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Mergers, Acquisitions and Firms' Performance: Experience of TATA Industry

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Abstract

Cross border Mergers and Acquisitions includes that Mergers and Acquisitions which are done outside the boundaries. This research paper was aimed to study the impact of Acquisition on the wealth of the shareholders' and on the profitability of the acquirer firm that go for the cross border acquisitions. The research is based on 5 different sectors in Tata Ltd. i.e. Tele-communication, Chemicals, Steel, Power and Motor sectors. The study depicts that that the merger and acquisition by Tata had positive impact on profitability and liquidity of Tata-Teleservices and Power Sectors but in cased of Tata Motor, Steel and Chemicals earnings are decreasing after acquisition as compare to pre-acquisition.

Keywords: Tata Teleservices, Jaguar and Landrover, NTT-DoCoMo.

1. Introduction

The phrase mergers and Acquisitions refers to the aspect of corporate strategy, corporate finance and management dealing with the buying, selling and combining of different companies that can aid, finance, or help a growing company in a given industry grow rapidly without having to create another business entity. Mergers are a tool used by companies for the purpose of expanding their operations often aiming at an increase of their long term profitability. Mergers occur in a consensual (occurring by mutual consent) setting where executives from the target company help those from the purchaser in a due diligence process to ensure that the deal is beneficial to both parties. Acquisitions can also happen through a hostile takeover by purchasing the majority of outstanding shares of a company in the open market against the wishes of the target's board.

A mergers or Acquisitions is a combination of two companies where one corporation is completely absorbed by another corporation. The less important company loses its identity and becomes part of the more important corporation, which retains its identity. An Acquisition, also known as a takeover or a buyout or "mergers", is the buying of one company by another. Acquisitions may be friendly or hostile. Acquisitions usually refer to a purchase of a smaller firm by a larger one. Sometimes, a smaller firm will acquire management control of a larger or longer established company and keep its name for the combined entity. This is known as a reverse takeover. The Main Idea one plus one makes three: this equation is the special alchemy of a merger or an acquisition. The key principle behind buying a company is to create shareholder value over and above that of the sum of the two companies. Two companies together are more valuable than two separate companies - at least, that's the reasoning behind M&A. This rationale is particularly alluring to companies when times are tough. Strong companies will act to buy other companies to create a more competitive, cost-efficient company.

1.3 Meaning of Cross Border Merger and Acquisition

Cross border mergers and Acquisitions includes that mergers and Acquisitions which are done outside the boundaries. In this the companies are done mergers and Acquisitions not in their own country because of the expansion reason in business. The rise of globalization had exponentially increased the market for cross border M&A. In 1996 alone there were over 2000 cross border transactions worth a total of approximately $256 billion. This rapid increase had taken many M&A firms by surprise because the majority of them never had to consider acquiring the capabilities or skills required to effectively handle this kind of transaction.

2. Review of Literature

Estañol Albert B. & Seldeslachts J. (2009) examined that the after mergers sometime they became failed due to some reasons. The main reason for failure of mergers was non-integration of human resources of both the transferor and transferee company. Frey, Rainer & Hussinger, Katrin (2006) examined that the Technological change was main drivers of merger activities. It analyzed the technological relatedness of the M&A partners reduced uncertainty and the expected risk of failure associated with cross-border acquisitions significantly. With the help of technology transfer cost was reduced and products were upgraded and firms able to earn high profits at lower cost.Gugler, K.et al.(2003) examined the effects of mergers around the world over the past 15 years. The effects of the mergers were examined by comparing the performance of the merging firms with control groups of no merging firms. The comparisons are made on profitability and sales. Ghosh, A. (2001) examined that operating performance improves following corporate acquisitions relative to industry-median firms. Bárcena-Ruiz Juan C. & Garzón María B. (2000) examined that the when two firms merge, the increase in the bargaining strength of the multiproduct firm arising from the mergers when negotiating uniform wages with the workers was one of the reasons that account for corporate mergers. Fridolfsson, S. & Stennek, J. (2000) examined that the mergers protect the firm from competition. It was necessary to the control on mergers once it was taken. Reasonable policies can prove worse if mergers are not controllable by firms. Fridolfsson S.O. & Stennek J. (1999) examined that the pre mergers value of the firm is low; as compare to post mergers. But after mergers with a firm it was obvious that the value of firm must be increased than pre mergers. Healy, P., Palepu, K.& Ruback, R.(1992) Examined post-acquisition performance merged firms showed significant improvements in asset productivity relative to their industries, leading to higher operating cash flow returns. Binder, John J (1998) examined that the event study methodology including hypothesis testing the use of different benchmarks for the normal rate of return, the power of the methodology in different applications and the modeling of abnormal returns as coefficients in a (multivariate) regression framework.

3. Research Methodology of the Study

3.1 Objectives of the Study

1. To study whether there is any abnormal return associated with the announcement of Mergers and Acquisitions.
2. To study whether there is any significant change in the financial position around the event window during the announcement of Mergers and Acquisitions.

3.2 Hypotheses of the study

For the purpose of the study the following hypotheses will be put to trial:

H_{01} There is no significant abnormal return around the event window during the announcement of Mergers and Acquisitions.

H_{02} There is no significant change in financial position around the event window during the announcement of Mergers and Acquisitions.

3.3 Sample Selection of Data

The sample firms involved in M&A were selected based on the availability of media announcements of mergers and takeovers, obtained from the CMIE Prowess database, financial newspapers like The Economic Times, Business Line and websites like : indiainfoline, thehindubusinessline.com, and the home page of Bombay Stock Exchange (BSE). The study is based on 5 companies from different sectors related to Tata Ltd. in 2007-2008.

3.4 Methodology

This study uses the Market Model method which is explained in the following section.

3.5 Market Model Method

The expected rate of return on the security was calculated using the market model. The model parameters were estimated by regressing daily stock return on the market index over the estimation period. To use the market model a period was chosen -30 to +30 days (0 day being the merger announcement day) to estimate the model parameters (a and b). the market model is given by

$$\mathbf{R_t = \alpha + \beta R_{mt} + \varepsilon_t}$$

Where $\mathbf{R_{mt}}$ is the return on Sensex for day t, $\boldsymbol{\beta}$ measures the sensitivity of the firm to market. This is a measure of risk and $\boldsymbol{\varepsilon_t}$ is a statisitical error term where $\sum \boldsymbol{\varepsilon_{t=0}}$.

Thus the predicted return for the firm in the event period is the return given bh the market model on that day using these estimates.

The market's reaction to a merger bid is measured using daily stock return data to compute abnormal stockholder returns. The daily abnormal return for the security is estimated by

$$\mathbf{ABR_t = R_t - E(R_t)}$$

Where t = day relative to an event, ABR_t = abnormal return on the security for day t, R_t = actual return on the security for day t, $E(R_t)$ = expected rate of return on the security for day t.

First, the Average daily return (ADR) for each relative day t are calculated then expected return, then Abnormal return (ABR%), and then cumulative abnormal returns (CARs%) for each sector over the time. At last cumulative average abnormal returns (CAARs) are calculated, being the sum of the cumulative abnormal returns across the securities over event time. The t statistics are then calculated.

