Measuring Post-Merger and Acquisition Performance in Chemical and Fertilizer Sector of India

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Abstract

The present study was carried out with the aim of assessing the impact of mergers and acquisitions on the value of listed firms in chemical and fertilizer sector of India. Companies expand their business by implementing internal or external expansion strategies. In the case of internal expansion strategy, a firm grows gradually overtime in the generic course of the business, but in case of external expansion strategy, a firm grows overnight through corporate conjunction. Such annexation are in the form of mergers and acquisitions which has become a salient feature of corporate reconstructing. The primary objectiveof the present study is to examine the impact merger and acquisition deals have on the operating performance, financial performance and shareholders' wealth of the samplefirms by comparing their performance before and after the deals, thus deriving their values pre and post-merger or acquisition. In order to achieve the research objectives, an empirical study has been carried out to test the hypotheses that were articulated. The present study makes use of secondary sources of data. Industry adjusted pre and post-merger/ acquisition ratios have been estimated and the averages have been computed for all the firms. Paired sample t-test has been done to check for any statisticallysignificant change pre and post the deals. The overall findings of the study revealed that the operating performance, financial performance and returns to shareholders'improved post-merger/acquisition but the improvements were not found to be statistically significant. The study has established that mergers and acquisitions on its own cannot achieve strong, efficient and competitive systems because performance is dependent on several other factors as well which require due consideration. There is also a need to study the benefits of such deals over a longer period of time to actually quantify the benefits of such transactions.

Keywords: Mergers and Acquisitions, Financial Ratios, Operating Performance, Financial Performance, Shareholders Wealth

Introduction

The world is in a state of flux, being influenced by the forces of globalization and fast technological changes and as a consequence, firms are facing intense competition. Firms are using strategies aiming to achieve more growth by exploring opportunities both internally and externally. The growth can be achieved internally through better management and further capital investment in the existing businesses. The other way to achieve growth is through the strategies of mergers and acquisitions (M&A's), strategic alliances, joint ventures etc. M&A is arguably the most popular strategy among firms who seek to establish a competitive advantage over their rivals. Mergers and acquisitions as a means for inorganic growth, are increasingly being used, world over for undertaking restructuring of leading business enterprises. Indian companies are also aggressively building capacities via M&A's to cater to the growing domestic and global markets. Mergers and acquisitions are often used as preferred tools of corporate structuring to serve a variety of business objectives. Some of the reasons put forward for mergers and acquisitions are: to achieve synergistic effects (Lubatkin, 1987; Vaara, 2002),gain greater market power, gain access to innovative capabilities, thus reducing the risks associated with the development of a new product or service, maximize efficiency through economies of scale and scope and finally in some cases, reshape a firm's competitive scope (Friedrich Trautwein, 1990; Patricia M. Danzon, Andrew Epstein and Sean Nicholson, 2004). Other reasons include a short-term solution to financial problems (Fluck and Lynch, 1999), revitalize the company by bringing in new knowledge to foster long-term survival (Vermeulen and Bakerma, 2001).Mergers and acquisitions have acquired a prominent position in the corporate sector since 60's throughout the world. Mergers and acquisitions were given more significance during the 1960's and 1980's (Lev, 1983), with so-called merger "waves" during this period. Many firms engaged in merger and acquisition activities during the above referred period, not only belong to the United States and Europe, but also to Australia and Japan. Mergers and acquisitions acquired prominence since 1960's, emerging not only as a part of financial activity but also as part of investment strategy. Mergers and acquisitions dates as far back as the turn of the 19th century. Six periods of high merger activity, often called "merger waves", have taken place in U.S. corporate history. The waves occurred between 1897 and 1904 (Horizontal mergers), 1916 and 1929 (Vertical mergers), 1965 and 1969 (Diversified conglomerate mergers), and 1984 and 1989 (Cogeneric mergers; Hostile takeovers), 1992 and 2000 (Cross-border/mega mergers), 2003 and 2008 (Shareholder Activism, Private Equity increased) (Gaughan, 2010). Each merger movement occurred when the economy experienced sustained high rates of growth and coincided with specific developments in the economy such as rising stock market, low interest rates and technological developments, (Mitchell & Mulherin, 1996).

The Indian corporate sector has shown keen interest in this new business strategy. There has been an increase in both the number and size of mergers and acquisitions in the Indian corporate sector. However, till 1991, when India came up with a new industrial policy which marked a big departure from earlier economic policies, the activity of M&A's was dormant in the Indian corporate sector. In the pre-liberalization period, the mergers and acquisitions were low in India. The economic regime was also against the monopoly of the private sector in a particular sector, product or service. With the liberalization of economic regime in 1991, large industrial houses and foreign companies started to adopt the route of mergers and acquisitions to expand and grow. Thus, waves of mergers and acquisitions occurred in Indian corporate sector post liberalisation period.

Mergers and acquisitions (M&A's), as a strategy of financial restructuring, are helpful in diversification and to regain financial returns (Palepu, et al., 2007). Mergers and acquisitions (M&A's) act as an important tool for the growth and expansion of the economy. Companies are confronted with the fact that only big players can survive as there is a cut throat competition in the market and the success of the merger/acquisition depends on how well the companies integrate themselves in carrying out day-to-day operations. The ultimate goal of every organisation is the maximisation of shareholders' wealth and whether companies attain this goal or not, depends upon the motives with which M&A's are carried out. M&A's create shareholder value when carried with the objective of attaining greater market share, synergy, improvement of managerial efficiency, achievement of economies of scale, economies of scope, and revenue growth.

