

MERGERS AND ACQUISITIONS ANALYSIS WITH THE CASE STUDY METHOD

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Abstract: The purpose of this paper is to explore various horizons of Merger and Acquisitions related to the Indian Petrochemical sector in particular. This includes various aspects of Merger and Acquisitions providing the basic terminologies involved. To highlight the impact of M&A on the companies a case study on Reliance Industries Ltd. and IPCL has been taken into account. It compares the position of the company during the pre and post merger period with the help of financial parameters like the ratio analysis which include Return on Total Assets (ROTA), Return on Capital Employed (ROCE), Return on Equity (ROE), Gross Profit Margin, Net Profit Margin, and Debt-Equity Ratio. This study also takes into account the independent t-test for testing the statistical significance and this test is applied not only for the ratio analysis but also to test the effect of Merger and Acquisitions on the performance of RIL. All these calculations are completely based on the data available from the company financial data.

Keywords: Merger and Acquisitions, Indian Petrochemical sector.

I. INTRODUCTION

Mergers and acquisitions continue to be highly popular form of corporate strategy, corporate finance and its development dealing with buying, selling and combining of different companies. It is one of the best processes of corporate restructuring that has gained substantial prominence in the present day corporate world. The major interests of the companies lie in having an edge over its competitors in the market. This can be accomplished either by making huge amounts of profit or by expanding their businesses. Expansion can take place internally through the introduction of new technologies, establishing new lines of products and services and enhancing the overall efficiency of the management. Through this the expansion takes place at a gradual pace but in the modern era a completely new form of external expansion has come into existence which takes place in the form of mergers, acquisitions, takeovers and amalgamations. In the present day business world, these procedures are taking place across different fields of industries including pharmaceuticals, hospitality, FMCG products, telecommunications and information technology.

In the following sections we provide an overview of the basic comparison between the finely varying terms like merger, amalgamation, acquisitions and joint ventures. Also we give a brief idea of the laws associated with the areas of M&A activities. Following that we go through the major objectives of M&A activities despite of all the drawbacks associated with it. We glance at the recent prominent mergers in the country followed by a case study on the horizontal merger between the Reliance Industries Ltd. and Indian Petrochemicals Corporation Ltd. in the year 2006 showing the impacts of merger and acquisition.

II. MERGERS

A merger is considered to be a legal consolidation of two or more companies into one entity where the separate identities of both the companies are lost with the consequences resulting into not just accumulation of assets and liabilities of different companies but gaining several other benefits. Surprisingly, the term merger is not mentioned under the Companies Act, 1956, the Income Tax Act, 1961 (the 'ITA') or any other Indian law.

Generally, the dictionaries term merger and amalgamation as procedures that are undertaken in the business circle by companies to merge with each other to have more chances of growth and to have better access to new markets. This leaves out hardly any space for difference between the two but in reality there is a fine difference between them. Merger is

a fusion of two or more entities and it is a process in which the identities of all are not lost. Also the shareholders of the company being merged become shareholders of the larger company. On the other hand, amalgamation is blending together of two or more business entities in a fashion that both lose their identities and a new separate entity is born. Shareholders of both companies get new allotted shares that are of a new company.

Mergers may be of several types, depending on the requirements of the merging entities which are classified as follows:

Horizontal Merger: This happens between the companies which are at the same stage of industrial process and usually in the same sector as well. This is undertaken to have complete monopoly in the market by wiping out a competitor. An automobile company overtaking another of its kind can be an example of this type.

Vertical Merger: This happens when a company overtakes its suppliers i.e. a company involved at different stage of industrial process (but in the same sector). For example, when a healthcare industry buys the ambulance service providers it falls under vertical buying. This is generally undertaken to reduce the overhead costs, it leads to lower transaction costs and greater independence and self-sufficiency.

Conglomerate Merger: This takes place between companies which are involved in completely different sector of industries. The principle reason for this merger is diversification without having to incur large setup costs which mean a new industrial direction is made available to them without looking for initial funds. Also this includes utilization of financial resources and increase in the value of outstanding shares.

