The Impact of Mergers and Acquisitions on Shareholders' Value: An Empirical Analysis of Select Indian Companies

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Abstract

The present study analyzed the shareholder value creation by examining the short-run abnormal returns accruing to the shareholders of acquiring, target, and hypothetical combined entities on announcement of mergers and acquisitions (M&As) during 2000 - 2010 using the market-adjusted model of the popular event study methodology. This study used a sample of 29 pairs of acquiring and target firms involved in M&As during the period from April 1, 2000 to March 31, 2010. The study developed four hypotheses examining separately the impact of M&As on shareholder value of acquiring, target, and combined firms. The study reported little but significant positive abnormal returns accruing to the shareholders of acquiring firms, while shareholders of target firms were found to have suffered significant losses over a 41-day event period around the announcement of M&As, which is contrary to existing literature in Western countries, which has stated that only the targets create value, and the acquirers are value destructive. This is an important contribution to the existing literature that the theories in the Western countries may not necessarily hold valid in India, and they need to be reassessed before being implemented in the Indian context. Another important findings of the study was that M&As overall were found destroying value for the shareholders of the hypothetical combined entity.

Key words: mergers, acquisitions, acquirers, targets, combined entity, shareholder value, abnormal returns, event study

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ergers and acquisitions (M&As), once a phenomenon seen primarily in the U.S., continue to play a major role in shaping business activities throughout the world. The corporate sector all over the world is making continuous endeavors in restructuring its operations to face various challenges posed by globalization leading to greater integration of national and international markets. The intensity of such operations is increasing in India too with the deregulation of various government policies since the initiation of economic reforms in 1991 (Beena, 2004). Theoretically, M&As create value by creating operating synergies, typically in the form of economies of scale or economies of scope.

With the globalization of competition and capital markets, shareholder value is rapidly capturing the attention of the corporate entities worldwide, and the concept is slowly becoming the global standard for measuring business performance. It is well established in the global finance literature that satisfying the shareholders is the best way to ensure that other stakeholders are served as well. Though, there are varieties of ways to create value - corporate restructuring through M&As is considered as one of the most competing strategies to create such value. However, the question generally arises: do M&As create or destroy value for the shareholders? This irresolute conclusion still remains undefined. Lots of research and investigation has been conducted in the field of

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economics and strategic management on the kinds of benefits which are derived out of such M&As to the acquiring and target company, the customers, and the society at large. Many merger theories have emerged to explain why firms continue to initiate M&As in spite of the overwhelming evidence indicating that their shareholders will effectively 'lose out'.

The news about the announcement of M&As are considered so sensitive that it could immediately impact the price of the shares for both the acquiring and target companies involved therein. The release of this information and news can bring about change in market sentiments, which could lead to a rise or fall in share prices and ultimately affect shareholders' wealth in the short-term. The market perception of this information is such that it may have a potential impact on projection on the future increase or decrease in the cash flow derived out of such combination (Hitt, Ireland, & Harrison, 2005). However, it is important to note that M&As may not create value for shareholders always. Consulting firms estimate that almost two-thirds of the firms who enter into M&As result into failure, which leads to divestures at a later stage (Schweiger & Very, 2003).

There are also instances where despite overwhelming evidence of share price gains to target firms' shareholders, most acquiring firms fail to realize positive gains. However, the evidences on gains to acquiring firms on the announcement of M&As are mixed. A number of studies have found that shareholders of acquiring firms earn, on an average, zero abnormal returns at the time of announcement, though there is enormous variation in these returns (Fuller, Netter, & Stegemoller, 2002). A recent strand of business press reported that a majority of acquiring firms in the 1990s experienced a sharp decline in stock prices at a merger announcement. Although acquiring firms are not winners, however, a substantial number of earlier studies suggested that M&As, on an average, increased the combined equity value of the target and acquiring firms, suggesting that M&As create value. The positive overall wealth gains are attributed to the financial market's anticipation of improved post acquisition operating performance.

Though the value creation at the time of M&As for the developed markets has been well documented, relatively little is known about value creation for emerging markets like India. M&As in India are at an early stage and some of the research findings on M&A wealth gains due to abnormal share price movements, such as positive gains to the acquired firm shareholders and negative gains for the acquiring firm shareholders in developed markets, have yet to be conclusively proved in India. Keeping in mind some fundamental difference between the developed markets and emerging markets, the findings of developed markets might not apply to emerging markets. Some of the differentiating factors are that developing country firms tend to be younger and smaller; they lack international experience and exposure; capital markets are less developed and investors are less sophisticated; their government regulations, corporate governance, and cultural backgrounds are more distant from developed countries (Zhu & Malhotra, 2008).

Review of Literature

Jensen and Ruback (1983) conducted a review of earlier studies in the U.S. and found that target company shareholders benefited while shareholders of bidding firms also did not lose. They provided evidence of significant abnormal stock price changes of 20% in mergers and 30% in tender offers to shareholders of target firms. In the same sample bidding, firms realized statistically significant abnormal gain of 4% in tender offers and 0% in mergers. The review also found that mergers appeared to lead to realization of increased efficiencies or synergy.

Dennis and McConnell (1986) examined the impact of mergers on shareholders' wealth of both target and acquiring firms during 1962 and 1980. The study used market-adjusted model of event study methodology and event window of 40 days (19 days before through 20 days after the date of merger announcement and found the evidence of positive abnormal returns for the shareholders of both target and acquiring firms.

A study by Affleck-Graves, Flack, and Jacobson (1988) used three models (the market model, the market-adjusted model, and industry model) to analyze returns to shareholders of target and acquiring firms. The study found that the shareholders of the target firms earned significant positive abnormal returns, while there was no immediate evidence of abnormal returns to the shareholders of acquiring firms.

Houston and Ryngaert (1994) examined 153 acquisitions during 1985 and 1991 period to measure shareholder wealth of combined firms in the U.S. banking industry. The study used the weighted average approach to measure abnormal returns of combined firms. Combined firms' abnormal returns were calculated by weighing the market capitalization at the end of the month before the announcement date to target and bidder abnormal returns. The study found that combined firms gained 0.38% cumulative abnormal returns over a 5-day (-4, 0) event window, and these were statistically insignificant.

