MANAGEMENT REVIEW

Impact of Merger on Short-term Scrip Price Return- A Practical Evidence from the Mergers in Indian Context during 2010-11

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Abstract

The modern mantra, Merger and Acquisition has become a prominent objective of the modern day business to enhance its value immediately in an inorganic way by creating a synergy among different variables. Due to LPG impact from late 90s, Indian firms are adopting this strategy to explore opportunities in expanding their operation overseas as well as in domestic market. From the standpoint of investors, successful acquisition increases profitability and stock price. Efficient Market Theory is a separate concept called Random Walk Theory, as per which the stock prices fluctuate randomly in the market and there is no special trend of movement of share prices. And all these fluctuations only depend upon the level of information available. This paper uses an event study methodology to empirically examine stock market reaction to acquisition announcements and tries to find out the impact of merger on short term scrip return.

Keywords

Inorganic Growth, Event Study, Synergistic & Disciplinary Takeovers, Scrip Return

Introduction

Mergers and acquisitions represent 'Inorganic Growth' and a common strategy in expanding distribution channels, or entering new markets across most industries. A popular belief is that mergers and acquisitions strengthen businesses by making their operations more synergetic. Announcements of mergers and acquisitions immediately impact a company's stock price, as induced reaction in the stock market cause investors to revise expectations about the company's future profitability **(Panayides & Gong, 2002).** According to the Efficient Markets Hypothesis, "prices reflect all publicly available information on an underlying asset" **(Fama, 1970).** Event Studies are frequently used to test market efficiency **(Brown & Warner, 1980)**. An event study is a statistical method used to gauge the impact of a corporate event, such as stock-splits, earnings announcements and acquisition announcements. The Synergy Trap Hypothesis points that immediately before and after an acquisition announcement, the acquiring firm's stock price is negatively affected and the target firm's stock price is positively affected.

The concept of merger and acquisition has gained substantial momentum in today's corporate world. The process of merger and acquisition has been carried out to meet out the requisite restructuring of the business as well as expand it immediately. Initially the merger and acquisition was adopted by government with the prime motive of converting loss making units into profit making units with the help of 'consolidation effect'. Since the process involved in the course of merger and acquisition is normally expected to be complex, the government of India has initiated favorable policies and established financial institutions to extend the assistance in the form of providing capital to the parties who involve in this venture. As far as India is concerned, the various sectors have been

exposed to merger and acquisition activities. This is particularly so in IT and ITES, pharma, chemical sectors and telecommunication sectors. These sectors have been turned to be the pioneer in major consolidation through merger and acquisition.

Specific Reasons of Merger

The Table- 1 indicates some industry specific reasons of merger and acquisition process that took place in the area of pharmaceuticals, telecommunication, Power and financial services.

Table 1
Specific Reasons of Merger in Specific Areas

Name of the Organization	Details of Merger
Tata Chemicals with British salt	Tata Chemicals bought British Salt; a UK based white salt producing company for about US $ 13 billion. The acquisition gives Tata access to very strong brine supplies and also access to British Salt's facilities as it produces about 800,000 tons of pure white salt every year.
The Reliance – BP deal	The Reliance – BP deal finally came through in July 2011 after a 5 month wait. Reliance Industries signed a 7.2 billion dollar deal with UK energy giant BP, with 30 percent stake in 21 oil and gas blocks operated in India.
Airtel's acquisition of Zain in Africa	Airtel acquired Zain at about US $ 10.7 billion to become the third biggest telecom major in the world. Since Zain is one of the biggest players in Africa covering over 15 countries, Airtel's acquisition gave it the opportunity to establish its base in one of the most important markets in the coming decade
Abbott's acquisition of Piramal healthcare solutions	Abbott acquired Piramal healthcare solutions at US $ 3.72 billion which was 9 times its sales. Though the valuation of this deal made Piramal's take this move, Abbott benefited greatly by moving to leadership position in the Indian market
ICICI Bank buyes Bank of Rajastan	This merger between the two for a price of Rs 3000 cr would help ICICI improve its market share in northern as well as western Ind
iGate acquires majority stake in Patni Computers	In May 2011, IT firm iGate completed its acquisition midsized rival Patni Computers for an estimated 1.2 billion dollars. For iGate, the main aim of this acquisition was to increase its revenue, vertical capability and customer base. iGate now holds an approximate stake of 82.5 percent in Patni computers, now called iGatePatni.

