Cross Border Mergers and Acquisitions by Indian firms-An Analysis of Pre and Post Merger performance

Receipt: April 7 , 2011 Acceptance: May 25 , 2011

Kanika karora
Rayat and bahra Institute of management Hoshiarpur from India

Nancy Sahni
Lovely professional university Jalandhar from India

Abstract

The corporate sector all over the world is restructuring its operations through different types of consolidation strategies like mergers and acquisitions in order to face challenges posed by the new pattern of globalisation, which has led to the greater integration of national and international markets.. The intensity of cross-border operations recorded an unprecedented surge since the mid-1990s and the same trend continues (World Investment Report, 2000).The objective of the study is to analyse and compare the pre and post-merger and acquisition financial performance of four firms- Ranbaxy, Dr Reddy, Tata Steel and Hindalco through ratio analysis. For this, the data was being collected for three years before and after the acquisition from Capitaline database. Then to compare the changes, SPSS tool- Wilcoxon Signed Rank Test was being applied. The study concluded that cross-border Mergers and Acquisitions of the selected firms have resulted in no significant change in the financial performance of these firms

Keywords: Cross-Border, Mergers and Acquisitions, Restructuring.

1. Introduction

In today's globalised economy, mergers and acquisitions (M&A) are being increasingly used the world over, for improving competitiveness of companies through gaining greater market share, broadening the portfolio to reduce business risk for entering new markets and geographies, and capitalising on economies of scale and many other reasons. Mergers and acquisitions become the major force in the changing environment. The policy of liberalization, decontrol and globalization of the economy has exposed the corporate sector to domestic and global competition.

1.1) Merger and Acquisition

The phrase mergers and acquisitions refers to the aspect of corporate strategy, corporate finance and management dealing with the buying, selling and combining of different companies that can aid, finance, or help a growing company in a given industry grow rapidly without having to create another business entity.

1.2) Cross Border Mergers and Acquisition

The rise of globalization has exponentially increased the market for cross border M&A. In 1996 alone there were over 2000 cross border transactions worth a total of approximately $256 billion. This rapid increase has taken many M&A firms by surprise because the majority of them never had to consider acquiring the capabilities or skills required to effectively handle this kind of transaction. In the past, the market's lack of significance and a more strictly national mindset prevented the majority of small and mid-sized intermediation as an option which left M&A firms inexperienced in this field.

1.3) Why Firms are Crossing Borders?

When we look at the business history, we can see at least four types of growth strategies adopted by the firms. Firms started with domestic production and began to export to the foreign markets, establishment of subsidiaries in overseas market was the next stage and as a fourth phase, firms started to acquire firms in foreign markets instead of establishing subsidiaries. The increasing magnitude of investment through cross-border mergers and acquisitions and its emergence as a major component of FDI (Foreign Direct Investment) even in the case of developing countries such as India, demand us to think why firms are engaging in cross-border instead of establishing subsidiaries or to engage in export oriented growth. This necessitates us to merge the prime objectives of foreign investment with that of mergers and acquisitions. We observed that in many cases, the objectives of foreign investment are achieved through consolidation in an easier way, which is the *raison d'être* the increasing importance of cross-border consolidation strategies

1.4) Cross Border Mergers and Acquisition in India

Until upto a couple of years back, the news that Indian companies having acquired American-European entities was

very rare. However, this scenario has taken a sudden U turn. Nowadays, news of Indian Companies acquiring foreign businesses are more common than other way round. Buoyant Indian Economy, extra cash with Indian corporates, Government policies and newly found dynamism in Indian businessmen have all contributed to this new acquisition trend. Indian companies are now aggressively looking at North American and European markets to spread their wings and become the global players.

The Indian IT and ITES companies already have a strong presence in foreign markets, however, other sectors are also now growing rapidly. The increasing engagement of the Indian companies in the world markets, and particularly in the US, is not only an indication of the maturity reached by Indian Industry but also the extent of their participation in the overall globalization process.