Bruner (2002) reviewed and summarized the evidence from 14 informal studies and 100 scientific studies between 1974 and 2001. He found that the shareholders of target firms realized sizeable positive returns whereas, no gains accrued to the shareholders of bidding firms as depicted by zero adjusted returns. However, he further found that shareholders of the combined firms (when target and bidding firms were taken together) obtained positive adjusted returns.

Mushidzhi and Ward (2004) examined the impact of acquisitions announcements on shareholders' wealth of target and acquiring firms in South Africa between March 1998 and December 2002. The study used market model and market-adjusted model of event study methodology. The study found that shareholders of the target firms earned significant positive abnormal returns, while shareholders of the acquiring firms were not affected. No difference in results was found between the two models, which were similar to the findings obtained by Affleck-Graves et al. (1988), who also reported that both market model and market - adjusted model generated similar results.

Kumar (2004) examined the stock price performance of the announcement of merger between Reliance Industries Ltd. (RIL) and Reliance Petroleum Ltd. (RPL) in 2002 by employing both market model and market-adjusted model using daily stock returns data for an event window of 41 (-20...0....+20) days. This study revealed that the ARs for RIL based on both models showed negative gains except a marginal gain for a two-day window in case of the market model. For the target firm RPL, he also found negative CAR.

Mishra and Goel (2005) also employed market model with an event window of 41 (-20....0......+20) days to assess wealth gains from merger of RIL and RPL. This study showed positive excess returns to the shareholders of the target company, RPL, and negative excess returns to shareholders of the acquiring company, RIL. They also found that the RIL - RPL merger deal generated negative returns for the combined firms.

Anand and Singh (2008) examined the impact of merger announcement on shareholders' wealth of target, bidding, and combined banks. Their sample consisted of five pairs of merging banks in the Indian private sector (banks) during the period from 1999 - 2005. They found positive and significant shareholder wealth effects, both for bidder and target banks. The market value weighted CAR of the combined banks' portfolio was 4.29% in a three day period (-1,+1) event window and 9.71% in a 11 day period (-5,+5) event window.

The study by Mann and Kohli (2009) reported positive market reaction to stock offers not only for the target companies, but also for the acquiring companies. Manasakis (2009) analyzed the effects of M&As on shareholders' wealth of target, bidding, and hypothetical combined entities in the Greek banking industry during 1995 and 2002. The results suggested that targets' shareholders earned significant abnormal returns while bidders' shareholders suffered significant losses. The study concluded that M&As in the Greek banking sector had no effects on the combined post-integration firms' value. Negative abnormal returns to bidders offset positive abnormal returns to targets, implying a transfer of wealth.

Chakraborty (2010) examined the wealth effects on shareholders of the target, bidder, and combined firms on announcement of takeovers for the period from 2001 - 2007 using both parametric and non-parametric tests. She

found that the shareholders of target firms earned significantly positive ARs on takeover announcements, which were mostly contributed by 19 firms while remaining 48 firms' stocks did not show any market reaction. She provided evidence that bidders experienced very little positive wealth effects on takeover announcements, contributed mainly by only two firms. On analysis of the combined returns, she found positive results. However, this was again largely contributed by two pairs of companies. This study concluded that except for a few cases, takeovers in financial services sector, in general, did not evoke market reactions.

Ramakrishna (2010) studied the effects of merger announcements on shareholders' wealth for target, bidding, and combined firms involved in mergers employing market - adjusted model of event study methodology. The author took a sample of 34 pairs of merging companies for the period from 1996 - 2002. It was found that the target firms' shareholders enjoyed significant wealth gains of 11.6% in a 21 (-10... 0...10) day event window period; whereas, the bidding and combined firms' shareholders did not do so. He also showed that mergers that did not involve transfer of corporate control gave significant wealth gains of 21.1% on announcement to the target firm shareholders; whereas, those where such a transfer took place did not witness such gains.

Verma, Maji, and Nair (2013) analyzed the impact of M&As on Indian banks' corporate values by comparing both their pre and post-merger performance during the period from 2000 - 2010. The results signaled towards the dynamism and resilience of the Indian economy. The study concluded that Indian banks, albeit small in comparison to their global counterparts, were taking great strides not only within the continental shelf of India, but even beyond its borders too.

Jucunda and Sophia (2014) analyzed the value creation of acquirers in India on an acquisition announcement and the sensitivity of the stock market during an acquisition announcement. This study used a sample of 78 acquirers in the manufacturing industry who acquired targets in the calendar year 2012. The results of the study suggested that acquisitions were neither value creative to Indian acquirers, and those acquirers with prior acquisition experience created more values than single acquirers.

Raghuvanshi and Raghuvanshi (2014) investigated into factors that have implications for shareholder gains on the announcement of acquisitions for both the target and acquiring firms. The empirical results obtained indicated that the target firms experienced statistically significant higher gains than the acquiring firms around the announcement period window as well as in the run up window.

Research Gap

A review of existing literature on mergers and acquisitions in India till date reveals the fact that there are very few studies (Chakraborty, 2010; Mann & Kohli, 2009; Ramakrishna, 2010) which have comprehensively examined the impact of mergers and acquisitions on shareholders' value in the short run separately for acquiring target and hypothetical firms. Most of the studies on M&As in India have focused on mergers rather than acquisitions (or takeovers). However, a recent study by Mallikarjunappa and Nayak (2013) examined a large sample of 227 respondents to assess the impact of takeovers on the shareholders' value of only target companies covering a period of around 9 years from April 1, 1998 to June 2007. Moreover, the studies based on Indian security markets have focused either on specific sectors of the economy (Anand & Singh, 2008; Chakraborty, 2010; Rani, Surendra, & Jain, 2012) or have analyzed a very small sample size and the period chosen for the study is very short (Kumar, 2004; Mann & Kohli, 2009; Pandey, 2001). Recently, Zhu and Malhotra (2008); Barai and Mohanty (2010); Gubbi, Aulakh, Ray, Sarkar, and Chittoor (2010); Kohli and Mann (2012); and Karels, Lawrence, and Yu (2011) conducted an event study on a large sample size, but they focused on analyzing cross-border M&As.

This study attempts to fill this gap by analyzing a good sample size of 29 pairs of acquiring and target companies during a longer period from April 1, 2000 to March 31, 2010 by analyzing the impact of both mergers and acquisitions on shareholders of acquiring, target, and combined firms separately.