Literature Review

The financial goal of modern corporate entities is the maximization of firm's value with the purpose to deliver superior returns to shareholders. Guided by this philosophy, managements of modern corporate entities aim at achieving higher rates of growth in their businesses. The growth can be achieved internally through better management and further capital investment in the existing businesses. The other way to achieve growth is through business combinations commonly known as mergers and acquisitions. Mergers and acquisitions is one of the important strategies used by the corporate entities to attain synergies, tax savings, to consolidate (Neelam Rani, Surendra S. Yadav, P. K. Jain, 2012; Arora, 2003;Seth, Song and Pettit, 2000).Besides, Friedrich Trautwein (1990) and Patrica M. Danzon, Andrew Epstein and Scan Nicholson (2004), have concluded that economies of scale, economies of scope, higher growth avenues, low concentrated businesses and higher cash flows are also drivers of M&A's. It thus becomes clear that M&A's are aimed to create and deliver superior value to shareowners. Therefore this corporate action raises few research questions for the academicians and practitioners to explore. The most fundamental questions include: Whether the financial goals with which mergers and acquisitions are aimed are achieved by and large? Why some mergers and acquisitions fail to achieve the intended goals? The other relevant research question would be to assess the impact of M&A's on employees.

To address these and other research questions related to M&A's, many studies have been conducted worldwide including India. In order to know what has been found about the above stated research questions, the review of the available studies on M&A's becomes imperative. Owing to this fact, a review of the available literature has been done to have a proper perspective of the subject.

Impact on Operating Performance

Ken C. Yook (2004),examined post-acquisition performance of acquiring firms that experienced acquisitions occurring during 1989 to 1993. The study has shown that acquiring firms experienced significantly deterioration in operating performance post-acquisition. The results further suggested that acquiring firms experienced slightly improved performance relative to their industry counterparts immediately after completion of the acquisition. But the improved operating performance was wiped out by capital costs of the large premiums paid to the target firm, creating no real economic gains to the acquiring firm’s shareholders.

R. Abdul Rahman and R.J. Limmack (2004), analysed whether acquisitions involving Malaysian companies over the period from 1988-1992 led to improvements in long run operating cash flow performance or not. The study has revealed that the operating cash flow performance for combined firms has been found to have improved significantly following acquisitions providing potential for benefits to both the economy as a whole and to bidding company shareholders. The improvements in post-acquisition performance was driven both by an increase in asset productivity and higher level of operating cash flow per unit of sales.These improvements were not achieved at the expense of the long-term viability of the combined firms, as they were also accompanied by an increase in the level of capital investment. It was also found that acquirers who made no immediate change to the management team of the target company following the acquisition also achieved a greater increase in post-acquisition performance.

Yeh and Hoshino (2002), examined the effects of Japanese mergers on the firms' operating performance between 1970 and 1994. The successfulness/failure of mergers was tested based on their effects on efficiency and growth. The study uses total productivity as an indicator of the firm's efficiency and growth in employment to indicate the firm's growth. The results revealed insignificant negative change in productivity while as, there was a significant negative effect on the sales growth. The study has also revealed decline in the workforce of the merging companies post mergers. In general, the results concluded that mergers had a negative impact on firm performance in Japan during the period of the study.

Kruse, Park and Suzuki (2007), 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 of a five-year period following mergers, the study has found evidence of improvements in operating performance. The study concluded that control firm adjusted long-term operating performance following mergers in case of Japanese firms was positive but statistically insignificant.

Impact on Financial Performance

David R. King, Dan R. Dalton, Catherine M. Daily and Jeffrey G. Covin (2004), reviewed published research on post-acquisition performance between 1921&2002 to analyse the post-acquisition performance. Relevant published empirical studies (93) were identified during the period. It was found that acquisitions either had no significant effect or a modest negative effect on an acquiring firm’s financial performance in the post-announcement period.

Muhammad Ahmed and Zahid Ahmed (2014), analysed the post-merger financial performance of the acquiring banks in Pakistan during the period 2006-2010. The study has found that the financial performance of merging banks improved in the post-merger period but insignificantly. Post-merger profitability improved insignificantly, liquidity significantly, capital leverage insignificantly while as assets quality parameter showed a significant deterioration.

Onaolapo AdekunleAbdul-Ramon and Ajala Oladayo Ayorinde (2012), examined the effects of mergers and acquisitions on the performance of select commercial banks in Nigeria during the period 2001-2010.The results revealed an enhanced financial performance as measured by an increase in deposit profile, profitability and gross earnings of the selected banks listed on Nigerian Stock Exchange.

Pulak Mishra and Tamal Chandra (2010), studied the impact of M&A’s on the financial performance of Indian Pharmaceutical Industry over the period from 2000-01 to 2007-08.It was found that the profitability of a firm depends directly on its size, selling efforts and export and import intensities but inversely related to their market share and demand for the products. M&A’s have not been found to any significant impact on profitability in the long run due to entry of new firms in the market. Contrary to this, the study of Neena Sinha, K.P.Kaushik, Timcy Chaudhary (2010), who examined the impact of mergers on the financial efficiency of select financial institutions in India during the period 2000-2008 has indicated an improved financial performance in post-merger period.

