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Long Run Value Creation from Cross Border Mergers and Acquisitions: Evidence from Indian Acquirer Companies

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Abstract:
The current study focuses on the long run value creation by cross border mergers and acquisitions by Indian companies in the period of 1998-2009. Event study methodology has been employed for achieving the purpose. The results revealed that there was significant value deterioration for the sample companies subsequent to acquisition.

Keywords: *Event Study, Mergers, Acquisitions JEL Classification: G14, G34*

1. Introduction

Value creation for stockholders is one of the important concerns for the management of companies. The issue becomes more pertinent when financial decisions like mergers and acquisitions (M & A) are considered. Indian M & A scenario has been dominated by domestic acquisitions, but with the need of going global, the Indian companies have also started acquiring companies abroad. The reasons companies undertake cross border mergers and acquisitions are diversification, acquiring new capabilities and skills and exploring new markets.

2. Literature Review

In this part of literature, the long run stock returns generated by the acquirer companies. Again, there is inconclusiveness on this aspect of value creation. Eventually, for shareholders capital gains are crucial to remain invested in the acquiring companies. The long term gains are dependent on numerous factors. The studies discussed in this section points towards the time period of acquisition, price earnings ratios of the acquiring firms, type of target-public or private as some of the factors for value construction or destruction in the long run.

Agrawal et al. (1992) examined five year post acquisition returns attributed to the acquiring companies based in US. These firms made acquisitions during 1955-1987. They found a significant loss of 10% in the long run for the acquiring firms.

Rau & Vermalen (1998) analyzed the long horizon stock performance of US bidders acquiring during the period of 1980-1991. He undertook 3169 mergers and 348 tender offers. It was revealed that in the long run mergers got negative cumulative abnormal returns while tender offers generated positive cumulative abnormal returns. The authors state that the mergers got negative CARs on account of poor pre acquisition performance of glamour firms.

Sudarsanam & Mahate (2003) study of 519 UK companies acquiring during the time period of 1983-1995 revealed that in the long run the value acquirers received higher stock returns than the glamour acquirers.

Cheng et al. (2003) compared Indian and Chinese Mergers and Acquisitions. They considered 157 Indian and 109 M & A deals from 1999-2003. They found when the event window was increased to 301 days both Indian and Chinese acquirers had negative Cumulative Abnormal returns. These results are statistically significant for Chinese acquirers.

Aw & Chatterjee (2004) have done a comparison of abnormal stock returns being generated to US firms due to acquisitions in different markets in the period of 1991-1996. The main focus of the study was UK firms acquiring firms within UK, US and Continental Europe (excluding UK). It was found that the highest returns were generated when domestic acquisitions were done amongst all three targets. And the shareholders of UK firms earned higher returns when firms were acquired in US as compared to their counterparts acquiring firms in Continental Europe.

Chakrabarti et al. (2004) studied the long term stock performance of cross border mergers and acquisitions in the period 1991-2000 using 30-month and 36-month event windows. The long term BHAR returns associated with these windows were negative and statistically insignificant.

Conn et al. (2005) studied the announcement returns and long run returns of UK acquirers undertaking domestic as well as cross border acquisitions. They found that in the long run, cross border acquisitions of public targets resulted in negative returns of -32%, while acquisition of international private targets generated in zero returns in the long run. They attributed the national cultural difference between the bidder and target countries a reason for significantly, returns in the long run.
Francoeur, C. (2006) in his research did a post acquisition stock performance study of Canadian Acquirers from the period of 1990 to 2000. They calculated Buy-hold-Abnormal Returns whereby they took monthly returns of the sample companies and the result was that the companies neither created value nor destroyed value.
Chakrabarti, R.(2008) did a comparison of pre-acquisition and post acquisition stock performance of Indian companies for the period of 2000 to mid 2007. He concluded that though the performance in terms of cumulative abnormal returns was positive in the 3 years of post acquisition but it was not statistically significant. The author found that acquisitions don’t add value to the Indian firms over long run window. The pre acquisition returns relative to index were 109%, whereas the post acquisitions returns relative to index were 80%. These returns were adjusted with industry affects also whereby it was found that the returns were 39% which were statistically insignificant.
Petmezas (2008) analysis of long term returns of UK companies making acquisitions reveal that stock returns deteriorated from first to third years subsequent to acquisitions for high and low value acquirers.
We found more or less conformity in the literature that in the long run the post acquisition returns for the acquirer are negative or zero. The authors who have attempted this kind of work have attributed the decline in long run returns to cultural differences between target and acquirer, over expectations from the acquisition, type of acquisitions and the value of the acquirers.

3. Research Objectives and Hypothesis

The research objectives of our study are:

1. To study whether Indian companies undertaking cross border mergers and acquisitions create long run value for the shareholders.
2. To study whether there are differences between the value of the acquiring companies across pre and post merger time frames.

