MERGERS AND ACQUISITIONS IN INDIA: A STRATEGIC IMPACT ANALYSIS FOR THE CORPORATE ENTERPRISES IN THE POST LIBERALISATION PERIOD

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Introduction

Indian enterprises were subjected to strict control regime before 1990s. This has led to haphazard growth of Indian corporate enterprises during that period. The reforms process initiated by the Government since 1991, has influenced the functioning and governance of Indian enterprises which has resulted in adoption of different growth and expansion strategies by the corporate enterprises. In that process, mergers and acquisitions (M&As) have become a common phenomenon. M&As are not new in the Indian economy. In the past also, companies have used M&As to grow and now, Indian corporate enterprises are refocusing in the lines of core competence, market share, global competitiveness and consolidation. This process of refocusing has further been hastened by the arrival of foreign competitors. In this backdrop, Indian corporate enterprises have undertaken restructuring exercises primarily through M&As to create a formidable presence and expand in their core areas of interest.

Mergers and Acquisitions in India

M&As have played an important role in the transformation of the industrial sector of India since the Second World War period. The economic and political conditions during the Second World War and post–war periods (including several years after independence) gave rise to a spate of M&As. The inflationary situation during the wartime enabled many Indian businessmen to amass income by way of high profits and dividends and black money (Kothari 1967). This led to “wholesale infiltration of businessmen in industry during war period giving rise to hectic activity in stock exchanges. There was a craze to acquire control over industrial units in spite of swollen prices of shares. The practice of cornering shares in the open market and trafficking of managing agency rights with a view to acquiring control over the management of established and reputed companies had come prominently to light. The net effect of these two practices, viz of acquiring control over ownership of companies and of acquiring control over managing agencies, was that large number of concerns passed into the hands of prominent industrial houses of the country (Kothari, 1967). As it became clear that India would be gaining independence, British managing agency houses gradually liquidated their holdings at fabulous prices offered by Indian Business community. Besides, the transfer of managing agencies, there were a large number of cases of transfer of interests in individual industrial units from British to Indian hands. Further at that time, it used to be the fashion to obtain control of insurance companies for the purpose of utilising their funds to acquire substantial holdings in other companies. The big industrialists also floated banks and investment companies for furtherance of the objective of acquiring control over established concerns.

The post-war period is regarded as an era of M&As. Large number of M&As occurred in industries like jute, cotton textiles, sugar, insurance, banking, electricity and tea plantation. It has been found that, although there were a large number of M&As in the early post independence period, the anti-big government policies and regulations of the 1960s and 1970s seriously deterred M&As. This does not, of course, mean that M&As were uncommon during the controlled regime. The deterrent was mostly to horizontal combinations which, result in concentration of economic power to the common detriment. However, there were many conglomerate combinations. In some cases, even the Government encouraged M&As; especially for sick units. Further, the formation of the Life Insurance Corporation and nationalization of the life insurance business in 1956 resulted in the takeover of 243 insurance companies. There was a similar development in the general insurance business. The national textiles corporation (NTC) took over a large number of sick textiles units (Kar 2004).
**Recent Development in Mergers and Acquisitions**

The functional importance of M&As is undergoing a sea change since liberalisation in India. The MRTP Act and other legislations have been amended paving way for large business groups and foreign companies to resort to the M&A route for growth. Further, The SEBI (Substantial Acquisition of Shares and Take over) Regulations, 1994 and 1997, have been notified. The decision of the Government to allow companies to buy back their shares through the promulgation of buy back ordinance, all these developments, have influenced the market for corporate control in India.

M&As as a strategy employed by several corporate groups like R.P. Goenka, Vijay Mallya and Manu Chhabria for growth and expansion of the empire in India in the eighties. Some of the companies taken over by RPG group included Dunlop, Ceat, Philips Carbon Black, Gramaphone India. Mallya’S United Breweries (UB) group was straddled mostly by M&As. Further, in the post liberalization period, the giant Hindustan Lever Limited has employed M&A as an important growth strategy. The Ajay Piramal group has almost entirely been built up by M&As. The south based, Murugappa group built an empire by employing M&A as a strategy. Some of the companies acquired by Murugappa group includes, EID Parry, Coromondol Fertilizers, Bharat Pulverising Mills, Sterling Abrasives, Cut Fast Abrasives etc. Other companies and groups whose growth has been contributed by M&As include Ranbaxy Laboratories Limited and Sun Pharmaceuticals Industries particularly during the later half of the 1990s. During this decade, there has been plethora of M&As happening in every sector of Indian industry. Even, the known and big industrial houses of India, like Reliance Group, Tata Group and Birla group have engaged in several big deals.

**Research Issues & Objectives**

As a result of Indian economic liberalization, and rapidly changing business environment, there has been a spurt in the M&As in India. This gives rise to certain issues in the sphere of mergers and acquisitions which need to be investigated.

- Is there a sudden spurt in M&A activities in India in the 1990s?
- Is it the process of deregulation which has hastened M&A activities or there are some other reasons?
- Is there some visible trend of M&As in the different sectors of the Indian industry?
- Has the M&A strategies resorted by Indian enterprises affected their performances?
- Is it being used as a survival strategy by Indian enterprises in view of the growing presence of foreign enterprises in the post 1991 period?
- Do the shareholders benefit from M&As?

Out of the above listed research issues, the following specific objectives have been taken for empirical investigation.

