Impact of Merger on Stock Market - A Study on Selected Industries

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Abstract

A merger is a combination of two or more companies to form a new company or continue with same company. Acquisition is one company taking over another company or purchase of one company by another and there is no new company is formed. Mergers and Acquisitions are corporate strategy used by the organizations to achieve its business goals. It includes increase the profit, empire building, and market dominance; reduce the level of competition and long term survival. To improve the market position multinational companies start to acquire small sector. Because of high competition it’s difficult to local firms to develop as much as they expected. Mergers and acquisition have become worldwide because of high level of competition, foreign direct investment and globalization of business.

Merger and acquisition influences and changes companies core capacities name and fame. Therefore it influences share prices of the companies which get into this process.

The paper highlights into the impact of merger on share prices. The secondary sources of data and information were employed to do the analysis to know the impact of merger on share prices.
1. Introduction

A merger is a blend of two or more companies to form a new company or continue with same company. Acquisition is one company taking over another company or purchase of one company by another and there is no new company is formed.

Mergers and Acquisitions are corporate strategy employed by the organizations to realize its business goals. It aims at increasing profit, empire building, and market dominance; reduce the level of competition and long term survival. To strengthen the market position multinational companies start to acquire small sector. Because of high competition it’s difficult to local firms to develop as much as they expected. Mergers and acquisition have become worldwide because of high level of competition, foreign direct investment and globalization of business.

When a firm gains another substance, there generally is an anticipated transient impact on the stock cost of both organizations. By and large, the securing organization's stock will fall while the objective organization's stock will rise. The reason the objective organization's stock for the most part goes up is that the securing organization ordinarily needs to pay a premium for the obtaining: unless the procuring organization offers more per offer than the present cost of the objective organization's stock, there is minimal impetus for the present proprietors of the objective to offer their shares to the takeover organization.

Objectives

The main objectives of the study are
- To analyze the impact of Mergers on the performance of company share prices in the stock market.
- To evaluate the performance before and after Mergers.
- To compare the impact of mergers among industries.

Scope of the Study

Scope of the study depict about the study period, limit of the research, effect of the exploration etc. The present study is an attempt to examinations the impact of Mergers on the performance of company share prices in the stock market. The study period start from 1-1-2000 to 31-12-2014 the current study covers the merger and acquisition took place during this period in India. The five industries covered in this study are Banking Industry, Pharmaceutical Industry, Textile Industry, Chemical Industry, Plastic Industry.

2. Methodology

Research methodology is a method to solve the problem systematically. In this study it was taken the merged companies included in the BSE SENSEX index from 1-1-2000 to 31-12-2015. The effects of the merger companies on share
prices was examined by taking daily adjusted market price data for sample stocks 15 days before merger and 15 days after the merger date. The merger dates of companies are collected from the BSE website and the sampling technique is convenience sampling.

**Sources of Data**

In the current study employs both primary and secondary data for analysis. The primary data is fresh data which collected first time by a researcher. Secondary data is a second hand data which is already collected by someone for his/her/their own study.

The primary sources used in this study are as follows.

- Interview with stock broker.
- Interview with investors.
- Direct observation method.

Types of secondary data used in this study are:

- Annual report.
- Books.
- Websites.
- Newspapers, Journals.

**Sample Size**

Sample size of this study is 5 industries and 25 companies, which are register in BSE. From the 5 different Industries five each company are selected.

**3. Techniques of Analysis**

Daily returns for each sample company have been computed for the estimation period and for the event period as:

\[
\text{Stock return} = \frac{(P_1 - P_0) + D}{P_0}
\]

- P0= initial stock price
- P1= Ending stock price (period 1)
- D=dividend

**CAPM Return**

\[
E(R_a) = R_f + B_\beta (R_m - R_f)
\]

E(R) = Expected return

**Abnormal Return**

Daily abnormal return on a particular day t is the excess of the AB on the day t over the expected return on that day.

\[
AR = R_{at} - E(R_{at})
\]
R_{it} = Actual daily return
E(R_{it}) = Expected return

The study period used in this examination is a 30 days. Trading days previous to the mergers are numbered event days -1,-2 and so on. The result days following mergers are numbered +1,+2 and so on. The maximum time taken in this study is -15days to +15 days. First the abnormal returns are the sum of the average excess returns over event of time. Daily Cumulative average return are sum of the average excess returns over event time.