In the event time, the day on which a merger announcement appears in the press is designated as 0. Trading days prior to the merger announcement are numbered event days -1, -2 and so on. The event days following the merger numbered +1, +2 and so on. The maximum time window involved in this study is -30 days to +30 days

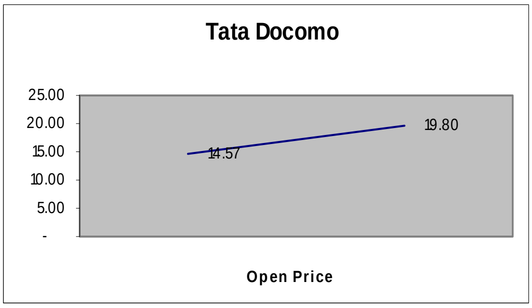
4. Analysis and Interpretation

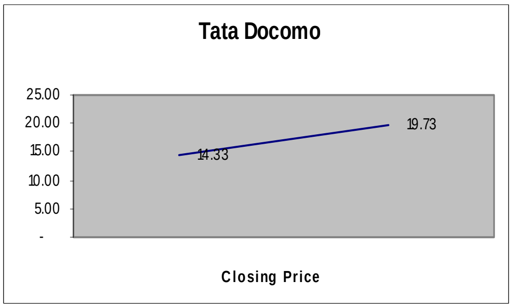
4.1 Tata Teleservices and NTT- DOCOMO

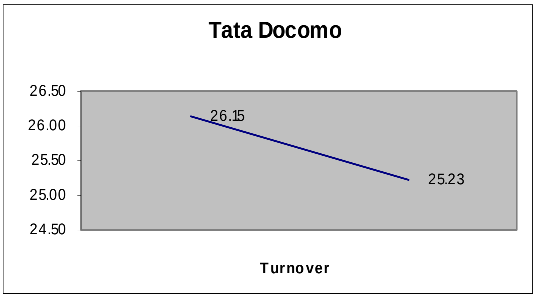
4.1.1 Impact on shareholders' wealth

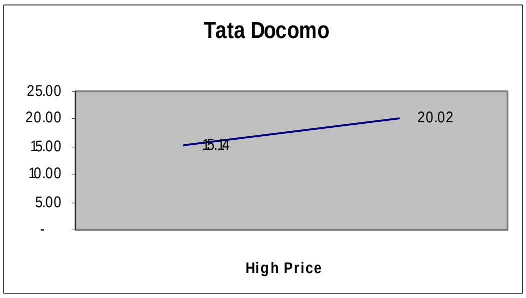
The calculation of five days moving average for the previous as well as later month from the date of merger is shown. It takes into account the open, high, low, close, daily turnover as well as calculation of abnormal return. This takes into account the daily volatilities of the share prices.

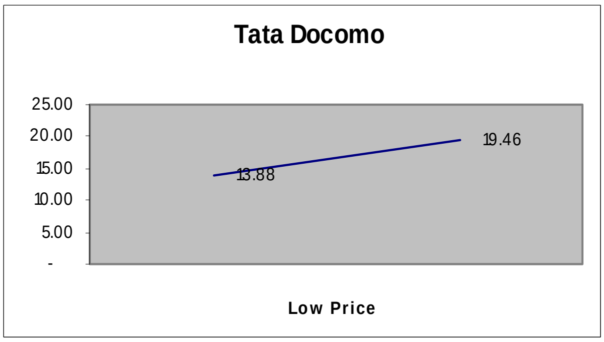
Here, the daily average prices have risen due to positive feedback of the merger but the turnover has decreased at the same time. This shows that there are certain shareholders who expect the share prices to rise much more as compared to actual rise that has taken place and so they have reduced trading activities and turned themselves into investors.



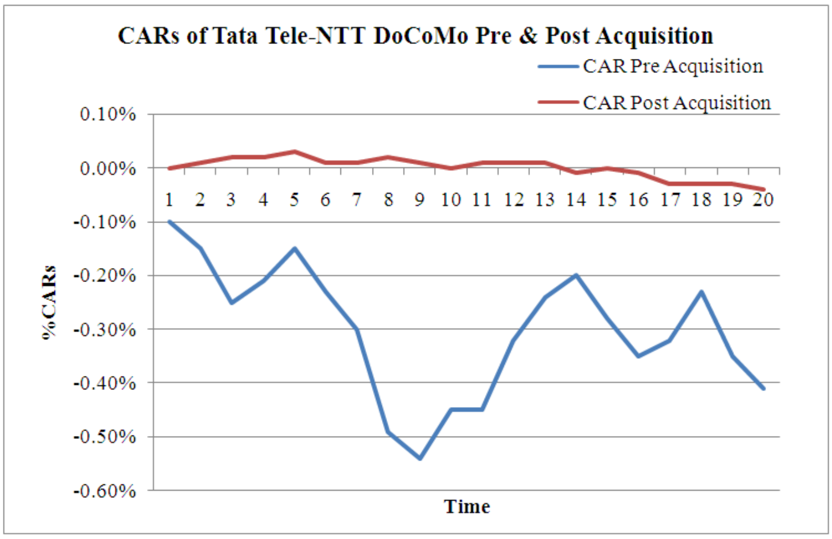








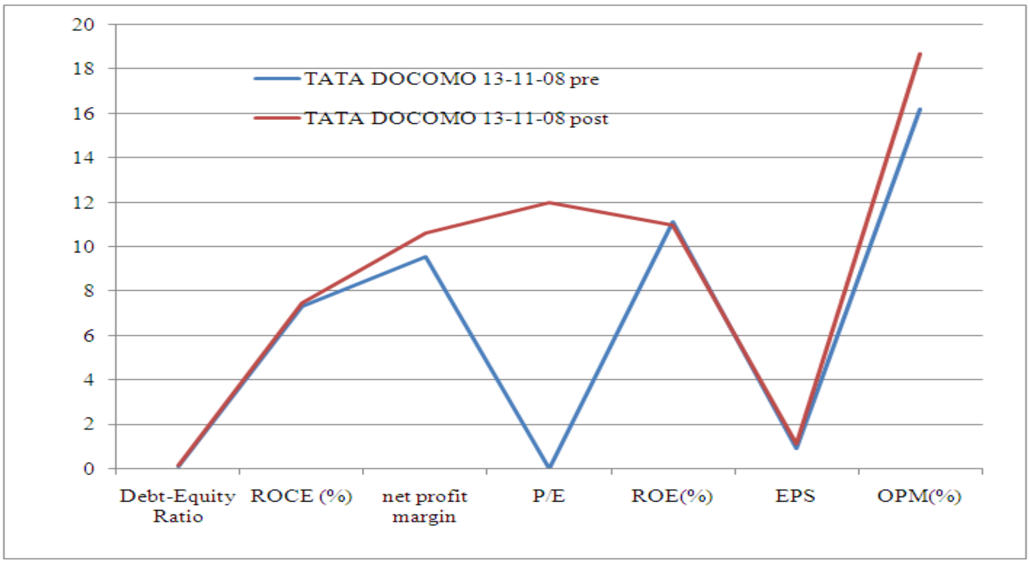
4.1.2 Company's return before and after acquisition



The return of the target company Tata Communication has been very poor since the past 15 to 20 days before the acquisition but it almost got to break-even soon after the acquisition date. This sustained for the next 8 to 10 days but again got back into negative returns zone due to poor customer support to the newly entered Docomo brand in highly competitive communications market in India.
Hence the Null hypothesis is rejected.