3.1. Hypothesis

1. H_{01}: There is no significant value creation for the companies announcing cross border mergers and acquisitions.
2. H_{11}: There is a significant value creation for the companies announcing cross border mergers and acquisitions.
3. H_{02}: There are no significant differences in value created by the acquiring companies in the pre and post announcement window.
4. H_{12}: There is a significant difference in value created by the acquiring companies in the pre and post announcement window.

4. Data & Methodology

The sample consists of Indian companies acquiring foreign companies from the period of 1998-2009. The data over cross border mergers and acquisitions is collected from Bloomberg database. We used event study methodology for our research.

4.1. Event Study Definition

Event Study Methodology is a tool to study the impact of corporate actions of firms on the stock prices. It assesses whether there are abnormal returns in the stock prices on account of unexpected events and also the wealth effect impact.

4.1.1. Definition of Event

It is necessary to define the event as that date, in which merger or acquisition is announced first time to the public. Day 0 is defined as the day the announcement is first published in any newspaper. We have considered dates as given by BSE corporate announcements as the event date. The dates of acquisition provided by the Bloomberg database on M & A are cross checked for reliability of the results. We even found that sometimes the Indian companies have done acquisitions in tranches of a given target. Therefore, in this scenario, we have taken the date whereby, controlling stake was acquired.

4.1.2. Abnormal Return Calculation

There are two approaches to calculate abnormal returns- mean adjusted approach and market model approach. The present study has used the market model approach used by Brown & Warner (1985).
To calculate the abnormal returns, we have extracted the closing adjusted prices of the acquiring companies from the CMIE Prowess database. The adjusted prices accounts for the effect of stock splits and dividend announcements. The normal return is defined as that expected if the event didn’t take place and is measured by the market model. The market model approach calculates the return of a security using the return of a market portfolio as follows:

$$R_{it} = \alpha_i + \beta_i R_{mt} + \varepsilon_{it} \quad \text{……………………………………………} (1)$$

Rit = Rate of return on share price of firm ‘i’ on day‘t’,
Rmt = Rate of return on a market portfolio of stocks,
α_i and β_i are OLS parameters calculated from estimation period.
Where ε_{it} has an expected value of zero and a constant variance of $\sigma^2(\varepsilon_i)$

The parameters estimated from the market model are then used in the calculation of abnormal returns for each day in the event window. The daily excess return of firm *i* for the day t (AR_{it}) is estimated by:

$$AR_{it} = R_{it} - (\alpha_i + \beta_i R_{mt}) \qquad (2)$$

where AR_{it} = Abnormal Return of security "*i*" on day *t*

R_{it} = Actual Return of security "*i*" on day t

R_{mt} = Returns on Market Portfolio

α_i and β_i are OLS parameters calculated from estimation period.

Proxy employed for return on market portfolio is returns of BSE Sensex.

The estimation window for calculating the Alpha and Beta parameters is from -376 to – 251 days prior to the announcement of the acquisition. The reason for the same is that the OLS parameters calculated from it should be free from the bias of the event influence. (MacKinlay, 1997).

The cumulative abnormal return for a given security is simply the sum of daily returns over the event window. Then CAAR is used as the average of CAR of all sample companies. This is calculated to see the magnitude and direction of the stock price movement of the acquiring companies for different event windows under study.

We have considered multiple event windows for abnormal returns and CAAR to check the significance. For studying the long term value creation, event windows in our study are (-250, 250), (-100, 100) and (-50, 50). One sample t-test has been used to check the significance of AAR and CAAR.

5. Empirical Results for Long Term Value Creation

Figures 1, 2, 3 and 4 demonstrate the trends of abnormal returns generated over different long term intervals starting from (-50, 50) to (-250, 250). One could easily decipher a cluster of large abnormal returns around the announcement window of (-1, 1) as compared to other days surrounding announcement pre and post respectively. The results are in conformity with other studies (Aw & Chatterjee (2004) and Petmezas (2008) which found that in the longer post acquisition window the acquiring companies don't generate significant returns for the shareholders as per their expectations. Cross border mergers and acquisitions are relatively a newer concept and companies could still be learning from it. (Aw & Chatterjee (2004)

We have used paired samples t-test to compare the pre and post acquisition stock returns of the acquiring companies. The objective is to find whether cross border acquisitions have created value for the shareholders of the acquiring companies or not. Table 1 suggests that in the post acquisition windows abnormal returns have significantly decreased for the shareholders.

