Determinants of Shareholder Gains in Acquisitions: An Empirical Study in the Indian Corporate Sector

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Abstract

India today is witnessing a wave of mergers and acquisitions in this decade. This has important implications for not only the participating firms, but also for the shareholders investing in these firms. The firms thus need to understand the impact of acquisitions on the shareholders' wealth in the Indian context. The present paper investigates the factors that have implications for shareholder gains on the announcement of acquisitions for both the target and acquiring firms. The empirical results obtained indicate that the target firms experience statistically significant higher gains than the acquiring firms around the announcement period window, as well as in the run up window. The gains for the target firms are more for target firms being paid higher premiums, while high premiums do not seem to have an adverse impact on the gains for the acquiring firms. Furthermore, the gains seem to be more for value acquirers than growth acquirers and are high in cases where the target firms are smaller as compared to the acquiring firms.

Keywords: **Acquisitions, Value and Growth firms, Premiums, Abnormal returns**

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Mergers and Acquisitions have been an important strategic tool that have been employed by firms to grow, attain market power, acquire competencies, and reap financial gains. The markets take a view on such acquisitions, and the same is reflected in the movement of share prices of both the target and acquiring companies. This movement indicates the markets' view on how the acquisition should benefit both the firms. Important strategic reasons for firms going for acquisitions are varied and have been briefly discussed below :

↳ **Economies of Scale:** Acquisitions, especially horizontal acquisitions, generate economies of scale for the firms using them as a means of expansion. They can produce optimum amounts to get cost advantages and standardize processes to achieve better economics, both in the short as well as in the long run. They can produce in larger numbers, to feed larger markets, and reduce the overhead costs.

↳ **Economies of Scope:** This is another reason for acquisition of firms to acquire new products and gain benefits of sharing of resources across similar processes in the two markets. This is typical when the firms grow through diversification and can be important source of synergies.

↳ **Technical and Administrative Economies:** Whenever there is a duplication of certain activities, management competencies can be easily transferred from one business to the other. Also, several activities like costs of monitoring, contracting, and pricing may be brought down to reap gains for the two businesses.

↳ **Increasing Market Power:** This is one of the reasons for acquisitions, especially in mature fragmented industries. The market power may be to increase the bargaining power with respect to either the customers or the suppliers or to dominate other competitors. A bigger company formed after the merger or acquisition has a larger amount of resources at its disposal and has better accessibility to the same. The resources can used to save its costs at different levels and increase its profit margins.

↳ **Tax Incentives :** These may be one of the financial motives for acquisitions. This was the case in India a few years

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back, where BIFR referred firms were acquired by Indian firms.

↳ **Diversification:** These are true for conglomerate mergers. These organizations want to venture out of their core competency areas to enter newer business avenues and reduce the amount of risk involved with a large amount of capital being invested at a single place. Only the generic management capabilities are transferred to the acquired firms to gain advantage. This may also be done for rapid growth, especially in capital-intensive industries, where organic growth may take too long for the comfort of the companies. However, risk diversification is a dubious reason for acquisitions as argued by most literature.

Acquisitions and mergers, although always an important means of corporate growth since the seventies, became much more prominent during the early 1990s in the Indian corporate sector. The policies of economic liberalization adopted during those years triggered a sharp increase in mergers between domestically owned companies and between domestically owned companies and companies under foreign ownership. The acceleration of the merger movement in the 1990s was accompanied by the dominance of mergers between firms belonging to the same business group or house. The second objective underlying the acceleration in mergers in the 1990s was the need for business groups to restructure themselves.

In the present century, India is booming as an economy, and as a result, it is witnessing a great number of mergers and acquisitions. There has been a spurt in the activity, especially in the 21st century (see Table 1). Hence, the focus has suddenly shifted on India and the study of this acquisition activity has assumed greater importance than ever before.