4.1.3 Ratio Analysis

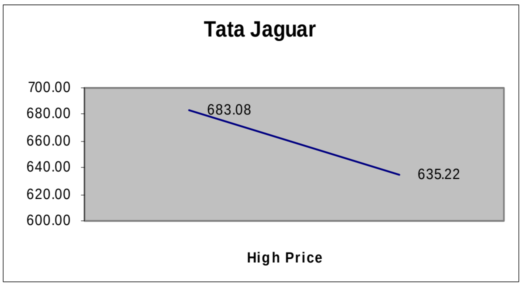
TATA DOCOMO (13-11-08)	Pre-acquisition	Post- acquisition	Change (%)
Debt-Equity Ratio	0.11	0.14	27.27%
ROCE (%)	7.33	7.44	1.50%
net profit margin	9.55	10.61	11.10%
P/E	0	12	0
ROE(%)	11.14	10.97	-1.53%
EPS	0.89	1.11	24.72%
OPM(%)	16.2	18.7	15.43%

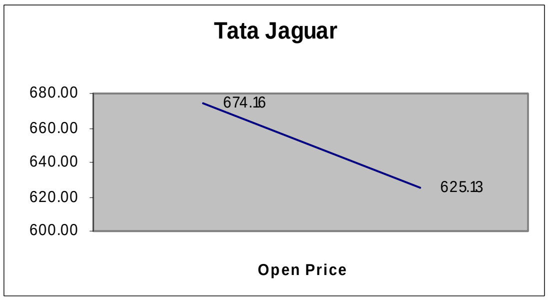


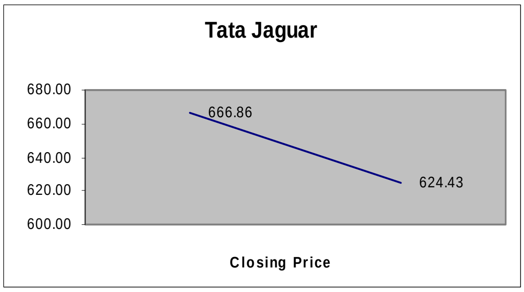
Debt equity ratio on post acquisition debt is increasing which shows company debt is increasing after merger.ROCE is constant it has not change much.Net profit margin increases by 11.10 as it income increases in post acquisition as compared to pre acquisition. P/E highly increases in post acquisition from 0 to 12%. ROE is decreasing by 1.53% which shows that it slightly more debt than equity. EPS is increasing drastically by 24.27% which is very profitable for investors. Operating profit margin is increased by 15.43% which shows that company profit margin is very fairly profitable.

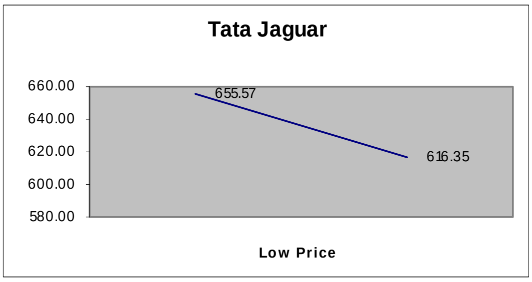
4.2 Tata Motor- JLR

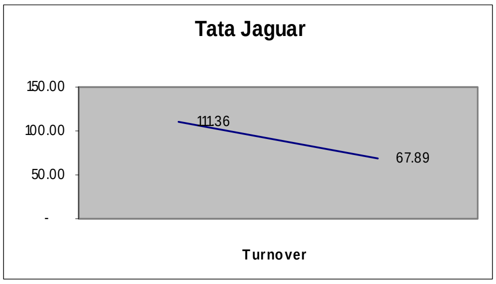
4.2.1 Impact on shareholders' wealth









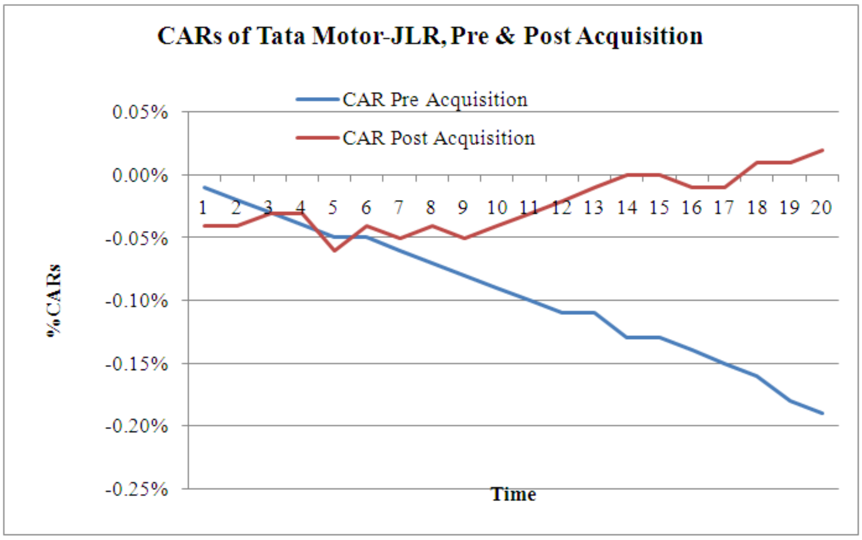


The calculation of five days moving average for the previous as well as later month from the date of merger is shown. It takes into account the open, high, low, close, daily turnover as well as calculation of abnormal return. This takes into account the daily volatilities of the share prices.

Here, the daily average prices have fallen in terms of all prices and even the turnover has decreased. This shows that the investors are not happy with the valuation of merger and so the overall sentiment among the investors is very poor. There are certain shareholders who expect the share prices to fall even much more as compared to actual fall that has taken place and so they have reduced trading activities and tried to sell and come out of the situation as soon as possible.

4.2.2 Company's return before and after acquisition

As we can see from the line chart that the cumulative return before merger was negative and the entire trend is moving in the negative direction due to poor returns of Tata motors.