Impact on Shareholders' Wealth

Vanitha Swaminathan, Feisal Murshed and John Hulland (2008), attempted to explain reason for success or failure of mergers on the basis of the strategic match (the extent to which the resource configurations of acquirer and target firms were similar or distinct from one another) between merging entities. They studied mergers in the electronics industry, foods industry and chemical industry in US during the period 1991-2000. It was found that both emphasis on strategic alignment and misalignment could enhance value creation, but under varying merger motives. This research suggested that strategic misalignment (i.e., merging firms having dissimilar resource configurations) was beneficial when diversification was the primary motive. In contrast, strategic emphasis alignment created value when the merger motive was consolidation.

Hawawini and Swary (1990), examined the stock market reaction for 123 target banks and 130 bidder banks for acquisitions that took place during the 1980's in US. It was found that target firms performed extremely well after the event. The stockholders of the bidding firms experienced no decline in wealth around the acquisition announcement, while target firm stockholders gained significantly.

Ayse Yuce and Alex Ng (2011), examined wealth effects of Canadian mergers and acquisitions during 1994-2000. The results revealed significant positive abnormal returns for the shareholders of both the target and bidder firms in the short run. However, in the long run, returns become significantly negative for acquiring companies, while as returns diminished to be non-significant and positive for the target companies.

Dieter B. Halfar (2012), explored whether in the long run acquiring firms created or destroyed value by analysing the pre and post-acquisition performance during the period 2000-2009 in South Africa.The study has found that on an average, acquisitions have destroyed value within two years of post-acquisition, although some evidence was found in support of acquiring firm value creation in third year after acquisition.

Statement of the Problem

Mergers and acquisitions are considered as one of the means of attaining higher performance which is the ultimate goal of every firm. As a result of the increased activity of M&A's and its varying intentions, M&A's have received greater attention of researchers. M&A's are increasingly seen by companies as one of the strategies to achieve more growth. However, the success is by no means assured.Many studies carried out in the area of M&A's have established inconsistent results. While some studies concluded that mergers has led to increased profitability for the resultant firm (Powell and Yawson, 2005;Healy et al., 1992; Lau et al., 2008), others found that the deals were unable to generate positive returns (Aloke Ghosh, 2001; Vardhana Pawaskar, 2001). Similarly, acquisitions appear to provide mixed performance to the broad range of stakeholders involved. While target firm shareholders generally enjoy positive short-term returns, investors of bidding firms frequently experience share price underperformance in the months following acquisition, with negligible overall wealth gains for portfolio holders. Several studies have proved that on an average, the target companies witness substantial effect i.e. abnormal returns. However, whether bidding firms experience effect on overall wealth from such deals is a matter of ongoing debate among researchers (Moeller et al., 2005). It is, therefore, right to say that this area of M&A activity remain unclear despite a number of studies and thus a need exists for continued research on this subject.

Objectives of the Study

The study is aimed to achieve the following specific objectives:

- To review the related literature to get a perspective about the extent to which, the merger and acquisition activity has taken place in the Indian sector and abroad.
- To assess the impact of mergers and acquisitions on the operating performance of the companies undertaken for the study.
- To assess the impact of mergers and acquisitions on the financial performance of the sample companies undertaken for the study.
- To analyze the impact of mergers and acquisitions on shareholder's return.

Hypotheses

In line with the objectives highlighted above, the following hypotheses have been set for the study:

- H1: During the last decade or so, there has been significant growth in mergers and acquisitions activity in India.
- H2: Mergers and acquisitions have significant impact on the operating performance, financial performance

and shareholders' wealth of the sample firms undertaken for the study.

Research Methodology

The study is mainly based on the secondary data which was largely collected from the database of Centre for Monitoring Indian Economy (CMIE).The financial statements of the selected merging/acquiring firms and merged/target were also collected from the database of the centre. Besides, various other data sources namely money control, sify finance and BSE & NSE publications databases were also used to collect the required data. A case study of five mergers/acquisitions in the chemical and fertilizer sector have been studied.

Ratio analysis, the principal tool of financial statement analysis has been used to compute key financial ratios before and after the merger or acquisition over an eight year period, four years before the merger or acquisition and four years post-merger or acquisition. Majority of the studies conducted so far have studied the impact over a six year period (three years before the merger or acquisition and three years post-merger or acquisition) or a four year period only (two years before the merger or acquisition and two years post-merger or acquisition), which again may not reveal a clear picture about the impact of such events. This may be misleading as the benefits of such a transaction are long term and the returns will be realized after several years. An eight year gap was quite sufficient to assess the change in performance. The year of merger/acquisition (year 0) which is the base year has not been taken into consideration for the reason that the 0 figures are affected by one-time merger or acquisition costs incurred during that year, thus making it quite difficult to compare them with the results for the other years.

Mean differences between pre and post M&A period is important but more important is to see whether the differences are statistically significant. Therefore, to check the statistical significance of mean differences, "two sample paired t-test" was used. The paired two sample t-test is a parametric test used to test whether the mean difference is statistically significant or not. For the present study, the statistical significance has been checked at 5 percent level of significance.