Congeneric Merger: These are mergers between companies engaged in the same general industry and interrelated, but having no customer-supplier relationship. A company uses this type of merger to reach out to customers of both the companies with similar sales and distribution channels.

III. ACQUISITIONS

An acquisition is taking over of one company by another where the target company still exists as a separate entity controlled by the acquirer. In the process almost all the assets and liabilities of the acquired company then belong to the acquirer one. Further this kind of takeover can be friendly or hostile depending on how it is perceived by the members involved in the target company.

Friendly Acquisition: This involves overtake of the target company with full cooperation of both the parties during the negotiation. This is generally undertaken to take ahead some common interests of both the parties thus, also referred to as 'negotiated takeover'.

Hostile Acquisition: This happens when the board members of the company are either unaware about the acquisition taking place or they reject this offer but the bidder still carries on with the process forcefully.

Bailout Acquisition: This form of takeover takes place when a profit making company takes over a struggling company. This is usually done with the motive to payout less taxes by combining the profits with losses of the sick company thus it is a bailout method from the taxes on the profit margins.

Leveraged Buyouts: The acquisition of another company using borrowed money to meet the cost of acquisition. Often, the assets of the target company are used as collateral for the loans besides assets of the acquiring company. The purpose behind this is to allow companies to make large acquisitions without having to commit a handsome amount of money.

IV. MOTIVATION BEHIND M&A

In a paradox to their popularity, achieving acquisition success has proven to be very difficult and has provided mixed performance to the various stakeholders involved. Results have shown that the managers of the acquirer firm report that only 56% of their acquisitions can be termed as successful when compared to the original goals set by them. Also the results suggest that following the years of an acquisition the shareholders of the acquired firm realize positive abnormal returns whereas there is a dip in returns or at most they are not statistically different from zero for the acquiring firm. Although still the overall effect of M&A transactions seems to create a net positive economic value for both the parties involved. So what is the motivation for these acquirers to come up with such acquisitions? The major thinking behind these M&A activities is the improvement in the financial health of the company overall which can be accomplished in a number of ways.

Economy of Scale: This means that a combined company can bring down the fixed costs by removing duplicate standards in both companies while keeping the revenue stream the same leading to increase in profit margins.

Increase in Market Share: After an M&A the buyer absorbs a major competitor which leads to an increase in the market power and share.

Tax Reduction: Bailout takeover is the typical case of this where a profit making company acquires a company in loss to reduce the net taxes it has to pay.

Cross Selling: This allows two businesses from different backgrounds to come together and get customers from each other which in turn lead to increased sales revenue.

Diversification: This happens when companies look to extend their arms in some industry different from their own when they anticipate that either their industry is in a decline or other industries can bring larger profits.

Vertical Integration: The vertical merger helps in solving the hold-up problems resulting in greater productions and sales. The problem of externality can also be resolved with this integration as companies don't have to depend on outsiders for every sale.

Synergy: Corporate synergy refers to a financial benefit that a corporation expects to realize on merger with or acquisition of another corporation that offers a surplus power that enables enhanced performance and cost efficiency. Financial synergy can be gained by the combined firm in a number of ways which include cash slack, increased debt capacity, tax reduction besides marketing, revenue and management synergy.

V. CASE STUDY RESEARCH

The case study method has always been encouraged and advocated by the researchers in the past and the same goes for the M&A research. It has its own uses in the management research and exercises many advantages. It is a good research strategy when building new theory for a new concurrent phenomenon. They can be used to test theory using a variety of cases and provide entirely new perspectives to a well known and previously studied phenomenon. For our paper as well we have the same procedure and have taken the case of Reliance Industries Ltd and IPCL merger in the year 2006.