1. To identify the presence of any trend of M&As of the Indian industry in the post liberalisation period.
2. To examine the impact of M&As on performance of corporate enterprises.
Review of Literature

A survey of the available literature on M&As and its impact on the different aspects of corporate entities has been carried out. Further, research studies specific to India and their limitations and research dimensions for the present study have been found out. Evaluating the performance of corporations involved in M&As has been the subject of a great deal of research. Khemani (1991) states that there are multiple reasons, motives, economic forces and institutional factors that can be taken together or in isolation, which influence corporate decisions to engage in M&As. It can be assumed that these reasons and motivations have enhanced corporate profitability as the ultimate, long-term objective. It seems reasonable to assume that, even if this is not always the case, the ultimate concern of corporate managers who make acquisitions, regardless of their motives at the outset, is increasing long-term profit. However, this is affected by so many other factors that it can become very difficult to make isolated statistical measurements of the effect of M&As on profit. The "free cash flow" theory developed by Jensen (1988) provides a good example of intermediate objectives that can lead to greater profitability in the long run. This theory assumes that corporate shareholders do not necessarily share the same objectives as the managers. The conflicts between these differing objectives may well intensify when corporations are profitable enough to generate "free cash flow," i.e., profit that cannot be profitably re-invested in the corporations. Under these circumstances, the corporations may decide to make acquisitions in order to use these liquidities. It is therefore higher debt levels that induce managers to take new measures to increase the efficiency of corporate operations. According to Jensen, long-term profit comes from the re-organization and restructuring made necessary by takeovers.

Most of the studies on impact of M&As can be categorized according to whether they take a financial or industrial organization approach. One way to measure the performance is to monitor the share prices after the M&A deal is struck. Empirical studies of this type indicate that a target firm’s shareholders benefit and the bidding firm’s shareholders generally lose (Franks & Harris, 1989). The most commonly employed financial approach examines trends in the share prices of corporations involved in M&As and compares them with a reference group of corporations. Corporate performance is considered to have improved if the returns to shareholders are greater after the M&As. The results obtained using this approach, largely in the United States and also in Canada, show that corporate takeovers generally have favourable consequences for shareholders of the target companies.

Another set of studies evaluate the impact of M&As in various measures of profitability before and after M&As. This type of industrial organisation studies normally considers longer time horizons than the share price studies. Most of the firms do not show significant improvement in long term profitability after acquisition (Scherer, 1988). There are some studies which have concluded that conglomerate M&As provide more favourable results than horizontal and vertical M&As (Reid, 1968; Mueller, 1980). Many researchers have investigated, whether related mergers in which the merging companies have potential economy of scale perform better than unrelated conglomerate mergers. The evidence is inconclusive in terms of return to shareholders (Sudersanam et al., 1993). In terms of accounting profitability, Hughes (1993) summarises evidence from a number of empirical studies to show that conglomerate mergers perform better than horizontal mergers. Poor corporate performance in post-merger period has been attributed to numerous reasons – manager's desire for position and influence, low productivity, poor quality, reduced commitment, voluntary turnover, and related hidden costs and untapped potential (Buono, 2003). 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 improvements in the operating performance following acquisitions. Kruse, Park and Suzuki (2003) examined the long-term operating performance of Japanese companies using a sample of 56 mergers of manufacturing firms in the period 1969 to 1997. By examining the cash-flow performance in the five-year period following mergers, the study found evidence of improvements in operating performance, and also that the pre and post-merger performance was highly correlated. The study concluded that control firm adjusted long-term operating performance following mergers in case of Japanese firms was positive but insignificant and there was a high correlation between pre and post-merger performance. Marina Martynova, Sjoerd Oosting and Luc Renneboog (2007) investigated the long-term profitability of corporate takeovers in Europe, and found that both acquiring and target companies significantly outperformed the median peers in their industry prior to the takeovers, but the profitability of the combined firm decreased significantly following the takeover. However, the decrease became insignificant after controlling for the performance of the control sample of peer companies.

Due to the existence of strict government regulations, Indian companies were forced to go to new areas where capabilities are difficult to develop in the short run. In pursuit of this growth strategy, they often change their organization and basic operating characteristics to meet the diversified businesses and management. In a study by Prahalad and others (1977), it has been found that, Indian enterprises in both the private and public sectors are much diversified. This diversification led to M&As. They also found that India has a large percentage of unrelated diversifiers as compared to the USA, UK, France, Germany, and Italy (Kaul 1991, 2003).

The work of Rao and Rao (1987) is one of the earlier attempts to analyse mergers in India from a sample of 94 mergers orders passed during 1970-86 by the MRTP Act 1969. In the post 1991 period, several researchers have attempted to study M&As in India. Some of these prominent studies are; Beena (1998), Roy (1999), Das (2000), Saple (2000), Basant (2000), Kumar (2000), Pawaskar (2001) and Mantravedi and Reddy (2008). There are few other studies which analyses mergers as case studies only.

Impact Analysis: Some of these studies have made an attempt to study the impact of M&As on the profitability of the merged companies. Das (2000) compares the pre merge and post merger operating profit margin for a sample of 14 acquiring firms and find a decline in profitability in 8 of these companies after merger. The study of Saple (2000) supports these findings. It observes that mergers did not lead to an improvement in performance as measured by profitability (return over net assets) adjusted for the industry average. Beena (1998) also finds no significant difference in the rate of return and profit margin between the periods before and after the mergers. Overall the results point to the possibility of merger driven by managerial self-interest motive of growth maximization.

Comparing the pre merger profitability of the firms involved with the industry average, Saple (2000) finds that the target firms were better than industry averages while the acquiring firms had lower than industry average profitability. Overall, acquirers were high growth firms which had improved the performance over the years prior to the merger and had a higher liquidity. The target firms, on the other hand, were firms with higher than industry profitability, which had deteriorated over the period just prior to merger. When pre-merger profitability (an index of efficiency of a company) of acquirer and target companies is compared, Das (2000) finds the acquiring companies had higher pre-merger profitability in 18 of the 25 merge cases considered. This is also confirmed from the findings of Roy (1999)
and Beena (1998). Further, he compares the pre-merger average net sales (an index of firm size) for the acquirer and target firms and finds that in 86 percent of the cases, acquiring companies had higher pre-merger sales. Another study shows that merger did not lead to excess profits for the acquiring firm (Pawaskar, 2001). Mantravedi and Reddy (2008) investigated Indian acquiring firms and found that there are minor variations in terms of impact on operating performance following mergers, in different sectors of Indian industries.