Objectives of the Study

The purpose of this paper is to satisfy the following objectives:

- (i) To ascertain whether M&As as a strategy of growth help in creating value for shareholders of acquiring and target firms separately.
- (ii) Whether M&As are overall beneficial for the shareholders of hypothetical combined firms (when acquiring and target firms are taken together).
- (iii) Whether value accrued to the shareholders of the target firm on announcement of M&A is greater than the value accrued to the shareholders of the acquiring firm.

Data Source and Sample Selection

The study is intended to identify select M&As during the period from April 1, 2000 to March 31, 2010 and assess their impact on shareholders' value in the short term around the date of announcement. The period selected for the study carries special significance due to the fact that this period faced several economic ups and downs having a substantial effect on levels of economic activities in India and consequently, on the level of M&A activities. These changes are supposed to have a bearing on the shareholders' value accrued to the shareholders of merging companies entering into M&A deals, especially with the setting in of sub-prime crisis in 2008. Therefore, a longer time period before and after setting in of the sub-prime crisis in 2008 would give an unbiased estimate of shareholders' value overall arising from M&As. Data for the study are mainly secondary in nature. In order to measure the short-term impact of M&As on shareholders' value, BSE Sensitivity Index (SENSEX), being the most popular and fairly representative of blue chip companies across various industry sectors, has been chosen for the study. The required data were obtained from CMIE-PROWESS database.

Sample Selection Procedure

The criteria for the selection of a company to be included in the sample were:

- The companies should be cross-listed on both BSE and NSE.
- M&As announcement dates, to the market or to the media or both, should be available for the sample companies in "Prowess" database.
- The stocks of each pair of acquiring and target companies should be listed and traded on the Bombay Stock Exchange and sufficient number of stock prices should be available for them in the 41-day 'event window' (20 trading days before and 20 trading days after the day of announcement, that is, day '0'). Therefore, only stocks of public limited companies which are listed on the BSE and having adequate stock prices for them in the event period were chosen.
- Both the acquirer and target companies should be listed on the stock exchanges at the date of announcement.
- \$\text{ The transaction should have been announced between April 1, 2000 and March 31, 2010.}
- All the deals should be completed.
- Acquirers' and targets' nation is India.
- Duplicate deals were not considered.
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- Financial services firms were excluded as the motive for an acquisition of a financial service firm might be very different, and also, financial service firms are highly regulated.
- 🖔 Only majority acquisitions were considered. The majority acquisitions are defined as the percentage of shares owned before the acquisition is less than 50% and after the acquisition is more than 50%.

The final sample comprised of 29 pairs of acquiring and target companies involved in M&As during the aforementioned period as shown in the Table 1. There are 20 pairs of acquiring and target firms involved in mergers, while the remaining 9 pairs are substantial acquisition deals.

Research Methodology

The event study methodology is used to examine the short term stock price reaction to the announcement of M&As deals. This type of study is based on abnormal returns and theoretical expected returns. This methodology has been frequently used to determine if there is a statistical difference between actual stock returns and expected returns - abnormal returns surrounding an event. The abnormal returns are considered in a clearly defined event window around the announcement date of the event. M&As are important events which have a great impact on the stock prices in an efficient capital market. The study uses daily closing stock prices to compute stock returns.

This study uses market-adjusted model of event study methodology which assumes that a firm is expected to generate the same returns as the rest of the market during the chosen event window. To assess the abnormal gain (ARs) to bidding, target, and combined firm shareholders, the parameters of the market - adjusted model like actual return on stocks and predicted return based on market index for each day of the event period is computed. The estimated ARs of each stock for each day of the event window is the difference between actual return on stock and predicted return based on market index for that day. The estimated ARs of each stock are added and then average ARs are computed for each day during the event period to calculate the ARs. The cumulative ARs of different days during the event period are designated as CAR_{D} .

The abnormal share price return for any particular day for a firm can be expressed in the following form:

$$AR_{it} = R_{it} - R_{mt}$$

The individual security ARs are averaged for each day surrounding the event day, that is, day - 20 to day + 20 and \overline{ARs} are computed. If there is no abnormal performance, the \overline{ARs} value will be equal to zero.

To compute \overline{ARs} , the following model is used:

$$\overline{AR}_{t} = \frac{1}{n} \sum_{i=1}^{n=41} AR_{i,t}$$

Since the security's overall reactions to merger/acquisition announcement will not be captured immediately by the \overline{ARs} for one day, the cumulative totals of the \overline{ARs} are computed over an event window period. The CAR_D is chosen as the measure of cumulative abnormal performance. CAR_D is calculated for 20 days each before and after the event day. CAR_D is calculated by adding the ARs for each time period beginning 20 days before the event day and ending 20 days after the event day. These computations show average stock behavior during the event window period. CAR_D shows total effect of the event across all securities for the 41- day event window. The CAR for a day tin event period is defined as the value of the CAR on the previous day of the event period plus the current value of the abnormal return, AR_{ii} .

$$CAR_{ii} = CAR_{ii,1} + AR_{ii}$$

Table 1. Selected Sample of Companies Involved in Mergers and Acquisitions Considered for the Study