http://trak.in/tags/business

Literature Review

To develop an understanding of stock market reaction to acquisition announcements, it is essential to understand the rationale behind such transactions. Buyers and sellers expect to benefit as a result of an acquisition. When companies are acquired, the seller's/ owners are usually attempt to diversify their portfolios or increase their liquidity. Sellers sell because buyers make sufficiently attractive offers **(Ravenscraft & Scherer, 1987).** Why would an acquiring firm make such an attractive offer? One possible reason is differing opinions about the target firm's future cash flow.

Economic analysis classifies acquisitions into two categories: disciplinary takeovers and synergistic takeovers. **Disciplinary takeovers** are designed to replace managers who are not effectively maximizing shareholder value as a result of non-value-maximizing practices. **Synergistic takeovers** are motivated by possible benefits that would result from combining two firms. The benefits include a possible increase in market share and even distribution channels, or simply an elimination of overlapping functions**. Morck, Shleifer & Vishny (1988),** conclude that disciplinary takeovers are likely to be hostile transactions, whereas synergistic takeovers are likely to be friendly transactions. Hostile transactions are acquisitions that go against the wishes of the target company's management.

Finnerty (1976), concludes that the occurrence of profitable insider transactions implies that, "trading on inside information is widespread" and that insider actually do violate security regulations." **Keown & Pinkerton (1981),** provide evidence of excess returns earned by investors in acquired firms prior to the first public announcement of planned mergers. As per their view systematic abnormal price movements can be interpreted as prima facie evidence of the market's reaction to information. **Seyhun (1986),** examining transactions

reported to the SEC, finds that corporate insiders earn excess returns that are on average small. **Givoly & Palmon (1985),** analyze the timing and frequency of corporate transactions surrounding news announcements. Both studies conclude that corporate insiders do not trade on inside information. **Chakravarty & McConnell (1999),** have analyzed the trading activities of a confessed insider trader, and their tests were also unable to distinguish between the price effect of informed trader and uninformed trader. **Jarrell & Poulson (1989),** asserts that legitimate sources such as media speculation concerning the upcoming takeover and the bidder's purchase shares in the target firm, contribute to the target's stock price run-up. In spite of the evidence that in general suggests that insiders be informed, it is still debatable whether outsiders can profit from knowing what insiders are doing. In a study, **Bettis, Vickrey & Vickrey (1997),** show that outside investors can earn abnormal profits, net of transaction costs, by analyzing publicly available information about large insider transactions by top executives.

Objectives & Methodology

Objectives of the study

The objective of the study is to find out the impact of merger and acquisition on the short-term scrip return of target company as well as acquiring company. The specific objectives are:

- To find the scrip return of each individual company in selective days of the pre merger period.
- To find the scrip return of each individual company in selective days of the post merger period
- To find out the impact of merger on scrip return by comparing the performance of the scrip return in the given study period

Methodology

The study is designed to analyze the impact of merger on the short term scrip return. It is an analytical research work using the available information to analyze the facts for arriving at a critical evaluation of the data. The data covers the closing scrip values of the selected companies listed either in the BSE or the NSE. The cases of merger were selected randomly from the major mergers of the years 2010 and 2011. As the study gives importance on short-term return, the period of study for each case is 30 trading days covering the date of merger.

Sample Size

For the purpose of the study six scrips Viz Tata Chemicals, Reliance Petrochemicals, Airtel, Abbott, ICICI Bank, PATNI-EQ were considered as sample. Out of these six companies four companies like; Tata Chemicals, Airtel, Abbott and ICICI Bank were the acquiring companies whereas Reliance Petrochemicals and PATNI-EQ were target companies.

Period of the Study

Period of the study ranged between 30 trading days in both pre and post merger in Bombay Stock Exchange or National Stock Exchange. It is designed in such a way that it includes 15 days of scrip return both in pre and post merger periods.