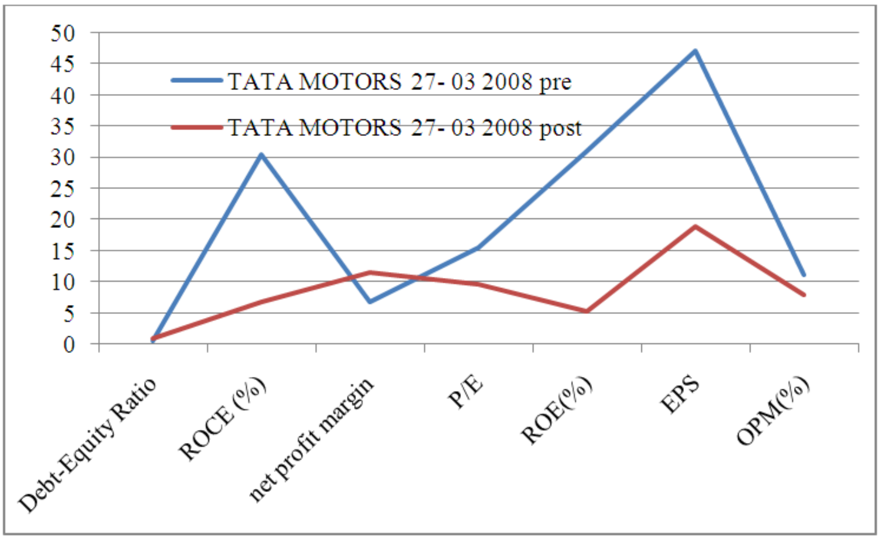
A soon as the acquisition took place, the highly profit generating Jaguar as well as Land Rover added to the profit and earnings of the Tata motors. The brand value of JLR added to the highly reputable Tata Group and the company's balance sheet. This can be clearly seen in the line chart above.

Hence the Null hypothesis is rejected.

4.2.3 Ratio Analysis

TATA MOTORS (27-03 2008)	Pre-acquisition	Post-acquisition	Change (%)
Debt-Equity Ratio	0.56	0.97	42.27
ROCE (%)	30.52	6.88	-343.60
net profit margin	6.88	11.47	40.02
P/E	15.45	9.59	-61.11
ROE(%)	30.98	5.34	-480.15
EPS	47.1	18.81	-150.40
OPM(%)	11.16	7.89	-41.44

Debt equity ratio is increasing by 42.27% as Tata took loan of banks to acquire JLR.ROCE increases vey high by 343.60% as compared to pre acquisition as it gauges that company that generate its earnings from the total pool of capital which indicates profitability.Net profit margin increases as it income increases in post acquisition as compared to pre acquisition. P/E highly decreases in post acquisition by 60.1% which in investor point of view they will be profitable to invest to get high earning. ROE is highly decreasing by 480.15% which shows that it has more equity than debt. EPS is decreasing drastically by 150.40% which is not profitable for investors. Operating profit margin is reduced by 41.44%.

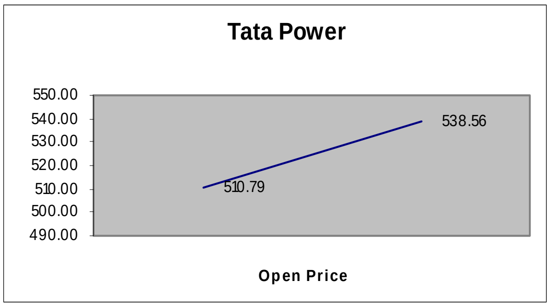


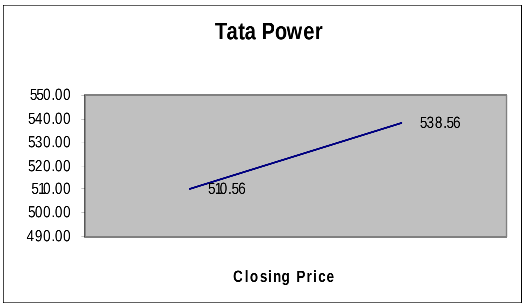
4.3 Tata Power–PT Kaltim Prima Coal

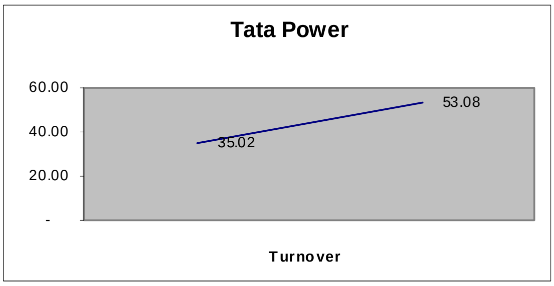
4.3.1 Impact on shareholders' wealth

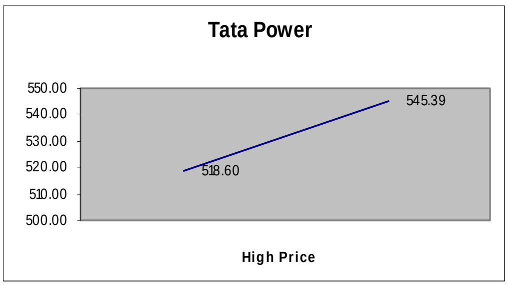
The calculation of five days moving average for the previous as well as later month from the date of merger is shown. It takes into account the open, high, low, close, daily turnover as well as calculation of abnormal return. This takes into account the daily volatilities of the share prices.

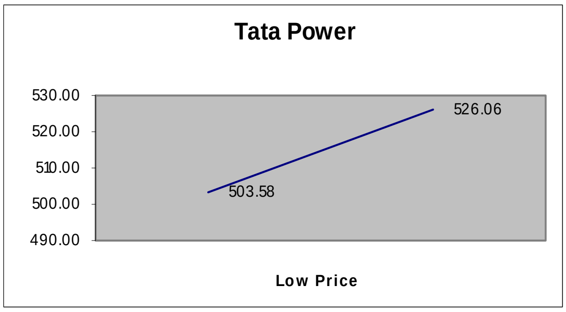
Here, the daily average prices have risen in terms of all prices and even the turnover has increased by more than 50 % from Rs. 35m to Rs. 53m. This shows that the investors are quite happy with the merger and they value the deal highly.





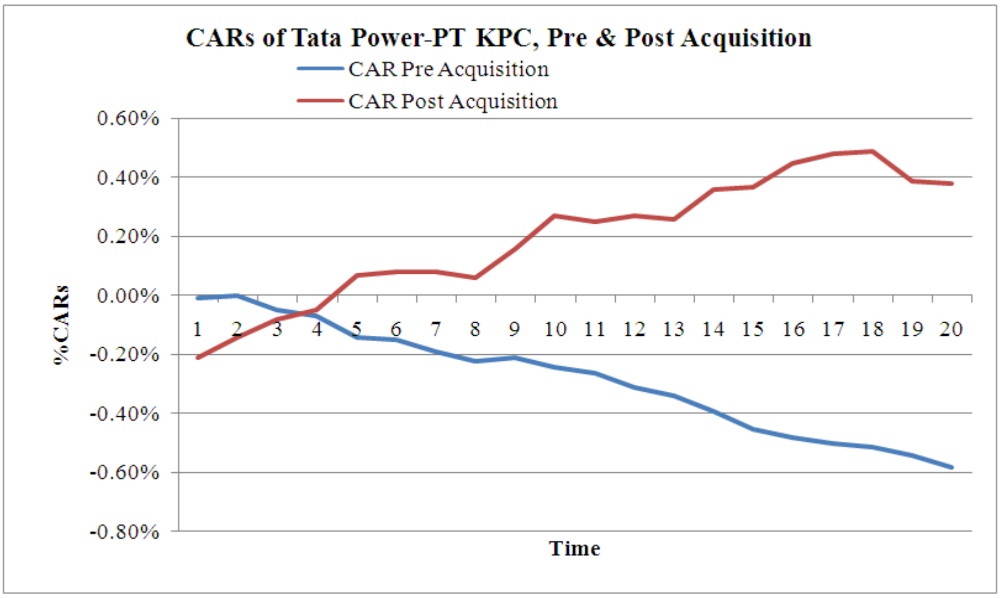






The daily traders are taking the benefit of increased turnover to book their intraday profit. The daily High-Low difference has remained almost constant but the individual highs and lows have increased by around 4-6%. This shows that investors are quite supportive to the decision of merger and hence its company's management.