4. Review of Literature

NeelamRani, Surendra S. Yadav and P. K. Jain (2011) did a research on the topic of “Impact of Mergers and Acquisitions on Shareholders’ Wealth in Short-Run: An Empirical Study of Indian Pharmaceutical Industry” the objective of the study was to examine short-term abnormal returns to the shareholders of acquiring companies separately for mergers and acquisition; the disaggregate study for such returns has also been tried for domestic and foreign-based goals. From their study they have concluded that there are significant positive abnormal returns to shareholders of Indian pharmaceutical companies on their acquisitions of foreign targets.

Ramachandran azhagaiah and T. sathishkumar (2011) made a research on the topic of “Mergers & acquisitions: an empirical study on the short-term post-merger performance of corporate firms in India”. The main objective of their study was to study the impact of merger and acquisition on leverage, liquidity, profitability, and operating performance of firms across industries in India after merger and acquisitions. From their study they suggested that merging corporate firms in India appear to have performed better financially after the merger, as compared to their performance in the pre-merger period. This improvement in performance can be attributed to the merger. Enhanced efficiency of utilization of their assets by the merged firms appears to have led to the generation of higher operating cash flows. Synergistic benefits appear to have accrued to the merged entities due to the transformation of the uncompetitive, fragmented nature of Indian corporate firms before merger, into consolidated and operationally more viable business units.

Shobhanaand K.manjula (2011) made a research on the topic of “Merger and acquisition activity in the Indian manufacturing sector and shareholder value addition in the merged entities”. The main objective of the study was to evaluating the post-merger performance of the merged companies by way of intra-firm comparisons using Value Added metrics of corporate performance such as Economic Value Added and Market Value Added and to identify the specific gainers or losers after merger. From their study they have concluded that there is no such value addition to the merged companies in terms of the Economic Value Added and Market Value Added during the post-merger periods.
Jaskiranarora and Shilkaabraham (2011) made a research on the topic of “A study on the effects of merger & acquisitions in the Indian banking industry” the main objective of the study was analyze the benefits and costs involved with mergers & acquisitions in banks and to understand the strategic and financial implications of mergers & acquisitions from their study they suggested that to the effect of the mergers in the short term i.e. in the days immediately before and after the merger, have shown no significant impact with relation to change in the stock prices and in the long term, right investment can bring out strategic and financial benefits to the merged company.

Limitations

The following are the limitations of the study.

- Most of the information taken from secondary data.
- Study is conducted only for Indian companies.
- Study is conducted only for 5 industries.

5. Analysis and Interpretation

The Return for all company shares for this study is calculated for 15 days before merger and 15 days after merger. The analysis made for banking industry, plastic industry, pharmaceutical industry, chemical industry, textile industry under study. For each company share the expected return, abnormal return cumulative abnormal return and T test were calculated.

- It is evident from the study that Abnormal Return is negative for 10 days and positive for 6 days after merging and before merging Abnormal Return is negative for 8 days and positive for 16 days. During the whole period the Abnormal Return is negative for 18 days and positive for 14 days. The mean return after the event date of merging -0.2460 is greater than the mean return before the date of merging -0.4417 and volatility return after the date of merging 1.1507 is less than the volatility return before merging 1.5117. Abnormal return is equal to zero, then both abnormal return and cumulative abnormal return is insignificant.