Limitations of the Studies and Research Dimension

The survey highlights the following limitations of the various studied examined above and some of these issues are sought to be addressed in this paper.

1. Number of merger cases analysed by various studies is much less and have taken only mergers and leaving acquisitions.

2. It is noticed that none of the studies dealt comprehensively on trend of M&As for the post 1991 period according to industry classifications groups.

3. From the survey of Indian M&As literature, it is mainly found that apart from growth and expansion, efficiency gains and market power are the two important motives for M&As. Apart from measuring post merger profitability of the merged entity, there have been no reported works on these issues in the Indian context.

With this back drop, here an attempt has been made to address some of the above issues on the Indian context which are as follows,

➢ The present paper has taken both M&As. Further, in order to carry out analysis of M&As in India, our first task is to create an exhaustive data base as there is no official data bank and to carry out trend analysis of M&As for various sectors of Indian industry.

➢ By using financial and accounting data, an attempt has been made to investigate the impact of M&As on the performance of the companies.

Methodology

Two types of data were needed. Firstly, data on Indian M&As is needed for the post 1991 period for effectively carrying out trend analysis. Thus, the first task was to build a data base on M&A in India as there is no official data base available which gives a complete picture of M&As. Secondly, financial data was needed to examine the impact of M&As.

Data Collection: Before testing the sources, from which data bank on M&A was created, it is useful to understand the modus operandi for M&As in India as this gave the hint about the sources from which data on M&A could be obtained\(^1\). On an average, it takes about a year from the board meeting approving the merger scheme to getting the approval of the

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\(^1\) The general law relating to M&A is embodied in section 391 to 396 of the Companies Act, 1956; hence a merger in India has to comply with the provisions of this act. Section 396 gives the high court the power to sanction a compromise or arrangement with creditors and members (shareholders) subject to certain conditions. Section 392 gives the power to the high court to enforce and supervise the carrying out of such compromises or arrangements with creditors and members. Section 393 provides for the availability of the information required by the creditors and members of the concerned company. When according to such an arrangement section 394 makes provision for facilitating reconstruction and amalgamation of companies. Section 395 gives power and duty to acquire the shares of shareholders dissenting from the scheme or
high court. The data on M&As in India are found from the following sources:

1. Registration and Liquidation of Joint Stock Companies in India (RLGC) (annual publication of R & L division of DCA). It gives information about the names of acquirers and target companies along with the month of merger. This annual publication provides only merger data on a regular basis since 1974. However, this publication was not traceable for the years 1985, 1986, 1987, 1989 and 1995.
2. Company News and Notes (Monthly publication of DCA) provides information on mergers but not on a regular basis.
3. Data on M&As is extracted largely from monthly review of Indian economy, (a publication of CMIE, Bombay). It provides information on M&As regularly from 1995.
4. Websites of BSE and NSE also give the names of acquirer and target companies and not the year of merger. The list is not exhaustive.
5. SEBI website is the only source of getting information of open offers both number wise and value wise. However, it started giving this data only from 1996-1997 financial years.

Building a Data Base: An exhaustive data base for M&As in India from the period 1990-91 to 2000-2001 have been prepared quoting from CMIE, DCA and SEBI sources for Indian listed companies. As stated earlier, this study takes into account both M&As. As acquisitions have different connotations, here we take all deals which have effect of change in control. By using this data bank, a total of 1386 M&As have been found and trend analysis has been carried out.

Classification of Data According to NIC Code: The whole constructed data bank on M&As have been classified under sixteen broad industrial groupings. This classification has been done according to the National Industrial Classification (NIC) 1987 Codes. From the NIC classification code, the present study follows broadly two digit industrial classification code and further this is modified by looking into various classifications as followed by CMIE data bank, Capital market-online data bank, BSE, and NSE etc. (Table 1).

Other Data and Measurement: By using financial and accounting data, we have investigated the impact of M&As on the performance of the sampled companies. For carrying out this analysis, secondary data on financial variables of selected Indian companies have been collected from capital market online data bank.

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2 In addition for listed companies, clause 40 of the listing agreement stipulates that, “a public announcement should be made through newspapers and the stock exchanges where the shares are listed must be notified immediately after the board meeting that approves the scheme”. After the negotiations are completed, both the acquirer and the target companies must inform the concerned stock exchanges about the conclusion of the deal. According to the SEBI takeover regulations, the acquirer has to inform the stock exchanges once his holdings cross five percent in a particular target company. Further, when holdings cross fifteen percent, the buyer has to make an offer to buy another twenty percent of the shares from the public.

3 In the follow up to preparation of the data bank, the study largely did not encounter any problems in finding out the name of acquirer and target companies. However, finding the time of M&A, the present study faced the difficulty of different time periods given by different sources. However, the present study follows the time given by CMIE data sources, as we consider it to be more reliable because it is specialized in tracking down M&As announcements followed up with brief explanations.
Table 1: Classification of the Sample

<table>
<thead>
<tr>
<th>Industry Groups</th>
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<tbody>
<tr>
<td>Chemicals, Drugs &amp; Pharma</td>
</tr>
<tr>
<td>Petrochemical, Plastic &amp; Rubber</td>
</tr>
<tr>
<td>Energy, Gas, Power &amp; Oil</td>
</tr>
<tr>
<td>Non Metallic Minerals</td>
</tr>
<tr>
<td>Airlines, Hotels &amp; Travels</td>
</tr>
<tr>
<td>Paper, Printing &amp; Publishing</td>
</tr>
<tr>
<td>Food Industry</td>
</tr>
<tr>
<td>Textiles &amp; Wearing Apparel</td>
</tr>
<tr>
<td>Finance &amp; Banking</td>
</tr>
<tr>
<td>IT &amp; Telecom</td>
</tr>
<tr>
<td>Electrical &amp; Electronics</td>
</tr>
<tr>
<td>Basic Metal &amp; Alloy</td>
</tr>
<tr>
<td>Machinery &amp; Equipment</td>
</tr>
<tr>
<td>Transport Machinery &amp; Spares</td>
</tr>
<tr>
<td>Tobacco &amp; Beverages</td>
</tr>
<tr>
<td>Others</td>
</tr>
</tbody>
</table>