4.3.2 Company's return before and after acquisition

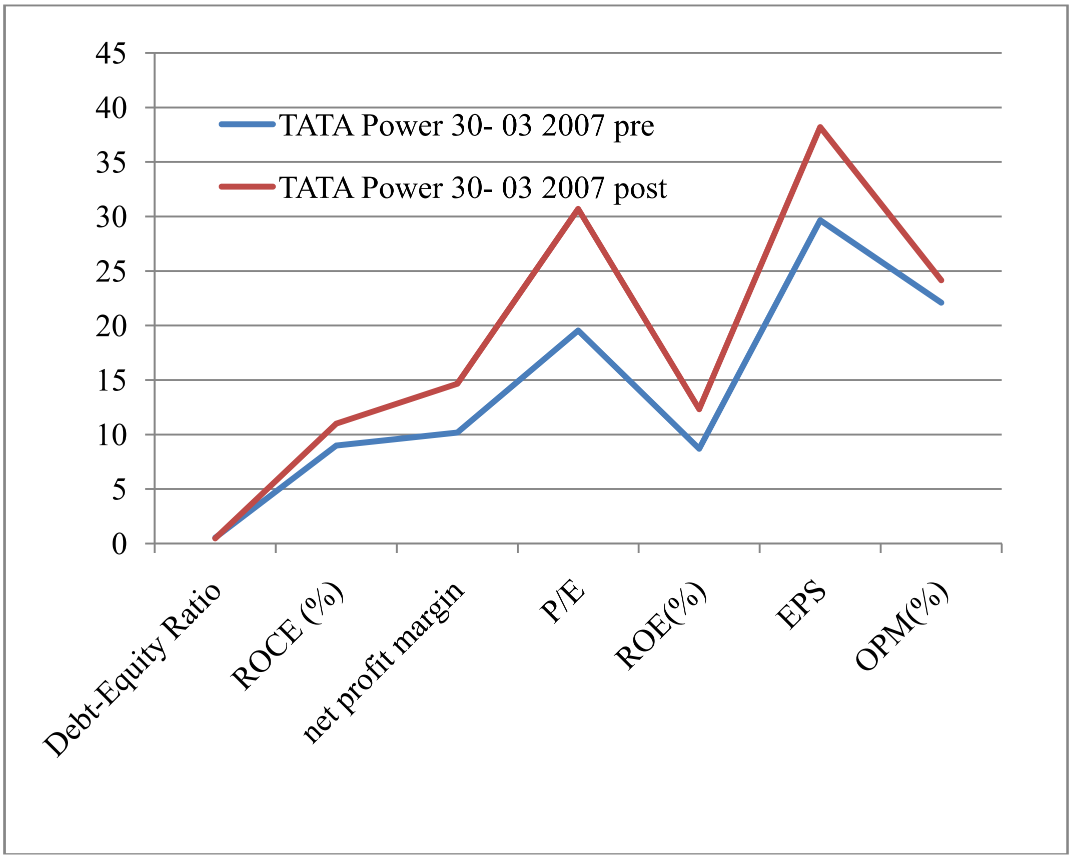


As we can see from the line chart that the cumulative return before acquisition was negative and the entire trend is moving in the negative direction due to poor returns of Tata Power.

As soon as the acquisition took place, the highly profit generating state owned Indonesian firm Kaltim Prima Coal Ltd., it added to the profit and earnings of the Tata Power. The Co. took the benefit by capitalizing on the high demand and its simultaneously high capacity in power generation. The target company also being profit making, the effect got translated in improved earnings.

4.3.3 Ratio Analysis

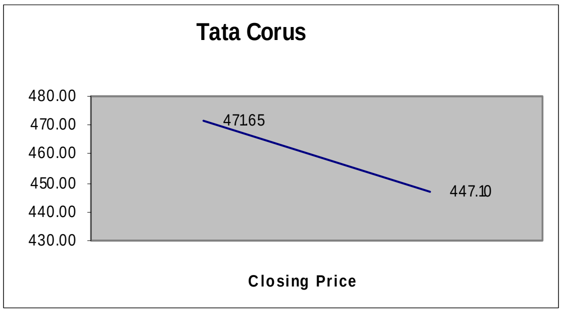
TATA Power (30- 03 2007)	Pre- acquisition	Post- acquisition	Change(%)
Debt-Equity Ratio	0.53	0.47	-11.32
ROCE (%)	8.99	10.99	22.25
net profit margin	10.18	14.65	43.91
P/E	19.54	30.69	57.06
ROE(%)	8.7	12.31	41.49
EPS	29.66	38.19	28.76
OPM(%)	22.1	24.15	9.28

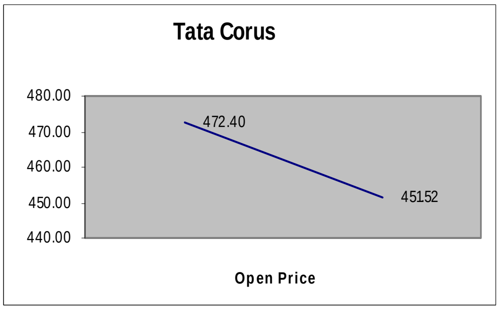


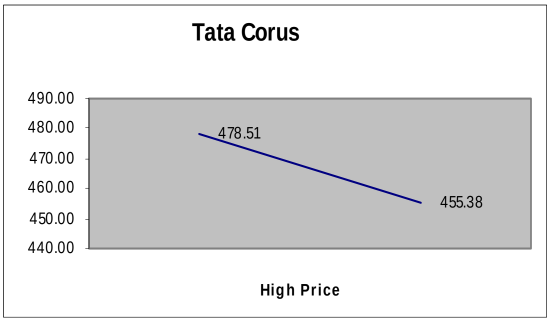
Debt equity ratio is decreasing by 11.32 which show that company has more liabilit.ROCE increases by 22.25% as compared to pre acquisition as it gauges that company that generate its earnings from the total pool of capital which indicates profitability.Net profit margin increases as it income increases in post acquisition as compared to pre acquisition. P/E highly decreases in post acquisition by 57.06% which in investor point of view will be profitable to invest to get high earning. ROE is highly increasing by 41.49% which shows that it has more equity than debt. EPS is increasing by 28.76% which is very fair for investors. Operating profit margin increasing by 9.28% which shows that company profit margin is very has increase.

