appreciated in the Forex market, and when the inflationary rate is low.

**B. FINANCIAL ASSESSMENT OF CROSS BORDER ACQUISITIONS**

Financial assessment proves to be an essential foundation for a company to analyze itself over time or with its competitors in the industry. Financial assessment measures are common throughout the globe in estimating a firm’s performance which helps to evaluate the strengths and weaknesses in a company’s performance (Daddikar and Shaikh, 2014). Hence, in this study the financial details were taken into consideration and the necessary tools were used to analyze and attain the empirical results. It is evaluated in two dimensions; namely –

(a) Comparison of the pre and post-acquisition performance of the selected Indian cross border acquisitions; and

(b) The financial efficiency of the selected firm’s post-acquisition.

In this section, impact of the acquisition on the surviving company’s performance is tested by using financial ratios. Despite some limitations, accounting ratios are still regarded to be the most suitable and consistent analytical method. Investors and financial analysts use ratio analysis to assess the financial status of the business entity. Owners and managers use them to evaluate their development in achieving pre-designated goals, and also weigh their position among competitors in the industry. Thus, ratio analysis being a time tested technique often involves all financial decision-making processes (Kemal, 2011). The analysis and the results obtained for these dimensions are explained henceforth.
(a) Comparison of pre and post-acquisition performance of the selected Indian cross border acquisitions

The analysis was done to compare the performance in the pre and post scenario; first the ratios were calculated using standard formulas then nonparametric Wilcoxon signed rank test was applied to understand the changes in the efficiency of the companies during the pre and post acquisition period (Sinha et al., 2010).

To evaluate the difference between two paired samples which are not – normally distributed, a non-parametric test of paired sample t-test is used. Wilcoxon signed rank test evaluates whether the medians of the two sets of observations are the same or different.

The research predictions entitled to test the above comparison are listed below:

\( H_{01} \): There is no significant change in the profitability ratios before and after the acquisition.

\( H_{02} \): There is no significant change in the liquidity ratio before and after the acquisition.

\( H_{03} \): There is no significant change in the solvency ratios before and after the acquisition.

\( H_{04} \): There is no significant change in the debt coverage ratio before and after the acquisition.

\( H_{05} \): There is no significant change in the management efficiency ratios before and after the acquisition.

The test is done and ‘z’ value is computed and compared with the desired level of significance (0.05) to concede the null hypothesis. The results are presented both sector-wise as well as company-wise. The ratios are also grouped into pairs, namely profitability pre acquisition and profitability post acquisition, then, the test is used to analyze each pair. The results are interpreted based on the ranks. The sector-wise results presented in table 5.2, convey that:-
o In terms of profitability; Service and Food and beverages sector experienced a decrease in profitability post- acquisition compared to that of pre-acquisition period.

o Food and beverages sector have not coped up well in paying their obligations post-acquisition.

o Energy, Services and Pharmaceutical sectors have started to finance growth using debt in post-acquisition when compared to the pre acquisition period.

o Services sector has become less efficient in meeting its interest expenses.

o The firms in the energy as well as the service sector have been less efficient in using the investments in their assets to generate revenue. Food and beverages sector have become more efficient in the post scenario.

o There is no change in the financial performance of metals & mining sector between both the time periods.

The sector – wise analysis reveals that among all the sectors, Metals and Mining sector has not experienced any significant change in its financial performance in post acquisition. Energy sector has become more solvent and less efficient in generating revenues. Service sector projects an overall diminution in its performance after-acquisition. Though the Food and Beverages sector experienced a decrease in profitability and inability in paying obligations, it has started generating revenue after acquisition. The firms in the Pharmaceutical sector have become more solvent in the post acquisition scenario. To get a better understanding, company-wise analysis is carried out.
<table>
<thead>
<tr>
<th>Ratios</th>
<th>Energy</th>
<th>Metals and Mining</th>
<th>Services</th>
<th>Food and Beverages</th>
<th>Pharmaceutical</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$Z_{\text{static}}$</td>
<td>$p$ value</td>
<td>$Z_{\text{static}}$</td>
<td>$p$ value</td>
<td>$Z_{\text{static}}$</td>
</tr>
<tr>
<td>Profitability</td>
<td>-.53</td>
<td>0.295</td>
<td>-.06</td>
<td>0.498</td>
<td>-2.09</td>
</tr>
<tr>
<td>Liquidity</td>
<td>-1.59</td>
<td>0.056</td>
<td>-1.48</td>
<td>0.069</td>
<td>-.62</td>
</tr>
<tr>
<td>Solvency</td>
<td>-3.65</td>
<td>0.0001*↑</td>
<td>-.32</td>
<td>0.371</td>
<td>-3.44</td>
</tr>
<tr>
<td>Debt Coverage</td>
<td>-.17</td>
<td>0.432</td>
<td>-.17</td>
<td>0.429</td>
<td>-3.12</td>
</tr>
<tr>
<td>Management Efficiency</td>
<td>-2.66</td>
<td>0.004*↓</td>
<td>-.70</td>
<td>0.240</td>
<td>-4.98</td>
</tr>
</tbody>
</table>

*Note: * Symbol indicates that the values are statistically significant with 95% level of confidence. ↑ indicates increase and ↓ indicates decrease in the ratios in the post acquisition period.
The company-wise results in table 5.3 given below reveals that out of the 20 companies TATA Steel (Natsteel) and Dr. Reddy Laboratories have generated more profit after acquisition. TATA Steel post Natsteel has been more efficient in generating revenues as well as become less solvent. TATA Global Beverages post Grand has improved its efficiency in generating revenue. TATA Chemicals though has a decrease in profit and heading towards solvency, has managed to increase their revenue. HCL, TATA Communications and Ranbaxy labs have become more solvent and less efficient after acquisition. TATA Power Co. Ltd., Reliance Industries, GMR Infra., and Indian Hotels have started financing growth using debt. TATA Steel post CORUS, Hindalco and TATA Global Beverages post Vitax have experienced a decrease in their profits. ONGC and TCS have become less efficient in generating revenues. Suzlon and Wipro have a decrease in their profits, where the former has become more solvent and the later has failed to generate revenue. Jubliant Lifesciences and United Spirits did not have any difference between the pre and post scenarios. None of the firms experienced change in their liquidity position and debt coverage status.