Data and Techniques used for the Study

The data consisted of daily closing price of the sample stock obtained from Bombay Stock Exchange or National Stock Exchange. The scrips daily rates of return is calculated by using the simple formula

Rt = ((P1 – P0) / P0) X 100

Rt= Daily rates of return

P1= Today's closing price of the scrip

P0= Yesterday's closing price of the scrip

Descrip statistical tool like mean score and inferential statistical tool t-test are used to arrive at any conclusion.

Hypothesis

H0: There is no significant difference in terms of company scrip return during pre and post merger periods both for acquiring and target companies.

Analysis & Interpretations

Table 3

Scrip Return of Tata Chemicals in BSE during Selected Pre and Post Merger Periods

Date of Merger Announcement: 09-10-10

Pre Merger Periods			Post Merger Periods		
Date	**Scrip Price (Rs)**	**Scrip Return (%)**	**Date**	**Scrip Price (Rs)**	**Scrip Return (%)**
28-09-10	166.55		12-10-10	170.45	-1.79
29-09-10	159.65	-1.18	13-10-10	172.6	1.26
30-09-10	157.5	-1.35	14-10-10	169.4	-1.85
01-10-10	161.5	2.54	15-10-10	168.5	-0.53
04-10-10	161	-0.31	18-10-10	166.8	-1.01
05-10-10	160.2	-0.25	19-10-10	166.75	-0.03
06-10-10	155.6	-1.56	20-10-10	166.65	-0.06
07-10-10	158.8	2.06	21-10-10	164.9	-1.05
08-10-10	172.4	2.13	22-10-10	164.4	-0.30
Mean Score		0.835	25-10-10	164.8	0.24
			Mean Score		-0.512

Source: Computed Data

As would be seen from Table-3, in the pre merger period there were only four negative returns whereas in post merger period there were eight negative returns were recorded for Tata Chemicals. The mean return in pre merger period was 0.835 whereas in post merger it was -0.512.

Table-4
T-Test Result for the Scrip Returns of Tata Chemicals

Details	Variable -1	Variable-2
Mean	.835	-.6325
Std. Deviation	2.12806	1.02968
N	8	8
Paired Mean Difference	1.46750	
Paired Std. Deviation	2.67808	
t- Calculated	1.550	
t-Tabulated	2.365	
Sig. (2-tailed)	.165	

Source: Computed Data

It was assumed that there is no significant difference in terms of Tata Chemicals scrip return during pre and post merger periods. Since the calculated value (1.550) is less than the table value (2.365), the null hypothesis is accepted i.e., the company has not shown any significant difference in the means of scrip return during pre and post merger.

Table 5
Scrip Return of Airtel in BSE during Selected Pre and Post Merger Periods
Date of Merger Announcement: 08-06-10

Pre Merger Periods			Post Merger Periods		
Date	Scrip Price (Rs)	Scrip Return (%)	Date	Scrip Price (Rs)	Scrip Return (%)
25-05-10	265		09-06-10	274.25	5.89
26-05-10	264.9	-0.04	10-06-10	284.7	3.81
27-05-10	261.2	-1.40	11-06-10	275	-3.41
28-05-10	260	-0.46	14-06-10	268.6	-2.33
31-05-10	263.55	1.37	15-06-10	269.95	0.50
01-06-10	255	-3.24	16-06-10	266.1	-1.43
02-06-10	270.4	6.04	17-06-10	267	0.34
03-06-10	273.2	1.04	18-06-10	264.85	4.81
04-06-10	275.7	0.92	21-06-10	264.65	4.08
07-06-10	268.15	-2.74	22-06-10	262	-1.00
Mean Score		0.166	Mean Score		0.148

Source: Computed Data

Table-5 contains the pre and post merger scrip return of Airtel. It was observed from the table that in pre merger period there were only five negative returns whereas in post merger period there were four negative returns were recorded for Airtel. The mean return in pre merger period was 0.166 whereas in post merger it was 0. 148.

Table 6
T-Test Result for Scrip Returns of Airtel

Details	Variable -1	Variable-2
Mean	.166	1.3622
Std. Deviation	2.74359	3.38669
N	9	9
Paired Mean Difference	-1.19667	
Paired Std. Deviation	5.04649	
t-Calculated	-.711	
t- Tabulated	2.306	
Sig. (2-tailed)	.497	

Since the calculated value (-0.711) is less than the table value (2.306), the null hypothesis there is no significant difference in terms of Airtel scrip return during pre and post merger is accepted i.e., the company has not shown any significant difference in the means of scrip return during pre and post merger.