Table 1. M&A Deals in India

Year	No. Of Deals	Total Value of Deals (₹ Crores)
1997-98	40	578
1998-99	66	1014
1999-2000	75	461
2000-01	77	1372
2001-02	81	3610
2002-03	88	6389
2003-04	65	1595
2004-05	61	4632
2005-06	102	4078
2006-07	87	11352
2007-08	114	28706

Source : Compiled from Securities and Exchange Board of India. (Various years). *Handbook of statistics on Indian securities market* (various issues). Retrieved from http://www.sebi.gov.in/sebiweb/home/list/4/32/0/0/Handbook-of-Statistics

Research on mergers and acquisitions (M&A) suggests that acquirers do not normally benefit from acquisitions. Target firms, however, tend to benefit generously from M&As due to high merger premiums paid by acquirers; this is typically illustrated by large positive abnormal returns earned in the few days surrounding merger announcements. However, the announcement period wealth effect on acquiring firms, on the other hand, is less clear. On an average, acquirers break even in a few days around merger announcements. In the long-run, research has shown that acquiring firms (i.e., the combined acquirer and target) earn a statistically significant negative abnormal return up to five years following mergers, widely known as the post-merger underperformance puzzle. Taken at face value, these findings cast a doubt on the ability of the bidding firm management to make value creating decisions on behalf of their shareholders (Antoniou, Arbour, & Zhao, 2008).

However, in the current Indian scenario, most firms are adopting M&A strategies to grow, and the general enthusiasm in the markets has washed away most of the anxieties and pessimism associated with acquisitions in the post liberalization era. The markets seem to view such mergers positively as can be gathered from the tone and content of the various analyst and media reports on the Indian markets. Even the investors are riding the bull run and the optimism and boom of the economy further strengthens this belief. On the other hand, this enthusiasm may prompt the acquiring companies to be over-confident and thus over-estimate the gains from such acquisitions. In effect, they may

end up paying more premiums for the deals and thus, may imply greater gains for the target shareholders and even negative gains for the acquirer's shareholders, especially in the long run.

Literature Review

Targets Vs Acquirers : Several studies have been conducted on the relationship between M&As and performance of the company using a variety of financial measures (e.g. profit, stock price), non-financial measures (e.g. firm's reputation), and time frame (e.g. pre-measurement and post measurement, initial market reaction, etc.). These studies show that on an average, M&As consistently benefit the target's shareholders, but not the acquirer's shareholders. In fact, there are varying results with respect to the buying firm's performance (Schweiger, 2002). A study done on the basis of stock market prices in the U.S. showed that around the announcement date of the transaction, average return to target firms' shareholders are about 30% (Ruback & Jensen,1983). In contrast, the shareholders of the acquiring firms generally show returns that range from slightly negative to modestly positive around the announcement date. M&As, however, under perform their industry peers or shareholder value over a longer time horizon. Chiplin and Wright (1988) and Sirower (1997) also found similar results.

Premium Paid : An important issue in any acquisition is the decision about the amount of premium that needs to be paid. Herein, there are two conflicting theories advocated by researchers. Ideally, if potential gains from merging are real and managers do not overpay, acquisitions should yield a positive NPV and should ,therefore, create value on behalf of acquiring firm shareholders. But Roll's (1986) hubris hypothesis predicts that, if present, hubris infected managers will win the auction process. Observable samples of successful M&As should ,therefore, be biased towards value destroying deals for the acquirer at least. The other school of thought is the one of likes of Berkovitch and Narayanan (1993) and Eccles Jr., Lanes, and Wilson (1999), who advocated that it is quite possible that merger premiums may actually be proxy for the synergy reserves between a bidder and its target. This implies that merger premiums should, in fact, be positively correlated to the gains of acquirers.

Value Vs Growth Firms : It has been found that the acquiring value firms respond to positive announcements more positively than the growth firms. Rau and Vermaelen (1998) reported that value firms with high book to market values have positive performance following mergers. On the other hand, they found that growth or glamour firms with low book to market ratios significantly underperformed following mergers. Mitchell and Stafford (2000) conducted similar bifurcation based on book to market ratios and found abnormal returns much smaller in magnitude, which were statistically significant. These studies were done on the long-term performance. However, assuming that the markets are able to read and assess the potential of such firms based on the value of such firms, the same may be expected to be true in the short term influence on the abnormal returns to the two set of firms.

Relative Company Size : It has been frequently discussed in contemporary literature that a merger of equals never works. It has been argued that such huge mergers generate more news than value for the shareholders of the participating firms. However, when a smaller firm is acquired by a larger firm, the problems associated with such large acquisitions do not hamper the value that may be perceived to be realized through such acquisitions. Thus, it may be expected that the value gain for the shareholders in such acquisitions may yield larger gains for the shareholders of the two firms. The large MV firms' group is similar to the 'Full Sample' used by Moeller, Schlingemann, and Stulz (2005) and the low MV firms' group, which is more similar to the 'Big Sample' used by Fuller et al. (2002) or by Billett and Qian (2005).