Selection of Sample and Period: The acquirer companies selected for studying the impact of M&As on various financial variables represent different industry groups of the Indian economy. Only limited companies were selected for in depth financial analysis taking into account the constraints of uniformity of data for the said time period. This study concentrated only on acquiring firms as relevant data is not available for target firms because either they are merged or taken over by the acquiring firms. For this investigation, we have selected fifteen listed companies spreading a time period from 1990-91 to 2000-01 for detailed investigations. Further, utmost care has been given to select companies which fairly represent broad industrial groupings as has been followed in this study. (NIC’s two digit classification code, 1987)

Methods of Analysis

Method of least squares has been applied to investigate the trend of M&As for the entire period of study. Micro level analysis for the selected companies has been carried out to investigate the impact of M&As on the financial variables. We have taken 84 data points for 15 companies, 42 for pre-merger period and 42 for post-merger period (Annexure 1). Variables chosen to represent performance measure of a company are: (a) Turn over of the company in one financial year, (b) Profit after tax of the company in one financial year, (c) Book value (per share holder) of the company in one financial year and (d) Return on net worth of the company in one financial year. Return on net worth type of measures is the most popular and frequently used when financial and accounting variables are utilized to determine performance. But in considering Kaplan’s (1983) arguments against excessive use of Return on Net Worth types of measurements, the above referred variable selection of this study is confirmed as better \(^4\) (Table 2).

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\(^4\) “Any single measurement will have myopic properties that will enable managers to increase their score on this measure without necessarily contributing to the long-run profits of the firm” (Kaplan 1983, p. 699). Hence, an adoption of additional and combined measures is seemed to be necessary.
Bivariate OLS regression analysis and other statistical tools were used for analysis. In OLS regression, for dependent variable, performance measures like turn over, profit after tax, book value, and return on net worth were used one by one as to examine the impact of merger on all these variables. For independent variable, ‘M&A’ was used, which is a dummy variable. It has value equal to 1, when data point is taken for post M&A period and 0, when data point is taken for pre M&A period.

So, equations used for regression analysis are:

1. \[ \text{trnovr} = t_0 + t_1 \cdot \text{M&A} \]
2. \[ \text{pat} = p_0 + p_1 \cdot \text{M&A} \]
3. \[ \text{bv} = b_0 + b_1 \cdot \text{M&A} \]
4. \[ \text{ronw} = r_0 + r_1 \cdot \text{M&A} \]

**Transformation of Data:** Some companies experienced more than one M&A in the reference period and many M&As took place in the adjacent periods. So, in many cases pre M&A year of latter event coincided with post M&A year of former event and hence, two observations contained same information for the performance measures as shown below in table 3 in the shaded region. Here first two observations are part of happening of one event and last two are part of happening another event. However, values of shaded observations are same in both M&As.

<table>
<thead>
<tr>
<th>Variable name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>trnovr</td>
<td>Turnover (Rs. crores)</td>
</tr>
<tr>
<td>pat</td>
<td>Profit After Tax (Rs. crores)</td>
</tr>
<tr>
<td>bv</td>
<td>Book Value (Unit Cur in Rs.)</td>
</tr>
<tr>
<td>ronw</td>
<td>Return on Net Worth (%)</td>
</tr>
<tr>
<td>M&amp;A</td>
<td>Dummy variable, equal to 0 if period is pre merger and 1 if period is post merger</td>
</tr>
</tbody>
</table>

So, in the above cases, by employing regression analysis, impact of merger would not be visible clearly as pre M&A observation of second event would neutralize the impact of change in performance measures (post M&A observation) of the first event. In order to mitigate this problem, we opted to take index values for each M&A, taking pre M&A values as base (of 100). So, the transformed data of above observations of table 3 are given below in table 4.
Table 4: Transformed Data of Performance Measures

<table>
<thead>
<tr>
<th>Year</th>
<th>trnvr_indx</th>
<th>pat_indx</th>
<th>bv_indx</th>
<th>ronw_indx</th>
<th>M&amp;A</th>
</tr>
</thead>
<tbody>
<tr>
<td>1997-98</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>0</td>
</tr>
<tr>
<td>1998-99</td>
<td>128</td>
<td>105.2</td>
<td>118.1</td>
<td>82.2</td>
<td>1</td>
</tr>
<tr>
<td>1999-00</td>
<td>133.6</td>
<td>141.7</td>
<td>118.4</td>
<td>115.2</td>
<td>1</td>
</tr>
</tbody>
</table>

So, now base period of new M&A would not negate the impact of old M&A which certainly help regression process to compute appropriate estimates. This transformation has one more advantage that it also neutralizes the company related bias (in the magnitude of performance variables) 5. With this advantage, we can analyse the year wise trend of impact of M&As for overall industries.