5.1 Indian Petrochemical Industry

The petrochemical industry is vital to India's national growth. India has a petroleum refining capacity of over 194 MTPA. The world's largest grass root refinery with 32 MTPA capacities is located in India at Jamnagar and is owned by RIL. It has a number of gas cracker complexes with downstream facility producing 8 MTPA plastics and polymer. India has a fast growing Pharmaceutical Industry with well developed drug intermediates manufacturing facilities. The sector has a significant growth potential. Although the current per capita consumption of petrochemicals product is low, the demand for same is growing. India has the advantage of high population and is expected to maintain high economic growth.

The petrochemical industry in India has been one of the fastest growing industries in the country with a growth rate of 11% in 2010-11. This sector has huge unrealised potential. The industry and government will have to work in tandem to achieve the true potential of this industry.

Like many basic commodities, petrochemicals also go through the following cycle:

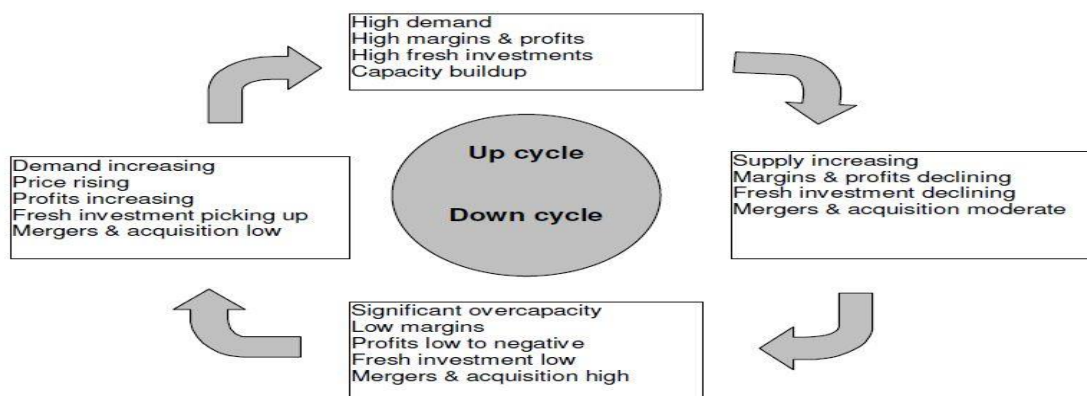


Fig. 1

5.2 Reliance IPCL Merger

The Reliance-IPCL merger became effective from 1st April, 2006, wherein Reliance bid at a price of Rs 231/share to increase its holding from 20% to 46% in IPCL. Under the terms of the merger, IPCL shareholders received 1 share of Reliance for every 5 shares of IPCL shares. The exchange ratio was based on a valuation report by Pricewater House Cooper and Ernst & Young.

The thought behind the merger can be very clearly understood from the following lines:

“The amalgamation of IPCL with the Company is in line with global trends in the energy and chemicals sector, to achieve size, scale, integration and greater financial strength and flexibility, in the interests of maximizing the overall shareholder value. The amalgamation would also augment the Company’s status of being India’s only world scale, fully integrated, globally competitive energy company with operations in oil and gas exploration and production (E&P), refining and marketing (R&M), petrochemicals and textiles.”

Being a horizontal merger, synergies between Reliance and IPCL had an impact on cash flows and valuation. The following benefits for the future were projected at the time of the merger:

- 1) Improvement of Pricing Power: After the merger, RIL would be the clear number one player in the Indian Petrochemicals market, with dominant market share across key polymer segments. With such market domination, RIL could easily improve their price realisation.

Product	Capacity ('000 TPA)		Combined	Total India	Combined as % of Total
	RIL	IPCL			
HDPE	400	380	780	1520	51.3
LDPE		160	160	184	87
PP	1000	190	1190	1415	84.1
PVC	270	205	475	770	61.7
MEG	360	170	530	580	91.4
LAB	100	45	145	320	45.3

Fig. 2 Market share of RIL after the merger.