In terms of profitability, TATA Steel post Natsteel and Dr. Reddy’s Lab have managed to increase their profits; others have failed to generate profits. Among all the companies, only TATA Steel post Natsteel has not triggered its growth using debt. TATA Steel post Natsteel, TATA Global Beverages post Grand and TATA Chemicals have efficiently used their investments, others have stable or declined management efficiency.
<table>
<thead>
<tr>
<th>COMPANY NAME</th>
<th>Profitability</th>
<th></th>
<th>Liquidity</th>
<th></th>
<th>Solvency</th>
<th></th>
<th>Debt Coverage</th>
<th></th>
<th>Management Efficiency</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Z static</td>
<td>p value</td>
<td>Z static</td>
<td>p value</td>
<td>Z static</td>
<td>p value</td>
<td>Z static</td>
<td>p value</td>
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<td>p value</td>
</tr>
<tr>
<td>Reliance Industries</td>
<td>-0.34</td>
<td>0.367</td>
<td>-1.60</td>
<td>0.054</td>
<td>-2.20</td>
<td>0.014*↑</td>
<td>.00</td>
<td>0.5</td>
<td>-0.47</td>
<td>0.319</td>
</tr>
<tr>
<td>ONGC</td>
<td>-0.62</td>
<td>0.266</td>
<td>-1.60</td>
<td>0.054</td>
<td>-1.60</td>
<td>0.054</td>
<td>-2.98</td>
<td>0.001*↓</td>
<td>.73</td>
<td>0.232</td>
</tr>
<tr>
<td>TATA Power</td>
<td>-1.59</td>
<td>0.056</td>
<td>-1.60</td>
<td>0.054</td>
<td>-2.20</td>
<td>0.014*↑</td>
<td>-1.60</td>
<td>0.054</td>
<td>-3.25</td>
<td>0.011*↑</td>
</tr>
<tr>
<td>GMR Infra</td>
<td>-1.53</td>
<td>0.063</td>
<td>-0.53</td>
<td>0.296</td>
<td>-2.20</td>
<td>0.014*↑</td>
<td>-1.60</td>
<td>0.054</td>
<td>-0.47</td>
<td>0.291</td>
</tr>
<tr>
<td>Suzlon Energy</td>
<td>-1.87</td>
<td>0.030*↓</td>
<td>-1.60</td>
<td>0.054</td>
<td>-2.20</td>
<td>0.014*↑</td>
<td>-1.60</td>
<td>0.054</td>
<td>-1.02</td>
<td>0.154</td>
</tr>
<tr>
<td>TATA Steel (CORUS)</td>
<td>-1.93</td>
<td>0.027*↓</td>
<td>-1.60</td>
<td>0.054</td>
<td>1.57</td>
<td>0.058</td>
<td>.00</td>
<td>0.5</td>
<td>-3.25</td>
<td>0.037*↓</td>
</tr>
<tr>
<td>TATA Steel (NATSTEEL)</td>
<td>-2.78</td>
<td>0.003*↑</td>
<td>-1.06</td>
<td>0.143</td>
<td>-1.60</td>
<td>0.054</td>
<td>-2.27</td>
<td>0.011*↑</td>
<td>-1.06</td>
<td>0.142</td>
</tr>
<tr>
<td>Hindalco Ind</td>
<td>-2.61</td>
<td>0.004*↓</td>
<td>0</td>
<td>0.5</td>
<td>-0.53</td>
<td>0.296</td>
<td>-1.60</td>
<td>0.054</td>
<td>-0.70</td>
<td>0.240</td>
</tr>
<tr>
<td>WIPRO</td>
<td>-3.06</td>
<td>0.001*↓</td>
<td>0</td>
<td>0.5</td>
<td>-1.57</td>
<td>0.057</td>
<td>-1.60</td>
<td>0.054</td>
<td>-2.86</td>
<td>0.002*↓</td>
</tr>
<tr>
<td>HCL</td>
<td>-0.90</td>
<td>0.182</td>
<td>-1.06</td>
<td>0.143</td>
<td>-2.20</td>
<td>0.014*↑</td>
<td>-1.60</td>
<td>0.054</td>
<td>-1.80</td>
<td>0.036*↓</td>
</tr>
<tr>
<td>TCS</td>
<td>-0.34</td>
<td>0.367</td>
<td>-0.53</td>
<td>0.296</td>
<td>-1.36</td>
<td>0.086</td>
<td>-1.60</td>
<td>0.054</td>
<td>-2.35</td>
<td>0.009*↓</td>
</tr>
<tr>
<td>TATA Communications</td>
<td>-0.11</td>
<td>0.455</td>
<td>-0.53</td>
<td>0.296</td>
<td>-1.60</td>
<td>0.054</td>
<td>-3.05</td>
<td>0.011*↓</td>
<td>-1.60</td>
<td>0.054</td>
</tr>
<tr>
<td>Indian Hotels</td>
<td>-1.25</td>
<td>0.106</td>
<td>-0.53</td>
<td>0.296</td>
<td>-2.20</td>
<td>0.014*↑</td>
<td>-1.60</td>
<td>0.054</td>
<td>-0.94</td>
<td>0.173</td>
</tr>
<tr>
<td>United Spirits</td>
<td>-0.39</td>
<td>0.345</td>
<td>0</td>
<td>0.5</td>
<td>-0.53</td>
<td>0.296</td>
<td>-1.60</td>
<td>0.054</td>
<td>-3.25</td>
<td>0.037*↓</td>
</tr>
<tr>
<td>TATA Global Beverages(Grand)</td>
<td>-1.30</td>
<td>0.096</td>
<td>-1.60</td>
<td>0.054</td>
<td>-0.10</td>
<td>0.458</td>
<td>-1.60</td>
<td>0.054</td>
<td>-2.19</td>
<td>0.014*↑</td>
</tr>
<tr>
<td>TATA Global Beverages(Vitax)</td>
<td>-2.61</td>
<td>0.004*↓</td>
<td>-1.60</td>
<td>0.054</td>
<td>-1.15</td>
<td>0.124</td>
<td>.00</td>
<td>0.5</td>
<td>-0.70</td>
<td>0.240</td>
</tr>
<tr>
<td>Dr. Reddy Lab</td>
<td>-3.06</td>
<td>0.001*↑</td>
<td>0</td>
<td>0.5</td>
<td>-0.53</td>
<td>0.296</td>
<td>.00</td>
<td>0.5</td>
<td>-0.44</td>
<td>0.328</td>
</tr>
<tr>
<td>Ranbaxy Lab</td>
<td>-1.19</td>
<td>0.116</td>
<td>-1.06</td>
<td>0.143</td>
<td>-2.20</td>
<td>0.014*↑</td>
<td>.00</td>
<td>0.5</td>
<td>-3.05</td>
<td>0.001*↓</td>
</tr>
<tr>
<td>Jubliant Lifosciences</td>
<td>-0.79</td>
<td>0.213</td>
<td>-1.60</td>
<td>0.054</td>
<td>-0.73</td>
<td>0.232</td>
<td>-1.60</td>
<td>0.054</td>
<td>-0.86</td>
<td>0.194</td>
</tr>
<tr>
<td>TATA Chemicals</td>
<td>-2.55</td>
<td>0.005*↓</td>
<td>-0.53</td>
<td>0.296</td>
<td>-2.20</td>
<td>0.014*↑</td>
<td>-1.60</td>
<td>0.054</td>
<td>-2.19</td>
<td>0.014*↑</td>
</tr>
</tbody>
</table>

Note: * Symbol indicates that the values are statistically significant with 95% level of confidence. ↑ indicates increase and ↓ indicates decrease in the post acquisition period.
Among all the cases analyzed TATA Steel is tagged as the best performer as there was improvement in its profits and management was efficient enough in using its investments to generate revenue post acquisition of NATSTEEL when compared to the pre acquisition period. Reddy’s Lab had an increase in profits post – acquisition. Jubliant Lifesciences and United Spirits are rated to be stable performers. Most of the acquirers have not improved in the post scenario. In big acquisitions, the effect cannot be experienced in a short-run; hence long run effects are studied in the next section.