The financial ratios used to assess the impact of a merger or acquisition are highlighted as under:

i) Ratios For Measuring Operating Performance

1. Operating Profit Margin (%)
2. Operating Expense Ratio (%)

ii) Ratios For MeasuringFinancial Performance

1. Gross Profit Margin (%)
2. Net Profit Margin (%)
3. Return on Assets (%)

iii) Ratios For Measuring Shareholders' Return

1. Return on Equity (%)
2. EPS (Rs)
3. Book Value per Share (Rs)
4. Dividend Yield(%)

Results and Discussions

A sample of six M&A's were studied which included merger of India Steamship Company Ltd. with Chambal Fertilizers & Chemicals Ltd., merger of Ficom Organics Ltd. with Coromandel International Ltd., merger of Bombay Paints Ltd. with Grauer Weil (India) Ltd., merger of Narmada Chematur Petrochemicals Ltd. with Gujarat Narmada Valley Fertilizers & Chemicals Ltd., merger of Gulshan Sugars & Chemicals Ltd. with Gulshan Polyols Ltd. and acquisition of SPEL Semiconductor Ltd.by Southern PetrochemicalIndustries Corporation Ltd. (Annexure I).The value of different accounting ratios reflecting operating performance, financial performance and shareowners wealth of the sample merging/acquiring firms has been presented in table I

Table I

Ratios	*Post- Merger/Acquisition*	*Pre-Merger/Acquisition*	*Change in Performance*	*T-Test (P-Value)*
OPM (%)	-0.95	-2.34	1.39	0.58
OER (%)	4.77	7.38	-2.61	0.08
GPM (%)	-0.06	2.44	-2.50	0.31
NPM (%)	-2.46	-4.47	2.01	0.54
ROA (%)	-2.10	-3.66	1.56	0.54
ROE (%)	-15.95	-19.78	3.83	0.69
EPS (Rs)	-3.88	-6.33	2.45	0.62
BV per Share (Rs)	8.71	-11.31	20.02	0.47
DY (%)	0.05	-1.97	2.02	0.38

Source: CMIE

The comparison of the industry-adjusted post and pre mean ratios for all the sample firms shows that with respect to both the measures i.e. OPM and OER, the sample M&A's have led to an improved performance. It can be seen from the above referred table that the industry-adjusted pre-merger/acquisition OPM ratio which was -2.34 percent has improved to -0.95 percent, thereby, showing an improved operating performance to the extent of 1.39 percent. Similarly, with respect to OER, industry-adjusted OER has declined from 7.38 percent to 4.77 percent post-merger/ acquisition reflecting, thereby, an improvement in operating performance to the extent of -2.61 percent. Although, the sample mergers and acquisitions have led to improvements in the industry-adjusted post-merger/ acquisition operating performance of the sample firms, yet the difference in their mean was not found statistically significant as is evident from their p-values.

Post and pre industry-adjusted accounting ratios depicting financial performance have also been presented in table 4.4. Perusal of these ratios has revealed that the merging or acquiring sample firms have witnessed improvements in their financial performance post-merger or acquisition. It becomes clear from the above referred table that except GPM, all the other ratios have revealed improvements post M&A. The industry-adjusted pre M&A mean value of GPM has declined from 2.44 percent to -0.06 percent while as NPM, ROA and ROE which was -4.47 percent, -3.66 percent, and -19.78 percent has increased to -2.46 percent, -2.10 percent and -15.95 percent respectively, thereby reflecting an improvement in the overall profitability of the sample firms. For all the ratios, the improvements in performance was not found statistically significant as depicted by the p-values of their mean differences. On the basis of the above findings, it can be concluded that the sample M&A's have caused improvements in the financial performance parameters but the mean difference was not found statistically insignificant.

From the data given in table 4.4, it becomes clear that the sample firms have recorded an increase in shareowners' wealth post M&A. This is evident from the positive mean differences of EPS, BV & DV variables. It can be been seen from the table that the EPS, BV & DV has increased by Rs 2.45, Rs 20.02 and 2.02% respectively. However, the mean difference between industry-adjusted pre & post M&A values for all the ratios has been found statistically insignificant at 5 percent level of significance as becomes clear from their p-values.

Based on the results of the above analysis, it can be concluded that the operating performance, financial performance and shareholders' wealth for the sample firms in this industry has improved post-merger or acquisition but the improvements were not found statistically significant. The deals failed to create significant operational advantages to the firms and subsequently translate into positive net present value and thus create positive shareholder wealth (Pramod Mantravadi, Vidyadhar Reddy, 2008; Smith and Ward, 2007).

Limitations of the Study

The results of any study should be considered with a degree of knowledge of its limitations. The following limitations of the study have been discussed specifically related to the general applicability of the research findings.

1. All the limitations associated with tools like ratio analysis may affect the richness of this work.
2. There is an acute deficiency with reference to the studies on mergers and acquisitions in India which may have its impact on the CMIE database, from where the secondary data has been collected.
3. Non-availability of data for certain parameters for the period under study, hence forcing to work with somewhat incomplete records.
4. The size of the sample used to conduct the various studies in the study might have been larger if an adequate database was available. Small sample size of merger and acquisitions in each industry is another limitation of the study.
5. The study has ignored the impact on target firms due to the typical constraints of obtaining data as mentioned earlier in the study.