- 2) Feedstock: RIL had a naphtha based cracker, while 2 of the IPCL’s crackers were gas based, for which feedstock came from ONGC. One of IPCL’s crackers is naphtha based for which supply came from IOC. After the merger, Reliance would be able to displace IOC for naphtha supply, and selling it domestically was expected to give it a 10% higher realisation. However, transport costs for this would be considerable and weighed against this.
- 3) Sales & Distribution: The buyers in the Indian polymer market are small and scattered. Due to this there had been a lot of overlap of sales and distribution costs for RIL and IPCL. IPCL spent around Rs 519/ton of product while RIL spent Rs 523/ton of external supply. After the merger a significant decrease in this overlap was expected. However, IPCL was still 33% government owned with its own small shareholders, due to which sharing of this pool of synergies could have been difficult at that time according to various analysts.
- 4) Cost Savings for IPCL:
 - Manpower Costs: IPCL had 13,740 employees and it was believed by many analysts that the merger could result in a 50% cut in staff reducing the manpower cost considerably for the company.
 - Overheads: IPCL’s overheads were 2.5x that of RIL, mainly because of high repairing and maintenance costs mainly due to the aging of IPCL’s plants.

VI. DATA AND METHODOLOGY

6.1 Data Collection

For the purpose of investigation, financial and accounting data was collected from the annual reports of the companies. Also, some financial data was collected from BSE, NSE and moneycontrol.com. The financial and accounting data for both the companies have been summarised in appendix 1.

6.2 Methodology

To test the effect of the proposed merger on the performance of Reliance Industries, various ratios including net profit ratio, return on total assets, return on shareholders' equity, EPS, Net worth of share and certain liquidity ratios were calculated from the collected financial and accounting data, for 5 years pre-merger and 7 years post merger.

Keeping in view the objective of the study, independent T-test was employed on individual ratios. This has been used as a statistical tool to find out whether the merger had any significant effect on a given ratio or not. The T-test was carried out on the basis of following equations:

$$t = \left(\frac{\bar{X}_2 - \bar{X}_1}{S} \right) \sqrt{\frac{n_1 n_2}{n_1 + n_2}}$$

Where;

$$\bar{X}_1 = \frac{\sum X_1}{n_1}, \quad \bar{X}_2 = \frac{\sum X_2}{n_2}$$

Where, \bar{X}_1 is the combined mean of pre merger ratios of IPCL and RIL, and \bar{X}_2 is the mean of most merger ratio of RIL, n_1 and n_2 are the number of observations and S is the combined standard deviation.

In our case for a confidence level of 95%, we have a t-value of 2.13 i.e. if we have a ratio with a t-value greater than 2.13, then HYPOTHESIS H1 is considered true else H0 is considered true.

Hypothesis

H₀ (Null Hypothesis): there is no significant difference between pre-merger and post-merger value of the concerned ratio
H₁ (Alternate hypothesis): there is a significant difference between pre-merger and post-merger value of the concerned ratio

VII. ANALYSIS AND INTERPRETATIONS

7.1 Ratio Analysis of Pre-IPCL Merger

The reliance-IPCL merger came into effect on 1st April, 2006. However, RIL bought a 26% stake in IPCL in 2002. From the above graphs shown in appendix 2 it is very clear that after coming under RIL management, IPCL witnessed a huge boost in its important financial parameters such as DEBT-EQUITY ratio, COGS ratio TATR, net profit ratio, ROTA, EPS and net worth per share. Further an announcement was made by RIL to buy 20% stake in IPCL in the year 2004 and since then a boost in the company's performance has been observed in all the departments until the year 2006 when this announcement came into effect. Also it can be clearly made out from this graph that before these announcements were made IPCL were struggling and was on the decline.

The major reasons for this boost were a much more efficient RIL management, which helped the IPCL plants to perform at full capacity while at the same time reducing the operating cost for the company.

7.2 Ratio Analysis of RIL Pre and Post-Merger

In the case of RIL, we see fluctuations in the key financial parameters over the span of our study. These fluctuations are a result of a lot of factors such as recession, rising oil prices, effect of the merger and many other factors.

For instance, we see a significant drop across all financial parameters of the company for the year 2008-09. The major reason behind such a drop would be the recession that hit the economy in that year. The drop may not have any relation with the merger under study.