(b) To analyze the financial efficiency of the selected firms post - acquisition.

In this dimension, the efficiency of the firm is tested and the effect of the acquisition is evaluated. The analysis reveals whether the improvement in the firm’s performance is achieved immediately after the acquisition or in the long – run. The first year post acquisition is taken to be the short – run time period and the next four years are considered to be the long – run time periods. To analyze the financial efficiency; Independent sample t-test is used. According to Laerd Statistics “The independent-samples t-test compares the means between two unrelated groups on the same continuous, dependent variable”. In this study the two unrelated group refers to the two time period short-run and long-run and the dependent variable refers to the ratios. The test is evaluated using SPSS 20.0; t-static is computed at 95% confidence interval. The results are interpreted by comparing the means. The company-wise results are given in table 5.4a, 5.4b, 5.4c and 5.4d.

The relevant hypothesis framed to test the efficiency is:

\[ H_{06}: \text{There is no significant change in the financial efficiency of the acquiring firms’ post-acquisition.} \]
Table 5.4a: Company-wise Results Based on Independent Sample t-test

<table>
<thead>
<tr>
<th>Ratios</th>
<th>Reliance Industries Ltd.</th>
<th>ONGC</th>
<th>TATA Power Co. Ltd.</th>
<th>GMR Infrastructure Ltd.</th>
<th>Suzlon Energy Ltd.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>t</td>
<td>p</td>
<td>t</td>
<td>p</td>
<td>t</td>
</tr>
<tr>
<td>ROCE</td>
<td>9.98</td>
<td>.002*↓</td>
<td>.42</td>
<td>.701</td>
<td>.78</td>
</tr>
<tr>
<td>RONW</td>
<td>2.89</td>
<td>.063</td>
<td>4.13</td>
<td>.026</td>
<td>-.46</td>
</tr>
<tr>
<td>GPM</td>
<td>2.88</td>
<td>.063</td>
<td>-.07</td>
<td>.946</td>
<td>-.02</td>
</tr>
<tr>
<td>OPM</td>
<td>2.41</td>
<td>.095</td>
<td>.70</td>
<td>.531</td>
<td>-1.05</td>
</tr>
<tr>
<td>NPM</td>
<td>2.71</td>
<td>.073</td>
<td>.91</td>
<td>.427</td>
<td>3.44</td>
</tr>
<tr>
<td>CR</td>
<td>-1.07</td>
<td>.361</td>
<td>.38</td>
<td>.729</td>
<td>-1.03</td>
</tr>
<tr>
<td>SOLVENCY</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DER</td>
<td>.017</td>
<td>.987</td>
<td>6.35</td>
<td>.008*↓</td>
<td>-1.75</td>
</tr>
<tr>
<td>LDER</td>
<td>-.027</td>
<td>.980</td>
<td>3.47</td>
<td>.040*↓</td>
<td>-2.65</td>
</tr>
<tr>
<td>DEBT COVERAGE</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>IC</td>
<td>6.31</td>
<td>.008*↓</td>
<td>9.18</td>
<td>.003*↓</td>
<td>5.06</td>
</tr>
<tr>
<td>MANAGEMENT EFFICIENCY</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DTR</td>
<td>-1.74</td>
<td>.179</td>
<td>-1.19</td>
<td>.319</td>
<td>.46</td>
</tr>
<tr>
<td>FATR</td>
<td>.42</td>
<td>.701</td>
<td>.002</td>
<td>.998</td>
<td>2.54</td>
</tr>
<tr>
<td>TATR</td>
<td>.22</td>
<td>.835</td>
<td>-1.05</td>
<td>.370</td>
<td>1.28</td>
</tr>
<tr>
<td>ATR</td>
<td>.25</td>
<td>.819</td>
<td>-2.07</td>
<td>.129</td>
<td>1.28</td>
</tr>
</tbody>
</table>

**Note:** * Symbol indicates that the values are statistically significant with 95% level of confidence. ↑ indicates increase and ↓ indicates decrease in the long run.
<table>
<thead>
<tr>
<th>Ratios</th>
<th>TATA Steel (CORUS)</th>
<th>TATA Steel (NATSTEEL)</th>
<th>Hindalco Ind.</th>
<th>WIPRO</th>
<th>HCL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>t static</td>
<td>p value</td>
<td>t static</td>
<td>p value</td>
<td>t static</td>
</tr>
<tr>
<td>Profitability</td>
<td>ROCE</td>
<td>-0.46</td>
<td>0.677</td>
<td>-1.09</td>
<td>0.352</td>
</tr>
<tr>
<td></td>
<td>RONW</td>
<td>-0.90</td>
<td>0.432</td>
<td>-1.00</td>
<td>0.390</td>
</tr>
<tr>
<td></td>
<td>GPM</td>
<td>-0.11</td>
<td>0.917</td>
<td>-4.36</td>
<td>0.022*↑</td>
</tr>
<tr>
<td></td>
<td>OPM</td>
<td>0.11</td>
<td>0.920</td>
<td>-1.73</td>
<td>0.180</td>
</tr>
<tr>
<td></td>
<td>NPM</td>
<td>0.47</td>
<td>0.668</td>
<td>-4.98</td>
<td>0.016*↑</td>
</tr>
<tr>
<td>Liquidity</td>
<td>CR</td>
<td>-0.23</td>
<td>0.827</td>
<td>-0.49</td>
<td>0.653</td>
</tr>
<tr>
<td>Solvency</td>
<td>DER</td>
<td>-1.07</td>
<td>0.360</td>
<td>1.80</td>
<td>0.169</td>
</tr>
<tr>
<td></td>
<td>LDER</td>
<td>-1.08</td>
<td>0.359</td>
<td>1.75</td>
<td>0.178</td>
</tr>
<tr>
<td>Debt</td>
<td>IC</td>
<td>-0.43</td>
<td>0.695</td>
<td>-1.50</td>
<td>0.230</td>
</tr>
<tr>
<td>Coverage</td>
<td>DTR</td>
<td>3.62</td>
<td>0.036*↓</td>
<td>2.72</td>
<td>0.072</td>
</tr>
<tr>
<td>Management</td>
<td>FATR</td>
<td>0.05</td>
<td>0.961</td>
<td>-1.24</td>
<td>0.303</td>
</tr>
<tr>
<td>Efficiency</td>
<td>TATR</td>
<td>-0.55</td>
<td>0.616</td>
<td>-1.02</td>
<td>0.382</td>
</tr>
<tr>
<td></td>
<td>ATR</td>
<td>-0.65</td>
<td>0.562</td>
<td>-1.25</td>
<td>0.298</td>
</tr>
</tbody>
</table>

*Symbol indicates that the values are statistically significant with 95% level of confidence. ↑ indicates increase and ↓ indicates decrease in the long run.
Table 5.4c: Company-wise Results Based on Independent Sample t-test