Serial No.	Name of Acquirer Company	Name of Target Company	Nature of Deal	
1	Aditya Birla Nuvo Ltd.	Aditya Birla Minacs I T Services Ltd.	Substantial acquisition	
2	Amtek Auto Ltd.	Ahmednagar Forgings Ltd.	Substantial acquisition	
3	Supreme Industries Ltd.	Supreme Petrochem Ltd.	Substantial acquisition	
4	Mahindra & Mahindra Ltd.	Mahindra Life Space Developers Ltd.	Substantial acquisition	
5	Bajaj Hindustan Ltd.	Bajaj Hindustan Sugar & Industries Ltd.	Substantial acquisition	
6	Golden Tobacco Ltd.	G H C L Ltd.	Substantial acquisition	
7	IVRCL Infrastructure & Projects Ltd.	Hindustan Dorr-Oliver Ltd.	Substantial acquisition	
8	English Indian Clays Ltd.	Greaves Cotton Ltd.	Substantial acquisition	
9	ABG Shipyard Ltd.	Western India Shipyard Ltd.	Substantial acquisition	
10	Balrampur Chini Mills Ltd.	Tulsipur Sugar Co. Ltd.	Merger	
11	Dr. Reddy's Laboratories Ltd.	American Remedies Ltd.	Merger	
12	Aurobindo Pharma Ltd.	Sri Chakra Remedies Ltd.	Merger	
13	Tata Power Co. Ltd.	Tata Hydro Electric Power Supply Co. Ltd.	Merger	
14	BASF India Ltd.	Cyanamid Agro Ltd.	Merger	
15	Hindustan Lever Ltd.	International Bestfoods Ltd.	Merger	
16	Pix Transmissions Ltd.	Pix Autos Ltd.	Merger	
17	Aban Loyd Chiles Offshore Ltd.	Hitech Drilling Services India Ltd.	Merger	
18	ITC Ltd.	ITC Bhadrachalam Paperboards Ltd.	Merger	
19	Reliance Industries Ltd.	Reliance Petroleum Ltd. (1993)	Merger	
20	Asahi India Safety Glass Ltd.	Floatglass India Ltd.	Merger	
21	Mylan Laboratories Ltd.	Medicorp Technologies India Ltd.	Merger	
22	RSWM Ltd.	Jaipur Polyspin Ltd.	Merger	
23	HIL Ltd.	Malabar Buildings Products Ltd.	Merger	
24	Gujrat Narmada Valley Fertilizers & Chemicals Lt	d. Narmada Chematur Petrochemicals Ltd.	Merger	
25	Reliance Industries Ltd.	Indian Petrochemicals Corporation Ltd.	Merger	
26	Spentex Industries Ltd.	Indo Rama Textiles Ltd.	Merger	
27	Indian Oil Corporation Ltd.	IBP Co. Ltd.	Merger	
28	Gulshan Polyols Ltd.	Gulshan Sugars & Chemicals Ltd.	Merger	
29	Grauer & Weil (India) Ltd.	Bombay Paints Ltd.	Merger	

Source: CMIE Prowess Database (2014)

The date of first announcement of the event is designated as day zero (t = 0). For this, information was obtained given in Prowess (2.6 release), a database of the Centre for Monitoring of Indian Economy (CMIE) Private Ltd. Though several other stock prices indices are also available to represent market movement, BSE-SENSEX is preferred over these indices as it is broad based and is a widely acceptable index. The 41-day event period has been used in this study which ranges from -20 to +20 trading days from t = 0.

The sample for studying short term shareholder value due to share price movements on announcement of M&As consists of 29 pairs of acquiring and target firms. This is based on availability of data and listing of companies on the stock exchange. Those companies were dropped for which no clear merger and acquisition announcement dates could be identified or for which no share price return data could be collected.

The hypothesis is that the cross-sectional \overline{ARs} are zero. The parametric test applied for this purpose is t - test, which uses cross sectional standard deviation of ARs. According to Brown and Warner (1985), if \overline{ARs} are independent, identically distributed, and normal, the test statistic is distributed Student - t under the null hypothesis.

Since the sample of companies is small (< 30), so the performance is also evaluated using Wilcoxon sum of rank test. The hypothesis tested is that the \overline{ARs} cumulated over window period for the participating companies in response to the takeover announcement are statistically zero. The test statistic for CAR_D is the sum of the daily test statistic for the period t_1 to t_2 divided by \sqrt{D} . This cumulative abnormal return shows us the impact on shareholder's value across all firms in our sample.

The study aims at analyzing the cumulative abnormal returns (CARs) arising to the shareholders of acquiring, acquired, and combined firms separately since only a combined analysis of the acquired and target firms allows a final evaluation of the stock market reaction to the event of the announcement of M&A transactions. The perspective of a combined entity return (CER) has already been established in prior studies since its introduction by Houston and Ryngaert (1994). It is found that combined entity return (CER) of acquirer and target firms is obtained by summing up their respective cumulative abnormal return weighted by total market capitalization of firms (both acquirer and target) a month before announcement of M&A. The aggregation of the CARs of the acquired and acquiring firms provides an idea about the CARs of the combined shareholders of both the firms. This is a measure of the net wealth created/destroyed on M&A announcements (see Andrade, Mitchell, & Stafford, 2001; Jensen & Ruback, 1983; Ramakrishna, 2010).

$$AR_{t,joint} = \frac{MV_T \times AR_{T,it} + MV_B \times AR_{B,it}}{MV_T + MV_B}$$

Hypotheses

Based on the above methodology, the present study attempts to test the following hypotheses:

from zero. In other words, the null hypothesis using two-tailed test can be expressed as $\mu_B = 0$; where $\mu =$ the average cumulative abnormal return (CAR) and B = acquiring firm shareholders. Against alternative hypothesis:

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from zero. In other words, the null hypothesis using two-tailed test can be expressed as $\mu_T = 0$; where $\mu =$ the average cumulative abnormal return (CAR) and T = acquired firm shareholders. Against alternative hypothesis:

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⇔ H₀₃: Average CARs to the shareholders of the combined firm during event period are not significantly different from zero. In other words, the null hypothesis using two-tailed test can be expressed as $\mu_c = 0$; where μ = the average cumulative abnormal return (CAR) and C = combined firm shareholders. Against alternative hypothesis:

 \maltese H₀₄: Average *CARs* of the acquiring firm shareholders is equal to the average *CARs* of target firm shareholders. In other words, the null hypothesis using one-tailed test can be expressed as $\mu_B = \mu_T$. Against alternative hypothesis:

 \Leftrightarrow $\mathbf{H}_{a4}: \mu_T > \mu_B$

Results and Discussion

(1) Status of Acquiring Firms' Shareholders: The CAR_D that accrues to the shareholders of acquiring firms under different event windows in response to M&A announcements are analyzed separately and are presented in the Table 2. The CAR_D values are found positive and significant for seven event windows [(-5, 0); (0, +10); (0, +20); (-20, +20); (-10, +10); (-5, +5); (-2, +2)] but insignificant for the (0, +5) event window. However, CAR_D values are found negative for six event windows [(-20,0);(-10,0);(-1,0);(0,0);(0,+1);(-1,+1)] but significant only for two event windows [(-20,0); (-10,0)]. It is found that two of the event windows in the period run-up to the event day show significant losses, that is, in (-20,0) and (-10,0). This provides a glimpse, although in a limited sense, of the findings in the global literature outside India reporting losses for the shareholders of the acquiring firms in the short term. This trend may be due to leakage of information. It is further found that the shareholders of the acquirer companies gain significant value increases in the course of transactions, that is, 2.738% in (-5, +5) and 0.594% in (-2, +2) in the 11 days and 5 days event periods, respectively around the date of announcement.