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Methodology and Data Sources

Only Indian acquisitions (both target and acquirer are Indian firms) have been analyzed in this paper. The sample includes 35 acquisition deals (see Appendix 3). The acquisitions were selected from the database available with SEBI and the acquisitions which happened between the year 2000 to March 2008 have been studied. It was felt that the study of these acquisitions would be more useful as the global recession in 2008 affected the M&A deals and their valuation. Hence, to eliminate the biases, the deals which happened after March 2008 were ignored. The announcement dates for

selected deals were collected from CMIE- Prowess database. All the share price data and firm particulars namely, book to market values, market capitalization of the firms, and market particulars were taken from the same site. The share price data was collected from the BSE, if the stock was listed on both the exchanges. The date of announcement was chosen as the date of the media announcement or the exchange announcement dates. In cases where the media announcement dates were not available, the IBID database was searched to get the accurate date of announcement. The firms that met certain selection criteria for the acquisitions were chosen. The selection criteria considered while choosing the companies was as follows :

- Both companies participating in the deal were public companies,
- Both the companies were Indian companies. This eliminated cross border acquisitions. It was felt that foreign acquisitions may be different than the domestic ones. Hence, the foreign acquisitions were not considered to eliminate any biases that may be introduced because of them,
- Both companies were listed on any of the India Exchanges, BSE or NSE,
- The deals had been completed. This eliminated several deals that have not yet been completed and were pending with SEBI.

The deals were classified according to reason as indicated by SEBI documents namely, control, substantial acquisition, and consolidation. Furthermore, we also looked for deal particulars like deal size, offer price, share after acquisition, and objectives for the takeover.

- **Methodology :** Event study was the analysis tool used to study the event of announcement of the acquisitions. The methodology followed was that of Fuller, Netter, and Stegemoller (2002) and Dong, Hirshleifer, Richardson, and Teoh (2006) in form of a standard event study to calculate CARs around event windows surrounding merger announcements. The returns were calculated on the daily share price data to give *Ri*, which is the return on event firm *i* , and *Rm*, the market return, which was calculated using the Nifty index. The clean period was assumed to be (+40,-40), and the market model for the normal returns was constructed using the data in the window (-40, -240) in cases where the data was available for this window. However, wherever data was not available for the above mentioned windows, the data for the trading days beyond the clean period of (+40,+240) was taken to be used as the data for constructing the market model.

For each bidder and target company, the market model was estimated as follows:

$$Rit = \alpha i + \beta im\ Rm\ t + \varepsilon it$$

where,
Rit represents the return on security *i* on day *t,* αi is a constant, *Rm t* represents the return on the market portfolio for day *t*, βim is the regression coefficient of the relationship between security *i* and the market index, and εit represents a random error term.

The abnormal return is the difference between the actual return and the expected return, and for any security, *i*, at time *t*, *ARit*, is:

$$ARit = Rit - \alpha i - \beta im\ Rm\ t$$

The cumulative abnormal return (CAR) for event windows and the total bid was calculated by summing the daily abnormal returns:

$$CARiT = \Sigma\ ARit$$

where *CARiT* is the cumulative abnormal return for security *i* ,over event window *T*. Average cumulative abnormal returns (ACAR) across *N* firms is:

$$ACAR\ it = \Sigma\ CARit/N$$

All event windows were examined for confounding events occurring around the event period. In most cases, event windows were clear of other potentially price-sensitive announcements. In some cases, where a company was involved in other major company activities, events sometimes overlapped. In such cases, a judgement was made on the basis of whether the overlapping event was related to the merger being examined or not. If it was considered to be related, the event would be included in the abnormal return calculation, otherwise, it was excluded. The statistical

significance testing for the ARs and CARs is discussed in depth in Salinger (1992), which showed that the variance of the CAR is given by:

$$\text{VAR}(CARit) = \sigma^2 T [1 + T/U + T(rm0 - \text{r}mean)^2/U\ Var\ (rm)] \quad \sigma^2 T$$

where,

T and *U* are the lengths of the event window and estimation periods respectively, σ^2 is the variance of εit, *rmean,* and *Var(rmean)* are the mean and variance of the market return over the estimation period and *rm0* is the continuously compounded market return over the event window.