Table 7
Scrip Return of Abort in BSE during Selected Pre and Post Merger Periods
Date of Merger: 21-05-10

Pre Merger Periods			Post Merger Periods		
Date	**Scrip Price (Rs)**	**Scrip Return (%)**	**Date**	**Scrip Price (Rs)**	**Scrip Return (%)**
06-05-10	954.7		24-05-10	1055	-2.57
07-05-10	956	0.14	25-05-10	1025	-2.84
10-05-10	935	-2.20	26-05-10	1026	0.10
11-05-10	934.9	4.01	27-05-10	1025	-0.10
12-05-10	935	0.01	28-05-10	1026.7	0.17
13-05-10	947.95	1.39	31-05-10	1018	-0.85
14-05-10	969	2.22	01-06-10	1035	1.67
17-05-10	985	1.65	02-06-10	1037	0.19
18-05-10	1121	13.81	03-06-10	1030	-0.68
19-05-10	1070.25	4.53	04-06-10	1056	2.52
20-05-10	1055	-1.42	Mean score		-0.239
Mean score		1.106			

Source: Computed Data

As would be observed from Table-7, in the pre merger period the mean return was a 1.106 which was a positive return whereas in post merger the mean return was-0.239.

Table 8
T-Test Result for Scrip Returns of Abott

Details	Variable -1	Variable-2
Mean	1.106	-.2390
Std. Deviation	4.89182	1.65020
N	10	10
Paired Mean Difference	1.34413	
Paired Std. Deviation	4.90339	
t- Calculated	.867	
t-Tabulated	2.262	
Sig. (2-tailed)	.409	

Source: Computed Data

It was found from the table 6 that the calculated value (0.867) is less than the table value (2.262). So the null hypothesis there is no significant difference in terms of Abott scrip return during pre and post merger periods is accepted i.e., the company has not shown any significant difference in the means of scrip return during pre and post merger.

Table 9
Scrip Return of ICICI Bank in BSE during Selected Pre and Post Merger Periods
Date of Merger: 18-05-10

Pre Merger Periods			Post Merger Periods		
Date	**Scrip Price (Rs)**	**Scrip Return (%)**	**Date**	**Scrip Price (Rs)**	**Scrip Return (%)**
04-05-10	916		19-05-10	830	-6.85
05-05-10	906.7	-1.02	20-05-10	836.1	0.73
06-05-10	901.4	-0.58	21-05-10	834	4.25
07-05-10	877	-2.71	24-05-10	825.2	-1.06
10-05-10	923.65	5.32	25-05-10	811.4	-1.67
11-05-10	918	-0.61	26-05-10	848	4.51
12-05-10	914.2	0.41	27-05-10	860	1.42
13-05-10	928	1.51	28-05-10	862	0.23
14-05-10	908.7	-2.08	31-05-10	866	0.46
17-05-10	899.25	-1.04	01-06-10	837	-3.35
Mean Score		-0.089	Mean Score		4.583

Source: Computed Data

It was observed from the Table 9 that during selected pre merger period five negative returns were recorded whereas in post merger only four negative returns were found. The mean scores of return during pre and post merger period were -0.18 and 4.583 respectively.

Table 10
T-Test Result for Scrip Returns of ICICI Bank

Details	Variable -1	Variable-2
Mean	-.089	.2244
Std. Deviation	2.37646	3.38375
N	9	9
Paired Mean Difference	-.31333	
Paired Std. Deviation	4.32283	
t-Calculated	-.217	
t- Tabulated	2.306	
Sig. (2-tailed)	.833	

Source: Computed Data

Since the calculated value (-0.217) is less than the table value (2.306), the null hypothesis is accepted i.e., the company has not shown any significant difference in the means of scrip return during pre and post merger.