However, CAR values are found to be zero on the day of announcement and 3 days event period of (-1, +1). But it shows inconsistent picture overall since the abnormal returns on the announcement day and 3 days event period (-1, +1) are found to be zero. However, it is found that the event periods after announcement day generate significant positive abnormal returns [1.909% in (0,+20) and 0.686% in (-20,+20)]. The diffusion of the results is

Table 2. Cumulative Abnormal Returns to the Acquirer Company Shareholders During Multiple Event Windows

Event Window	Cumulative Average Abnormal Return (%)	Positive	Negative	t - Test	Wilcoxon Z Test	Asymp. Sig. (two-tailed)
(-20, 0)	-1.671	18	11	-0.247	-3.985	< 0.001
(-10, 0)	-1.882	15	14	-0.295	-3.442	<0.001
(-5, 0)	0.069	13	16	-0.152	-2.124	0.03
(-1, 0)	-1.362	12	17	-1.655	-1.705	0.09
(0, 0)	-0.448	12	17	-0.647	-0.854	0.4
(0, +1)	-0.035	13	16	0.021	-0.917	0.36
(0, +5)	2.221	14	15	1.426	-1.823	0.07
(0, +10)	2.024	15	14	1.074	-2.865	0.004
(0, +20)	1.909	15	14	0.565	-3.527	<0.001
(-20, +20)	0.686	14	15	1.519	-5.243	<.0.001
(-10, +10)	0.59	16	13	0.705	-4.378	<0.001
(-5, +5)	2.738	16	13	1.135	-2.656	0.008
(-2, +2)	0.594	14	15	0.294	-2.403	0.02
(-1, +1)	-0.949	11	18	-0.961	-1.648	0.1

Note: Tabulated value of t at 28 d.f., 5% level of significance using two - tailed test = 2.048.

Table 3. Average Cumulative Abnormal Returns (CARs) in the 41- Day Announcement Period

Type of Company	Average CARs ^a	t- Test	Wilcoxon Z - Test	Asymp. Sig. (two-tailed)
Acquiring companies	0.686	0.329	-5.243	< 0.001
Target Companies	-2.792	-0.773	-6.053	< 0.001
Combined Firms	-2.322	-0.392	-5.202	< 0.001

Notes: ^aAverage CARs in the 41-day announcement period; Tabulated value of t at 28 d.f., 10 % significance level using two-tailed test = 1.701.

relatively strong in all event windows. The shareholders of the acquirers lose significant value in two out of four pre-announcement event windows. On the day of the announcement, shareholders of the acquiring firms realize a negative but insignificant CAR_pof-1.671%.

It is found that the market initially looked confused and subsequently very slow in absorbing the news of announcement of M&As indicating about the presence of weak form of efficient market hypothesis. Therefore, it can be stated that markets tend to be neutral initially but start responding positively to the news about announcement of M&As.

The average CARs over a 41- day event period (20 days before and after the day of announcement i.e. t = 0) is tested for significance separately. The results of tests done on the average CAR are presented in the Table 3. The average CARs for the shareholders of acquiring firms are found to be positive and significant at 0.686%. Therefore, the null hypothesis H₀₁ is rejected in case of the acquiring firms' shareholders and alternative hypothesis H_{al} is accepted. Based on analysis of this result, it can be stated that the shareholders of acquiring firms seem to have made significant but small gains of 0.686% over the 41-day event period around announcement of M&As.

(2) Status of Target Firms' Shareholders: The CAR_{D} that accrue to the shareholders of acquiring firms under different event windows in response to M&A announcements are analyzed separately and are presented in the Table 4. The results found in this analysis also show an inconsistent pattern due the fact that it is found diffused across all event windows. The shareholders of target firms realize a negative but insignificant CAR_{p} of - 0.629% on the day of the announcement.

The CAR_D values are found negative for nine event windows [(-1, 0); (0, 0); (0, +1); (0, +5); (0, +10); (0, +20); (-20, +20); (-10, +10); (-1, +1)] but significant for four event windows [(0, +10); (0, +20); (-20, +20); (-10,+10)] only. For the event periods in run-up to the event day, shareholders of target firms mostly realize significant positive CAR_D of 2.451% in (-20, 0), 2.074% in (-10, 0), 4.814% in (-5, 0), except in (-1, 0). However, CAR_D is also found positive and significant in another event window (-5, +5) very close to the announcement day.

This provides a glimpse, although in a limited sense, of the findings in the global literature outside India reporting gains for the shareholders of the target firms in the short term. However, CARs are found to be zero in event periods (-2, +2), (-1, +1), and (0, 0) over 5, 3, and 0 days around the day of announcement. Thus, CAR_D turns to be zero in event periods near to the day of announcement. It starts declining 5 days after the day of announcement and turns negative in the event periods thereafter. Thereafter, it starts declining, thus signifying that the short-term impact of M&A announcements is neutral and market takes a long time in absorbing news about announcement of M&As. The diffusion of the results is relatively strong in all event windows. Moreover, the longer event windows after the announcement generate negative abnormal returns.