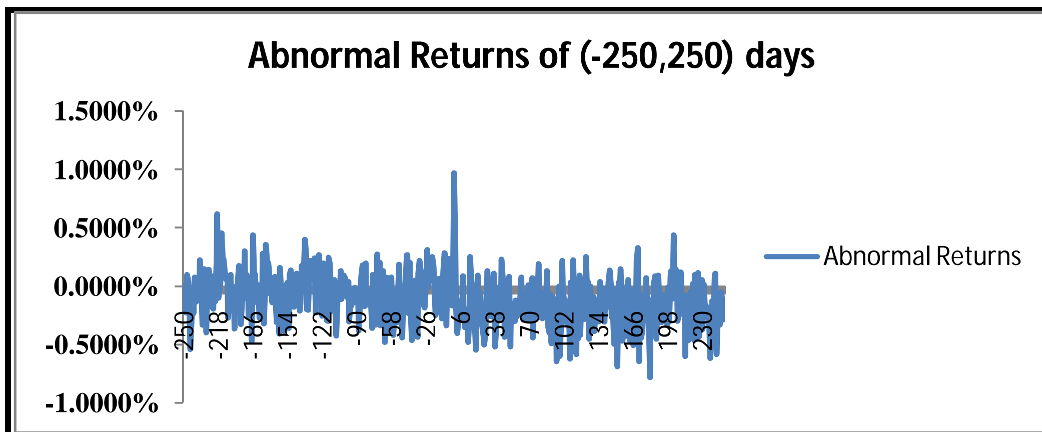

Figure 1: Abnormal returns of acquiring companies for 501 (-250,250) days

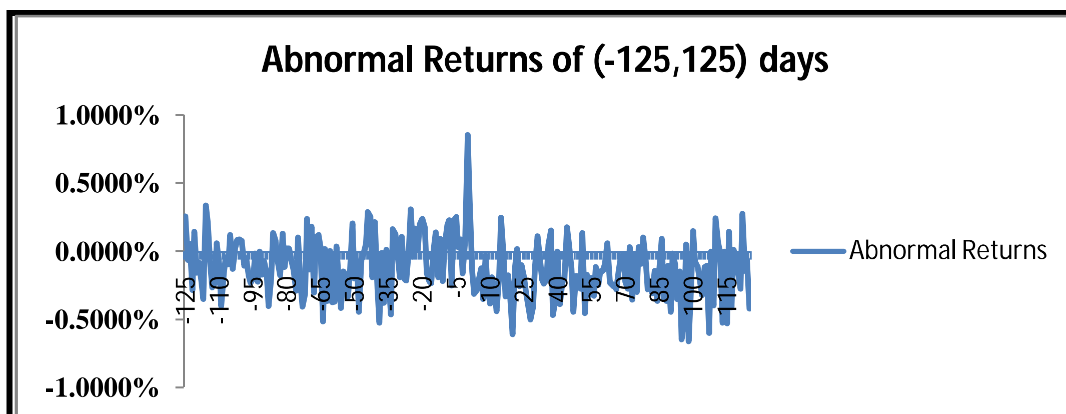

Figure 2: Abnormal returns of acquiring companies for 250 (-125,125) days

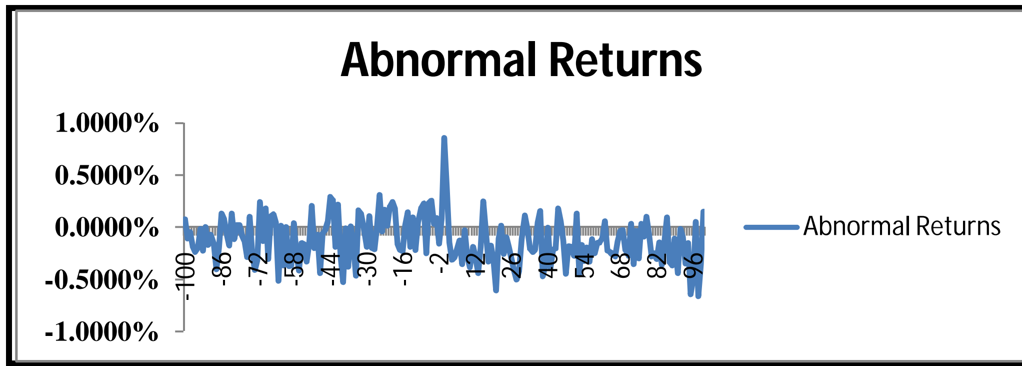

Figure 3: Abnormal returns of acquiring companies for 200 (-100, 100) days

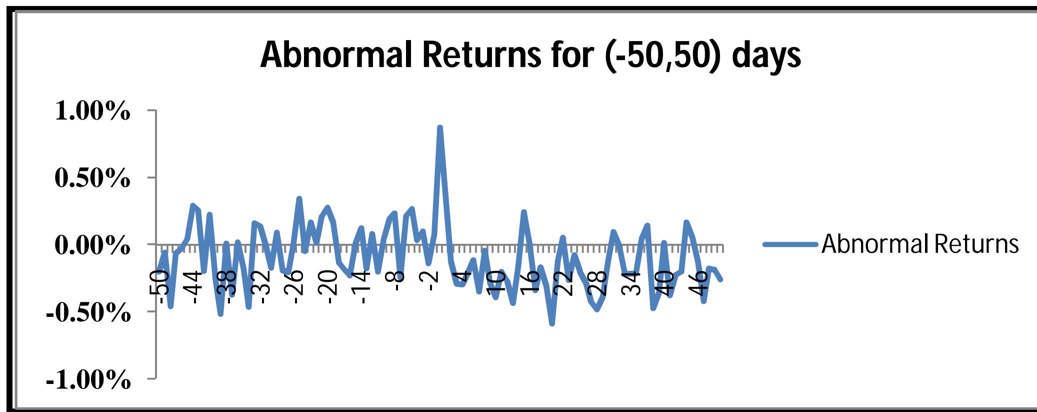

Figure 4: Abnormal returns of acquiring companies for 100 (-50, 50) days

Intervals	Diff. Abnormal Returns	Std. Deviation	t	Sig. (2-tailed)
(-250,-1) to (1,250)	-0.14%	0.27%	-8.184	0
(-125,-1) to (1,125)	-0.11%	0.27%	-4.723	0
(-100,-1) to (1,100)	-0.12%	0.27%	-4.354	0
(-50,-1) to (1,50)	-0.16%	0.29%	-4.006	0

Table 1: Paired Comparison t-test between pre and post acquisition window

Table 1 highlights the cumulative average abnormal returns generated by the acquiring shareholders in the long run. Since it is an addition of abnormal returns of the securities over longer windows, the values either positive or negative are large. With the increase in the interval of the event window, the CAARs keep on significantly decreasing as exhibited in Table 2. The CAAR for (-50, 50) window is -8.93% significant at 5%, which reduces to -53% in (-250, 250) window highly significant at 1%. This shows that investors don't find cross border acquisition a value creating activity in the long run as the direction of CAAR is negative as depicted in Figure 5. Even the extant literature on cross border acquisitions finds deterioration of CAARs with the expansion of the event window. (Cheng et al. (2003) and Aw & Chatterjee (2004)).