Let us discuss some of the key ratios of the company under study. For instance talking about the liquidity ratios both the current and acid test ratio have remained at a reasonable level since the merger with slight fluctuations every year. Something similar is true for the debt equity ratio as well, after a small dip at the merger it has remained fairly constant and can be considered good from the industry standards. Most importantly all the profitability ratios are following a common trend. Except during the times of recession in the economy in the year 2008 where there is a sharp fall in the curves they have been increasing every year showing positive signs for the company. Overall it could be seen from these financial ratios that the merger has turned out to be successful for RIL and the company has been doing decently good until date.

In addition to this to get a conclusive idea about what ratios were affected by the merger, we would now be conducting a t-test, which would tell us whether the merger had any statistically significant affect on the ratios or not.

7.3 T-TEST

		MEAN	STANDARD DEVIATION	T value
CURRENT RATIO	PRE-merger	1.33	0.63	-1.32598
	POST-merger	1.70	0.15	
ACID Test RATIO	PRE-merger	0.89	0.49	-6.35612
	POST-merger	1.16	0.17	
DEBT-EQUITY RATIO	PRE-merger	1.02	0.44	1.035257
	POST-merger	0.84	0.07	
TATR	PRE-merger	0.62	0.16	-1.28978
	POST-merger	0.73	0.19	
NET PROFIT MARGIN	PRE-merger	7.13	3.19	-0.60708
	POST-merger	8.67	3.14	
ROTA	PRE-merger	6.75	3.57	-0.58736
	POST-merger	7.70	2.61	
ROSE	PRE-merger	15.24	7.25	0.307539
	POST-merger	14.25	5.01	
EPS	PRE-merger	30.44	20.17	-4.01222
	POST-merger	73.58	22.63	
NET WORTH PER SHARE	PRE-merger	189.63	88.41	-6.89787
	POST-merger	484.88	68.06	

The above table shows the calculated t-value for the various ratios under consideration. As stated before, we would be performing our analysis at 95% confidence level for which we have a significant t value of 2.13.

From the above table we can say that at 95% confidence level, we cannot conclude whether the merger under study had any significant effect on the following ratios: current ratio, debt-equity ratio, TATR, net profit margin, return on total assets and return on shareholders' equity, as their t value is insignificant. However, the following interpretations can be drawn from the above analysis:

- Acid Test Ratio which is a very rigorous measure of liquidity has a significant t value. Therefore, we can say that the increase in the mean ATR from 0.89 pre-merger to 1.16 post-merger can be attributed to the merger. Such an increase shows that the merger led to an improvement in the liquidity position of the company.
- EPS also has a significant t value which allows us to say that the merger affected the ratio and can be said to have caused an increase in EPS form 30.44 pre-merger to 73.58 post-merger.
- Similarly increase in the net worth per share from 189.63 pre-merger to 484.88 post-merger can also be attributed to the merger.

Also, even though we can conclusively say how the merger affected other ratios, but an increase in mean TATR from 0.62 pre-merger to 0.73 post-merger, mean net profit margin from 7.13% pre-merger to 8.67 post-merger, and ROTA from 6.75 premerger to 7.70 post-merger, shows an overall improvement in the company's performance, signalling that the merger if at all affected the ratio would have done so positively.

VIII. CONCLUSION

From the above study it can be concluded that the research area Merger & acquisitions can be dealt with more effectively through this case study method. It can accurately bring out what are the pros and cons of an M&A activity and whether it should be carried out or not. It shows a clear picture of how the management is doing both in the pre and post merger period of the companies.

The above analysis of pre and post merger ratios shows that both IPCL and RIL gained considerably from the merger. This can be conveniently said based on the improvement in significant ratios such as Acid Test Ratio, which shows the strong liquidity position of the company.

Also EPS and Net Worth per share also see a considerable increase over the past years, and it has been statistically proved that the merger had a significant positive impact on these ratios. Since, the ultimate aim of any business organisation is to increase the shareholders wealth, increase in these 2 ratios, shows that the merger helped achieving the aim.