The test statistic used is :

$$t = \text{ACAR}/\ \text{Var (ACAR)}$$

where,

$$\text{Var (ACAR)} = (1/N) \quad \sigma_i^2$$

Where *ti* is the *t* statistic for individual firms and *N* is the number of firms in the group.

A run up window of (-1,-20) was selected to take both the leading and lagging effect. The leading effect was considered to accommodate the rumours that may have been present before the event period. The same has been found in previous works by other researchers in abnormal gains seen by the target firms in the run up period before such announcements. The findings and the duration of the run up windows for various studies have been shown in the Table 2. Thus, the lead window was considered for a period of (-1, -20) as it was felt that the effect of any pre- knowledge of the deal information is captured in the returns of the stocks during analysis. The results have also been analyzed for a larger announcement period, from the (+18,-20). It is to verify the assumption that the market immediately corrects the share price on its valuation of the deal. Several studies in the past have found the post announcement gains for the targets to be significant. The window was chosen so as to have equal spread before and after the announcement period.

- **Hypotheses :** Based on the above discussion, the following hypotheses have been tested in this paper:
- **H1 : The target firms' shareholders gain from the acquisition announcement.**
- **H2 : The acquiring firms experience gain from the acquisition announcement.**
- **H3 : The gains for the target firms are more as compared to acquiring firms.**
- **H4 : The gains/losses to the firms are influenced by the amount of premium paid by the acquiring firm.**
- **H5 : The gains in case of value acquiring firms (with high book to market values) are more than that of growth firms (low book to market value).**

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Results and Discussion

The Table 3 shows the results for the performance of the companies (details of the Table 3 are shown in the Appendix 1) separately for the target as well as the acquiring firms. It was found that for the run up window (+18, -20), the abnormal returns for the target firms were 39.6% and for the run up window (-1,-20), the abnormal returns were 26.34%. The Table 3 shows that they were statistically significant at the 95% confidence level. Thus, we see that target firms tend to gain substantially from acquisitions as hypothesized in H1.Therefore, H1 is accepted. Similar results for returns for the acquirer firms, on the other hand, were much smaller, and they were 5.57% and 3.32% for the total and the run up windows respectively. These returns were not significantly different from zero and ,therefore, the H2 is rejected. Thus, from the above discussion, we can also conclude that the gains for the target firms are more as compared to the gains for the acquiring firms as hypothesized in H3. The day wise CAR for target and acquirer firms is shown in the Figure 1.

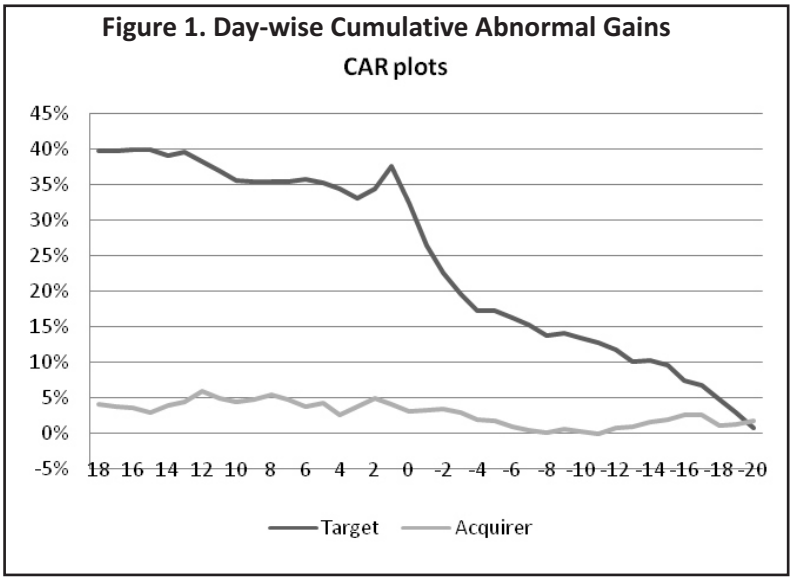
These results are much in consonance with the results obtained by researchers in the past in similar studies. Bradley, Desai, and Kim (1988) found abnormal returns of 10.07% in the run up window of equal size, while Gregg and Poulsen (1989) found the return as 11% in a window of the same size. These studies were carried out with reference to U.S. acquisitions and mergers. Other studies found abnormal returns of as large as 30% on the windows of equal sizes. Fuller et al. (2002) found abnormal returns of about 2.74% for U.S. firms for the first bid announcements. Several