- From the study it is clear that kotak bank having positive abnormal return after the the date of merger (0.3133) and negative abnormal return before the date of merger with ING Vysya Bank (-0.292). Post-merger expected return (0.396) is more than the expected return during pre-merger (-0.280). Volatility return after the merger (2.2503) is greater than before the merger that is (1.438). It indicate that risk of investment during post-merger period is more.

- The actual return and expected return of post-merger was greater than pre-merger period. The volatility return after the date of merger is greater so investor can expect higher risk in post-merger period.

- From the study it is clear that during post-merger period abnormal return is greater (0.0277) than pre-merger period (-1.761). During post-merger the expectation of return (0.1457) is more but the actual return is less (-0.1869). The expectation of return of a investors is increased after the
merger. The actual return during pre-merger period is greater than post-merger. The volatility return before the date of merger is more (4.576) than after the date of merger (1.3886). Merger has improved the performance of a share in the stock market.

- The abnormal return during pre-merger period is negative (-0.0383), and after the date of merger abnormal return is positive (0.2938). It indicate that merger has improved the performance of share in stock market. The actual return and expected return during pre-merger is greater than post-merger and the volatility return after the date of merger is (1.4863) more than before the date of merger (1.0814).

- During pre-merger period abnormal return of HDFC bank is highest (0.6832) among the companies and IDBI bank has lowest (-1.761), and during the post-merger period HDFC bank has highest 0.5858 abnormal return, and ICICI bank has lowest (-0.2460) abnormal return. The ICICI bank has highest actual return before the date of merger (1.628) and IDBI has lowest (-1.665).In post-merger period ICICI bank has highest actual return (1.469) and Oriental bank has lowest (-1.869).

- The abnormal returns during post-merger period is greater (1.140) than pre-merger (0.113) period. Actual return after the event date of merging (1.086) is greater than before the date of merging (0.0308). Expected return after the date merging (-0.0541) is greater than before merger. Volatility return after the date of merger is 3.770 is more than pre-merger period 1.395. It Indicate that shareholders of Sun Pharma Company expect less return after merger but actual return of Sun Pharma Company after the merger is more. During the post- merger period risk and return are more.

- The abnormal return after the date of merger is greater, compared to before the date of merger. The expected return and actual return is greater after the date of merger and the volatility return is more (3.331) before the date of merger and its come down to 2.728 after the merger. Investors earn more return during post-merger period.

- The abnormal return before the date of merger is positive (0.628) and during post-merger period is negative (-0.374) It indicate that merger has not improved the performance of the share in the stock market. Actual return of before the merger is more than after the date of merger. Expected return for share is greater during the pre-merger period and less in post-merger and volatility of return is more during post-merger period compared to pre-merger.

- Abnormal return during pre-merger period is higher than post-merger period. Expected return during post- merger period is more and actual return for a share during pre-merger period is more, Volatility return during pre-merger period is (2.509) greater than post-merger period (2.211).

- The abnormal return of Cadila healthcare company is positive (0.195) during the period of post-merger and its went for negative (-0.958) after
the merger. Actual and Expected return during the post-merger period is more than pre-merger period and the volatility return after the merger is more than before the merger.

- The Sun pharma has highest abnormal return (1.14) during the post-merger period and Matrix Laboratories has lowest return (-0.374). During pre-merger period Matrix Laboratories has highest Abnormal return (0.628) than other pharmaceutical companies and Cadila health care has lowest return (-0.958). During post-merger period sun pharma has highest Actual return (1.086) and Matrix Laboratories has lowest return (-0.730). Expected return of Dr Reddy Laboratory has highest return during post-merger period and Matrix Laboratory has lowest return. During pre-merger period expected return of all companies are negative and sun pharma has highest expected return.

- The abnormal return is negative during pre and post-merger period in both situation during post-merger period abnormal return is more than pre-merger period. The actual return and expected return during merger period in both situation is negative. During post-merger period actual return and expected return is greater than pre-merger period.