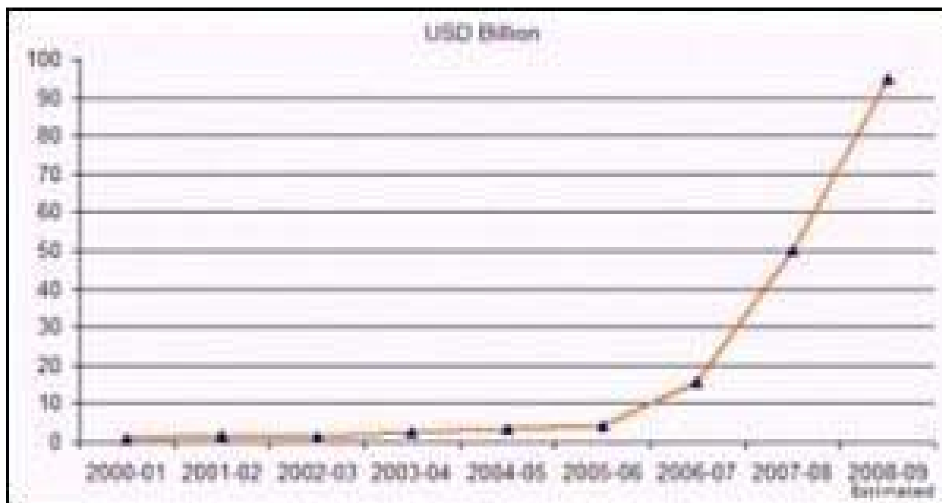

Figure 1.1 Graphical representation of Indian outbound deals since 2000.

Indian outbound deals, which were valued at US$ 0.7 billion in 2000-01, increased to US$ 4.3 billion in 2005, and further crossed US$ 15 billion-mark in 2006. In fact, 2006 will be remembered in India's corporate history as a year when Indian companies covered a lot of new ground. They went shopping across the globe and acquired a number of str ategically significant companies. This comprised 60 per cent of the total mergers and acquisitions (M&A) activity in India in 2006. And almost 99 per cent of acquisitions were made with cash payments.

1.4.1) Cross Border Mergers and Acquisition in India-Overview(2005-2010)

Table (a) exhibits Cross –border merger and acquisition in India for the period 2005 to 2010.

The table shows that cross border sales deals during 2005-2007 were 25132 million US $ while purchase deal were 52752 million US $.. Thus the table clearly depicts that our country s counter cross border merger and acquisition purchase deals are more than the sales deal.

Table (a) (Million of Dollars)

Year	2005-2007	2008	2009	2010	Total
Sales	3119	10427	6049	5537	25132
Purchase	12558	13482	291	26421	52752

Objectives of the Study

- To analyse the changes in the financial performance of the merging firms three years before and after the deal.
- To analyse and compare the pre and post-merger and acquisition performance of the selected cross border deals made by the Indian firms.

2. Literature Review

Ravenscraft and Scherer (1989). They tested the hypothesis that other variables maintained equal, if mergers result in economies of scale or scope, the post-merger profits should be higher than the the pre-mer ger profits and/or their industry averages. Their study of 2,732 lines of business for the years 1975-77 did not find any improvement in the post-merger operating performance.

Cornett and Tehranian (1992). find an increase in the post-acquisition Return on Equity (ROE) and operating cash flow, but the authors focus only on 30 mergers between 1982 and 1987. In the later years, the observed post-acquisition performance of institutions involved in M&A deals improved on average.

Healy, Palepu and Ruback (1992) examined the operating performance of the "combined"firm 3 years before and 3 years after the merger. Healy, Palepu and Ruback find that the "combined" firm, on average, produces post merger improvements in asset productivity as compared to comparable firms in the same industry. They examined post-acquisition performance for 50 largest U.S. mergers between 1979 and 1984 by measuring cash flow performance and concluded that operating performance of merging firms improved significantly following acquisitions, when compared to their respective industries.

Linder and Crane (1992) Chamberlain (1998): analyzed a sample of Merger and Acquisitions deals that took place in the US in the 1980s and finds that these transactions did not yield any operating efficiencies. This result is consistent with similar evidence that shows no improvements in Return on Assets (ROA) or growth in operating income in the same time period.

Ghosh (2001): examined the question of whether operating cash flow performance improves following corporate acquisitions, using a design that accounted for superior pre-acquisition performance, and found that merging firms did not show evidence of improvement in the operating performance following acquisitions.

Pawaskar (2001): analysed the pre-

merger and post-merger operating per formance of 36 acquiring firms during 1992-95, using ratios of profitability, growth, leverage, and liquidity, and found that the acquiring firms performed better than industry average in terms of profitability. Regression Analysis however, showed that there was no increase in the post-merger profits compared to main competitors of the acquiring firms.