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APPENDIX 1

1) Financial Data for RIL

	2012-13	2011-12	2010-11	2009-10	2008-09	2007-08	2006-07	2005-06	2004-05	2003-04	2002-03	2001-02
GROSS TURNOVER	3,71,119	3,39,792	2,58,651	2,00,400	1,46,328	1,39,269	1,18,354	89,124	73,164	56,247	50,096	45,404
TOTAL REVENUE	3,68,295	3,36,096	2,51,222	1,94,922	1,43,907	1,35,337	1,12,171	81,894	67,049	51,971	46,899	41,056
COGS	3,09,946	2,77,127	2,02,943	1,58,270	1,14,253	1,00,386	84,548	62,055	48,692	36,998	36,448	30,462
TOTAL INCOME	3,79,117	3,45,984	2,61,703	2,02,860	1,48,388	1,44,898	1,18,832	89,807	74,614	57,385	51,097	46,186
EBDIT	38,785	39,811	41,178	33,041	25,374	28,935	20,525	14,892	14,261	10,983	9,366	8,658
DEPRICIATION	9,465	11,394	13,608	10,497	5,195	4,847	4,815	3,401	3,724	3,247	2,837	2,816
PBT	26,284	25,750	25,242	20,547	18,433	23,010	14,520	10,704	9,125	6,310	4,974	4,017
PAT	21,003	20,040	20,286	16,236	15,309	19,458	11,943	9,069	7,572	5,160	4,104	3,243
EQUITY DIVIDEND %	90	85	80	70	130	130	110	100	75	52.5	50	48
DIVIDEND PAYOUT	2,643	2,531	2,385	2,084	1,897	1,631	1,440	1,393	1,045	733	698	663
EQUITY SHARE CAPITAL	3,229	3,271	3,273	3,270	1,574	1,454	1,393	1,393	1,393	1,396	1,396	1,054
RESERVES AND SURPLUS	1,76,766	1,62,825	1,48,267	1,33,901	1,24,730	78,313	62,514	48,411	39,010	33,057	28,931	26,416
CURRENT LIABILITIES	83,286	68,888	54,220	40,415	35,701	24,038	18,578	16,454	17,133	12,446	10,966	7,682
NON CURRENT LIABILITIES	55,205	60,156	78,957	73,421	83,631	44,352	34,808	26,835	23,050	24,491	22,443	20,989
CURRENT ASSETS	1,43,976	1,32,344	91,541	62,379	54,712	42,885	29,913	24,574	28,452	18,529	22,928	19,450
INVENTORY	42,729	35,955	29,825	26,981	14,836	14,247	12,136	10,119	7,412	7,231	7,510	4,974
NET WORTH	1,79,995	1,66,096	1,51,540	1,37,171	1,26,373	81,449	63,967	49,804	40,403	34,453	30,327	27,812
GROSS FIXED ASSETS	2,32,270	2,05,493	2,21,252	2,28,004	2,18,673	1,27,235	1,07,061	91,928	59,955	56,860	52,547	48,261
NET FIXED ASSETS	1,28,864	1,21,477	1,55,526	1,65,399	1,69,387	84,889	71,189	62,675	35,082	35,146	34,086	33,184
TOTAL ASSETS	3,18,511	2,95,140	2,84,719	2,51,006	2,45,706	1,49,792	1,17,353	93,095	80,586	71,157	63,737	56,485
MARKET CAPITALISATION	2,49,802	2,44,757	3,42,984	3,51,320	2,39,721	3,29,179	1,98,905	1,10,958	76,079	75,132	38,603	41,989
NUMBER OF EMPLOYEES	23,519	23,166	22,661	23,365	24,679	25,487	24,696	12,540	12,113	11,358	12,915	12,864

