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LONG RUN FINANCIAL PERFORMANCE OF CROSS BORDER ACQUISITIONS OF INDIAN ACQUIRING COMPANIES

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Extensive research has been conducted on assessing the impact of mergers and acquisitions on the operating/financial performance of the acquiring companies. *A priori* research highlights two issues being explored by the researchers. Firstly, researchers (Altunbas and Ibanez, 2004; Delong, 2003; Fowler and Schmidt, 1986; Freund et al., 2007; Healy et al., 1990; Healy et al., 1997; King et al., 2004; Martynova et al., 2006; Ramaswamy and Waegelein, 2003; Zhu and Malhotra, 2008) have evaluated the impact of mergers and acquisitions on the financial performance of the acquiring companies and have compared various financial performance parameters with those of industry averages. Secondly, researchers (Altunbas and Ibanez, 2004; Andre et al., 2004; Aw and Chaterjee, 2004; Changqi and Ningling, 2010; Fowler and Schmidt, 1989; Francoeur, 2006-07; Franks et al., 1991; Hazelkorn et al., 2004; Healy et al., 1997; King et al., 2004; Kusewitt, 1985; Morck et al., 1990; Rau and Vermaelen, 1998; Ramaswamy and Waegelein, 2003) have evaluated the strategic bid specific and company specific factors that affect the ex-post financial performance of the acquiring companies.

As regards the impact of mergers and acquisitions on the ex-post financial performance of the acquiring companies, the extant literature presents conflicting results. The researchers like Altunbas and Ibanez (2004), Freund et al. (2007), Healy et al. (1990), Healy et al. (1997), Ramaswamy and Waegelein (2003) opine that mergers and acquisitions lead to significant improvements in the financial performance of the acquiring companies in the post acquisition period whereas researchers like Datta et al. (1992), Fowler and Schmidt (1986), King et al. (2004), Martynova et al. (2006), Zhu and Malhotra (2008) propose that mergers and acquisitions result in significant performance deterioration for the acquiring companies in the post acquisition period.

While analyzing the determinants of ex-post financial performance of the acquiring companies, researchers have highlighted various factors viz. mode of payment, industry relatedness, nationality of the target company, competition among acquirers, relative size of the target company, size of the acquiring company, age of the acquiring company as the factors affecting the ex-post financial performance of the acquiring companies. However, the researchers have differing viewpoints regarding how these factors affect the post acquisition financial performance of the acquiring companies. The researchers like Andre et al. (2004), Hazelkorn et al. (2004) opine that acquisitions financed with cash result in better post acquisition performance than the stock offers while Healy et al. (1997), Kusewitt (1985) prove the contrary. As regards relatedness, the researchers like Healy et al. (1997), Kusewitt (1985), Morck et al. (1990), Rau and Vermaelen, (1998) propose that related acquisitions outperform

the unrelated acquisitions significantly. Regarding nationality of the target companies, the researchers like Altunbas and Ibanez (2004), Conn et al. (2001), Hazelkorn et al. (2004) suggest that cross border acquisitions perform better than those of domestic acquisitions while the researchers like Andre et al. (2004), Aw and Chaterjee (2004) opine that domestic acquisitions outperform the cross border acquisitions. Further, Changqi and Ningling (2010), Fowler and Schmidt (1989) propose that age of the acquiring company positively affect the post merger financial performance. Regarding size of the target companies, researchers like Kusewitt (1985), Ramaswamy and Waegelein (2003) propose that acquisitions of relatively large sized target companies negatively affect the post merger financial performance of the acquiring companies while Fowler and Schmidt (1989) cannot reach at any conclusion as far as size of the target companies is concerned. As regards the size of the acquiring companies, researchers like Mandelkar (1974), Roman and Michael (2006) suggest a negative relation between the size of the acquiring company and the post acquisition performance of the acquiring companies.

From the above discussion it is evident that there is ambiguity in the existing literature regarding impact of mergers and acquisitions on the ex-post financial performance of the acquiring companies and also regarding the factors that affect such performance. Thus, there is a need to resolve the enigma in extant research regarding value creation in mergers and acquisitions and the determinants thereof.