Surjit (2002): In this paper the impact of mergers and acquisitions on corporate performance is being studied in the Indian context particularly in relation to companies of financial sector. An analysis of 20 merging firms was carried out to compare the pre and post takeover performance, applying a set of eight financial ratios. She found out that profitability and efficiency of merging companies declined in post takeover period.

Swaminathan (2002) studied the sample of five companies and found that four of the five acquiring firms improved operating and financial synergies measured through financial ratios.

Timothy (2003) examined the long-term operating performance of Japanese companies in a sample of 56 mergers of manufacturing firms, during 1969-97. On comparison of the operating returns and operating margin in the five-year period following mergers, with a control sample to account for changes in performance attributable to industry or economy-wide factors, the study found evidence of improvements in operating performance of merging companies, and also that the pre- and post-merger performances were highly correlated. Long-term performance was also seen to be significantly greater, following diversifying mergers, particularly for those that acquired their sales or trading company affiliates.

3. Hypothesis:

- H0: There is no significant difference between the financial performance of the companies before and after the merger that is Ho: $\mu = 0$.
- H1: There is a significant difference between the financial performance of the companies before and after the merger that is H1: $\mu \neq 0$.

4. Research Methodology

a) **Need and Scope of the study:** The purpose of the study "Cross border mergers and acquisitions by Indian firms - an analysis of pre and post merger performance" mainly focuses on analysing the pre and post merger and acquisition performances of selected firm and see whether there is a positive or negative change in the performance of the firms before and after the acquisition, if any. The scope of the study is confined to the cross border mergers and acquisitions undertaken by the Indian firms, focusing on 4 valuable cross border merger and acquisitions by Indian firms from the year 2006 to 2007. The study is based on the facts and figures available for the selected firms

through authentic sources like their Annual Reports and National level Stock Exchanges like NSE (National Stock Exchange) and BSE(Bombay Stock Exchange).

b) Research Design:

The study on "Cross border mergers and acquisitions by Indian firms - an analysis of pre and post merger performance" is a Descriptive research which is based on authentic secondary source of data available.

c) Source of Data:

The research is based on secondary data. This data is obtained from authentic and reliable sources like the Annual Reports of the selected firms. The merger and acquisition announcement dates, transaction values and other related information are collected from the Capitaline database and also moneycontrol.com. Stock trading information and firm level data is collected from NSE,BSE etc.

Sample: The sample consists of 4 major cross border acquisitions made by the Indian companies worldwide from the year 2006 to 2007 in the pharmaceutical and steel sector. The sampling technique being used is judgemental sampling and an effort has been made to choose amongst the largest Cross border deals in terms of the deal value. The sample includes the following list of Cross border deals made by Indian firms from 2006 to 2007.

Acquirer	Target Company	Country Targeted	Deal Value($ ml)	Industry
Tata Steel (2006)	Corus Group plc	UK	12,000	Steel
Hindalco (2007)	Novelis	Canada	5,982	Steel
Dr. Reddy's Labs (2006)	Betapharm	Germany	597	Pharmaceutical
Ranbaxy Labs (2006)	Terapia SA	Romania	324	Pharmaceutical

(*Source:business.rediff.com*)

d) Tools Used:

The pre and post merger and acquisition analysis is done using the Ratio analysis technique where all the key ratios of the merging firms will be compared. Profitability ratios - Earning per share and Return on Net worth, Liquidity ratios – Current Ratio, Solvency ratio- Debt Equity Ratio and Overall Efficiency ratio – Earnings before interest and taxes is compared 3 years before and after the deal. Then Wilcoxon signed rank test (using SPSS) is carried out to assess the difference in the pre and post merger and acquisition performance of the selected firms.

5. Finding

A) Earnings per share (EPS)

Table 1.1-Changes in EPS post-acquisition

	RANKS	Ranbaxy	Dr Reddy	Tata Steel	Hindalco
EPS_post-EPS_pre	Negative Ranks	3a	1a	0a	3a
	Positive Ranks	0b	2b	3b	0b
	Ties	0c	0c	0c	0c
	Total	3	3	3	3

Table 1.2- Significance level

	Ranbaxy	Dr Reddy	Tata Steel	Hindalco
Z	-1.604a	.000a	-1.604a	-1.604a
Asymp. Sig. (2-tailed)	0.109	1	0.109	0.109

*significance level was set at .05

The table depicts the changes in the EPS of the selected firms after the acquisition. For eg. Negative ranks- „3a for Ranbaxy here shows that in all the 3 years after the acquisition, EPS was less as compared to the pre-acquisition years.

a.EPS_post < EPS_pre

b.EPS_post > EPS_pre

c.EPS_post = EPS_pre

Interpretation

By applying the Wilcoxon signed rank test, we can see that for all the 4 companies the significance level is more than .05 (Table 1.2) i.e.the null hypothesis is accepted that there is no significant difference between the pre and the post merger and acquisition performance on the basis of EPS of the companies.