Thus, the alternative equations could be used for regression analysis are:

\[(1a) \ t_{\text{trnvr indx}} = t_0 + t_1 \cdot M&As\]
\[(2a) \ t_{\text{pat indx}} = p_0 + p_1 \cdot M&As\]
\[(3a) \ t_{\text{bv indx}} = b_0 + b_1 \cdot M&As\]
\[(4a) \ t_{\text{ronw indx}} = r_0 + r_1 \cdot M&As\]

Findings

The total M&As from 1990-91 to 2000-01 have been analyzed under this caption. There are thirteen hundred and eighty six M&As identified during the period of the study using the methodology given earlier. The maximum number of M&As is reported in the year 1999-2000, and the lowest found out in the year 1991-92. The momentum of M&As built up from the year 1995-96 in which thirty three M&As are found during the span of the study (Figure 1). In 1996-97, the number of M&As increased to 124 which is 275.75 percent growth in M&As activity. Further, there is a 100 percent increase of M&As in 1997-98 amounting to 248. There has been an increase in M&As in 1998-99 amounting 269 (8.46 % increase). Subsequently, the year 1999-2000 has reported the maximum that is 387 numbers of M&As which is 43.86 percent above the previous year. This period is followed by a reduction in M&As activity in 2000-01 which stands at 290 (negative growth rate of 25.06). This has been given in table 5 and Figure 1.

5 For example, for HDFC Bank, in 1999 turn over was Rs 679.87 and after merger in 2000 it was Rs 1,259.46. For HDFC Bank, turn over increased by 85\% (or by Rs 579.59). For RIL, in 1999 turn over was Rs 15,847.16 and after merger in 2000 it was Rs 23,024.17. For RIL, turn over increased by only 45\% vis-à-vis 85\% of HDFC Bank (though increase in absolute terms is Rs 7,177.01 i.e. much more than Rs 579.59 of HDFC Bank). So, if data were not transformed, then higher percentage increase in HDFC Bank were overshadowed by higher magnitude increase of RIL. Since Base turn over of RIL is much higher than HDFC Bank, so taking magnitude in account for analysis would be misleading.

6 Interpretation of co-efficient:

For equation (1a), value for pre M&A period is $T_o *100/ T_o = t_0 + t_1 *0 = t_0$  where $T_o$ is turnover of a company in pre M&A period and M&A = 0.

Value for post M&A period is $T_1 *100/ T_o = t_0 + t_1 *1 = t_0 + t_1$  

By (7) - (6), we get $t_1 = T_1 *100/ T_o - T_0 *100/ T_o = (T_1 - T_0 )*100/ T_o = \% \, \text{change \, in \, turnover}$
The resultant behaviour and pattern of M&As activity during the period of study may have been occurred due to the following factors:

1. The process of restructuring of Indian industry did not commence immediately after liberalization. It was the industrial slow down since 1996, which squeezed the profit margins of Indian corporate entities and forced them to restructure their operations to achieve greater competitiveness. This has driven the companies to go for expansion and consolidation through M&As.

2. The slow down in industrial sector was further depreciated in 1997-98 with a disappointing rate of growth just being 4.1 percent (lowest after 1992-93). The slow down resulted due to declining agricultural production, depreciated capital markets for the last couple of years resulting in drying up of resources of investible funds for industry.

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Further, banks have been very cautious while providing funds to particularly small and medium sector due to high incidence of NPAs.

3. Export growth has been sluggish since 1996-97 with the year 1998-99 being particularly disappointing. This low demand has severely affected industrial production.

4. Although the Indian rupee has depreciated since August 1997, there has been much greater depreciation in East Asian currencies following the outbreak of the East Asian crisis in mid 1997. This higher depreciation has eroded the competitiveness of Indian products overseas by making them more expensive.

5. Further, an enabling policy improvement has come about through the formulation of takeover code in 1994 and the issue of simplified takeover regulations by the securities exchange board of India (SEBI) in 1997 on the basis of the Bhagawati committee report. Further, the union budget for 1999-2000 has proposed changes to facilitate M&As activity by defining the tax treatment in respect of amalgamations, de-mergers and slump sales. In case of amalgamations, the bill had given provision for relaxing the conditions required to be fulfilled by an amalgamated company to avail the benefits of set off and carry forward of accumulated losses and unabsorbed depreciation. The budget ensured that the gains arising out of such sales would be treated as capital gains and taxed accordingly. This factor along with the initiatives of the financial institutions to formulate comprehensive policy for funding and encouraging M&As have resulted in the maximum number of M&As in 1999-2000.

M&A activity is a dynamic process and many companies do engage in a series of M&A activities over time. Thus, it is extremely difficult to isolate the influence of a single M&A event and measure the impact. Therefore, a comparative analysis of the pre and post M&A has been carried out according to the financial years of happening of the event. The numbers of M&A cases vary for the sampled companies for the period of study. For example, Sun Pharmaceuticals and EID Parry contribute six and five cases of M&A to the sample. In total, forty two M&As cases have been investigated for detailed investigations, which happened amongst these fifteen companies spreading over the time period of the study. As expected, results of bivariate regressions using OLS estimation technique with original data (equations 1, 2, 3 & 4) were not encouraging where as results with transformed data provide some important clues on the M&As process in the post reform era in India. So, regression results are discussed below obtained by using transformed data and analysed here by taking the sampled variables (Table 2).

(a) Turnover: From the analysis it was evident that M&A has positive impact on turnover of the acquiring companies. So, table 6 and figure 2 show that for all years, mean value of post M&A turnover increased in comparison to the mean value of pre M&A turnover.

<table>
<thead>
<tr>
<th>Year</th>
<th>Mean</th>
<th>n</th>
</tr>
</thead>
<tbody>
<tr>
<td>1995</td>
<td>130.92</td>
<td>2</td>
</tr>
<tr>
<td>1996</td>
<td>124.42</td>
<td>4</td>
</tr>
<tr>
<td>1997</td>
<td>126.32</td>
<td>8</td>
</tr>
<tr>
<td>1998</td>
<td>121.33</td>
<td>6</td>
</tr>
<tr>
<td>1999</td>
<td>119.14</td>
<td>6</td>
</tr>
<tr>
<td>2000</td>
<td>122.08</td>
<td>9</td>
</tr>
<tr>
<td>2001</td>
<td>247.03</td>
<td>7</td>
</tr>
</tbody>
</table>
Where, \( n \) denotes total number of M&As in a particular year & ‘mean’ is mean value of all post M&A \( \text{tnovr\_indx} \) values in a year.