Table 2. Run up Gains, Past Research

Research paper	Time period	No of Observations	Run Up Window	Announcement Returns
Dodd (1980)	1971-1977	151	(-40,-2)	13
Keown and Pinkerton (1981)	1975-1978	194	(-25,-1)	12
Dennis and McConnell (1986)	1962-1980	76	(-19,-2)	8.84
Hang and Walkling (1987)	1977-1982	204	(-50,-2)	23.4
Bradley et al. (1988)	1963-1984	236	(-20,-1)	14.5
Jarrell and Poulsen (1989)	1981-1985	172	(-20,-1)	13.9
Meulbroek (1992)	1974-1988	145	(-30,-2)	15
Schwert (1996)	1975-1991	1523	(-42,-1)	10.1
Schwert (2000)	1975-1996	2296	(-63,-1)	9.6

Source : Adapted from J. F. Weston, M.L. Mitchell, & J.H. Mulherin (2004). *Takeovers, restructuring, and corporate governance* (4th Edition, p. 231, Table 8.3). USA : Pearson Prentice Hall.

Figure 1. Day-wise Cumulative Abnormal Gains



other studies found smaller, and in most cases, statistically insignificant returns for the acquirer firms. Similar results, some even more dramatic, have been reported by Croci and Petmezas (2005), Billett and Qian (2008), Ismail (2006), and Conn, Cosh, Guest, and Hughes (2005) (the latter for the UK M&As).

The relatively large returns for the target firms may be attributed to the buoyant economic conditions and new-found enthusiasm of the Indian markets towards acquisitions of late. The market seems to have seen the value proposition of the acquisitions. The CARs for the firms were then regressed against the previously mentioned parameters. This was done independently for the acquirer and target firms and on a combined basis as well. The variables that were entered into the regression model were - the size of the deal, objective of the deal, MV of the firms, the premium paid, the book to market value, and the target/acquirer status. The objective, target /acquirer status, and boom to market value were entered as dummy variables. The high and low book to market value firms were segregated using the median value of the sample values. This gave results as shown in the Appendix 2. It is clear from the results that the model is only explained by the dummy variable, indicating the firm as the target or the acquirer. It is clear from the data that only the target/ acquirer status significantly explains the variability in the CARs. The model has a low *R*-square value as the number of variables is limited and their explaining the CARs was not expected.

Further analysis was carried out to find whether the gains for the acquirer firms with higher premiums was significantly different from those with lower values of premium. The mean value of premiums was found to be 70%. The median was found to be 24%, and it was used to split the firms as high and low premium ones. The CAR for high

premium paying firms is not significantly different from the low premium paying firms. However, the Table 3 shows that it is significant for the target firms. Thus, it seems that the premiums are not able to predict the value that is being attached to the acquisition by the markets for acquiring firms, while they do it for the target firms, as is clear from the *t*-test results given in the Table 4. For the target firms, the large premiums mean larger gains (53.36% as compared to 26.53% (see Table 3) for the low premium target firms). For the acquiring firms also, the gains are more for higher premiums, but the difference is not significant as shown in the Table 3 and Table 4. Therefore, the hypothesis H4 is rejected for acquirer firms and is accepted for target firms (refer to Table 3 and Table 4). It seems that the premiums being proxies for synergies expected might be correct. However, it can be safely concluded that higher premiums do not mean negative returns for the acquirer. There is a good possibility that the markets may be valuing the acquiring firms only on the merit of the deal and not the actual premiums paid. That is why the absolute values of premiums do not influence the value being attached, and the abnormal gains are not statistically different for the high and low premium deals.