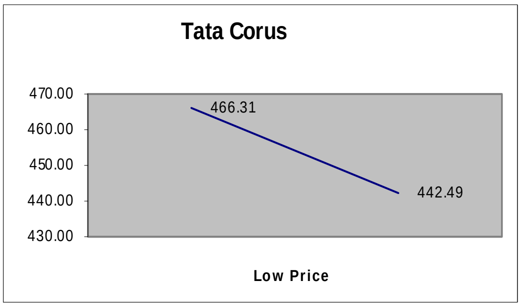
4.4 Tata Steel-Corus

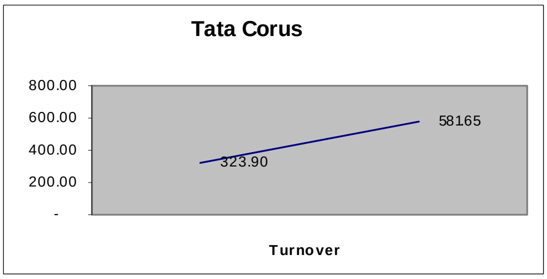
4.4.1 Impact on shareholders' wealth









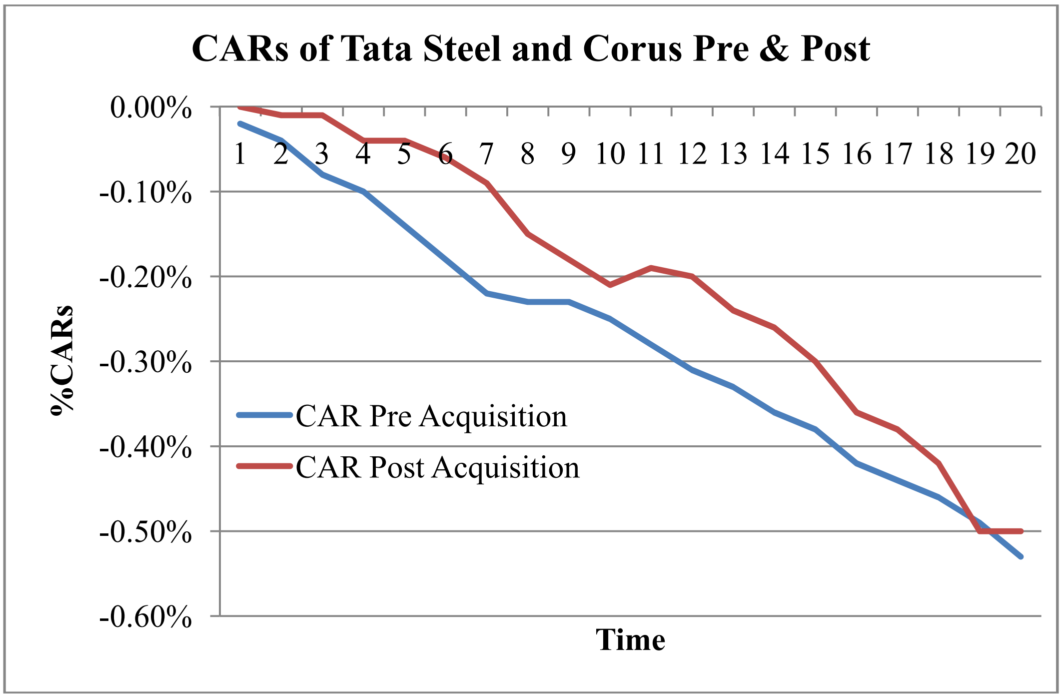


The calculation of five days moving average for the previous as well as later month from the date of merger is shown. It takes into account the open, high, low, close, daily turnover as well as calculation of abnormal return. This takes into account the daily volatilities of the share prices.

- Here, all the daily average prices have fallen except the turnover which has increased by approximately 80% from Rs. 323.9m to Rs. 581.65m. This is somewhat shocking as the trading activity has risen inspite of severe fall in stock prices.
- This is indicative of two completely different types of investor groups involved in the market. One with the positive view about the acquisition and the others who think the acquisition is overvalued.
- Investors with positive sentiments, view this deal to be lucrative in the long run. So they grab the opportunity to buy the shares at a low price and those

investors on the other hand readily sell their accumulated shares to save themselves from further fall in prices.

4.4.2 Company's return before and after acquisition



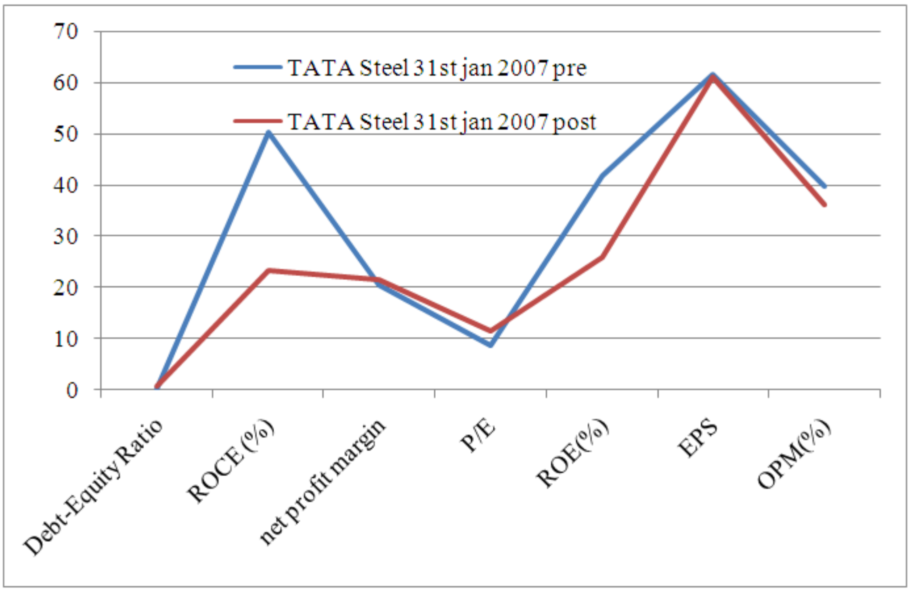
As we can see from the line chart that the %cumulative abnormal return before acquisition was sharply decreasing since past month with not even a single glimpse of positive return on any single day.

But as soon as the acquisition took place, the earnings showed a marginal rise and again got back to the level where it was just before the acquisition. This happened due to very large debt generated due to overpaying by acquiring the Corus at a very high price of 608 pence per share as compared to previously valued 455 pence per share.

Hence the Null hypothesis is rejected.