To know whether the increases are significant, we used regression analysis (Table 7). The table below compiles six different regression results for the equation 1(a). Here, ‘\( n \)’ denotes the number of observations used in the regression.

**Table 7: OLS Regression Results for Equation 1(a)**

<table>
<thead>
<tr>
<th>Time period</th>
<th>coefficient ((t_1))</th>
<th>std error</th>
<th>p-value</th>
<th>adjusted r-sqr</th>
<th>( n )</th>
</tr>
</thead>
<tbody>
<tr>
<td>1994-1996</td>
<td>26.58*</td>
<td>3.91</td>
<td>0.00</td>
<td>0.70</td>
<td>20</td>
</tr>
<tr>
<td>1994-1997</td>
<td>26.43*</td>
<td>3.66</td>
<td>0.00</td>
<td>0.65</td>
<td>28</td>
</tr>
<tr>
<td>1994-1998</td>
<td>24.90*</td>
<td>2.99</td>
<td>0.00</td>
<td>0.60</td>
<td>46</td>
</tr>
<tr>
<td>1994-1999</td>
<td>23.57*</td>
<td>3.13</td>
<td>0.00</td>
<td>0.52</td>
<td>52</td>
</tr>
<tr>
<td>1994-2000</td>
<td>23.19*</td>
<td>3.00</td>
<td>0.00</td>
<td>0.44</td>
<td>77</td>
</tr>
<tr>
<td>1994-2001</td>
<td>43.83**</td>
<td>23.92</td>
<td>0.07</td>
<td>0.03</td>
<td>84</td>
</tr>
</tbody>
</table>

* significant at 1% level of significance  ** significant at 10% level of significance

Results in table 7 show that M&A had significant positive effect on the turnover of the companies. For the entire period (1994-2001), co-efficient is significant at 10% level of significance and it reflects that turnover increases by 43.83 % when a company experiences M&A. However, till 2000, we can say with more confidence that turnover increased after M&A as co-efficient \((t_1)\) is significant only at 1% level of significance and adjusted R-square (a measure of goodness of fit) is fairly higher than the entire period. The results reflect the fact that the liberalisation process has given a launching pad for Indian enterprises to adopt M&As strategies for attaining growth through bigger market share and competitiveness. Further, the industrial slowdown since 1996 gave an opportunity to Indian enterprises to pursue this strategy more vigorously which is reflected in increasing the scale of operations and turnover.

**b) Profit after tax:** Profitability is a key performance measure for any company. Table 8 and figure 3 below show that unlike turnover, post M&A trend for profit is not unidirectional. While in years 1995, 1996, 1997 & 2000 mean profit increased after M&A, profit on an average not only declined in year 1998 but also became negative in years 1999 & 2001. However, trend shows that over the years average performance for the variable deteriorated after M&As.

**Table 8: Year wise Mean Values of Post M&A \( \text{pat\_indx} \)**

<table>
<thead>
<tr>
<th>Year</th>
<th>Mean</th>
<th>( n )</th>
</tr>
</thead>
<tbody>
<tr>
<td>1995</td>
<td>111.3</td>
<td>2</td>
</tr>
<tr>
<td>1996</td>
<td>118.45</td>
<td>4</td>
</tr>
<tr>
<td>1997</td>
<td>120.27</td>
<td>8</td>
</tr>
<tr>
<td>1998</td>
<td>99.59</td>
<td>6</td>
</tr>
<tr>
<td>1999</td>
<td>-2.06</td>
<td>6</td>
</tr>
<tr>
<td>2000</td>
<td>107.87</td>
<td>9</td>
</tr>
<tr>
<td>2001</td>
<td>-115.96</td>
<td>7</td>
</tr>
</tbody>
</table>
To examine the cumulative impact over the years, we run various regressions for the equation 2(a).

Table 9: OLS Regression Results for Equation 2(a)

<table>
<thead>
<tr>
<th>Time period</th>
<th>coefficient (p&lt;sub&gt;1&lt;/sub&gt;)</th>
<th>std error</th>
<th>p-value</th>
<th>adjusted r-sqr</th>
<th>n</th>
</tr>
</thead>
<tbody>
<tr>
<td>1994-1996</td>
<td>16.07*</td>
<td>4.84</td>
<td>0.01</td>
<td>0.48</td>
<td>12</td>
</tr>
<tr>
<td>1994-1997</td>
<td>18.47*</td>
<td>6.87</td>
<td>0.01</td>
<td>0.19</td>
<td>28</td>
</tr>
<tr>
<td>1994-1998</td>
<td>12.80**</td>
<td>7.22</td>
<td>0.08</td>
<td>0.05</td>
<td>40</td>
</tr>
<tr>
<td>1994-1999</td>
<td>-13.84</td>
<td>25.40</td>
<td>0.59</td>
<td>-0.01</td>
<td>61</td>
</tr>
<tr>
<td>1994-2000</td>
<td>-8.26</td>
<td>20.18</td>
<td>0.68</td>
<td>-0.01</td>
<td>77</td>
</tr>
<tr>
<td>1994-2001</td>
<td>-42.87</td>
<td>38.72</td>
<td>0.27</td>
<td>0.00</td>
<td>84</td>
</tr>
</tbody>
</table>

* significant at 1% level of significance
** significant at 10% level of significance

Results in table 9 show that M&A had significant positive effect on the profitability (after tax) of the companies till the year 1998. On an average, each M&A led to increase in 12.80% of profit after tax for a company between the period of 1994 and 1998. However, after 1998, M&As could not enhance the profitability of the companies. Moreover, the table reflects that year after year reliability on co-efficients estimated deteriorated as p-value and adjusted R-square dwindled. So, for every passing year, we could say only with lesser confidence that M&As increased the profit of the companies. This mixed result is in line with the research findings in USA and Europe on profitability of acquiring firms. Further, the Indian budget 1999 has given incentives for facilitation of M&A process which is reflected in 43.86% increase in M&As in 1999-2000. We may keep in mind the fact that acquiring companies might have taken over targets having accumulated losses and unabsorbed depreciation which is allowed to be set off and carry forward under the Indian Income Tax Act. This could have resulted in decline in post tax profits.