<table>
<thead>
<tr>
<th>Ratios</th>
<th>TCS</th>
<th>TATA Comm.</th>
<th>Indian Hotels</th>
<th>United Spirits</th>
<th>TATA Global Beverages (Grand)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>t static</td>
<td>p value</td>
<td>t static</td>
<td>p value</td>
<td>t static</td>
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<tr>
<td>Profitability</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ROCE</td>
<td>-2.086</td>
<td>.128</td>
<td>-.077</td>
<td>.943</td>
<td>5.485</td>
</tr>
<tr>
<td>RONW</td>
<td>-1.341</td>
<td>.272</td>
<td>-.134</td>
<td>.902</td>
<td>5.515</td>
</tr>
<tr>
<td>GPM</td>
<td>-1.678</td>
<td>.192</td>
<td>.194</td>
<td>.859</td>
<td>3.456</td>
</tr>
<tr>
<td>OPM</td>
<td>-1.229</td>
<td>.307</td>
<td>-.333</td>
<td>.761</td>
<td>2.607</td>
</tr>
<tr>
<td>NPM</td>
<td>-1.809</td>
<td>.168</td>
<td>-.015</td>
<td>.989</td>
<td>3.395</td>
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<td>Liquidity</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CR</td>
<td>-3.248</td>
<td>.048*↑</td>
<td>.499</td>
<td>.652</td>
<td>.744</td>
</tr>
<tr>
<td>Solvency</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DER</td>
<td>-1.167</td>
<td>.328</td>
<td>-1.269</td>
<td>.294</td>
<td>-2.402</td>
</tr>
<tr>
<td>LDER</td>
<td>-.928</td>
<td>.422</td>
<td>-2.137</td>
<td>.122</td>
<td>-2.034</td>
</tr>
<tr>
<td>Debt Coverage</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>IC</td>
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<td>.968</td>
<td>5.751</td>
<td>.010*↓</td>
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<td>Management Efficiency</td>
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<td></td>
</tr>
<tr>
<td>DTR</td>
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<td>.974</td>
<td>.402</td>
<td>.883</td>
</tr>
<tr>
<td>FATR</td>
<td>-1.129</td>
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<td>2.759</td>
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<td>8.515</td>
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<tr>
<td>TATR</td>
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<td>1.430</td>
<td>.248</td>
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<tr>
<td>ATR</td>
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<td>1.422</td>
<td>.250</td>
<td>6.061</td>
</tr>
</tbody>
</table>

Note: * Symbol indicates that the values are statistically significant with 95% level of confidence. ↑indicates increase and ↓indicates decrease in the long run.
<table>
<thead>
<tr>
<th>Ratios</th>
<th>TATA Global Beverages(Vitax)</th>
<th>Dr. Reddy Laboratories</th>
<th>Ranbaxy Laboratories</th>
<th>Jubliant Lifesciences</th>
<th>TATA Chemicals</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>( t ) static</td>
<td>( p ) value</td>
<td>( t ) static</td>
<td>( p ) value</td>
<td>( t ) static</td>
</tr>
<tr>
<td>Profitability</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ROCE</td>
<td>.578</td>
<td>.604</td>
<td>-.344</td>
<td>.754</td>
<td>-.280</td>
</tr>
<tr>
<td>RON</td>
<td>.437</td>
<td>.692</td>
<td>-.067</td>
<td>.950</td>
<td>.096</td>
</tr>
<tr>
<td>GPM</td>
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<td>-.190</td>
<td>.862</td>
<td>.139</td>
</tr>
<tr>
<td>OPM</td>
<td>2.053</td>
<td>.132</td>
<td>-.062</td>
<td>.955</td>
<td>-.633</td>
</tr>
<tr>
<td>NPM</td>
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<td>.146</td>
<td>-.209</td>
<td>.848</td>
<td>.205</td>
</tr>
<tr>
<td>Liquidity</td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CR</td>
<td>.888</td>
<td>.440</td>
<td>-.536</td>
<td>.629</td>
<td>1.923</td>
</tr>
<tr>
<td>Solvency</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DER</td>
<td>-.973</td>
<td>.402</td>
<td>7.668</td>
<td>.005*↓</td>
<td>-1.569</td>
</tr>
<tr>
<td>LDER</td>
<td>1.269</td>
<td>.294</td>
<td>-</td>
<td>-</td>
<td>-699</td>
</tr>
<tr>
<td>Debt Coverage</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>IC</td>
<td>-.419</td>
<td>.703</td>
<td>1.042</td>
<td>.374</td>
<td>-.539</td>
</tr>
<tr>
<td>Management Efficiency</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DTR</td>
<td>-3.736</td>
<td>.033*↑</td>
<td>-.136</td>
<td>.901</td>
<td>2.188</td>
</tr>
<tr>
<td>FATR</td>
<td>-2.516</td>
<td>.086</td>
<td>-.543</td>
<td>.625</td>
<td>-.979</td>
</tr>
<tr>
<td>TATR</td>
<td>-2.234</td>
<td>.112</td>
<td>-.093</td>
<td>.932</td>
<td>1.906</td>
</tr>
<tr>
<td>ATR</td>
<td>-2.238</td>
<td>.111</td>
<td>-.170</td>
<td>.876</td>
<td>1.913</td>
</tr>
</tbody>
</table>

*Symbol indicates that the values are statistically significant with 95% level of confidence. ↑ indicates increase and ↓ indicates decrease in the long run.
After analyzing the post acquisition performance of the acquirers by making a comparison between short run and long run using Independent sample t-test, the results are interpreted and listed below assuming how the firms have performed in the long run in comparison with the short run:

- TATA Steel post Natsteel managed to improve its profits.
- TCS has become more capable in paying its obligations and efficient in using their investment in assets in the long run.
- HCL has become more efficient in using their investment in assets.
- GMR has increased their profits, controlled costs, and become less solvent.
- TATA Global Beverages (Vitax) have become efficient in lending and collecting debts.
- Dr. Reddy Laboratories have become less solvent.
- There is no noticeable change in the performance of WIPRO, TATA Global Beverages (Grand), Ranbaxy Laboratories, Jubliant Lifesciences and TATA Chemicals.
- TATA Communications is burdened with debt in the long run.
- United Spirits has become less efficient in using its capital.
- TATA Steel (Corus) has become less efficient in lending and collecting debts.
- Suzlon Energy has become more solvent.
- TATA Power Co. Ltd. has increased costs and is burdened with debt in the long run.
- Reliance Industries has become less efficient in using its capital and is burdened with debt in the long run.
- ONGC has become more solvent.
- Hindalco Industries has become less efficient in using its capital and assets in generating revenue.
- Indian Hotels has experienced decrease in profits, increase in debt and low efficiency.

The independent sample t-test explains that TATA Steel (Natsteel), TCS, HCL, GMR, TATA Global Beverages (Vitax) and Dr. Reddy Laboratories are financially efficient in the long run. WIPRO, TATA Global Beverages (Grand), Ranbaxy
Laboratories, Jubliant Lifesciences and TATA Chemicals are stable in the post-acquisition period. Other companies have become less efficient over the long run. Indian hotels and Hindalco Industries performed poorly in all the aspects.