But if we see the individual effect of acquisitions on these firms (Table 1.1) then for Ranbaxy for all the 3 years, the Earning per share after the merger was comparatively less than pre-merger years and same was the case for Hindalco. But for Tata the case has been different as for all the 3 years after the acquisition, EPS was more than the pre-acquisition period. Even for Dr Reddy, EPS was better for 2 out of 3 years post acquisition.

So, overall if we see on the basis of the average pre and post-acquisition performance of the firms, the post acquisition profitability performance on the basis of EPS, the post-acquisition performance is better for 2 firms out of the 4 sample firms.

B) Return on net worth (RONW)

The table depicts the changes in the RONW of the selected firms after the acquisition. For eg. Negative ranks- “2a” for Ranbaxy here shows that in 2 out of the 3 years after the acquisition, RONW was less as compared to the pre-acquisition years.

Table 2.1-Changes in RONW post-acquisition

	RANKS	Ranbaxy	Dr Reddy	Tata Steel	Hindalco
RONWpost - RONWpre	**Negative Ranks**	2a	1a	2a	1a
	Positive Ranks	1b	2b	1b	2b
	Ties	0c	0c	0c	0c
	Total	3	3	3	3

Table 2.2- Significance level

	Ranbaxy	Dr Reddy	Tata Steel	Hindalco
Z	-1.069a	-.535a	-1.069a	-.535a
Asymp. Sig. (2-tailed)	0.285	.593	0.285	.593

*significance level was set at .05

a. RONWpost < RONWpre
b. RONWpost > RONWpre
c. RONWpost = RONWpre

Interpretation

From the analysis we can see that the significance level for all the companies Return on Net worth ratio is more than .05 (Table 2.2) i.e.the null hypothesis is accepted that there is no significant difference between the pre and the post merger and acquisition performance of the companies on the basis of RONW. Looking at the individual firms(Table 2.1), we can observe that for Dr Reddy and Hindalco, post acquisition performance of RONW ratio was better than the pre acquisition period for 2 out of 3 years compared. And for Ranbaxy and Tata the pre acquisition performance was better for 2 out of 3 observed years. So overall on the basis of the average pre and post acquisition performance of the firms, the post acquisition profitability performance on the basis of Return on Net worth, the post acquisition performance was better for 2 out of the 4 sample firms.

C) Current ratio

The table depicts the changes in the Current ratio of the selected firms after the acquisition. For eg. Negative ranks- „3a for Ranbaxy here shows that in all the 3 years after the acquisition, Current ratio was less as compared to the pre-acquisition years.

a. currentpost < currentpre
b. currentpost > currentpre
c. currentpost = currentpre

Table 3.1-Changes in Current ratio post-acquisition

	RANKS	Ranbaxy	Dr Reddy	Tata Steel	Hindalco
CURRENT RATIO post - CURRENT RATIO pre	Negative Ranks	3a	2a	0a	3a
	Positive Ranks	0b	1b	3b	0b
	Ties	0c	0c	0c	0c
	Total	3	3	3	3

Table 3.2- Significance level

	Ranbaxy	Dr Reddy	Tata Steel	Hindalco
Z	-1.604a	-1.069a	-1.604a	-1.604a
Asymp. Sig. (2-tailed)	0.109	.285	0.109	0.109

*significance level was set at .05

Interpretation

From the analysis we can see that the significance level for all the companies Current ratio is more than .05 (Table 3.2) i.e. the null hypothesis is accepted that there is no significant difference between the pre and the post merger and acquisition performance of the companies on the basis of current ratio. But looking at the individual performance of the firms (Table 3.1), we can find that only for Tata, the post acquisition liquidity performance for all the 3 years has been better than the pre acquisition period. But for rest all three firms ,post acquisition performance was not better than the pre period for all the 3 years for Ranbaxy and Hindalco and for Dr Reddy for 2 out of 3 years. So overall on the basis of the average pre and post acquisition liquidity performance of the firms on the basis of current Ratio, the post acquisition performance was better only for 1 out of the 4 sample firms.