The same procedure was applied to high book to market and low book to market value firms. Again, the CAR (see Table 3) for the value firms (6.82%) was more than what it was for the growth firms (1.61%) (as expected) . Thus, there seems to be an indication about a higher value being realized for the value firms. The acquisition of glamour firms seems to be valued less favorably by the markets, as had been hypothesized before. The Table 3 shows the CAR for low MV of target to MV of acquirer was found to be 5.65%, which was more than the CAR for the high MV firms. This again is in consonance with the hypotheses developed earlier. The significance was tested using *t*- test, and the differences were not found to be statistically different, and hence, H5 is rejected.

Again, it seems that the original hypothesis advocated about the acquisition of larger firms being adversely viewed by the markets, in anticipation of integration issues and the anticipated synergies not being realized, seems to be true. A further analysis on a larger sample may bring out a better picture, and the results may be expected to give significant differences between a compared group of firms on the basis of MV ratio, book to market values, and premiums for acquirers.

Conclusion and Implications

From the above discussion, the important findings that may be summarized along with their implications for Indian firms undertaking acquisitions in present times can be enumerated as follows:

(1) The acquirers usually misjudge the benefits that they can derive out of mergers, and the same may be noted by the markets. Their shareholders may not be rewarded with capital gains by the market when such firms decide to go for acquisitions. The gains, even if there are any, are very small.

Table 3. Abnormal Gains for Run Up and Complete Window

Event Window	(+18,-20)	(-1,-20)
	CAR	CAR
Target	39.56%*	26.34%*
Acquirer	5.57%	3.32%
Value acquirers	6.82%	5.08%
Growth acquirers	1.61%	1.79%
High MV ratio(T/A)	-2.43%	-1.09%
Low MV ratio(T/A)	5.65%	4.66%
Low premium acquirer	1.73%	4.11%
High premium acquirer	6.35%	2.54%
Low premium target	26.53%*	22.06%*
High premium target	53.36%*	30.86%*

* Significant at 95% level

Table 4. *t*- test Results for Significance Between Groups of Firms

Basis of classification	*t* value	*t* Critical
Premium	-0.53215	-1.69236
Book to market value	1.135885	1.69236
MV ratio	-0.08253	-1.68
Target premium	-2.16494	1.69236
Acquirer premium	0.532146	1.69236

(2) The target firms tend to gain substantially from acquisitions, especially in the selected period. The shareholders gain not only after the announcements, but also during the run up period before the announcement. The companies can use this spurt in the share prices to benefit not only in terms of capital gains for their shareholders, but also can leverage it to demand better premium in such acquisitions. They can also judge the anticipated gains through such run ups.

(3) Higher premiums mean more returns for the target firms, and thus, they can earn larger gains by negotiating for higher premiums from the acquiring firms.

(4) The premium being paid may not be viewed adversely by the markets for the acquiring firms. Thus, the focus should achieve the larger synergies through acquisitions, rather than striking a cheap deal for acquisitions. In fact, these may act as proxies for the synergies anticipated by the markets in the deal.

(5) Acquiring value firms may stand in good stead in terms of gaining from acquisitions, as compared to growth or glamour firms.

(6) Markets may be viewing acquisitions of relatively smaller companies more favourably than those of larger firms. This may be good news for firms planning roll ups for expansion and growth.

Limitations of the Study

The limitations of the study are as follows:

(1) The number of firms studied was limited by the fact that only acquisitions - that took place between the year 2000 to March 2008 - by publicly listed companies were considered. Furthermore, as the sample was small, many of the firms that showed skewed data were removed from the sample to prevent them from biasing the results. This was done in accordance with the precautions mentioned by Mackinley (1997) that when the sample is small, it has higher chances of getting biased.

(2) The regression done on this limited set of firms could have been insignificant due to the small number of data values. To cross check this, the grouping for high and low book to market value, high and low premium firms , high and low market value firms, and so forth was done in tandem to observe any statistical difference between the CARs obtained for the two sets of firms. Both the *t*-test and ANOVA were utilized to ascertain the results.

(3) The paper has assumed that the events are independent of each other, which are known as "the clustering effect" in the calendar time. This was taken care of during the sample formation and the clustering effect was kept minimal. Furthermore, the sample had a mix of vertical and horizontal mergers across sectors and that was assumed to wipe out any effect of the industry clustering.