The average CARs over a 41- day event period (20 days before and after the announcement day, that is, t=0) is separately calculated for shareholders of target firms. The results of tests done on the average CAR are shown in the Table 3. The average CARs for target firms are found to be negative and significant at -2.792 %. Therefore, the null hypothesis H02 is rejected for target firms' shareholders and alternative hypothesis Ha2 is accepted. Thus,

Table 4. Cumulative Abnormal Returns to the Target Company Shareholders During Multiple Event Windows

Event Window	Cumulative Average Abnormal Return (%)	Positive	Negative	t -Test	Wilcoxon Z Test	Asymp. Sig. (two-tailed)
(-20, 0)	2.451	14	15	0.408	-4.791	<0.001
(-10, 0)	2.074	16	13	0.515	-3.366	<0.001
(-5, 0)	4.814	16	13	1.866	-1.995	0.05
(-1, 0)	-0.533	12	17	-0.274	-0.489	0.62
(0, 0)	-0.629	14	15	-0.479	-0.335	0.73
(0, +1)	-0.628	17	12	-0.338	-0.581	0.56
(0, +5)	-0.873	10	19	-0.247	-1.492	0.14
(0, +10)	-2.898	11	18	-1.05	-2.545	0.01
(0, +20)	-5.872	11	18	-1.592	-3.739	<0.001
(-20, +20)	-2.792	10	19	-0.773	-6.053	<0.001
(-10, +10)	-0.195	15	14	-0.283	-4.206	<0.001
(-5, +5)	4.57	14	15	1.34	-2.474	0.01
(-2, +2)	-1.487	14	15	-1.337	-1.813	0.07
(-1, +1)	-0.532	14	15	-0.223	-0.681	0.5

Note: Tabulated value of t at 28 d.f., 5% level of significance using two-tailed test = 2.048.

based on analysis of this result, it can be concluded that the shareholders of target firms seem to have suffered significant losses of -2.792% over the 41-day event period around the day of announcement of M&As.

(3) Status of Combined Hypothetical Entity Shareholders: The CAR_D that accrues to the shareholders of combined firms under different event windows in response to the M&A announcements are analyzed separately and are presented in the Table 5. It is found that shareholders of the combined firms suffered significant losses of -1.507% on the day of announcement. The CAR_D values are negative for 10 event windows [(-20, 0); (-10, 0); (-5, 0); (-1, 0); (0, 0); (0, +1); (-20, +20); (-10, +10); (-1, +1); (-2, +2)] but are found significant for nine event windows [(-20, 0); (-10, 0); (-5, 0); (-1, 0); (0, 0); (-20, +20); (-10, +10); (-1, +1) (-2, +2)]. For the event periods in run up to and including the announcement day, shareholders of the combined firms suffered significant losses of -4.266% in (-20, 0), -3.869% in (-10, 0), -1.552% in (-5, 0), -2.222% in (-1, 0), and -4.266% in (0, 0).

Further, it is found that the CAR_D values are negative and significant in event periods (0, 0), (-1, +1), and (-2, +2) over 0, 3, and 5 days around the day of announcement. The negative CAR_D has gradually reversed in event windows following the day of announcement and turns to be positive within 5 days after the announcement. The CAR_D values are found positive and significant for four event windows [(0, +5); (0, +10); (0, +20); (-5, +5)]. It is found that CAR_D values are positive in the event window (-5, +5) close to the announcement day. CAR_D continues to be positive in the event windows succeeding the day of announcement. However, it is found that CAR_D turns to be negative in longer event windows [(-20, +20); (-10,+10)] due to the fact that larger negative CAR_D in the pre-M&A announcement event windows are perhaps not neutralized by positive CAR_D in post-M&A announcement event windows. Thus, it is evidently clear that shareholders of combined firms suffered significant losses on announcement of M&As.

The average CARs over a 41- day event period (20 days before and after the day of announcement, that is, t = 0) is calculated separately for the shareholders of combined firms. The results of the tests conducted on the average

Table 5. Cumulative Abnormal Returns to the Combined Firms' (Acquiring Company and Target **Company Together) Shareholders During Multiple Event Windows**

Event Window	Cumulative Average Abnormal Return (%)	Positive	Negative	t - Test	Wilcoxon Z Test	Asymp. Sig. (two-tailed)
(-20, 0)	-4.266	12	17	-0.97	-3.302	<0.001
(-10, 0)	-3.869	11	18	-1.127	-2.829	0.005
(-5, 0)	-1.552	11	18	-0.969	-2.167	0.03
(-1, 0)	-2.222	9	20	-2.437	-2.201	0.03
(0, 0)	-1.507	9	20	-2.031	-1.935	0.05
(0, +1)	-1.679	14	15	-1.588	-1.575	0.11
(0, +5)	0.916	13	16	0.703	-2.167	0.03
(0, +10)	0.673	13	16	0.43	-3.155	<0.001
(0, +20)	0.437	14	15	-0.02	-4.388	<0.001
(-20, +20)	-2.322	12	17	-0.392	-5.202	<0.001
(-10, +10)	-1.689	14	15	-0.062	-3.909	<0.001
(-5, +5)	0.871	13	16	0.416	-2.617	0.009
(-2, +2)	-2.27	11	18	-1.587	-2.103	0.04
(-1, +1)	-2.394	11	18	-2.114	-1.966	0.05

Note: Tabulated value of t at 28 d.f., 5 % level of significance using two-tailed test = 2.048.

CAR are presented in the Table 3. The average CARs for combined firms are found to be negative and significant at -2.322 %. Consequently, the null hypothesis H03 is rejected in case of combined firms' shareholders and the alternative hypothesis Ha3 is accepted. Thus, based on the analysis of this result, it can be concluded that the shareholders of combined firms suffered significant losses of -2.322%.

The study has also attempted to compare average CARs of the acquiring firms' shareholders with the average *CARs* of the target firms' shareholders using paired sample t - test and Wilcoxon Z-test for comparison of means.

(4) Comparative Status of Acquiring and Target Firms' Shareholders: The results of this analysis are presented in the Table 6. It is found that differences in means are insignificant at the 5% level of significance using one-tailed test. Thus, the null hypothesis H₀₄ that average CARs of the acquiring firms' shareholders are equal to average CARs of the target firms' shareholders is accepted and the alternative hypothesis H_{a4} is rejected.

Table 6. Difference in Shareholders' Value of Acquiring and Target Firms

Tests Used	Test Statistic
Paired t - test for acquiring and target company shareholder average	CARs t = -1.118
Wilcoxon test for paired samples	Asymp. Sig. (one-tailed) = 0.16

Note: Paired samples t-test and Wilcoxon test is for equality of announcement period average CARs for the acquiring and acquired firms' shareholders of the sample of 29 pairs of merging firms; tabulated value of t at 5 % significance level, using a one-tailed test = 1.701.