Suggestions

The literature on mergers and acquisitions is quite diverse. A number of studies have been conducted in this area, both nationally and globally, however, the number of studies in the Indian context are limited, primarily because this aspect of corporate restructuring has gained momentum only after liberalisation. Majority of the studies conducted earlier evidenced no significant change in the performance of the sample merging or acquiring firms post-merger/ acquisition. (Beena, 2004; Smith & Ward, 2007) The present study also found similar results. M&A's have failed to produce significant improvement in operating performance, financial performance and wealth of the shareholders'. A number of reasons have been identified for such poor performance of M&A's. These are over-optimistic appraisals of market potential, over estimation of synergies, overpayment, empire- building, integration issues, economic disturbances etc. (Porter, 1989; Mueller 1969). Keeping in consideration the probable reasons that have been put forth above and also the findings in the previous literature and that of the present study, following suggestions by the researcher are being offered.

- Merger and acquisition deals should be entered into for creating a win-win situation for all the stakeholders. Mergers and acquisitions alone cannot achieve strong, efficient and competitive systems because performance is dependent on a number of other factors as well. They need to be supplemented by other measures such as enhancing the expertise and professionalism of the personnel, congruence between the two companies' preferences about the implementation strategy for the merger or acquisition, bringing about more effective corporate governance measures to further elevate the competitiveness of the institutions in the context of the challenges of a globalized and liberalized environment.
- The existing failure rate of merger and acquisition deals suggest that neither academicians nor practitioners have a thorough understanding of the variables involved in planning and implementing a successful deal. To remain ahead of competitors, business leaders need to have a global vision, be pro-active, should take calculated risk and initiate and manage such processes in a very smooth manner.
- It is essential for managers of parent firms to decide about the immediate benefits they will derive from mergers and acquisitions and how this will result in long term synergies for both the parties. Management should seek for creating new combinations of the merging/acquiring and merger/acquired firm indigenous capabilities; understand each other's technologies and businesses. Providing clear, consistent, factual, and up-to-date information will increase the coping abilities of employees which in turn will increase their productivity leading to sustained competitive advantage by achieving the projected strategic fit and synergies.
- It is believed that the size of the firms involved in a merger or an acquisition deal should be reasonably large to ensure effective pooling of the resources so that benefits of the large scale operations can be realized.
- Today, speed is of prime essence. A sign of corporate readiness and skill is the ability to do such merger and acquisition deals with 'digital' speed and e-governance could provide a helpful tool in achieving the objective of speed with provisions for online registration and approval etc.
- It is also suggested that the firms should enter into merger and acquisition deals with firms of related business only. Very few firms have the ability to successfully manage diverse businesses as they lack familiarity with each other's business. The temptation to stray into unrelated areas often appears to be strong. However, the reality is that such deals are often very risky.
- Buyers should be able to assess the hidden problems and contingent liabilities of the seller and should not put them aside because of its infatuation with the other party.
- Many integration problems have been seen to occur when firms merge or get acquired. Inadequate understanding of such cultural differences have led to the failure of a number of M&A deals to deliver the desired results.
- The data on mergers and acquisitions is not so easily accessible. It is thus suggested that the government should take measures to install information system on company mergers and acquisitions so that all the practitioners, policy makers, academicians etc. who are interested in such information can have an easy access to the same.

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Annexure I

CHAMBAL FERTILIZERS & CHEMICALS LTD. (MERGING) INDIA STEAMSHIP COMPANY LTD. (MERGED)														
RATIOS	INDUSTRY-ADJUSTED PRE-MERGER PERFORMANCE							INDUSTRY-ADJUSTED POST-MERGER PERFORMANCE						T-TEST (P-VALUE)
	00-01	01-02	02-03	03-04	MEAN	STD. DEV.	MEAN of MEANS	05-06	06-07	07-08	08-09	MEAN	STD. DEV.	
OPM (%)	9.94	6.35	5.60	0.90	5.70	3.72	**7.19**	1.85	0.93	0.07	1.94	**1.20**	0.76	0.50
	-2.26	51.94	-21.48	6.55	8.69	31.12								
OER (%)	-1.78	-2.46	0.31	1.82	-0.53	1.96	**10.56**	1.48	5.17	4.30	4.49	**3.86**	1.41	0.13
	3.81	28.22	38.53	16.05	21.65	15.03								
GPM (%)	10.79	10.19	7.22	6.24	8.61	2.22	**-6.64**	1.67	-1.72	0.97	1.07	**0.50**	1.31	0.04*
	-12.55	-24.22	-28.98	-21.77	-21.88	6.90								
NPM (%)	4.07	1.42	-1.00	-0.47	1.01	2.29	**-2.94**	3.14	2.32	0.76	2.41	**2.16**	0.87	0.09
	-8.82	-0.45	-18.76	0.49	-6.89	8.95								
ROA (%)	-0.04	-0.59	-1.80	-1.34	-0.94	0.78	**-4.48**	0.83	0.35	-2.23	-1.42	**-0.62**	1.25	0.08
	-9.16	-1.81	-17.34	-3.72	-8.01	6.96								
ROE (%)	-0.98	-2.90	-5.93	-2.28	-3.02	2.10	**-17.15**	9.31	3.85	-3.53	0.09	**2.43**	4.75	0.01*
	-13.32	-13.49	-59.42	-38.85	-31.27	22.27								
EPS (Rs)	-3.96	-4.27	-4.52	-3.31	-4.02	0.52	**-9.33**	-8.39	-8.32	-8.65	-7.91	**-8.32**	0.27	0.04*
	-16.34	-13.34	-15.01	-13.92	-14.65	1.32								
Book Value per Share (Rs)	-10.32	-7.90	-7.01	-15.77	-10.25	3.94	**-74.85**	-30.49	-27.92	-24.54	-23.66	**-26.65**	2.73	0.03*
	-187.75	-187.25	-94.88	-87.94	-139.46	55.55								
DY (%)	2.89	-7.84	3.88	2.95	0.47	5.56	**-0.94**	2.48	1.72	2.87	0.73	**1.95**	0.82	0.13
	-2.35	-2.35	-2.35	-2.35	-2.35	0.00								