Loderer and Martin (1992) propose that results of post acquisition performance are sensitive to the kind of sample investigated. Further, most of the *a priori* research is restricted to developed economies, viz., the US (Aw and Chaterjee, 2004; Delong, 2003; Fowler and Schmidt, 1986; Fowler and Schmidt, 1989; Freund et al., 2007; Healy et al., 1990; Healy et al., 1997; Kusewitt, 1985; Ramaswamy and Waegelein, 2003; Rau and Vermaelen, 1998) and European nations (Altunbas and Ibanez, 2004; Martynova et al., 2006) and the results of these studies may or may not be extendible to an emerging market like India. Thus, in order to remove the enigma regarding the impact of mergers and acquisitions on the post acquisition performance of the acquiring companies and determinants thereof, the present study seeks to explore the issue for an emerging market like India. Moreover, the study aims to analyze the post acquisition performance of outbound cross border acquisitions in India. The reason being, a dramatic rise has been witnessed in outbound cross border acquisitions by Indian companies since the year 2004. As per the disclosure of World Investment Report on mergers and acquisitions by UNCTAD the value of outbound acquisitions by Indian companies rose from $2648.55 million in the year 2005 to $30414 million in the year 2007 which is the highest value of outbound acquisitions amongst the emerging economies represented by BRIC countries. Furthermore, large sized outbound cross border acquisitions by Indian companies are becoming order of the day. However, research on cross border acquisitions by Indian companies is sparse

(Chakrabarti, 2008; Kale, 2009; Zhu and Malhotra, 2008) and no study has comprehensively analyzed ex-post financial performance of the acquiring company for such acquisitions and the determinants thereof in India[2].

Thus, the present study has been conducted with the following corresponding objectives:

To ascertain the impact of outbound cross border acquisitions on the financial performance of the acquiring companies in India.

To assess the determinants of ex-post financial performance of the acquiring companies in cross border acquisitions in India.

Database and sample selection

For achieving the aforementioned objectives, acquisitions announced during the period 1st January, 1997 till 31st March, 2008 are considered. Information regarding outcome date and bid specific factors like mode of financing, relatedness, competition among acquirers has been obtained by scanning two leading Indian financial dailies namely, The Economic Times and The Financial Express for the above stated period. Moreover, the official websites of the Securities Exchange Board of India (SEBI) and the Bombay Stock Exchange (BSE) have also been consulted to cross check the outcome dates. Further, data regarding various financial variables viz. market value of assets of the acquiring companies, book value of the debt of the acquiring companies, sales of the acquiring companies, cost of goods sold of the acquiring companies etc. is obtained from PROWESS, the data base software on Indian companies developed by Centre for Monitoring Indian Economy.

The sample is restricted to only those acquisitions that are successful and where the objective of the acquirer is to acquire a majority control of the target company. In cases where acquiring company has pursued more than one acquisition within a gap of three years, only first acquisition has been considered in the sample set. Such acquisitions have been deleted where the information regarding bid specific variables and company related variables viz. mode of payment, industry relatedness, nationality of the target company, competition among acquirers, relative size of the target company, size of the acquiring company, age of the acquiring company is not available.

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[2] Beena (2000), Kaur (2005), Ramakrishnan (2008) have analyzed the impact of domestic acquisitions on the financial performance of the acquiring companies in India. While Beena (2000) and Kaur (2005) cannot find any improvements in financial performance of the company measured in terms of return on capital employed and economic value added respectively. However, Ramakrishnan (2008) finds a significant improvement in the operating cash flow ratio of the acquiring company in the post acquisition period.

Year wise and sector wise distribution of the sample acquisitions is detailed in Tables 1 and 2 respectively.

Table 1: Year Wise Distribution of Cross Border Acquisitions

Year	Cross border acquisitions
1997	1
1998	1
1999	3
2000	8
2001	5
2002	4
2003	15
2004	14
2005	17
2006	26
2007	28
2008 (till March 08)	6
Total	128

Table 2: Distribution of Cross Border Acquisitions According To Bid Features

Bid Features	Total
Cash financed acquisitions	113
Stock financed acquisitions	15
Acquisitions with competitive bidders	10
Acquisitions with single bidder	118
Hostile acquisition	–
Friendly acquisition	128
Related acquisition	128
Unrelated acquisition	-

Year wise distribution of acquisitions from Table 1 makes it evident that the trend of outbound acquisitions has picked up from the year 2003, with highest number of acquisitions reported in the year 2007. Distribution of acquisitions according to bid specific factors in Table 2 depicts

that cash is the most frequently used form of financing in both the sets of acquisitions. Non-existence of hostile acquisitions in cross border acquisitions shows the reluctance of Indian companies in pursuing such acquisitions. Further, non-existence of unrelated acquisitions implies that Indian companies are also reluctant to enter into new areas of operations via overseas acquisitions.