- The abnormal return during the period of post-merger is greater (0.557) than pre-merger (0.297). The actual return and expected return during the period of pre-merger is greater than post-merger period. It indicate that merger improved the performance of the stock of Forbes Gokak Ltd in the stock market and the volatility of after the date of merging is greater (5.543) than pre-merger period (2.658).

- After the date merging with Indo Rama the investors expect less return (-0.1668) but the actual return is more and in the pre-merger period the investors expect more return (0.0779) but the actual return is less (-0.01547). It indicate that even through the investors expects less return after the merger, merger improved the performance of the share in the stock market.

- The abnormal return of before the date of merger and after the date of merger is negative. The actual return and expected return before the date of merger is greater than after the date of merger. The expected return of shareholder’s come down in post-merger period. Volatility return after the date of merger is 2.528 is less than before the date of merger (2.902).

- The merger has not improved the performance of Sangam (India) stock it has not performed well as in pre-merger period. The volatility of return after the merger is (1.810) lesser than before the merger. The abnormal return after the date of merger is -0.230 compare to pre-merger performance is improved.

- The abnormal return of Forbes Gokak Ltd is higher during pre-merger period (0.297) whereas shree Rajasthan syntex Ltd has resulted lowest return (-1.631). Forbes Gokak Ltd has highest abnormal return (0.557) during post-merger period and shree Rajasthan syntex Ltd has lowest (-0.670). Forbes Gokak Ltd has the highest expected return during pre-
merger period and Aditya Birla nuvo Ltd has lowest return, during the post-merger period expected return of Forbes Gokak Ltd is more. Forbes Gokak Ltd has highest actual return during pre and post-merger period.

- The post-merger abnormal return is greater (0.307) than pre-merger (-0.296). The expected return and actual return are more during the post-merger than pre-merger period. Volatility return is greater in the period of post-merger (1.144). The investors expect less return in post-merger but actual return is more than expected. The merger has improved the performance of the share.

- The abnormal return during pre-merger period is positive (0.302) and during post-merger period is negative. The actual return during pre-merger period is more than post-merger period, expected return during pre-merger is (-0.2645). Volatility return after the date of merger is more than before the date of merger. It indicate that merger has not improved the performance of a stock.

- The period of pre-merger the Abnormal Return is Negative (-0.399) and positive during post-merger period (0.940) and the actual return in the pre-merger is lesser (-0.1502) than post-merger. Volatility return during the post-merger period (2.085) is greater than pre-merger period (2.045).

- During the pre-merger period investors expect more return (0.1456) but the actual return is less (-1.2641) and abnormal return during pre-merger period is Negative. The volatility return in pre-merger period is more 1.922 than post-merger 1.710. Risk during post-merger period is less compared to pre-merger period.

- Abnormal return during pre-merger period is greater (1.038) than post-merger (0.018). The actual return and expected return during post-merger period is more than pre-merger. During post-merger actual return and expected return are negative. The volatility return in pre-merger is (4.766) greater than post-merger period.

- During pre-merger period Punjab Chemicals & Crop Protection Ltd has highest abnormal return (1.039) and AartiInd Ltd has lowest (-1.410). During post-merger period Tata Chemicals Ltd has highest return (0.940) and BASF India Ltd has lowest return (-0.277). During post-merger expectation return of AartiInd Ltd has highest return and in pre-merger period Tata chemicals has greater expected return. During pre-merger period BASF India has highest actual return (0.037) and Punjab Chemicals & Crop Protection Ltd has lowest (-1.579).

- Abnormal return during pre-merger period is positive, and in post-merger period is Negative. It indicate that merger has not improved the performance of stock in the market. The expected return is negative during pre-merger and positive in post-merger period. Actual return in pre-merger period is greater 1.0716 than post-merger 0.0338 and the volatility return in post-merger 16.652 is greater than post-merger 10.572.
During pre-merger period company has Negative abnormal return (-1.529) and positive return during post-merger period (1.277) because of merger investors expect less return (-0.0860) during post-merger period but the actual return is more (1.1911). The volatility return of before the date of merger is greater(4.488) than after the date of merger (3.767).