C. STOCK PERFORMANCE DUE TO ACQUISITION ANNOUNCEMENT

The acquiring company’s stock price reactions to the acquisition announcements are used to measure the impact of the acquisition on the value of acquirers (Chen and Lin, 2009). The synergy hypothesis explains that the reason for the acquisition is only when it is rising the value, which means after the acquisition the value of the combined firm should be more than the value of the pre-merged individual firms (Bradley et al., 1988; Seth et al., 2000), therefore it is a well-accepted description for acquisitions (Sharma and Ho, 2002). Consequently, the managers of both acquirer and target firms propose to exploit shareholder wealth and would opt for integration only if the outcome is profitable for the shareholders of both (Berkovitch and Narayanan, 1993; Goergen and Renneboog, 2004).

The changes in the stock market due to acquisition announcements are discussed in this section. The relevant hypothesis framed to examine the stock price behavior of the selected Indian acquirers is

$H_{07}$: There is no significant change in the share prices due to the announcement of acquisition.

The market model results are obtained and represented graphically along with their respective t-statistics henceforth. The test is evaluated using SPSS 20.0; t-static is computed at 95% confidence interval. The results are presented and interpreted for all the selected Indian acquirer’s together, sector-wise and company-wise separately. In the graphs day 0 indicates the event day and the trend is spread over 30 days before and after the event day across the X-axis, and the difference in returns is measured in percentage across the Y-axis.
Returns for all the selected Indian Acquirers

The graph below (Figure 5.1) describes about the consolidated average abnormal returns and cumulative average abnormal returns for all the 20 acquirers. The results of Average Abnormal Returns (AAR) and Cumulative Average Abnormal Returns (CAAR) suggest that there is a sharp rise in the AAR after the date of announcement and the returns have become stable over the period of time. There is an upward trend in cumulative returns, which implies that the acquisition announcement has increased the share prices of the respective stocks in aggregate.

![Figure 5.1: For all the Selected Indian Acquirer's](image)

The relevant t-statistics is presented in table 5.5 and 5.6. In the tables, W11 indicates AAR of Window 1 and W12 indicates CAAR of Window 1. W11 Pre indicates AAR before the acquisition announcement day of Window 1 and W11 Post indicates AAR after the acquisition announcement day of Window 1. W12 Pre indicates CAAR before the acquisition announcement day of Window 1 and W12 Post indicates CAAR after the acquisition announcement day of Window 1.
### Table 5.5: Results Based on One Sample t-test

<table>
<thead>
<tr>
<th>Window</th>
<th>$t$ value</th>
<th>$p$ value</th>
<th>Window</th>
<th>$t$ value</th>
<th>$p$ value</th>
<th>Window</th>
<th>$t$ value</th>
<th>$p$ value</th>
</tr>
</thead>
<tbody>
<tr>
<td>W11</td>
<td>1.811</td>
<td>.168</td>
<td>W11Pre</td>
<td>1.000</td>
<td>.500</td>
<td>W12Pre</td>
<td>1.000</td>
<td>.500</td>
</tr>
<tr>
<td>W21</td>
<td>1.904</td>
<td>.115</td>
<td>W11Post</td>
<td>1.000</td>
<td>.500</td>
<td>W12Post</td>
<td>1.000</td>
<td>.500</td>
</tr>
<tr>
<td>W31</td>
<td>1.275</td>
<td>.229</td>
<td>W21Pre</td>
<td>.769</td>
<td>.522</td>
<td>W22Pre</td>
<td>-.698</td>
<td>.557</td>
</tr>
<tr>
<td>W41</td>
<td>1.172</td>
<td>.254</td>
<td>W21Post</td>
<td>1.823</td>
<td>.210</td>
<td>W22Post</td>
<td>1.900</td>
<td>.198</td>
</tr>
<tr>
<td>W51</td>
<td>1.583</td>
<td>.119</td>
<td>W31Pre</td>
<td>.566</td>
<td>.596</td>
<td>W32Pre</td>
<td>-2.549</td>
<td>.051</td>
</tr>
<tr>
<td>W12</td>
<td>1.514</td>
<td>.227</td>
<td>W31Post</td>
<td>1.128</td>
<td>.311</td>
<td>W32Post</td>
<td>4.703</td>
<td>.005*</td>
</tr>
<tr>
<td>W22</td>
<td>1.096</td>
<td>.323</td>
<td>W41Pre</td>
<td>.348</td>
<td>.735</td>
<td>W42Pre</td>
<td>-3.023</td>
<td>.013*</td>
</tr>
<tr>
<td>W32</td>
<td>1.393</td>
<td>.191</td>
<td>W41Post</td>
<td>1.251</td>
<td>.239</td>
<td>W42Post</td>
<td>8.873</td>
<td>.000*</td>
</tr>
<tr>
<td>W42</td>
<td>2.622</td>
<td>.016*</td>
<td>W51Pre</td>
<td>.115</td>
<td>.909</td>
<td>W52Pre</td>
<td>.017</td>
<td>.987</td>
</tr>
<tr>
<td>W52</td>
<td>6.687</td>
<td>.000*</td>
<td>W51Post</td>
<td>2.052</td>
<td>.049*</td>
<td>W52Post</td>
<td>13.613</td>
<td>.000*</td>
</tr>
</tbody>
</table>

**Note:** * Symbol indicates that the values are statistically significant with 95% level of confidence.

Results based on one sample t-test reveals that there is noteworthy change in the respective windows, i.e., change in CAAR when 10 day window or 61 day window are taken, change in AAR after 10 days post-acquisition and CAAR after 5 days post-acquisition.

### Table 5.6: Results Based on Paired t-test

<table>
<thead>
<tr>
<th>Pair</th>
<th>$t$ value</th>
<th>$p$ value</th>
<th>Pair</th>
<th>$t$ value</th>
<th>$p$ value</th>
</tr>
</thead>
<tbody>
<tr>
<td>W11Pre - W11Post</td>
<td>1.000</td>
<td>.500</td>
<td>W12Pre - W12Post</td>
<td>-1.000</td>
<td>.500</td>
</tr>
<tr>
<td>W21Pre - W21Post</td>
<td>-.428</td>
<td>.710</td>
<td>W22Pre - W22Post</td>
<td>-1.944</td>
<td>.191</td>
</tr>
<tr>
<td>W31Pre - W31Post</td>
<td>-.352</td>
<td>.739</td>
<td>W32Pre - W32Post</td>
<td>-4.385</td>
<td>.007*↑</td>
</tr>
<tr>
<td>W41Pre - W41Post</td>
<td>-.632</td>
<td>.542</td>
<td>W42Pre - W42Post</td>
<td>-7.822</td>
<td>.000*↑</td>
</tr>
<tr>
<td>W51Pre - W51Post</td>
<td>-1.341</td>
<td>.190</td>
<td>W52Pre - W52Post</td>
<td>-11.088</td>
<td>.000*↑</td>
</tr>
</tbody>
</table>

**Note:** * Symbol indicates that the values are statistically significant with 95% level of confidence. ↑ indicates increase and ↓ indicates decrease in post announcement period.