Methodology

Following Healy et al. (1997), operating cash flow ratio, computed as operating cash flows to market value of assets, has been employed to ascertain the impact of mergers and acquisitions on the operating performance of the acquiring companies. Operating cash flows has been defined as sales minus cost of goods sold and selling & administrative expenses excluding goodwill, amortization and depreciation expenses. Operating cash flows in turn has been deflated by market value of the assets which have been defined as the market value of equity and book value of debt. Further, operating cash flow ratio has been computed in two ways, raw operating cash flow ratio for the acquiring company and industry adjusted operating cash flow ratio for the acquiring company. Industry adjusted operating cash flow ratio is defined as the excess of the acquiring company cash flow ratio over average industry cash flow ratio excluding that of the acquiring company. Industry adjusted cash flow ratio has been computed to exclude the impact of economy wide and industry wide factors on the performance of the acquiring company in both pre and post acquisition period. Furthermore, operating cash flow ratio has been computed for three years prior to the acquisition and three years after the acquisition excluding the year of acquisition. Paired sample t-test has been employed to test whether the difference in raw and industry adjusted cash flow ratio in post acquisition period over pre acquisition period has been significant or not. The difference of average post acquisition cash flow ratio over average pre acquisition cash flow ratio is defined as excess cash flow ratio for both raw and industry adjusted performance variables.

Besides, in order to ascertain the determinants of excess industry adjusted post acquisition operating performance of the acquiring companies, cross sectional regression analysis has been employed. The dependent variable is excess industry adjusted operating cash flows ratio. The independent variables introduced are mode of payment (mode), competition among acquirers (multiple), relative size of the target company ($relsize_T$), size of the acquiring companies ($logassets_A$), age of the acquiring company (logexp) that in turn measure the experience on part of the acquiring companies. Ordinary least squares regression analysis has been applied, however, to control for the problem of heteroscedasticity, standard errors are corrected for heteroscedasticity by using White's (1980) heteroscedasticity consistent standard errors. An

explanation of the various independent variables used in the regression analysis along with the expected signs of the same is given in the Table 3:

Table 3: Definitions and Expected Signs of the Independent Variables for the Acquiring Companies for Cross Sectional Regression Analysis

Variables	***Definition of variables***	***Expected Signs***
Mode	Stock acquisition = 1 and = 0 cash acquisitions	+/-
Multiple	Competitive bidding = 1 and = 0 for single bidder	-
$Logmv_A$	Measured by the log of market value of the acquiring company	-
$Relsize_T$	$\frac{\text{Deal value as a proxy of target company's assets}}{\text{Deal value + Market value of acquiring company}}$	-
Logexp	Measured as the log of the difference between the year of incorporation of the acquiring company and the year of acquisition by the acquiring company	-

Analysis and interpretation

Analysis of raw operating cash flow performance

The results of the raw operating cash flow ratios for the acquiring companies for pre and post acquisition periods are summarized in Table 4 and explained as follows:

Table 4: Results of paired sample t-test for raw operating cash flow performance of the acquiring companies for pre and post acquisition period

Ratios	Pre-acquisition average	Post-acquisition average	Mean difference	p value
Operating cash flow	0.48	0.09	-0.39	0.19
Operating margin	0.27	0.05	-.022	0.03
Assets turnover	1.53	0.64	-0.89	0.14

In terms of raw performance, it has been found that there is an insignificant decline in the operating cash flow ratio of the acquiring companies in the post acquisition period compared to the pre acquisition period. Operating cash flow ratio is driven by two factors namely, assets turnover ratio and operating margin ratio. For Indian acquiring companies, both operating margin ratio as well as asset turnover ratio has declined in post acquisition period. However,

operating margin ratio has deteriorated significantly as compared to decline in asset turnover ratio.

Analysis of industry adjusted operating cash flow performance

The results of the industry adjusted operating cash flow ratios for the acquiring companies for pre and post acquisition periods are summarized in Table 5 and explained as follows:

Table 5: Results of paired sample t-test for industry adjusted operating cash flow performance of acquiring company for pre and post acquisition period

Ratios	Pre-acquisition average	Post-acquisition average	Mean difference	p value
Operating cash flows	-1.31	-4.60	-3.29	0.00
Operating margins	-0.12	-0.54	-0.42	0.10
Assets turnover	-9.54	-24.92	-15.38	0.00

From Table 5 it is clear that in terms of industry adjusted performance, in the post acquisition period, the performance of the acquiring companies compared to that of industry averages has deteriorated not only in terms of operating margins but in terms of turnover also. As a consequence, there is a significant decline in the industry adjusted operating cash flow ratio in post acquisition period for the acquiring companies. Thus, cross border acquisitions have deteriorated profitability as well as financial performance of the acquiring companies compared to that of industry average performance.