Summary and Conclusion

After examining the impact of mergers and acquisitions on shareholders' value, the broad conclusions that emerge

from the findings are summarized below:

- (1) M&As as a strategy of growth is found helping in creating little but significant value for the shareholders of the acquiring firms in the short term based on analysis of average cumulative abnormal returns. It is found that cumulative abnormal return is positive and significant at 0.6865 for the full event period of 41-days. It is in line with the findings obtained by Kumar (2004); Kale and Singh (2005); Rachappa and Satyanarayana (2007); Mann and Kohli (2008); Anand and Singh (2008); Gopalaswamy, Acharya, and Malik (2008); Mann and Kohli (2009); Alexandridis, Petmezas, and Travlos (2010); Chakraborty (2010); Dixit (2011); Rani et al. (2012); and Rani, Surendra, and Jain (2013). It can be stated that shareholders of acquiring firms seemed to have made little gains on the announcement of M&As.
- (2) M&As are found destroying value for the shareholders of the target firms in the short term based on analysis of average cumulative abnormal returns. It is found that cumulative abnormal returns are negative and significant at -2.792% for the full event period of 41 days. It is in line with findings obtained by Kumar (2004); Rachappa and Satyanarayana (2007); and Gupta (2008). However, there are two recent studies by Mallikarjunappa and Nayak (2013) and Raghuvanshi and Raghuvanshi (2014), who reported positive abnormal gains for shareholders of target companies involved in acquisitions only. However, it is found that the market is neutral to the announcement of M&As in event periods closer to the day of announcement based on analysis of CAR_D . Based on the analysis of this result, it can be stated that the shareholders of target firms seem to have earned negative abnormal gains. It is further found that market appears to be confused initially and responds slowly to the news of announcement of M&As.
- (3) M&As are found destroying shareholders' value at -2.322% for the shareholders of hypothetical combined firms (acquiring and target firms taken together) in short term based on analysis of average cumulative abnormal returns. It is further found that cumulative abnormal returns are negative and significant at -2.322% for the full event period of 41-days. Thus, it can be stated that M&As have a significant negative impact on shareholders' value of hypothetical combined firms. The findings in this study are similar to the findings obtained by Anand and Singh (2008). It seems that a small percentage gain to acquiring firm shareholders is neutralized by comparatively large percentage loss to the target firm shareholders, making overall impact on combined firms significantly negative.
- (4) Comparative evaluation of average cumulative abnormal returns of the acquiring and the target firms reveals that there is no significant difference between the two. Thus, the average *CARs* of the acquiring firms is equal to the average *CARs* of the target firms. It seems that a small percentage gain to acquiring firms' shareholders is neutralized by comparatively large percentage loss to the target firms' shareholders, making overall impact on combined firms significantly negative.
- **(5)** Comparative evaluation of average cumulative abnormal returns of the acquiring and the target firms reveals that there is no significant difference between the two. Thus, the average *CARs* of the acquiring firms is equal to the average *CARs* of the target firms.

Research Implications

Mergers and acquisitions (M&As) as an important corporate strategy of growth is found to be beneficial for acquiring companies in India and thus, CEOs of modern corporations can be advised to go in for selective M&A

deals to unlock value creation potential of their firms and withstand cut-throat competition in recent times. They need to remain very cautious in selection of a right target firm with whom they plan to merge with, especially due to the fact that shareholders of target firms respond negatively to such moves. There is a need of designing a wellplanned integration strategy to reap long-term benefits of M&As.

Limitations of the Study

The following are some of the limitations of the present study which deserve to be mentioned:

- (i) The study is limited to a sample size of 29 pairs of merging companies for determining the impact of M&As on shareholders' value. Inclusion of more number of sample units might have produced different results.
- (ii) This study considers a 41-day event period around the day of announcement of M&As for analyzing short-term stock price abnormal returns. There may be chances of obtaining different results if a different event period might have been applied.
- (iii) Although, the present study attempts to study the impact of both mergers and acquisitions on shareholders' value but number of companies in acquisitions chosen are comparatively lesser.
- (iv) The analysis is made on the basis of financial data only. Qualitative aspects such as organizational cultures etc. are ignored.

Scope for Further Research

This paper forms a sound base on which research can be taken forward to cross-check the results found in this short-term stock price study with the long-term stock price performance using comparatively large sample size involving both mergers as well as acquisitions by employing other models, that is, market model and market and risk-adjusted model of the event study methodology. Further, results found in the stock market studies may not be necessarily supported by actual corporate performance reflected through numbers reported in the reported financial statements. Thus, future studies may be undertaken using accounting numbers, especially operating cash flow returns to corroborate findings made in the stock market studies. The results may vary across sectors and therefore, future studies may be made to analyze sector-wise shareholders' value creation on announcement of M&As.

References

- Affleck Graves, J. F., Flack, T. P., & Jacobson, A. J. (1988). The effect of merger announcement on share prices of the acquired and acquiring companies. South African Journal of Business Management, 19 (4), 147-154.
- Alexandridis, G., Petmezas, D., & Travlos, N. G. (2010). Gains from mergers and acquisitions around the world: New evidence. Financial Management Journal, 39 (4), 1671 - 1695.
- Anand, M., & Singh, J. (2008). Impact of merger announcements on shareholders' wealth: Evidence from Indian private sector banks. Vikalpa: Journal for Decision Makers, 33 (1), 35 - 54.
- Andrade, G., Mitchell, M., & Stafford, E. (2001). New evidence and perspectives on mergers. Journal of Economic Perspectives, 15(2), 103 - 120.

- Barai, P., & Mohanty, P. (2010). Short term performance of Indian acquirers Effects of mode of payment, industry relatedness and status of target. DOI: http://dx.doi.org/10.2139/ssrn.1697564
- Beena, P.L. (2004). Towards understanding the merger wave in the Indian corporate sector A comparative perspective (Working Paper, 355). Trivandrum: Centre for Development Studies.
- Brown, S.J., &Warner, J.B. (1985). Using daily stock returns: The case of event studies. *Journal of Financial Economics*, 14(1), 3-31.
- Bruner, R. F. (2002). Does M&A pay? A survey of evidence for the decision maker. *Journal of Applied Finance*, 12(1), 48-68.
- Chakraborty, M. (2010). The wealth effects of takeover announcement for firms in the financial service sector in India. *Journal of Emerging Market Finance*, 9(2), 199-227.
- CMIE Prowess. (2014). *Database*. Center for Monitoring Indian Economy Pvt. Ltd. Retrieved from https://www.cmie.com/
- Dennis, D. K., & McConnell, J. J. (1986). Corporate mergers and security returns. *Journal of Financial Economics*, 16(2), 143 187.
- Dixit, B. K. (2011). Do Indian acquirers create shareholder value? The effect of affiliation to a family business.