A comparison before and after the announcement date is done using paired t test and the results given in table 5.6 above. The result describes that there is no significant change in average abnormal returns, but there is an significant increase in cumulative.
average abnormal returns in the 3\textsuperscript{rd}, 4\textsuperscript{th}, and 5\textsuperscript{th} window post-acquisition announcement period compared to the pre-announcement period; which means there is significant positive increase in the cumulative returns only after 2 days from announcement when compared to 2 days before the announcement time period.

**Sector - wise Returns**

The sector-wise average abnormal returns is projected in figure 5.2 and the interpretations are listed below:

- In the energy sector, with the announcement, the returns have become positive immediately with an increase of 2\% and declined to its previous fluctuation status after 2 days from announcement.
- The trend in metals and mining sector which was negative till the announcement has reversed the trend with the event and became positive 2 days post acquisition.
- Service sector experienced a negative return immediately after the event upto 1\% and turned positive only after 5\textsuperscript{th} day after the event and has been mostly negative throughout the investigation window.
- Food and beverages yielded returns of 2\% from the previous day and reached a highest return of 5\% post event. But the returns dropped sharply after the 2\textsuperscript{nd} day.
- Among all the sectors, pharmaceutical sector had a sharp rise of 6\% immediately post announcement but declined immediately within the 2\textsuperscript{nd} day.

Thus, except the service sector the other four experienced a positive trend immediately post-announcement but later all the sectors experienced minor fluctuations.
Figure 5.2: Sector-wise Average Abnormal Returns

- Energy
- Metals & Mining
- Services
- Food & Beverages
- Pharmaceutical

Day

Percentage

-30 - 28 - 26 - 24 - 22 - 20 - 18 - 16 - 14 - 12 - 10 - 8 - 6 - 4 - 2
0 2 4 6 8 10 12 14 16 18 20 22 24 26 28 30
Sector-wise Cumulative Abnormal Returns in figure 5.3 given below explains that there is an increase in the cumulative returns in metals and mining, food and beverages and pharmaceutical sector post announcement of acquisition. Service and Energy sector experience a stable and negative trend. Among the five sectors, food and beverages yielded highest cumulative returns followed by pharmaceutical and then metals and mining sector. Services sector incurred the highest negative returns.

The relevant t-statistics for sector-wise analysis is presented in tables 5.7a, 5.7b, 5.7c and 5.8.

<table>
<thead>
<tr>
<th>Window</th>
<th>Energy</th>
<th>Metals and Mining</th>
<th>Services</th>
<th>Food and Beverages</th>
<th>Pharmaceutical</th>
</tr>
</thead>
<tbody>
<tr>
<td>W11</td>
<td>-.56</td>
<td>.630</td>
<td>-.95</td>
<td>.411</td>
<td>1.37</td>
</tr>
<tr>
<td>W21</td>
<td>-.03</td>
<td>.973</td>
<td>-.35</td>
<td>.737</td>
<td>.73</td>
</tr>
<tr>
<td>W31</td>
<td>-.37</td>
<td>.718</td>
<td>.42</td>
<td>.678</td>
<td>-.07</td>
</tr>
<tr>
<td>W41</td>
<td>-.35</td>
<td>.724</td>
<td>-.29</td>
<td>.768</td>
<td>.22</td>
</tr>
<tr>
<td>W51</td>
<td>-.06</td>
<td>.952</td>
<td>1.58</td>
<td>.118</td>
<td>-.116</td>
</tr>
<tr>
<td>W12</td>
<td>-8.28</td>
<td>.014*</td>
<td>2.90</td>
<td>.062</td>
<td>-2.99</td>
</tr>
<tr>
<td>W22</td>
<td>-5.14</td>
<td>.007*</td>
<td>4.74</td>
<td>.005*</td>
<td>-4.87</td>
</tr>
<tr>
<td>W32</td>
<td>-5.87</td>
<td>.000*</td>
<td>10.24</td>
<td>.000*</td>
<td>-10.38</td>
</tr>
<tr>
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<td>.000*</td>
<td>-18.40</td>
</tr>
<tr>
<td>W52</td>
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<td>.000*</td>
<td>20.05</td>
<td>.000*</td>
<td>-17.38</td>
</tr>
</tbody>
</table>

* Symbol indicates that the values are statistically significant with 95% level of confidence.
The results based on one sample t-test given in table 5.7a explain that the food and beverages sector experienced a significant change in AAR throughout the investigation window. Except the energy sector, all the other sectors experienced a significant change in their CAAR’s in 2nd, 3rd, 4th, and 5th windows. The energy sector experiences a significant change in CAAR throughout the investigation window. The pervious statement implies that there is significant change in the cumulative returns uniformly for all sectors before and after 2days from announcement.

The results based on one sample t-test given in table 5.7b describe the significant changes in AAR sector-wise during the investigation window. Except the metals and mining sector, other sectors did not experience any significant change in their returns throughout the investigation window. Metals and mining sector shows significant change in its AAR only in the 3rd and 5th window prior to the event and did not experience any change post event.

<table>
<thead>
<tr>
<th>Window</th>
<th>Energy</th>
<th>Metals and Mining</th>
<th>Services</th>
<th>Food and Beverages</th>
<th>Pharmaceutical</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>t value</td>
<td>p value</td>
<td>t value</td>
<td>p value</td>
<td>t value</td>
</tr>
<tr>
<td>W11Pre</td>
<td>-</td>
<td>-</td>
<td>1.00</td>
<td>.500</td>
<td>1.00</td>
</tr>
<tr>
<td>W11Post</td>
<td>-</td>
<td>-</td>
<td>-1.00</td>
<td>.500</td>
<td>1.00</td>
</tr>
<tr>
<td>W21Pre</td>
<td>-1.55</td>
<td>.365</td>
<td>1.53</td>
<td>.266</td>
<td>0.52</td>
</tr>
<tr>
<td>W21Post</td>
<td>7.03</td>
<td>.090</td>
<td>-1.86</td>
<td>.203</td>
<td>0.34</td>
</tr>
<tr>
<td>W31Pre</td>
<td>-.76</td>
<td>.489</td>
<td>3.13</td>
<td>.026*</td>
<td>0.05</td>
</tr>
<tr>
<td>W31Post</td>
<td>.60</td>
<td>.583</td>
<td>-.14</td>
<td>.897</td>
<td>-0.95</td>
</tr>
<tr>
<td>W41Pre</td>
<td>.24</td>
<td>.819</td>
<td>1.52</td>
<td>.160</td>
<td>-0.08</td>
</tr>
<tr>
<td>W41Post</td>
<td>-.29</td>
<td>.781</td>
<td>-1.48</td>
<td>.170</td>
<td>0.39</td>
</tr>
<tr>
<td>W51Pre</td>
<td>-.85</td>
<td>.400</td>
<td>3.57</td>
<td>.001*</td>
<td>-1.95</td>
</tr>
<tr>
<td>W51Post</td>
<td>.50</td>
<td>.618</td>
<td>.25</td>
<td>.804</td>
<td>0.24</td>
</tr>
</tbody>
</table>

**Note:** * Symbol indicates that the values are statistically significant with 95% level of confidence.

Table 5.7c given below reveals the significant changes in CAAR sector-wise during the investigation window. All the sectors have experienced significant change in
3rd, 4th, and 5th windows in both the time periods, which implies that there is significant change in CAAR before and after 5 days from the event day for all sectors.