Abnormal return during post-merger is negative (-0.096). The expected return and actual return before the date of merging is low. It indicate that merger improve the performance of share in the stock market. The volatility return before the date of merging is low compared to after the date of merging.

Abnormal return is greater during the post-merger (6.641) than post-merger (-0.999) period. The expected return is more during pre-merger (1.0745) than post-merger period (-6.4093)and the volatility return is also more in post-merger period, it indicate that merger has improve the performance of share in stock market.

Abnormal return during post and pre-merger period is negative. The expected return during pre-merger period is greater than post-merger. The actual return during pre-merger period is more (0.1303) than post-merger. The volatility return during post-merger is greater (3.764) than pre-merger (2.879).

During pre-merger period abnormal return of VIP Industries Ltd is higher (3.204) and Supreme industries has lower abnormal return (-1.529). During post-merger period abnormal return of Cosmo Films Ltd (6.641) is greater than other companies, actual return during pre-merger period of VIP industries (1.0716) is higher, and actual return of supreme industries (-1.7893) is lowest.

Among the five Industries performance of plastic industry is better during post-merger period because the abnormal return of plastic industry is more (0.468) and in the pre-merger period abnormal return of plastic industry is greater. In banking sector during post-merger period the expectation of investor is (0.053) but the actual return in more than investor’s expectation, it conclude that performance is improved during post-merger period of banking Industry. Abnormal return of all the industries is positive during post-merger period it indicate that merger has improved the performance of companies.

6. **Findings, Suggestions, and Conclusion**

**Banking Industry**

- It is clear from the study that only HDFC bank has positive abnormal return during before and after merger period.
- From the study it is clear that abnormal return during post-merger period is higher than pre-merger period in banking industry.
- Investors enjoyed more return during post-merger period.
- Actual return is more than expected return in after the date of merger.
All banks have positive abnormal return except ICICI bank during post-merger period.

**Pharmaceutical Industry**
- Merger has improved the performance shares of pharmaceutical companies.
- Pharmaceutical Industry gained more return than expected.
- Actual return during post-merger period is better.
- Matrix Laboratories and Jyothi Laboratories having negative results from merger.
- Expectation of Investor during post-merger period is more.

**Textile Industry**
- Forbes Gokak Ltd having positive abnormal return during pre and post-merger period.
- During pre-merger period abnormal return of textile Industry is negative, but in post-merger period the abnormal return of textile industry is positive. It concluded that the merger has improved the performance of textile industry.
- Actual return of investors increased in post-merger period.

**Chemical Industry**
- Merger has not improved the performance Punjab Chemicals & Crop Protection Ltd, there is negative result from the merger.
- Merger has improved the performance of chemical industry, investors earn high return during post-merger period.
- Tata Chemicals Ltd earned high abnormal return during post-merger period.

**Plastic Industry**
- VIP Industries and Supreme Industries Ltd the investors got low level of return during post-merger period it indicates that the merger has not improved the performance of shares of a VIP Industries and supreme Industries.
- Cosmo Films Ltd having positive return from merger.
- Plastic Industry improved the performance during post-merger period.
- Expectation of investors during post-merger period less than pre-merger period.

7. **Suggestions and Conclusion**

Merger is a strategic tool used by the companies to face the competition. This study examines the impact of merger on share prices of a company. In most of the industries the abnormal return is higher after the date of merger, during post-merger period the investors have enjoyed higher return than expected, after the merger development in the company would be different. The investors those who observing the merger will definitely going to get benefit of it. And they start investing in those companies and it make the market to go upward direction after the date of merger. So the study concludes and suggest that buying
shares after the merger is risk less and the return after the merger is more, suggest that investors should buy the share during post-merger period because one or the other day market will give high return. In this study mergers having a positive impact on the investors wealth.

Bibliography


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