4.4.3 Ratio Analysis

TATA Steel (31st jan 2007)	Pre-acquisition	Post- acquisition	Change (%)
Debt-Equity Ratio	0.31	0.67	116.
ROCE (%)	50.13	23.27	-53.6
net profit margin	20.46	21.36	4.4
P/E	8.72	11.35	30.2
ROE(%)	41.7	25.97	-37.7
EPS	61.51	61.06	-0.7
OPM(%)	39.79	36.11	-9.2

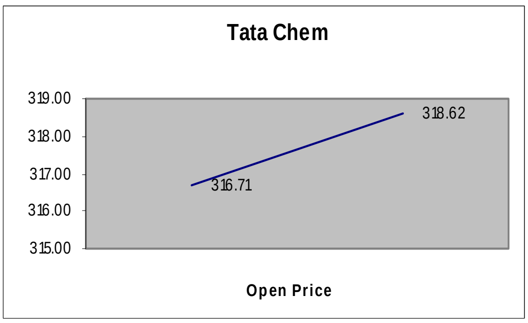


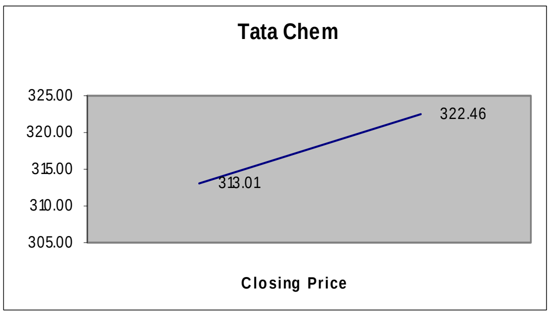
Debt equity ratio on post acquisition increase because Corus debt was high it was GBP1.6b to buy Corus and so its debt is almost 116% more than in pre acquisition. ROCE shows that post acquisition is very less as compared to pre acquisition it has negative percentage because company has short term returns after one year it will improve in the long run. Net profit margin has very less change as profit is not much affected. P/E increases in post acquisition by 30.2% which show high future cash flow. ROE is decreasing by 37.7 which show that it has more debt than equity. EPS has a very minor change. Operating profit margin is reduced by 9.1% which shows that it has low profit.

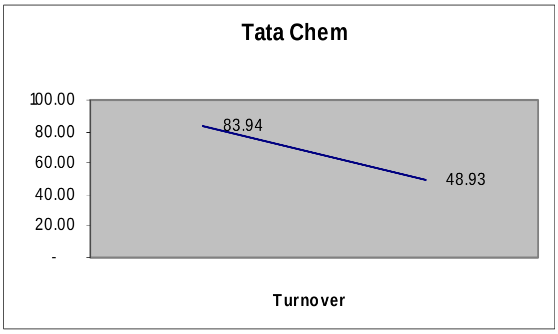
4.5 Tata Chemicals–General Chemicals

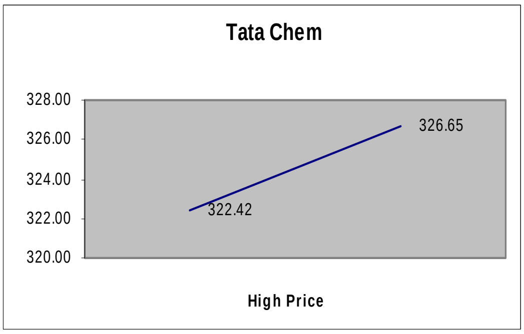
4.5.1 Impact on shareholders' wealth

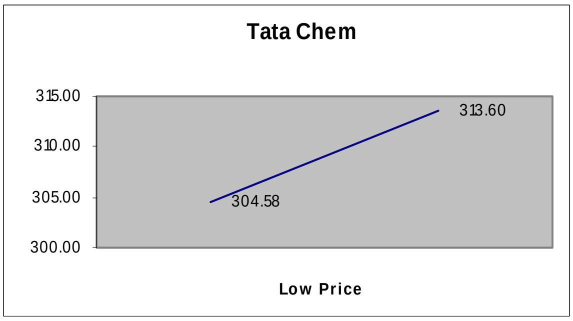
The calculation of five days moving average for the previous as well as later month from the date of merger is shown. It takes into account the open, high, low, close, daily turnover as well as calculation of abnormal return. This takes into account the daily volatilities of the share prices.









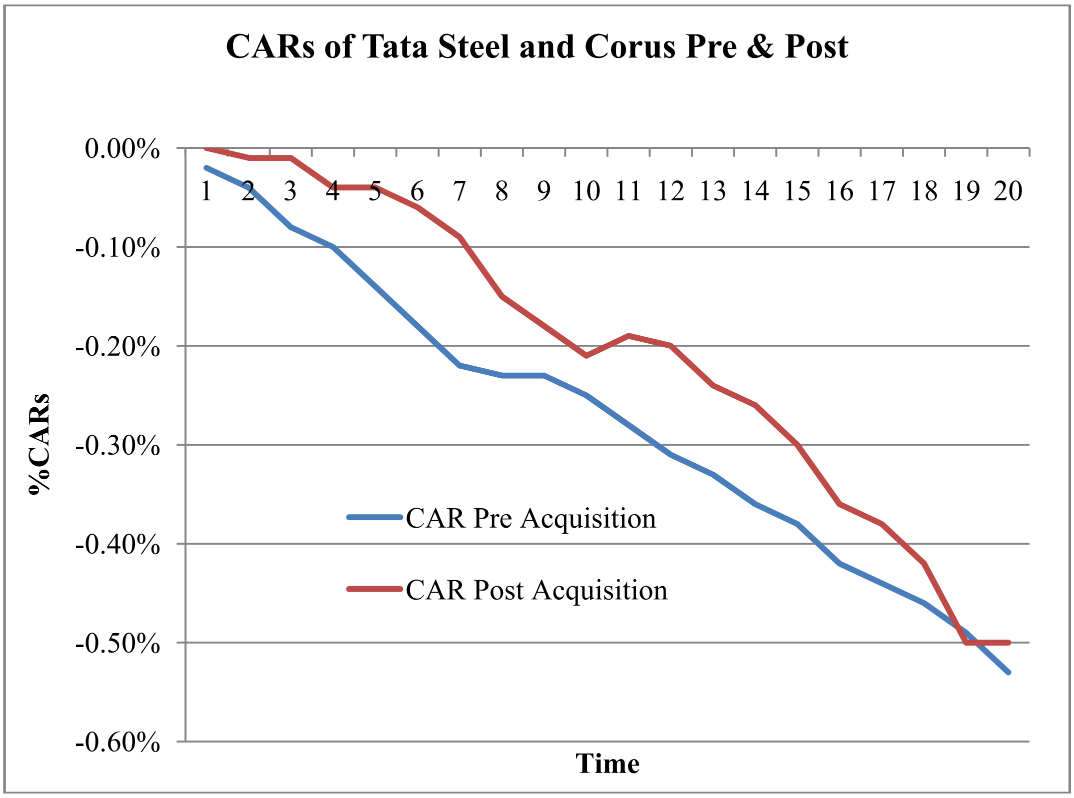


Here, the daily average prices have risen due to positive feedback of the merger but the turnover has decreased at the same time. This shows that there are certain shareholders who expect the share prices to rise much more as compared to actual rise that has taken place and so they have reduced trading activities and turned themselves into investors. Such investors value the deal much more and so they expect the share prices to rise sharply within a period of year or so.

4.5.2 Company's return before and after acquisition

As we can see from the line chart the earnings of Tata Chemicals has fallen sharply since one month by about 0.30% to 0.35%. The effect of poor result continued even after the acquisition of General Chemicals and went down by 0.2% more in next 30 days. As a result of poor earnings, even the share prices of Tata Chemicals fell from Rs. 328 per share to Rs. 305 per share.