D) Debt – Equity ratio

The table depicts the changes in the Debt Equity ratio of the selected firms after the acquisition. For eg. Positive ranks- "3b"for Ranbaxy here shows that in all the 3 years after the acquisition, Debt Equity was more as compared to the pre-acquisition years.

a. DEpost < DEpre
b. DEpost > DEpre
c. DEpost = DEpre

Table 4.1-Changes in Debt Equity ratio post-acquisition

	RANKS	Ranbaxy	Dr Reddy	Tata Steel	Hindalco
Debt-Equity-Post – Debt-Equity-Pre	**Negative Ranks**	0a	0a	2a	1a
	Positive Ranks	3b	3b	1b	2b
	Ties	0c	0c	0c	0c
	Total	3	3	3	3

Table 4.2- Significance level

	Ranbaxy	Dr Reddy	Tata Steel	Hindalco
Z	-1.604a	-1.604a	-1.069a	-.535a
Asymp. Sig. (2-tailed)	0.109	0.109	0.285	0.593

*significance level was set at .05

Interpretation

From the analysis we can see that the significance level for all the companies Debt Equity ratio is more than .05 (Table 4.2) i.e. the null hypothesis is accepted that there is no significant difference between the pre and the post merger and acquisition performance of the companies on the basis of Debt Equity ratio.

Looking at the individual performance of the firms (Table 4.1), we can see that for Ranbaxy and Dr Reddy, the post-acquisition performance on the basis of Debt Equity ratio for all the 3 years has been better than the pre-acquisition period. Even for Hindalco it was good for 2 out of 3 years. Only in Tata the Debt Equity ratio post acquisition performance was not better than the pre period for 2 out of 3 years. So overall on the basis of the average pre and post acquisition solvency performance of the firms on the basis of Debt Equity, the post acquisition performance was better for 3 out of the 4 sample firms.

E) Earnings before interest and tax (EBIT)

The table depicts the changes in the EBIT of the selected firms after the acquisition.

For eg. Negative ranks- “2a” for Ranbaxy here shows that in 2 out of 3 years after the acquisition, EBIT was less as compared to the pre-acquisition years.

a. EBITpost < EBITpre

b. EBITpost > EBITpre

c. EBITpost = EBITpre

Table 5.1-Changes in EBIT post-acquisition

	RANKS	Ranbaxy	Dr Reddy	Tata Steel	Hindalco
EBITpost -EBITpre	**Negative Ranks**	2a	1a	0a	3a
	Positive Ranks	1b	2b	3b	0b
	Ties	0c	0c	0c	0c
	Total	3	3	3	3

Table 5.2- Significance level

	Ranbaxy	Dr Reddy	Tata Steel	Hindalco
Z	-1.604a	-1.069a	-1.604a	-1.604a
Asymp. Sig. (2-tailed)	0.109	.285	0.109	0.109

*significance level was set at .05

Interpretation

From the analysis we can see that the significance level for all the companies Earning before interest and taxes margin is more than .05(Table 5.2) i.e. the null hypothesis is accepted that there is no significant difference between the pre and the post-merger and acquisition overall efficiency performance of the companies.

Looking at the individual performance of the firms (Table 5.1), we can see that for only Tata, the post-acquisition performance on the basis of EBIT for all the 3 years has been better than the pre acquisition period. Even for Dr Reddy it was good for 2 out of 3 years. But for Hindalco the EBIT post acquisition performance was not better than the pre period for all the 3 years and for Ranbaxy for 2 out of 3 years.

So overall on the basis of the average pre and post acquisition efficiency (overall) performance of the firms on the basis of EBIT, the post acquisition performance was better for 2 out of the 4 sample firms.