Table 5.7c: Sector-wise Results Based on One Sample t-test

<table>
<thead>
<tr>
<th>Window</th>
<th>Energy</th>
<th>Metals and Mining</th>
<th>Services</th>
<th>Food and Beverages</th>
<th>Pharmaceutical</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>t value</td>
<td>p value</td>
<td>t value</td>
<td>p value</td>
<td>t value</td>
</tr>
<tr>
<td>W12Pre</td>
<td>-</td>
<td>-</td>
<td>1.00</td>
<td>.500</td>
<td>-1.00</td>
</tr>
<tr>
<td>W12Post</td>
<td>-</td>
<td>-</td>
<td>1.00</td>
<td>.500</td>
<td>-1.00</td>
</tr>
<tr>
<td>W22Pre</td>
<td>-3.37</td>
<td>.184</td>
<td>2.00</td>
<td>.184</td>
<td>-1.97</td>
</tr>
<tr>
<td>W22Post</td>
<td>-2.78</td>
<td>.220</td>
<td>2.00</td>
<td>.184</td>
<td>-2.00</td>
</tr>
<tr>
<td>W32Pre</td>
<td>-2.80</td>
<td>.049*</td>
<td>4.73</td>
<td>.005*</td>
<td>-4.90</td>
</tr>
<tr>
<td>W32Post</td>
<td>-8.92</td>
<td>.001*</td>
<td>4.97</td>
<td>.004*</td>
<td>-5.76</td>
</tr>
<tr>
<td>W42Pre</td>
<td>-6.22</td>
<td>.000*</td>
<td>9.11</td>
<td>.000*</td>
<td>-9.45</td>
</tr>
<tr>
<td>W42Post</td>
<td>-8.55</td>
<td>.000*</td>
<td>9.52</td>
<td>.000*</td>
<td>-9.58</td>
</tr>
<tr>
<td>W52Pre</td>
<td>-6.18</td>
<td>.000*</td>
<td>10.82</td>
<td>.000*</td>
<td>-7.88</td>
</tr>
<tr>
<td>W52Post</td>
<td>-8.01</td>
<td>.000*</td>
<td>21.04</td>
<td>.000*</td>
<td>-27.22</td>
</tr>
</tbody>
</table>

Note: * Symbol indicates that the values are statistically significant with 95% level of confidence.

The results in table 5.8 given below describes that there is no significant change in average abnormal returns, but there is an increment in cumulative average abnormal returns in the sectors post announcement. In food and beverages and pharmaceutical sector, there is significant positive increase in the cumulative returns only after 5 days when compared to 5 days before announcement of acquisition. In the energy sector there is a significant decrease in the cumulative returns after 10 days from announcement compared to pre announcement period. Metals and mining sector experienced an increase after the event compared to its counterpart for the 30 day window. Services sector experienced increase in 4th window and decrease in the 5th window compared to the pre event period. Thus all the sectors experience significant change in their CAAR post announcement compared to pre announcement when 30 day event window is considered.
Table 5.8: Sector - wise Results Based on Paired t-test

<table>
<thead>
<tr>
<th>Pairs</th>
<th>Energy t value</th>
<th>Energy p value</th>
<th>Metals and Mining t value</th>
<th>Metals and Mining p value</th>
<th>Services t value</th>
<th>Services p value</th>
<th>Food and Beverages t value</th>
<th>Food and Beverages p value</th>
<th>Pharmaceutical t value</th>
<th>Pharmaceutical p value</th>
</tr>
</thead>
<tbody>
<tr>
<td>W11Pre - W11Post</td>
<td>-</td>
<td>-</td>
<td>1.00</td>
<td>.500</td>
<td>1.00</td>
<td>.500</td>
<td>1.00</td>
<td>.500</td>
<td>-1.00</td>
<td>.500</td>
</tr>
<tr>
<td>W21Pre - W21Post</td>
<td>-3.04</td>
<td>.202</td>
<td>1.63</td>
<td>.243</td>
<td>.41</td>
<td>.719</td>
<td>-2.22</td>
<td>.844</td>
<td>-3.22</td>
<td>.777</td>
</tr>
<tr>
<td>W31Pre - W31Post</td>
<td>-1.47</td>
<td>.215</td>
<td>1.89</td>
<td>.116</td>
<td>.22</td>
<td>.833</td>
<td>.11</td>
<td>.916</td>
<td>-1.01</td>
<td>.358</td>
</tr>
<tr>
<td>W41Pre - W41Post</td>
<td>.39</td>
<td>.705</td>
<td>1.96</td>
<td>.078</td>
<td>-1.29</td>
<td>.776</td>
<td>-2.97</td>
<td>.822</td>
<td>-1.47</td>
<td>.171</td>
</tr>
<tr>
<td>W51Pre - W51Post</td>
<td>-2.76</td>
<td>.350</td>
<td>1.67</td>
<td>.105</td>
<td>-1.44</td>
<td>.159</td>
<td>-2.22</td>
<td>.822</td>
<td>-1.77</td>
<td>.444</td>
</tr>
<tr>
<td>W12Pre - W12Post</td>
<td>-</td>
<td>-</td>
<td>1.00</td>
<td>.500</td>
<td>-1.00</td>
<td>.500</td>
<td>-1.00</td>
<td>.500</td>
<td>-1.00</td>
<td>.500</td>
</tr>
<tr>
<td>W22Pre - W22Post</td>
<td>-0.04</td>
<td>.973</td>
<td>1.92</td>
<td>.194</td>
<td>-1.23</td>
<td>.343</td>
<td>-1.97</td>
<td>.187</td>
<td>-1.85</td>
<td>.205</td>
</tr>
<tr>
<td>W32Pre - W32Post</td>
<td>2.21</td>
<td>.092</td>
<td>1.47</td>
<td>.200</td>
<td>-2.30</td>
<td>.070</td>
<td>-4.37</td>
<td>.007*↑</td>
<td>-4.84</td>
<td>.005*↑</td>
</tr>
<tr>
<td>W42Pre - W42Post</td>
<td>3.13</td>
<td>.012*↓</td>
<td>1.29</td>
<td>.223</td>
<td>-2.37</td>
<td>.039*↑</td>
<td>9.23</td>
<td>.000*↑</td>
<td>4.85</td>
<td>.001*↑</td>
</tr>
<tr>
<td>W52Pre - W52Post</td>
<td>3.07</td>
<td>.005*↓</td>
<td>-6.87</td>
<td>.000*↑</td>
<td>4.41</td>
<td>.000*↓</td>
<td>-24.43</td>
<td>.000*↑</td>
<td>19.49</td>
<td>.000*↑</td>
</tr>
</tbody>
</table>

Note: * Symbol indicates that the values are statistically significant with 95% level of confidence. ↑ indicates increase and ↓ indicates decrease in post announcement period.