(c) **Book Value:** It is important to analyse the impact of M&A on shareholders by taking book value. Table 10 and figure 4 show that though in most of the period in post M&A, book value was more than the pre M&A, the difference narrowed over the reference years.

Table 10: Year wise Mean Values of Post M&A bv_index

<table>
<thead>
<tr>
<th>Year</th>
<th>Mean</th>
<th>n</th>
</tr>
</thead>
<tbody>
<tr>
<td>1995</td>
<td>107.66</td>
<td>2</td>
</tr>
<tr>
<td>1996</td>
<td>113.22</td>
<td>4</td>
</tr>
<tr>
<td>1997</td>
<td>108.95</td>
<td>8</td>
</tr>
<tr>
<td>1998</td>
<td>106.34</td>
<td>6</td>
</tr>
<tr>
<td>1999</td>
<td>103.17</td>
<td>6</td>
</tr>
<tr>
<td>2000</td>
<td>98.88</td>
<td>9</td>
</tr>
<tr>
<td>2001</td>
<td>100.77</td>
<td>7</td>
</tr>
</tbody>
</table>

Figure 4: Year wise Mean Values of Pre & Post M&A bv_index

To gauge the consequences from different perspectives, we have following set of results from OLS estimation technique. Regression results for book value are similar to results discussed above for profit after tax.
### Table 11: OLS Regression Results for Equation 3(a)

<table>
<thead>
<tr>
<th>Time period</th>
<th>coefficient (b₁)</th>
<th>std error</th>
<th>p-value</th>
<th>adjusted r-sqr</th>
<th>n</th>
</tr>
</thead>
<tbody>
<tr>
<td>1994-1996</td>
<td>11.36*</td>
<td>2.96</td>
<td>0.00</td>
<td>0.42</td>
<td>20</td>
</tr>
<tr>
<td>1994-1997</td>
<td>9.99**</td>
<td>5.08</td>
<td>0.06</td>
<td>0.1</td>
<td>28</td>
</tr>
<tr>
<td>1994-1998</td>
<td>8.89*</td>
<td>4.32</td>
<td>0.05</td>
<td>0.08</td>
<td>40</td>
</tr>
<tr>
<td>1994-1999</td>
<td>7.57*</td>
<td>3.71</td>
<td>0.05</td>
<td>0.06</td>
<td>52</td>
</tr>
<tr>
<td>1994-2000</td>
<td>5.34</td>
<td>3.35</td>
<td>0.12</td>
<td>0.02</td>
<td>70</td>
</tr>
<tr>
<td>1994-2001</td>
<td>4.58</td>
<td>4.72</td>
<td>0.34</td>
<td>0</td>
<td>84</td>
</tr>
</tbody>
</table>

* significant at 1% level of significance  
** significant at 5% level of significance  
*** significant at 10% level of significance

Results in table 11 show that though goodness of fit of the model required improvement (as adjusted R-square is poor), undoubtedly M&A had significant positive effect on the book value of the companies till the period 1999; but after 1999 influence of M&A on book value was not substantive. Each M&A till 1997 gave 10% rise in book value for each company. However, impact of M&A on book value somewhat deteriorated in years 1998 & 1999. However, till 1999, each M&A could manage to fetch an increase of 7.57% in book value. As we have observed from the study, M&As increased by 43.86% in 1999-2000 over the previous year and size of M&As deals also increasing. Thus, acquiring companies need to arrange funds and issue equity to complete deals which indicate to the results of 1998 and after.

**d) Return on net worth:** Here as reflected in table 12 and figure 5, in most of the years returns deteriorated after the M&A vis-à-vis pre M&A period.

### Table 12: Year wise Mean Values of Post M&A ronw_indx

<table>
<thead>
<tr>
<th>Year</th>
<th>Mean</th>
<th>n</th>
</tr>
</thead>
<tbody>
<tr>
<td>1995</td>
<td>92.13</td>
<td>2</td>
</tr>
<tr>
<td>1996</td>
<td>87.91</td>
<td>2</td>
</tr>
<tr>
<td>1997</td>
<td>98.11</td>
<td>8</td>
</tr>
<tr>
<td>1998</td>
<td>71.36</td>
<td>6</td>
</tr>
<tr>
<td>1999</td>
<td>106.16</td>
<td>5</td>
</tr>
<tr>
<td>2000</td>
<td>90.25</td>
<td>9</td>
</tr>
<tr>
<td>2001</td>
<td>103.47</td>
<td>6</td>
</tr>
</tbody>
</table>

Return on net worth declined in 70% cases after M&A. However, the decline was not very substantive. Hence, in none of regressions using different periods, co-efficient (r₁) in equation 4(a) was significantly different than zero which also means that ronw indx of post M&A period was equal to the ronw indx of pre M&A period (i.e. equal to 100). This can be alternatively shown by the results of following hypothesis.