6. Conclusion

- For Ranbaxy if we compare all the ratios, then we come to the see that only for the solvency parameter i.e. the Debt equity ratio, the post-acquisition performance has improved for the firm but not significantly. For rest all the parameters (Profitability, Liquidity and Overall Efficiency), the performance has not improved after the acquisition.
- For Dr Reddy, comparing all the ratios, we can observe that for all the parameters except the Liquidity one i.e. current ratio, the post merger acquisition performance has been better though not significant.
- For Tata if we observe all the ratios, we can see that out of the two factors on which the profitability was measured, EPS resulted in a positive result while Return on Net Worth resulted in negative result. Thus it is difficult to comment on the exact impact of acquisition on the profitability of the firm. But for the Solvency and Overall efficiency parameter the result has been positive but for the Liquidity one it is negative but not significant.
- For Hindalco too the results are quite similar. The profitability parameter isnot giving a clear result as the Return on Net Worth is improving post acquisition but EPS is not. Also the Liquidity and Overall Efficiency parameter are giving negative results and only the Solvency parameter is giving positive results i.e. an improved post acquisition performance. The overall impact though has not been significant enough to prove the fact

that mergers and acquisitions lead to a change in the financial performance of the firms.

- Thus, from the above analysis, we can conclude that Mergers and Acquisitions are not leading to a significant change in the performance of firms. It means that whatever changes, be it favourable i.e. resulting in improved performance or not which occur post-acquisition are not significant enough. Also, if we see the overall impact of these acquisitions on the firms even though not significant it has been positive for at least one of the parameters for all the firms.
- To acquire a company, large chunk of money has to be shelled out by the acquiring firm. It is not easy for the company to regain that amount of money in a short span of few years. Since the time period for the comparison here was 3 years before and after the acquisition, the impact of the acquisitions could not be seen. Moreover, in the present study we have only considered the tangible factors for the analysis of the impact of mergers and acquisitions. Tangible factors like Patents etc for which companies generally go for such consolidation strategies were not a part of the study.

References

1) Aloke Ghosh (2001), “Does Operating Performance Really Improve Following Corporate Acquisitions?” Journal of Corporate Finance, Vol. 7, pp. 151-178.
2) Beena P L (2004), “Towards Understanding The Merger Wave in The Indian Corporate Sector—A Comparative Perspective”, Working Paper 355, CDS, Trivandrum, pp. 1-44.
3) Brtrand (2008), Applied Economics; Sep2008, Vol. 40 Issue 17, p2221-2238
4) Fraser et al (2009), Journal of Money, Credit & Banking (Wiley-Blackwell); Oct2009, Vol. 41 Issue 7, p1503-1513
5) Healy P M, Palepu K G and Ruback R S (1992), “Does Corporate Performance Improve After Mergers?” Journal of Financial Economics, Vol. 31, pp. 135-175.
6) Kohli et al (2011) International Journal of Commerce & Management; 2011, Vol. 21 Issue 1, p63-81
7) Kumar et al (2009), IIMB Management Review (Indian Institute of Management Bangalore); Sep2009, Vol. 21 Issue 3, p222-244
8) Maihotra et al (2008) International Research Journal of Finance & Economics; 2008, Issue 13, p24-41, 18p, 7 Charts, 3 Graphs
9) Mantrawadi et al (2008), International Research Journal of Finance & Economics; 2008, Issue 22, p192-204
10) Mueller D (1980), The Determinants and Effects of Mergers: An InternationalComparison, Vol. 24, Oelgeschlager, Gunn and Hain, The Science Center Berlin,Cambridge MA, pp. 299-314.

11) Pawaskar V (2001), "Effect of Mergers on Corporate Performance in India", Vikalpa, Vol. 26, No. 1, pp. 19-32.
12) Ramakrishnan (2008), Vikalpa: The Journal for Decision Makers; Apr-Jun2008, Vol. 33 Issue 2, p47-63
13) Ray et al (2009), Indian Journal of Industrial Relations; Jul2009, Vol. 45 Issue 1, p11-26
14) Reddy et al (2007), ICFAI Journal of Mergers & Acquisitions; Dec2007, Vol. 4 Issue 4, p52-66
15) Selvam et al (2009), Journal of Modern Accounting & Auditing; Nov2009, Vol. 5 Issue 11, p55-64
16) Sinha et al (2010), International Journal of Economics & Finance; Nov2010, Vol. 2 Issue 4, p190-200, 11p
17) Surjit Kaur (2002), "A Study of Corporate Takeovers in India", Ph.D. Thesis
18) Abstract submitted to University of Delhi, pp. 1-11.
19) Swaminathan S (2002), "Indian M&As: Why They have Worked So Far", Indian Management, pp. 72-77.
20) Timothy Kruse A, Hun Y, Park, Kwangwoo Park and Kazunori Suzuki (2003), "Long-term Performance following Mergers of Japanese Companies: The Effect of Diversification and Affiliation", presented at American Finance Association meetings in Washington DC, pp. 1-40