Analysis of the determinants of the excess industry adjusted operating cash flow performance

The results of cross sectional regression analysis highlighting the determinants of excess industry adjusted operating cash flow performance of the acquiring companies are detailed in Table 6 and explained as follows:

Table 6: Result of cross sectional regression analysis highlighting the determinants of excess industry adjusted operating cash flow performance of the acquiring companies

Independent Variables	Beta Coefficient	p-value
Intercept	2.94	0.21
Mode	-2.81	0.41
Multiple	0.43	0.84
$Relsize_T$	-0.16	0.00
$Logmv_A$	0.46	0.59
Logexp	1.19	0.48
F value	0.72	0.60
R square	0.03	
Adjusted R square	0.01	–

As regards the determinants of post acquisition performance, the only variable that has significantly negatively affected the performance is the relative size of the target company. None of the other strategic variables viz. mode of payment, size of the acquiring companies, experience on part of the acquiring companies, competition among the acquiring companies has affected the post acquisition performance significantly. The results are consistent with those of Kusewitt (1985), Ramaswamy and Waegelein (2003) who opine that acquiring a relatively larger target company increases the risk of performance in the post acquisition period and tend to be a case of biting off more than one can chew. The reason being the acquisition of a target company larger than the relative size of the acquirer poses various managerial problems viz. problems in integrating the operations in the post acquisition period and also creates financial problems as the acquiring company generally has to raise debt to finance an acquisition larger than its own size. Same phenomena have been witnessed in case of many large sized acquisitions being pursued by Indian companies like Suzlon Energy Limited (for its acquisition of German based REpower), Hindalco Limited (for its acquisition of Australia based Novelis), Tata Steel Limited (for its acquisition of UK based Corus), Tata Motors (for its acquisition of UK based brands, Jaguar and Land Rover).

Thus, it can be concluded that cross border acquisitions have not led to superior long term financial performance in terms of operating cash flow ratio. The performance has specifically significantly deteriorated in cases where the acquiring companies have acquired relatively large target companies.

References

1. Altunbas, Y. Ibanez, D. M. (2004), "Mergers and acquisitions and bank performance in Europe: The Role of Strategic Similarities", *Working paper series No. 398*, pp. 1-37

2. Andre, P., Kooli, M. and Francois L' HeR, J. F. (2004), "The Long Run Performance of Merger and Acquisitions Evidence from the Canadian Stock Market", *Financial Management,* Winter, pp. 27-43.

3. Aw, M. and Chaterjee, R. (2004), "The Performance of UK Firms Acquiring Large Cross-border and Domestic Takeover Targets", *Applied Financial Economics,* Vol. 14, No. 5, pp. 337-49.

4. Beena, P. L. (2000), "An Analysis of Mergers in Private Corporate Sector in India, *Working Paper No. 301*, pp. 1-61, Center for Development Studies, Thiruvananthapuram, Kerala, India, Available at: http://www.cds.edu. Accessed on June 22nd, 2007.

5. Black, E. L., Carnes, T. A., Jandik, T. (2001), "The Long Tern Success of Cross Border Mergers and Acqusitions", pp.1-38. Available at: http://papers.ssrn.com/paper.taf?abstract_id=270288

6. Chakrabarti , R. (2008), "Do Indian Acquisitions Create Value?", ICRA Bulletin, *Money and Finance,* pp. 61-73

7. Changqi and Ningling (2010), "Determinants of Cross Border Performance of Chinese Enterprises", *Procedia Social and Behavioral Sciences*, Vol. 2, pp. 6896-6905

8. Chen, Y. M. and Lin, C. T. (2001), "Performance of Cross Border Mergers and Acquisitions of Chinese Firms", pp.1-37

9. Conn., C., Cosh, A., Guest, P. and Hughes, A. (2001), "Long Run Share Performance of UK Firms Engaging in Cross Border Acquisitions", *Working Paper No. 214,* ESRC Centre for Business Research, University of Cambridge.

10. Datta, D. K., Pinches, G. E. and Narayanan, V. K. (1992), "Factors Influencing Wealth Creation From Merger and Acquisitions: A Meta Analysis", *Strategic Management Journal*, Vol. 13, pp. 67-84.

11. Delong, G. (2003), "Does Long Term Performance Of Mergers Match Market Expectations? Evidence from the U.S. Banking Industry", *Financial Management*, Summer, pp.5-25.