Note: (*) Statistically Significant at 5% Level of Significance
Source: CMIE

COROMANDEL INTERNATIONAL LTD. (MERGING) FICOM ORGANICS LTD. (MERGED)														
RATIOS	INDUSTRY-ADJUSTED PRE-MERGER PERFORMANCE							INDUSTRY-ADJUSTED POST-MERGER PERFORMANCE						T-TEST (P-VALUE)
	02-03	03-04	04-05	05-06	MEAN	STD. DEV.	MEAN of MEANS	07-08	08-09	09-10	10-11	MEAN	STD. DEV.	
OPM (%)	1.86	-2.87	-4.56	-4.31	-2.47	2.98	**-5.17**	-3.63	-1.29	-1.51	0.42	**-1.50**	1.66	0.16
	-6.22	-6.39	-8.26	-10.59	-7.87	2.04								
OER (%)	10.21	15.27	14.44	16.53	14.11	2.74	**11.67**	9.68	8.37	9.97	8.23	**9.06**	0.89	0.20
	6.35	5.86	12.42	12.25	9.22	3.60								
GPM (%)	-0.75	-3.91	-4.18	-8.70	-4.39	3.27	**-3.82**	-5.12	-6.23	-12.17	-7.23	**-7.69**	3.11	0.05*
	0.32	-1.76	-7.19	-4.36	-3.25	3.25								
NPM (%)	1.82	-0.46	-1.61	-0.64	-0.22	1.45	**-3.79**	-0.34	0.39	0.12	2.21	**0.60**	1.12	0.01*
	-7.28	-7.14	-8.33	-6.64	-7.35	0.71								
ROA (%)	4.36	0.68	0.95	2.15	2.04	1.68	**-2.09**	-0.81	2.28	6.27	3.27	**2.75**	2.92	0.08
	-6.04	-5.98	-6.98	-5.86	-6.22	0.52								
ROE (%)	4.67	-3.35	-0.13	3.98	1.29	3.75	**-9.82**	2.39	13.29	32.85	17.74	**16.57**	12.63	0.03*
	-19.89	-20.22	-23.55	-20.06	-20.93	1.75								
EPS (Rs)	25.07	6.88	9.95	14.24	14.04	7.95	**1.32**	-4.36	2.76	11.92	21.15	**7.87**	11.08	0.34

	-17.30	-9.10	-10.37	-8.80	-11.39	4.00							
Book Value per Share (Rs)	115.88	85.17	97.49	116.39	103.73	15.18	**57.13**	-9.92	5.78	29.56	51.29	**19.18**	26.86	0.08
	18.32	10.77	7.41	5.62	10.53	5.61							
DY (%)	2.05	4.15	-5.06	-4.69	-0.89	4.69	**-4.36**	-0.28	-1.16	7.59	0.29	**1.61**	4.03	0.14
	-7.84	-7.84	-7.84	-7.84	-7.84	0.00							