**H₀: mean of ronw_indx of post M&A period = 100**

### Table 13: Results of ‘H₀: mean of ronw_indx of post M&A period = 100’

<table>
<thead>
<tr>
<th>Ha: mean &lt; 100</th>
<th>Ha: mean != 100</th>
<th>Ha: mean &gt; 100</th>
</tr>
</thead>
<tbody>
<tr>
<td>t = -0.89</td>
<td>t = -0.89</td>
<td>t = -0.89</td>
</tr>
<tr>
<td>P &lt; t = 0.19</td>
<td>P &gt; t = 0.38</td>
<td>P &gt; t = 0.81</td>
</tr>
</tbody>
</table>
Table 13 shows that null hypothesis (mean= 100) is not rejected. Thus, we conclude that M&As could not influence the return on net worth of companies. The unimpressive findings might have resulted due to the increase in leverage and interest costs as companies need substantial funds to complete deals. The results are comparable to those obtained by Beena who found that most mergers during 1995-2000 in India were focused on asset growth through restructuring, rather than focusing on improving operational efficiencies. The results above are in line with the research findings in USA and Europe on performance of acquiring firms.

Conclusions and Future Research Dimensions

The trend analysis has substantiated the fact that Indian companies have adopted M&As as a strategic choice for growth and expansion in general and particularly more prominently during the difficult period of 1996-97 and 1997-98. The analysis of M&As trends for the entire period gives two distinct phases of M&As for the different sectors of the Indian industry, that is the period from 1990-91 to 1995-96 and 1996-97 to 2000-01. During the first period, there have been 68 M&As where as in the second phase 1318 M&As have been found. That is why the second phase can safely be called as the first M&A wave in India. M&As have been found to be beneficial in the sense that Indian companies grew in size, and attain better market share which is substantiated by empirical analysis. Throughout the period of study, turnover increased after the companies experienced an M&A. Profit after tax and book value of the companies increased after M&As during the time periods 1994-98 and 1994-99 respectively. After that there was no significant change of M&As on these variables. Further, M&As did not have any impact on return on net worth for the period of study.

The nature and pattern of M&As strategies adopted by the Indian companies reveal mostly horizontal and vertical types. This gives strength to the argument that Indian companies are focusing on their core areas and expanding mostly in related areas of strength which is helpful in realization of synergistic benefits. Further, it has been observed that M&As in India are strategic in nature that motives range from growth and expansion to high quality of human resources, strong brand presence and global identity and leadership.

The study has ignored the impact on target companies due to the typical constraints of obtaining Indian M&As data as stated in the study. Further, there are possible differences in the accounting methods adopted by different companies in the sample which is also ignored. The study has also not used any control groups for the comparison (industry average or firms with similar characteristics) as has been found in other studies. A bigger sample covering a longer time period would have given better results and the authors plan to extend the work further. Future research could be directed in the areas of ‘impact of mergers and acquisitions on corporate performance’ by taking total factor productivity measures for empirical investigations. This could be accomplished by measuring improvement in the total factor productivity compared to the industry average at any point of time or productivity trends before and after ownership change over a period of time.
References


53. SEBI : Securities and Exchange Board of India (Substantial Acquisition of Shares and Takeovers) Regulations 1997, SEBI, Mumbai. 1997


# Annexure 1

## Sample Summary

<table>
<thead>
<tr>
<th>No</th>
<th>Company Name</th>
<th>Types</th>
<th>Important Motives</th>
</tr>
</thead>
</table>
| 1. | Ranbaxy Ind.       | Horizontal Vertical | - Growth & Expansion  
                        - Market leadership  
                        - Entering new frontiers  
                        - Strong brand presence  
                        - High quality human resources  
                        - Strong R&D |
| 2. | Sun pharma         | Horizontal Vertical | - Aggressive growth  
                        - Domestic market leadership |
| 3. | Nirma Ltd.         | Horizontal Vertical | - Growth & expansion  
                        - Market leadership  
                        - Strong brand presence  
                        - Cost efficiency & price advantage |
| 4. | Reliance Industries | Vertical Horizontal | - Global leadership  
                        - Eyeing synergistic flows in the areas of feed stock, product range  
                        - Strong R&D  
                        - Strategic alignments |
| 5. | Tata Power         | Mainly Vertical | - Strong leadership in power & energy  
                        - Focus on R&D |
| 6. | India Cements      | Horizontal Vertical | - Sustained growth  
                        - Dominant domestic player  
                        - Securing supplies |
| 7. | Tata Tea           | Horizontal Vertical | - Economies of scale  
                        - Global player  
                        - Strong brand identity |
| 8. | Arvind Mills Ltd.  | Horizontal Vertical | - Faster growth  
                        - Operating synergy |
| 9. | HDFC Bank          | Horizontal | - Growth to become dominant domestic player  
                        - Attainment of financial synergy  
                        - High quality of human resources and |
| 10. | Crompton Greaves Ltd. | Horizontal Vertical | - Growth and expansion  
                        - Cost efficiency |
| 11. | Hindalco          | Horizontal Vertical | - Become world player  
                        - Cost efficiency  
                        - Utilization of integrated synergies  
                        - R&D and process innovations |
| 12. | Sterlite Industries | Vertical Conglomerate | - Market leadership  
                        - Cost efficiency  
                        - Global player |
| 13. | United Breweries   | Horizontal Vertical | - Growth by consolidation  
                        - International brand enhancement. |
| 14. | EIDParry           | Horizontal Vertical Conglomerate | - Faster growth  
                        - Benefit from operating economies and synergies  
                        - Product innovation and improvement  
                        - Building conglomerate empire |
| 15. | Zuary Industries   | Conglomerate | - Accelerated growth  
                        - Increasing product portfolio |
Mergers and acquisitions in India: a strategic impact analysis for the corporate enterprises in the post liberalisation period. Article. Rabi Narayan Kar. This paper empirically examines the post-merger performance of a sample of 1,320 European mergers and acquisitions deals. Specifically, we investigate the impact of pre-merger earnings management of acquirers on both the short-term and long-term post-merger performance, for M&A deals completed between 2003-2012, considering both the form of payment and the target firm's listing status. The findings suggest that acquirers report higher abnormal accruals before those deals where they pay with their stock and the target firms are private.