(4) Apart from the parameters tested in the paper, other important factors that may influence the performance of the deal are the type of deal (cash or stock), the number of bidders in the bidding process, and the type of merger (vertical or horizontal). These could not be included in the model due to the fact that the distribution of the firms obtained was not uniformly distributed to test these hypotheses. These may be tested in future studies on the same topic.

Scope for Further Research

The paper forms a sound base on which research can be taken forward to study the Indian M&A activities' impact for the shareholders. The results for the short run performance may be cross-checked by verifying the same in the long run. The results may vary across sectors, which could not be analyzed in the present study due to limited data, which may reveal the dependence of the returns on the sector where the acquisition is taking place. The results can be compared with the post recession deals in India. The differences between the types of acquisitions, namely vertical, horizontal, and conglomerate, may also be studied.

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Appendices

Appendix 1. *t* - Stat Values for Null Hypotheses for CARs

Window	(+18,-20)		(-1,-20)	
	CAR	t stat	CAR	t stat
target	39.56%	5.22	26.34%	4.85
acquirer	5.57%	0.69	3.32%	0.59
Value acquirers	6.82%	1.08	5.08%	1.13
Growth acquirers	1.61%	0.12	1.79%	0.18
High MV ratio(T/A)	-2.43%	-0.09	-1.09%	-0.06
Low MV ratio(T/A)	5.65%	0.87	4.66%	1.00
Low premium acquirer	1.73%	0.12	4.11%	0.39
High premium acquirer	6.35%	1.07	2.54%	0.60
Low premium target	26.53%	3.13	22.06%	3.63
High premium target	53.36%	4.18	30.86%	3.38

Appendix 2. Results for Regression

Model	Unstandardized Coefficients		Standardized Coefficients	*t*	Sig.
		B	Std. Error	Beta		
1	(Constant)	.772	.273		2.825	.006
	share	-.001	.003	-.058	-.452	.653
	offer_size	-1.46E-011	.000	-.090	-.606	.547
	Objective	-.062	.076	-.109	-.811	.421
	MV	6.56E-006	.000	.065	.432	.667
	BE_ME	.090	.116	.097	.777	.440
	T_A	-.265	.117	-.286	-2.266	.027
	Premium	.015	.040	.046	.366	.715

a Dependent Variable: CAR

Model	*R*	*R* Square	Adjusted *R* Square	Std. Error of the Estimate
1	.327(a)	.107	.006	.46530

a Predictors: (Constant), Premium, T_A, offer_size, BE_ME, share, Objective, MV

Model		Sum of Squares	*df*	Mean Square	*F*	Sig.
1	Regression	1.612	7	.230	1.064	.397(a)
	Residual	13.423	62	.217		
	Total	15.035	69			