Note: (*) Statistically Significant at 5% Level of Significance
Source: CMIE

GRAUER WEIL (INDIA) LTD. (MERGING) BOMBAY PAINTS LTD. (MERGED)													
RATIOS	**INDUSTRY-ADJUSTED PRE-MERGER PERFORMANCE**							**INDUSTRY-ADJUSTED POST-MERGER PERFORMANCE**						**T-TEST (P-VALUE)**
	04-05	**05-06**	**06-07**	**07-08**	**MEAN**	**STD. DEV.**	**MEAN of MEANS**	**09-10**	**10-11**	**11-12**	**12-13**	**MEAN**	**STD. DEV.**	
OPM (%)	-6.18	-2.37	-2.37	-0.57	-2.87	2.36	**-8.55**	-3.13	1.01	-1.06	1.96	**-0.31**	2.27	0.02*
	-25.89	-13.34	-11.89	-5.81	-14.23	8.43								
OER (%)	6.69	6.40	4.97	1.60	4.92	2.33	**5.50**	2.46	-0.21	0.91	-1.76	**0.35**	1.78	0.05*
	16.11	5.67	4.52	-1.93	6.09	7.47								
GPM (%)	14.56	14.66	6.74	9.17	11.28	3.97	**7.68**	5.14	7.14	6.02	7.46	**6.44**	1.06	0.16
	-2.20	4.85	4.24	9.39	4.07	4.77								
NPM (%)	-0.67	-0.17	-0.09	2.07	0.29	1.22	**-6.11**	0.42	1.79	-0.33	1.41	**0.82**	0.96	0.12
	-29.89	-10.44	-8.39	-1.30	-12.51	12.23								
ROA (%)	1.08	2.26	1.51	4.52	2.34	1.53	**-5.96**	-1.53	-1.21	-2.86	-1.01	**-1.65**	0.83	0.38
	-34.96	-13.94	-10.66	2.50	-14.27	15.52								
ROE (%)	-2.13	0.64	-0.58	6.84	1.19	3.93	**-16.00**	-4.90	-4.69	-7.66	-2.74	**-5.00**	2.02	0.11
	-58.01	-26.30	-22.87	-25.60	-33.20	16.61								
EPS (Rs)	-2.81	0.66	-0.55	0.49	-0.55	1.60	**-10.39**	-2.40	-4.99	-5.87	-11.47	**-6.18**	3.82	0.61
	-49.08	-20.68	-12.94	1.79	-20.23	21.37								
Book Value per Share (Rs)	1.54	6.72	3.15	8.64	5.01	3.25	**-55.03**	26.71	3.38	8.58	-44.35	**-1.42**	30.32	0.04*
	-102.41	-115.08	-123.14	-119.68	-115.08	9.07								
DY(%)	-6.45	-7.09	-7.25	-6.97	-6.94	0.35	**-7.39**	4.99	-2.27	-1.59	-1.57	**-0.11**	3.42	0.02*
	-7.84	-7.84	-7.84	-7.84	-7.84	0.00								

Note: (*) Statistically Significant at 5% Level of Significance
Source: CMIE

GUJARAT NARMADA VALLEY FERTILIZERS & CHEMICALS LTD. (MERGING) NARMADA CHEMATUR PETROCHEMICALS LTD.(MERGED)													
RATIOS	**INDUSTRY-ADJUSTED PRE-MERGER PERFORMANCE**							**INDUSTRY-ADJUSTED POST-MERGER PERFORMANCE**						**T-TEST (P-VALUE)**
	01-02	**02-03**	**03-04**	**04-05**	**MEAN**	**STD. DEV.**	**MEAN of MEANS**	**06-07**	**07-08**	**08-09**	**09-10**	**MEAN**	**STD. DEV.**	
OPM (%)	3.32	1.00	3.53	4.05	2.98	1.35	**2.47**	8.29	5.23	6.81	1.38	**5.43**	2.97	0.06
	3.62	3.61	2.38	-1.73	1.97	2.53								
OER (%)	5.30	5.98	0.54	0.70	3.13	2.91	**-0.10**	-5.80	-4.73	-0.66	2.75	**-2.11**	3.92	0.45
	-2.69	-6.42	-3.64	-0.60	-3.34	2.42								
GPM (%)	3.88	3.36	8.03	6.94	5.55	2.29	**8.42**	8.78	7.68	2.57	-0.45	**4.65**	4.34	0.23
	8.52	15.95	12.30	8.36	11.28	3.61								
NPM (%)	2.40	-0.11	0.76	2.50	1.39	1.28	**0.74**	7.85	5.97	5.35	2.45	**5.41**	2.24	0.02*
	1.31	-0.54	0.88	-1.25	0.10	1.20								
ROA (%)	0.76	-1.03	-0.45	1.02	0.07	0.98	**-0.47**	5.25	4.08	3.39	-1.16	**2.89**	2.81	0.11
	-0.25	-1.93	-0.30	-1.57	-1.01	0.86								
ROE (%)	-2.47	-6.10	-3.45	-0.09	-3.03	2.49	**-3.28**	8.90	4.96	3.02	-7.02	**2.47**	6.78	0.17
	2.33	-6.46	-2.49	-7.53	-3.54	4.47								
EPS (Rs)	-1.34	-1.04	-1.23	0.97	-0.66	1.09	**-2.61**	7.89	4.92	11.76	2.41	**6.75**	4.02	0.02*
	-4.43	-4.64	-4.25	-4.93	-4.56	0.29								
Book Value per Share (Rs)	25.73	28.72	17.05	21.64	23.29	5.07	**6.14**	29.36	36.46	67.74	78.58	**53.04**	23.83	0.03*
	-14.13	-12.00	-9.58	-8.31	-11.01	2.59								
DY (%)	3.76	2.35	1.15	-2.96	1.08	2.89	**-2.76**	0.38	1.69	0.27	4.17	**1.63**	1.81	0.02*
	-7.84	-7.84	-7.84	-2.84	-6.59	2.50								