Company - Wise Returns

Charts in figure 5.4a and 5.4b given below explains company - wise abnormal returns. Reliance Industries, ONGC, TATA Power, GMR Infrastructure, TATA Steel (Corus), Hindalco Ind., WIPRO, Dr. Reddy’s Labs, TCS, TATA Chemicals, TATA Communications and Ranbaxy Laboratories incurred immediate positive returns with the acquisition announcement. TATA Steel (Natsteel), TATA Global Beverages, Suzlon Energy, and HCL yielded negative returns. Indian Hotels saw a sharp rise post announcement but the returns started declining the 2nd day. United Spirits also saw a sharp rise post announcement but the returns came stable there on. Jubliant Lifescience experienced stable returns post announcement. Though some companies experience a positive trend immediately post-announcement but later the returns are subject to minor fluctuations.
Figure 5.4a. Company-wise Abnormal Returns

- Reliance Industries Ltd.
- ONGC
- TATA Power Co. Ltd.
- GMR Infrastructure Ltd.
- SUZLON Energy Ltd.
- TATA Steel (TATA-CORUS)
- Hindalco Ind
- WIPRO
- HCL

Day

Percentage
Figure 5.4b. Company-wise Abnormal Returns

- TATA Global Beverages (Grand)
- TATA Global Beverages (Vitax)
- Dr. Reddy Laboratories
- Ranbaxy Laboratories
- Jubilant Lifesciences
- TATA Chemicals
- TCS
- TATA Comm
- Indian Hotels
- United Spirits
Figure 5.5: Company-wise Cumulative Abnormal Returns

- Reliance Industries Ltd.
- ONGC
- TATA Power Co. Ltd.
- GMR Infrastructure Ltd.
- SUZLON Energy Ltd.
- TATA Steel (CORUS)
- TATA Steel (NATSTEEL)
- Hindalco Ind
- WIPRO
- HCL
- TCS
- TATA Comm
- Indian Hotels
- United Spirits
- TATA Global Beverages(Grand)
- TATA Global Beverages(Vitax)
- Dr. Reddy Laboratories
- Ranbaxy Laboratories
- Jubliant Lifesciences
- TATA Chemicals
Figure 5.5 explains the company-wise cumulative abnormal returns. After comparing the pre and post share price reaction due to acquisition announcement, the results indicate that among the 20 acquiring firms; Reliance Industries, ONGC, TATA Power, Dr. Reddy’s Labs, TATA Chemicals, TATA Communications and Ranbaxy Laboratories show positive increasing cumulative returns after announcement. TATA Steel (Natsteel), Hindalco Ind., TCS, Indian Hotels, Wipro, United Spirits, TATA Global Beverages have increasing cumulative returns post announcement. Jubliant Lifescience didn’t show any significant change in cumulative returns during the investigation window. GMR Infrastructure, Suzlon Energy, TATA Steel (Corus) and HCL experience decrease in cumulative returns post announcement.

To understand the stock performance of the companies in the long run post acquisition, trends were figured with three years pre acquisition and 5 years post acquisition. Figure 5.6 describes the trend in the annual share prices of the Indian acquirers’ before and after acquisition. Year zero indicates the acquisition year.

The overall results reveal that TATA Steel (Natsteel), HCL, TCS, and Dr. Reddy’s Lab have experienced a hike in their share prices after 5 years of acquisition. The prices of Reliance Ind., Suzlon Energy, TATA Global Beverages have decreased in the five years after acquisition. Other companies did not show major change in their share price due to acquisition.
D. EMPLOYEE’S PERCEPTION REGARDING THE IMPLICATIONS OF CROSS BORDER ACQUISITIONS

In Cross Border Merger or Acquisition, employees are considered as a major stakeholder of the deal and it is a complicated process of organizational change (Humpal, 1971). Merger and Acquisition process creates insecurity for employees of both acquirer and target firm; resulting in lower productivity, absenteeism and health related issues (Ivancevich et al., 1987; Schweiger and Denisi, 1991). Various studies done by Hunt et al., 1987; KMPG, 1997; Ravenscraft and Scherer, 1987 point out that, two-thirds of mergers fail due to lack of concern towards employee interest. Organizational effectiveness greatly depend on the behaviors of employees, thus HRM is an important challenge for all firms going for cross border alliances (Kavitha, 2015).

This study focuses on the impact on the employees of the IT and ITES acquiring companies post-acquisition. The data collected through opinion survey method is represented in percentages and the results are presented separately for senior and junior level employees. The percentage analysis is presented graphically with variables on the y-axis and percentages on the x-axis.

Opinion of Senior Level Employees

The employees remembered only the recent acquisitions made by their companies. The acquisitions quoted are; WIPRO’s acquisition of ATCO IT Services in July 2014, acquisition of Alti SA France by TCS in July 2013, and HCL’s acquisition of AXON in December 2008. None of them gave any reasons for delay in negotiations. They have specified the year of establishment for the companies as; 1945 for WIPRO, 1976 for HCL and 1968 for TCS.

Figure 5.7a given below indicates that the senior level employees experienced a major change in technology upgradation (87%) after acquisition followed by Infrastructure facility (80%). They also felt that there was a noticable change in their occupational health and safety and employee attrition rate due to acquisition. But the retention rate was little more and there was not much change in their corporate culture.
Figure 5.7b explains that all the employees agreed that there was consolidation of HR department and expansion of organization after acquisition. Around 70% of the employees accepted that there was financial improvement post acquisition. Some of the
HCL employees said that after the deal, HCL was merged into AXON, which brought some changes in labor law agreements which make up to 22% of the total respondents.

**Opinion of Junior Level Employee’s**

The opinion of junior level employees is rated in figure 5.8a and 5.8b. It is found that employees did not experience any organizational change except technology upgradation and only few said change in infrastructure facility. The survey conveys that Technology updatation is the primary change happened in the IT/ITeS companies due to acquisition.

![Figure 5.8a. Organisational Changes](image)

Figure 5.8b reveals that the employees experience change in training (90%) and in working hours (44%) in post-acquisition due to the new branches and timings of new clients. The employees did not find any change in job atmosphere, dress code or
improvement in job motivation and satisfaction. Appropriate training was given to the employees to enhance their performance.

Thus, it is concluded that both the senior as well as the junior level employees accept the occurrence of positive change in technology upgradation and minor change in infrastructure facility after acquisition. Further, it is observed that there was no major organizational change due to acquisition. But there was a massive recruitment along with high attrition rate, and the companies have taken necessary steps to retain the existing employees. Hence, they have given proper training to the employees regarding the acquisition details. None of the employees felt any motivational strategies implemented after acquisition, therefore there was no improvement on their job satisfaction.