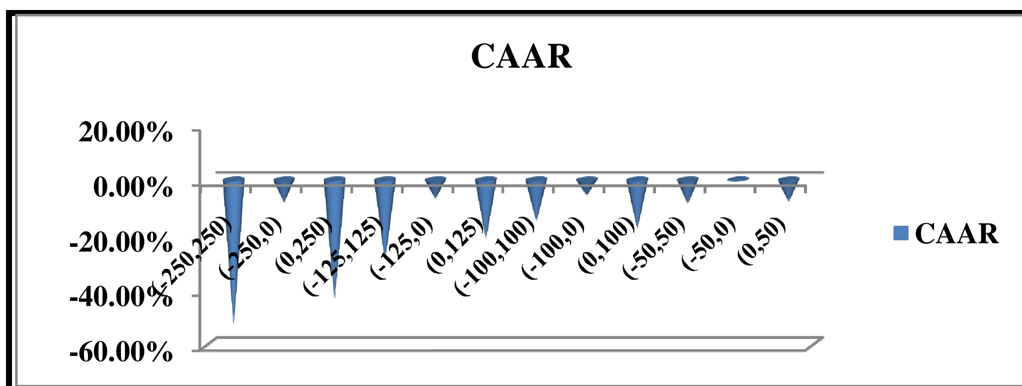

Figure 5: Cumulative Average Abnormal Returns for Long term windows

Intervals	CAAR	t	Sig. (2-tailed)
(-250,250)	-53.00%	-4.07	0.0001
(-250,0)	-8.40%	-1.239	0.217
(0,250)	-43.63%	-5.931	0.00000001
(-125,125)	-29.59%	-3.707	0.00026
(-125,0)	-7.03%	-1.648	0.101
(0,125)	-21.68%	-5.063	0.0000008
(-100,100)	-15.30%	-3.346	0.001
(-100,0)	-5.82%	-1.649	0.1
(0,100)	-17.98%	-5.064	0.000000786
(-50,50)	-8.93%	-2.466	0.014
(-50,0)	0.11%	0.057	0.955
(0,50)	-8.14%	-3.765	0.0002068

Table 2: Results of CAAR on Long term windows

6. Conclusion

In this paper, we have studied whether the Indian firms are able to create value for the shareholders after the cross border merger and acquisition. The study has employed event study approach to address the issue. The results revealed that the acquiring companies lost value in the long run after the acquisition. Abnormal returns and Cumulative abnormal returns have significantly deteriorated in the windows of (-50, 50), (-100, 100), (-125, 125) and (-250,250). This value destruction could be attributed to the financial crisis, difficulty in adjusting with the cultures of new country, relative lesser experience in cross border mergers and acquisitions.

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