12. Fowler, K. L. and Schmidt. D. R. (1986), "Tender Offers, Acquisitions and subsequent Performance in Manufacturing Firms", *Academy of Management Journal*, Vol. 31, No. 4, pp. 962-974.

13. Fowler, K. L. and Schmidt. D. R. (1989), "Determinants of Tender Offers Post Acquisition financial Performance", *Strategic Management Journal*, Vol. 10, pp. 339-350.

14. Francoeur, C. (2006-07), "The Long term Performance of Cross Border Mergers and Acquisitions: Evidence to Support Internalization Theory", *Corporate Ownership and Control*, Vol. 4, No. 2, pp. 312-323.

15. Franks, J., Harris, R. and Titman, S. (1991), "The Post Merger Share Price Performance of Acquiring Firms", *Journal of Financial Economics*, Vol. 29, pp. 81-96.

16. Freund, S. Trahan, E. A. and Vasudevan, G. K. (2007), "Effects of Global and Industrial Diversification on Firm value and Operating Performance", *Financial Management*, Vol. 36, No. 4, pp. 143-161

17. Hazelkorn, T., Zenner, M. and Shivdasani, A. (2004), "Creating Value with Mergers and Acquisitions", *Journal of Applied Corporate Finance*, Vol. 17, No. 4, pp. 81-90.

18. Healy, P. M., Palepu, K. G. and Ruback, R. S. (1990), "Does Corporate Performance Improve After Merger?", *Working Paper No.3149-90,* pp. 1-54, Sloan School of Management.

19. Healy, P. M., Palepu, K. G. and Ruback, R. S. (1997), "Which Takeovers are Profitable: strategic or financial?" *Sloan Management Review*, Vol. 38, No. (4, Summer), pp. 45-57.

20. Kale, P. (2009), "The Global Indian Firm: Growth & Value Creation through Overseas Acquisitions". *The Indian Journal of Industrial Relations,* Vol. 45, No. 1, pp. 41-53.

21. Kaur, G. (2005), "*Corporate Mergers and Acquisitions*", Ist Edition, Deep and Deep Publications Private Limited, New Delhi.

22. King, D. R., Dalton, D. R., Daily, C. M. and Cowin, J. J. (2004), "Meta Analyses Of Post Acquisition Performance: Indicators of Unidentified Moderators", *Strategic Management Journal*, Vol. 25, pp. 187-200.

23. Kusewitt, J. B. (1985), "An Exploratory Study of Strategic Factors Relating to Performance." *Strategic Management Journal*, Vol. 6, No. 2, pp. 151-168.

24. Loderer, C. and Martin, K. (1992), "Post Acquisition Performance of Acquiring firms", *Financial Management*, Autumn, pp. 69-79.

25. Mandelker, G. (1974). Risk and Return: The Case of Merging Firms. *Journal of Financial Economics,* Vol. 1, No. 4, pp. 303-335.

26. Martynova, M. Oosting, S. and Renneboog, L. (2006), "The Long Term Operating Performance of European Mergers and Acquisitions", *Working paper No. 137/06*, European Corporate Governance institute, pp. 1-44

27. Morck, R., Shleifer A. and Vishny, R. W. (1990), "Do Managerial Objectives Drive Bad Acquisitions", *Journal of Finance*, Vol. 45, No. 1, pp.31-40.

28. Ramakrishnan, K. (2008), "Long Term Post Merger Performance of Firms in India", *Vikalpa-The Journal of Decision Makers,* Vol. 33, No. 4, pp. 47-63.

29. Ramaswamy, K. P. and Waegelein, J. F. (2003), "Firm Financial Performance Following Mergers", *review if Quantitative Finance and Accounting*, Vol. 20, pp. 115-126.

30. Rau, P. R., Vermaelen, T. (1998), "The Post Acquisition Performance of Acquiring Firms", *Journal of Financial Economics*, Vol. 49, pp. 223-253.

31. Roman, K. and Michael, T. (2006), "Size Does Matter - Firm Size and the Gains From Acquisitions on the Dutch Market. *Working Paper University of Amsterdam*. Available at SSRN: http://ssrn.com/abstract=929009. Accessed on: 2nd February, 2009.

32. White, H. (1980), "A Heteroskedasticity-Consistent Covariance Matrix Estimator and a Direct Test for Heteroskedasticity", *Econometrica*, Vol. 48, No. 4, pp. 817–838.

33. Zhu, P. and 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. Available at: http:// www.eurojournals. com/finanace.htm.

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