Note: (*) Statistically Significant at 5% Level of Significance
Source: CMIE

GULSHAN POLYOLS LTD. (MERGING) GULSHAN SUGARS & CHEMICALS LTD. (MERGED)														
RATIOS	**INDUSTRY-ADJUSTED PRE-MERGER PERFORMANCE**							**INDUSTRY-ADJUSTED POST-MERGER PERFORMANCE**						**T-TEST (P-VALUE)**
	03-04	**04-05**	**05-06**	**06-07**	**MEAN**	**STD. DEV.**	**MEAN of MEANS**	**08-09**	**09-10**	**10-11**	**11-12**	**MEAN**	**STD. DEV.**	
OPM (%)	-7.09	-4.74	-6.87	-5.97	-6.17	1.07	**-4.81**	3.74	2.31	-2.07	-3.07	**0.23**	3.31	0.09
	-5.36	-3.49	-4.03	-0.95	-3.46	1.85								
OER (%)	7.36	4.66	5.97	7.99	6.50	1.49	**1.61**	-6.13	-3.55	6.08	7.53	**0.98**	6.83	0.89
	3.60	-5.72	-7.95	-3.00	-3.27	5.01								
GPM (%)	0.29	3.86	3.62	1.74	2.38	1.68	**11.26**	13.23	11.70	2.02	1.91	**7.22**	6.09	0.40
	13.34	22.95	25.66	18.62	20.14	5.38								
NPM (%)	-2.55	-1.39	-2.39	-1.22	-1.89	0.68	**-1.33**	5.09	3.67	1.29	1.38	**2.86**	1.85	0.06
	-2.55	-1.24	-0.73	1.43	-0.77	1.66								
ROA (%)	0.08	1.62	-1.33	-0.38	0.00	1.23	**-0.21**	7.61	2.98	0.18	1.63	**3.10**	3.22	0.17
	-2.19	-0.48	-0.09	1.12	-0.41	1.37								
ROE (%)	8.80	23.16	7.67	15.27	13.73	7.13	**7.02**	19.79	2.07	-5.02	-2.98	**3.47**	11.28	0.67
	-6.53	1.02	1.88	4.85	0.31	4.84								
EPS (Rs)	-5.27	-4.45	-4.61	-3.39	-4.43	0.78	**-4.10**	15.42	8.59	3.21	7.06	**8.57**	5.10	0.02*
	-5.06	-4.00	-3.50	-2.50	-3.77	1.07								
Book Value per Share (Rs)	-26.34	-23.97	-22.40	-19.63	-23.09	2.82	**-16.54**	71.10	62.21	65.78	80.13	**69.81**	7.79	0.00*
	-10.61	-10.95	-10.74	-7.71	-10.00	1.53								
DY(%)	22.16	0.67	-4.41	-5.70	3.18	12.95	**1.03**	-2.55	-1.85	-1.97	-1.16	**-1.88**	0.57	0.58
	5.20	0.57	-5.01	-5.21	-1.11	4.99								

Note: (*) Statistically Significant at 5% Level of Significance
Source: CMIE

SOUTHERN PETROCHEMICAL INDUSTRIES CORPORATION LTD. (ACQUIRING) SPEL SEMICONDUCTOR LTD. (TARGET)													
RATIOS	**INDUSTRY-ADJUSTED PRE-ACQUISITION PERFORMANCE**						**INDUSTRY-ADJUSTED POST-ACQUISITION PERFORMANCE**						**T-TEST (P-VALUE)**
	00-01	**01-02**	**02-03**	**03-04**	**MEAN**	**STD. DEV.**	**05-06**	**06-07**	**07-08**	**08-09**	**MEAN**	**STD. DEV.**	
OPM (%)	-1.25	-0.55	-7.66	-11.30	**-5.19**	5.18	-1.00	-12.01	-14.95	-14.95	**-10.73**	6.63	0.11
	-2.87	-10.72	-8.46	-8.25	-7.58	3.33							
OER (%)	14.55	13.54	14.30	17.79	**15.05**	1.88	14.83	14.80	18.19	18.19	**16.50**	1.95	0.18
	-0.23	5.13	4.91	6.16	3.99	2.87							
GPM (%)	-3.47	-1.32	0.99	-5.14	**-2.24**	2.66	-8.16	-10.41	-13.65	-13.65	**-11.47**	2.68	0.02*
	-18.37	-21.94	-22.47	-23.36	-21.54	2.19							
NPM (%)	-3.95	-4.30	-17.62	-27.84	**-13.43**	11.52	-4.55	-16.77	-42.54	-42.54	**-26.60**	19.07	0.08
	-0.72	-12.69	-7.94	-6.25	-6.90	4.94							
ROA (%)	-3.71	-4.09	-10.73	-16.55	**-8.77**	6.11	-6.68	-18.66	-25.52	-25.52	**-19.10**	8.89	0.03*
	-2.94	-7.84	-6.58	-6.34	-5.93	2.10							
ROE (%)	-10.61	-12.76	-62.07	-232.41	**-79.46**	104.70	113.53	-253.42	-161.34	-161.34	**-115.64**	158.83	0.69
	-5.08	-23.30	-19.45	-19.01	-16.71	7.99							
EPS (Rs)	-3.79	-6.83	-16.40	-24.46	**-12.87**	9.41	-11.13	-31.55	-43.37	-41.86	**-31.98**	14.86	0.02*
	-13.54	-15.16	-14.88	-14.79	-14.59	0.72							
Book Value per Share (Rs)	35.41	35.61	23.17	-32.99	**15.30**	32.71	-51.15	-68.57	-39.31	-87.72	**-61.69**	21.11	0.01*
	-84.65	-85.60	-85.69	-85.49	-85.36	0.48							
DY (%)	6.20	5.49	6.45	-7.84	**2.58**	6.96	-2.88	-2.88	-2.88	-2.88	**-2.88**	0.00	0.22
	-2.35	-2.35	-2.35	-2.35	-2.35	0.00							

Note: (*) Statistically Significant at 5% Level of Significance
Source: CMIE