2) Financial Data for IPCL

	2005-06	2004-05	2003-04	2002-03	2001-02
TURNOVER	12,362	9,386	9,019	5,797	5,527
TOTAL sales	10,895	8,285	8,185	5,015	4,793
COGS	8,383	5,973	6,258	3,715	3,385
TOTAL INCOME	12,629	9,518	9,120	5,902	5,691
EBDIT	2,171	1,756	1,251	1,143	868
DEPRICIATION	561	506	472	454	424
PBT	1,474	1,047	123	263	-36
PAT	1,164	786	274	204	107
EQUITY DIVIDEND %	55	45	25	23	20
DIVIDEND PAYOUT	137	112	62	56	50
EQUITY SHARE CAPITAL	288	249	249	249	249
RESERVES AND SURPLUS	4,682	2,672	2,023	2,036	2,578
CURRENT LIABILITY	4,460	4,037	2,898	2,928	1,811
NON CURRENT LIABILITY	1,201	760	2,166	3,327	3,716
CURRENT ASSETS	4,494	2,490	1,781	2,327	1,712
INVENTORY	1,226	623	773	979	700
NET WORTH	4,970	2,921	2,272	2,263	2,792
GROSS FIXED ASSETS	11,202	9,786	9,647	9,638	8,909
NET FIXED ASSETS	5,861	5,005	5,386	6,061	5,783
TOTAL ASSETS	10,547	7,675	7,222	8,054	8,218
MARKET CAPITALISATION	7,538	4,021	4,510	2,080	2,073
NUMBER OF EMPLOYEES	14,274	11,088	11,294	13,306	13,740

APPENDIX 2

Ratio Analysis of IPCL Pre-Merger

	2001-02	2002-03	2003-04	2004-05	2005-06
CURRENT RATIO	0.95	0.79	0.61	0.62	1.01
ACID TEST RATIO	0.56	0.46	0.35	0.46	0.73
DEBT-EQUITY RATIO	1.49	1.70	1.19	0.43	0.33
TATR	0.41	0.46	0.87	0.78	0.79
NET PROFIT RATIO	1.94	3.52	3.03	8.37	9.41
COGS RATIO	70.62	74.08	76.46	72.09	76.95
ROTA	1.30	2.53	3.79	10.24	11.04
ROSE	3.78	8.93	12.06	26.91	23.42
EPS	4.33	8.23	11.02	31.83	40.29
NET WORTH PER SHARE	112.50	91.19	91.53	117.68	172.99

RATIOS CALCULATED USING DATA FROM TABLE-2 IN APPENDIX-1

Ratio Analysis of RIL Pre and Post-Merger

	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13
CURRENT RATIO	2.53	2.09	1.49	1.66	1.49	1.61	1.78	1.53	1.54	1.69	1.92	1.73
ACID TEST RATIO	1.88	1.41	0.91	1.23	0.88	0.96	1.19	1.12	0.88	1.14	1.40	1.22
DEBT-EQUITY RATIO	1.04	1.10	1.07	0.99	0.87	0.84	0.86	0.94	0.83	0.88	0.78	0.77
TATR	0.54	0.57	0.52	0.60	0.67	0.72	0.67	0.46	0.63	0.71	0.94	0.97
NET PROFIT RATIO	7.10	8.20	9.20	10.30	10.20	10.10	14.00	10.50	8.10	7.80	5.90	5.70
COGS RATIO	74.20	77.72	71.19	72.62	75.78	75.37	74.17	79.39	81.20	80.78	82.45	84.16
ROTA	5.74	6.44	7.25	9.40	9.74	10.18	12.99	6.23	6.47	7.12	6.79	6.59
ROSE	11.81	13.53	14.98	18.74	18.21	18.69	24.39	12.12	11.84	13.39	12.07	11.67
EPS	23.36	29.25	36.79	54.24	65.08	82.17	104.98	98.83	49.65	62.00	61.21	64.82
NET WORTH PER SHARE	199.20	217.20	246.70	289.90	357.40	440.00	560.30	401.50	419.50	463.20	507.30	557.50

RATIOS CALCULATED USING DATA FROM TABLE-1 IN APPENDIX-1