a Predictors: (Constant), Premium, T_A, offer_size, BE_ME, share, Objective, MV

b Dependent Variable: CAR

Appendix 3. Firms' Particulars in the Selected Sample

S. No	Target	Acquirer	Date of announcement**	Objective
1	ASIAN OILFIELD SERVICES LTD.	M/S CONSOLIDATED SECURITIES LTD.	2006-12-04	Control
2	SWARAJ ENGINES LTD	MAHINDRA AND MAHINDRA LTD, MAHINDRA HOLDINGS & FINANCE LTD.	2003-08-01	Control
3	PUNJAB TRACTORS LTD	MAHINDRA AND MAHINDRA LTD., MAHINDRA HOLDINGS & FINANCE LTD.	2007-02-08	control
4	TV TODAY NETWORK LTD	RELIANCE CAPITAL LTD.	2007-04-18	sub acquisition
5	INDO RAMA TEXTILES LTD.	SPENTEX INDUSTRIES LTD.	2006-02-19	Control
6	FICOM ORGANICS LTD.	COROMANDEL FERTILIZERS LTD.	2006-03-19	Control
7	CARNATION NUTRA ANALOGUE FOODS LTD.	CADILA HEALTHCARE LIMITED	2006-03-18	Control
8	AMIT SPINNING INDUSTRIES LTD.	SPENTEX INDUSTRIES LTD.	2006-02-26	Control
9	GODAVARI FERTILIZERS AND CHEMICALS LTD	COROMANDEL FERTILIZERS LTD.	2003-07-16	Control
10	SHAW WALLACE & COMPANY LTD.	MCDOWELL, PHIPSON, UNITED SPIRITS	2005-02-24	sub acquisition
11	HINDUSTAN DORR-OLIVER LTD	IVRCL INFRASTRUCTURES & PROJECTS LTD.	2005-04-28	Control
12	ADLABS FILMS LTD.	RELIANCE LAND PRIVATE LTD., RELIANCE CAPITAL LTD.	2005-07-01	Control
13	THE PRATAPPUR SUGAR AND INDUSTRIES LTD	BAJAJ HINDUSTHAN LTD	2005-08-30	sub acquisition
14	TELEPHOTO ENTERTAINMENTS LTD	SSI LTD.	2005-12-03	Control
15	AIMCO PESTICIDES LTD.	EXCEL CROP CARE LTD.	2005-10-26	Control
16	GALAXY ENTERTAINMENT CORPORATION LTD.	PANTALOON	2005-02-23	sub acquisition
17	JMC PROJECTS (INDIA) LTD.	KALPATARU POWER TRANSMISSION LTD & K.ENERGY (PAC)	2004-10-01	Control
18	JAIPUR POLYSPIN LIMITED	RAJASTHAN SPINNING & WEAVING MILLS LTD.	2004-11-11	Control
19	ALPHA DRUGS INDIA LTD	PUNJAB CHEMICALS & PHARMACEUTICALS LTD	2003-02-25	sub acquisition
20	LARSEN & TOUBRO LTD	GRASIM INDUSTRIES LTD	2000-01-17	sub acquisition
21	INDO GULF FERTILISERS LTD	HINDALCO INDUSTRIES LTD (PAC), INDIAN RAYON AND INDUSTRIES LTD (PAC), GRASIM INDUSTRIES LTD (PAC)	2003-06-24	consolidation of holdings
22	RAMA NEWSPRINT & PAPERS LTD	WEST COAST PAPER MILLS LTD,	2003-09-08	Control
23	HERBERTSONS LTD	MCDOWELL & COMPANY LTD	2005-05-28	consolidation of holdings
24	IBP CO LTD/ (INDO-BURMA PETROLEUM COMPANY LTD)	INDIAN OIL CORORATION LTD	2002-02-02	Control
25	FINE DRUGS AND CHEMICALS LTD	VORIN LABORATORIES LTD, OSCAR INVESTMENTS LTD, RANBAXY LABORATORIES LTD (PAC), VIDYUT INVESTMENTS LTD (PAC), SOLUS PHARMACEUTICALS LTD (PAC)	2002-01-03	consolidation of holdings
26	MEDICORP TECHNOLOGIES INDIA LTD	MATRIX LABORATORIES LTD	2002-05-18	Control

27	INDIAN PETROCHEMICALS CORPORATION LTD	RELIANCE PETROINVESTMENTS LTD, RELIANCE INDUSTRIES LTD, (PAC), RELIANCE VENTURES LTD, RELIANCE CAPITAL LTD (PAC), RELIANCE POWER VENTURES LTD	2002-05-17	Control
28	INDIAN ALUMINIUM CO. LTD (INDAL)	HINDALCO INDUSTRIES LTD, RENUKESHWAR INVESTMENT & FINANCE LTD (PAC)	2002-07-22	consolidation of holdings
29	EPIC ENZYMES, PHARMACEUTICALS & INDUSTRIAL CHEMICALS LIMITED	KEYNOTE CORPORATE SERVICES LTD	2002-05-07	Control
30	AHMEDNAGAR FORGINGS LTD	AMTEK AUTO LTD	2002-10-11	Control
31	HITECH DRILLING SERVICES INDIA LTD	ABAN LOYD CHILES OFFSHORE LTD	2001-03-18	Control
32	PSI DATA SYSTEMS LTD	INDIAN RAYON AND INDUSTRIES LTD	2001-06-25	Control
33	TATA SSL LTD (SPECIAL STEELS PRIVATE LTD) (SPECIAL STEELS LTD)	THE TATA IRON AND STEEL CO LTD	2002-01-16	consolidation of holdings
34	GUJARAT PROPACK LTD	COSMO FILMS LTD	2001-10-15	Control
35	FLOATGLASS INDIA LTD	ASAHI INDIA SAFETY GLASS LTD (INDIAN AUTO SAFETY G	2001-09-20	Control

Source: www.sebi.gov.in, ** www.prowess.cmie.com