Table 11
Scrip Return of Reliance in NSE during the Selected Pre and Post Merger Periods
Date of Merger: 22-07-11

Pre Merger Periods			Post Merger Periods		
Date	Scrip Price (Rs)	Scrip Return (%)	Date	Scrip Price (Rs)	Scrip Return (%)
7-07-11	870.7		25-07-11	882.85	1.09
8-07-11	854.85	-1.82	26-07-11	871.5	-1.29
11-07-11	853.3	-0.18	27-07-11	860.85	-1.22
12-07-11	847.75	-0.65	28-07-11	837.35	-2.73
13-07-11	865.45	2.09	29-07-11	827.95	-1.12
14-07-11	867.55	0.24	1-08-11	830.85	0.35
15-07-11	873.2	0.65	2-08-11	837.3	0.78
18-07-11	867.6	-0.64	3-08-11	825.05	-1.46
19-07-11	879.45	1.37	4-08-11	812.35	-1.54
20-07-11	876.2	-0.37	5-08-11	792	-2.51
21-07-11	860.85	-1.75	8-08-11	780.65	-1.43
Mean Score		-0.106	Mean Score		-1.007

Source: Computed Data

Table-11 contains the pre and post merger scrip return of Reliance. It was observed from the table that in pre merger period there were only six negative returns with mean score -0.106 whereas in post merger period there were eight negative returns were recorded with -1.007 mean score.

Table 12
T-Test Result for Scrip Returns of ICICI Bank

Details	Variable -1	Variable-2
Mean	-.106	1.24673
Std. Deviation	-.9650	1.30256
N	10	10
Paired Mean Difference	.85900	
Paired Std. Deviation	2.10265	
t- Calculated	1.292	
t-Tabulated	2.262	
Sig. (2-tailed)	.229	

Source: Computed Data

It was clear from the table 12 that the calculated value of t (1.292) is less than the table value (2.262). So the null hypothesis there is no significant difference in terms of ICICI scrip return during pre and post merger periods is accepted i.e., the company has not shown any significant difference in the means of scrip return during pre and post merger.

Table 13
Scrip Return of PATNI- EQ in NSE during Selected Pre and Post Merger Periods
Date of Merger: 12-05-11

Pre Merger Periods			Post Merger Periods		
Date	**Scrip Price (Rs)**	**Scrip Return (%)**	**Date**	**Scrip Price (Rs)**	**Scrip Return (%)**
28-04-11	432.3		13-05-11	368.05	-2.48
29-04-11	425.6	-1.55	16-05-11	350.25	-4.84
2-05-11	423.7	-0.45	17-05-11	349.25	-0.29
3-05-11	397.95	-6.08	18-05-11	335.1	-4.05
4-05-11	380.3	-4.44	19-05-11	316.35	-5.60
5-05-11	387.55	1.91	20-05-11	323.4	2.23
6-05-11	391.7	1.07	23-05-11	329.8	1.98
9-05-11	390.15	-0.40	24-05-11	352.1	6.76
10-05-11	388.2	-0.50	25-05-11	332.4	-5.60
11-05-11	386.75	-0.37	26-05-11	322.5	-2.98
Mean score		**-1.2**	27-05-11	335.4	4.00
			Mean score		0.99

Source: Computed Data

As would be seen from Table-13, in the pre merger period there were only two positive returns whereas in post merger period there were four positive returns were recorded for PATNI- EQ. The mean return in pre merger period was – 1.2 whereas in post merger it was 0.99.

Table 14
T-Test Result for Scrip Returns of PATNI- EQ

Details	Variable -1	Variable-2
Mean	-1.2	-1.3
Std. Deviation	2.54069	4.29630
N	9	9
Paired Mean Difference	.12	
Paired Std. Deviation	4.96430	
t-Calculated	.073	
t- Tabulated	2.306	
Sig. (2-tailed)	.944	

Source: Computed Data

Since the calculated value (0.073) is less than the table value (2.306), the null hypothesis is accepted i.e., the company has not shown any significant difference in the means of scrip return during pre and post merger.

Conclusion

In normal practice, the performance of the scrip return will be focused during the announcement date of merger. But the paper has made an attempt to measure the performance of the scrip price return of both acquiring and target firm during specific pre and post merger period including the exact date of merger. The basic ideology behind this research is to find out whether the merger information has any impact on scrip return or not. By analyzing the facts and figures relating to the recent mergers, it is found that the impact of merger on scrip return is minuscule i.e. all the selected companies' scrip have not witnessed any substantial difference in return during the post merger period.

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