Debt equity ratio is increasing by 47.27% as Tata Chemicals debt is low as compare to equity. ROCE decreases vey high by 71.03% as compared to pre acquisition as it gauges that company cannot generate its earnings from the total pool of capital which indicates less profitability.Net profit margin decreases highly by 77.46% which shows decrease in income in post acquisition as compared to pre acquisition. P/E highly decreases in post acquisition by 25.63% which in investor point of view is not profitable to invest. ROE is highly decreasing by 71.03% which shows that the company has incurred a huge loss and should improve its OPM to improve performance. EPS is decreasing by 8.29% there would be a selling spree in point of view investors. Operating profit margin is drastically reduced by 68.73% which shows that company profit margin is very less.

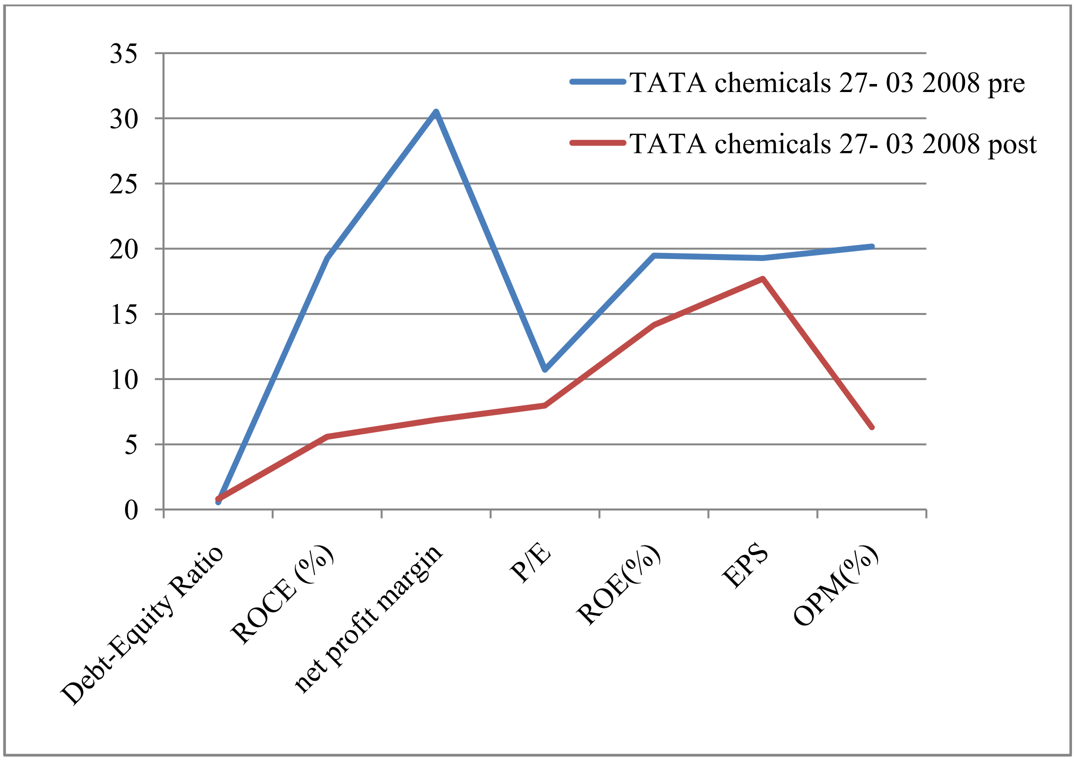


Hence the Null hypothesis is rejected.

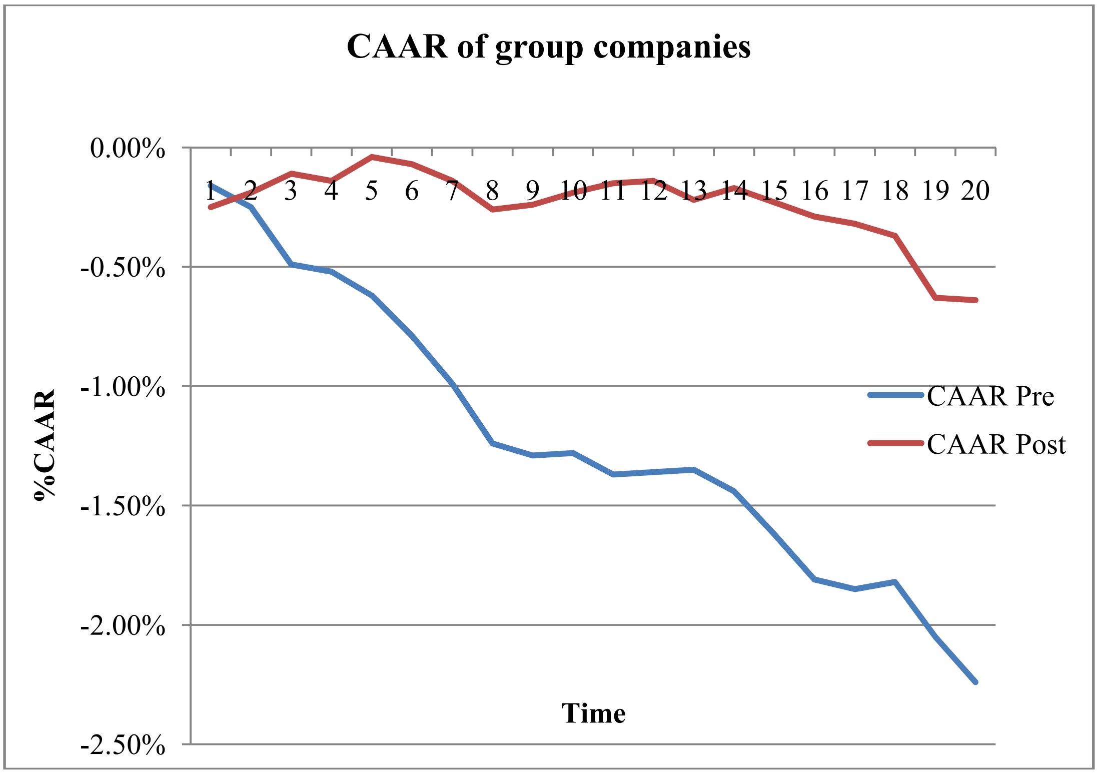
4.5.3 Ratio Analysis

TATA chemicals (27- 03 2008)	**Pre-acquisition**	**Post-acquisition**	**Change (%)**
Debt-Equity Ratio	0.55	0.81	47.27
ROCE (%)	19.26	5.58	-71.03
net profit margin	30.52	6.88	-77.46
P/E	10.73	7.98	-25.63
ROE(%)	19.48	14.15	-27.36
EPS	19.29	17.69	-8.29
OPM(%)	20.18	6.31	-68.73

The impact on shareholder's wealth differs from company to company. But the overall impact on shareholder's wealth has increased and thereby created a positive image of the Tata Group as a whole. Except Tata Motors, Chemicals and Tata Steel, the average daily share prices of the rest two companies have risen. The study depicts that the merger and acquisition by TATA had positive impact with only two companies studied in research- Tata-Teleservices and Tata Power. Which results these two companies in average daily share price in stock market after acquisition, same results can be seen in case of profitability and liquidity position.



5. Findings and Conclusions



5.3 Scope for Researchers

1. The study is limited to only five selected companies of TATA Group, researcher may extend this study by taking more companies of different sectors.
2. The study is limited to analyze short term performance of the acquisition, it may also be taken as long term performance of the acquisition.

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