 R e t r i e v e d f r o m http://www.academia.edu/1867111/Do_Indian_Acquirers_Create_Shareholder_Value_The_Effect_of_Affiliation_to_a_Family_Business_Group
- Fuller, K., Netter, J., & Stegemoller, M. (2002). What do returns to acquiring firms tell us? Evidence from firms that make many acquisitions. *The Journal of Finance*, *57*(4), 1763 1793. DOI: 10.1111/1540-6261.00477
- Gopalaswamy, A. K., Acharya, D., & Malik, J. (2008). Stock price reaction to merger announcements: An empirical note on Indian markets. *Investment Management and Financial Innovations*, 5 (1), 95 103.
- Gubbi, S. R., Aulakh, P. S., Ray, S., Sarkar, M. B., & Chittoor, R. (2010). Do International acquisitions by emerging economy firms create shareholder value? The case of Indian firms. *Journal of International Business Studies*, 41 (3), 397 418.
- Gupta, A. (2008). Market response to merger announcements. The ICFAI Journal of Applied Finance, 14(8), 5-18.
- Hitt, M. A., Ireland, R. D., & Harrison, J. S. (2005). Mergers and acquisitions: A value creating or value destroying strategy?, in M. A. Hitt, R. E. Freeman, & J. S. Harrison (eds.), *The Blackwell handbook of strategic management* (pp. 384 408). New York: Blackwell.
- Houston, J. F., & Ryngaert, M. D. (1994). The overall gains from large bank mergers. *Journal of Banking and Finance*, 18(6), 1155 1176.
- Jensen, M.C., & Ruback, R.S. (1983). The market for corporate control: The scientific evidence. *Journal of Financial Economics*, *11*(1-4), 5-50. DOI: http://dx.doi.org/10.1016/0304-405X(83)90004-1
- Jucunda, M. M. E., & Sophia, S. (2014). Do acquisitions add value to acquirers in India? A study on the sensitivity of the stock market and acquirer returns. *Indian Journal of Finance*, 8 (5), 5-18. DOI: 10.17010/ijf/2014/v8i5/71914
- Kale, P., & Singh, H. (2005). Acquisitions and alliances: Indian companies and value creation. TMTC Journal of Management, 3 (January), 13 - 18.
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- Karels, G. V., Lawrence, E., & Yu, J. (2011). Cross-border mergers and acquisitions between industrialized and developing countries: US and Indian merger activity. *International Journal of Banking and Finance*, 8(1), 35-58.
- Kohli, R., & Mann, B. J. S. (2012). Analyzing determinants of value creation in domestic and cross-border acquisitions in India. International Business Review, 21(6), 998 - 1016. doi:10.1016/j.ibusrev.2011.11.006
- Kumar, R. (2004). Effect of RPL-RIL merger on shareholder's wealth and corporate performance. The ICFAI Journal of Applied Finance, 10(9), 15-35.
- Mallikarjunappa, T., & Nayak, P. (2013). A study of wealth effects of takeover announcements in India on target company shareholders. Vikalpa, 38(3), 23-49.
- Manasakis, C. (2009). Shareholder wealth effects from mergers and acquisitions in the Greek banking industry. *International Journal of Banking, Accounting and Finance, 1* (3), 242 - 256.
- Mann, B. S., & Kohli, R. (2008). An empirical analysis of bank mergers in India: A study of market driven versus nonmarket driven mergers. Decision, 35(1), 47-73.
- Mann, B. S., & Kohli, R. (2009). Impact of mode of payment and insider ownership on target and acquirer's announcement returns in India. Vikalpa, 34 (4), 51-66.
- Mishra, A. K., & Goel, R. (2005). Returns to shareholders from mergers: The case of RIL and RPL merger. IIMB *Management Review*, 17(3), 69 - 79.
- Mushidzhi, T. B., & Ward, M.D. (2004). Abnormal returns for cash vs. share funded acquisitions. *Investment Analysts* Journal, 33 (60), 17 - 31.
- Pandey, A. (2001). Takeover announcements, open offers and shareholders' returns in target firms. Vikalpa, 26 (3), 19-30.
- Rachappa, S., & Satyanarayanana, S. V. (2007). Mergers and market gains: A study of select companies. In B. Das & A. K. Padmanik (eds.), Merger and acquisition, Indian scenario (pp. 156 - 162). New Delhi: Kanishka Publishers.
- Raghuvanshi, A., & Raghuvanshi, A. (2014). Determinants of shareholder gains in acquisitions: An empirical study in the Indian corporate sector. Indian Journal of Finance, 8 (2), 37-48. DOI: 10.17010/ijf/2014/v8i2/71979
- Ramakrishna, K. (2010). Redistribution of wealth on merger announcements in India. Management Research *Review, 33*(8), 798 - 810.
- Rani, N., Surendra, Y. S., & Jain, P. K. (2012). Impact of mergers and acquisitions on returns to shareholders of acquiring firms: Indian economy in perspective. Journal of Financial Management & Analysis, 25(1), 1 - 26.
- Rani, N., Surendra, Y. S., & Jain, P. K. (2013). Market response to the announcement of mergers and acquisitions: An empirical study from India. Vision, 17(1), 1-16.
- Schweiger, D. M., & Very, P. (2003). Creating value through merger and acquisition integration. Advances in mergers and acquisitions (Vol. 2, pp. 1-26). Emerald Group Publishing Limited.

- Verma, B. P., Maji, P., & Nair, S. (2013). Mergers & acquisitions and their impact on corporate values: Pre and postmerger analysis of Indian banks. *Indian Journal of Finance*, 7(2), 5 - 16.
- Zhu, P.C., & Malhotra, S. (2008). Announcement effect and price pressure: An empirical study of cross-border acquisitions by Indian firms. International Research Journal of Finance and Economics, 13, 24-41.

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