CHAPTER - 5

FINDINGS

AND

CONCLUSION

CHAPTER : 5 FINDINGS AND CONCLUSION

5.1 INTRODUCTION

In today's competitive era, companies are involved in several corporate restructuring activities which includes Mergers and Acquisitions, Joint venture, Demergers, Takeovers etc. to expand/contract business with ultimate objective to increase profitability and better management of funds. Mergers and Acquisitions is one of such activities resulting in to expansion of business. Due to increasing competition many small entities are preferring to join hands with large companies and continue business. The trends as discussed in Introduction chapter showed that with overall increase in mergers and acquisition worldwide, India is also not an exception. Large proportion of increase in number of mergers and acquisition took place in Drugs and Pharmaceutical Industry during last two decades. Thus, it becomes essential to analyse the whether Mergers and Acquisitions in the Drugs and Pharmaceutical industry are successful or not and have helped to improve the financial performance and position of the acquirer companies.

Though enormous mergers and acquisitions are found in pharmaceutical sector in India but very few studies are carried out for examining the impact of mergers and acquisitions on financial performance and position. The Present study focuses on measuring the impact of mergers and acquisitions on the financial performance of selected acquirer companies during the Post-Merger period.

For the purpose of study, period of 16 years commencing from 2000-2001 and ending on 2015-2016 is selected. Those mergers and acquisition which have taken place between the period 2005-2006 to 2010-2011 has been selected. The year in which Merger and Acquisition is completed is considered as Zero year. Years prior to merger and acquisition are considered Pre-Merger deal years; and years after merger and acquisition are taken as Post-Merger deal years while doing study on individual acquirer firm.

Based on purposive sampling technique, 7 cases of mergers and acquisitions are selected for the purpose of study.

The secondary data collected has been tabulated and analysed using financial and statistical tools. Financial ratios are calculated to measure and analyse profitability, liquidity, long term solvency and efficiency of selected sample cases for the purpose of study. Statistical tools like Mean, Standard deviation etc. has been applied for the purpose of study. Hypothesis framed are tested using one sample" t "test for all individual sample company. The data collected is also analysed through graphical and diagrammatic presentation. Paired T test has been applied to test the hypothesis framed for consolidated data of all the selected sample companies. One Way

Annova has been applied to study difference of means during Pre-Merger period [2000-2001 to 2004-2005], during merger period [2005-2006 to 2010-2011] and Post-Merger period [2011-2012 to 2015-2016].

For studying the impact of Merger and Acquisitions on the shareholder's wealth, Economic Value Added [EVA]and Market Value Added [MVA] has been computed for all sample companies during Pre and Post-Merger Period.

Composite score model for Profitability, Liquidity and Long term solvency has been developed by considering selected ratios for each sample company so as to analyse the performance during Pre-Merger and Post-Merger period. Each score has been tested applying Independent Sample t-test.

For detailed analysis, appropriate regression equation has been derived for Pre and Post-Merger period for each of the selected sample company.

Altman Z score has been also computed to check financial health of each selected sample companies during Pre and Post-Merger period and attempt has been made to assess company's financial health and changes in same due to Merger.

Based on analysis and interpretation the present chapter covers major finding and conclusions:

Table no T.5.1 on page no 300 to 302 reveals an overall average profitability, liquidity, long term solvency and efficiency of selected sample acquirer company during Pre-Merger and Post-Merger period individually as well as all seven companies taken together. Table no T.5.2 on page no 303 to 304 indicates results of testing of hypothesis framed with respect to ratios.

Pre-Merger and Post-Merger Performances of each Case/ Acquirer company and Consolidated Performance

Based on the analysis done case by case and consolidated performance following are the Findings summarized

Table T.5.1 Pre-Merger and Post-Merger Performances of Each Acquirer Company and Consolidated Performance

	Ratio	Dr. Reddys Lab Ltd.		Hikal Ltd		J B Chemical And Pharmaceuticals Ltd		Kerela Ayurveda Ltd		Lupin Ltd.		Makers Lab Ltd.		Strides Shashun Ltd.		Consolidated Performance of 7 Companies	
		Pre-Merger Average	Post-Merger Average	Pre-Merger Average	Post-Merger Average	Pre-Merger Average	Post-Merger Average	Pre-Merger Average	Post-Merger Average	Pre-Merger Average	Post-Merger Average	Pre-Merger Average	Post-Merger Average	Pre-Merger Average	Post-Merger Average	Pre-Merger Average	Post-Merger Average
Profitability Ratio																	
1	GP ratio [%]	57.37	60.92	41.00	35.14	50.40	50.15	67.69	63.84	40.29	53.36	17.59	12.01	31.70	32.61	44.13	43.26
2	NP Ratio [%]	18.30	16.38	17.25	6.98	16.13	20.90	-4.51	-4.30	11.54	21.79	2.01	2.67	3.57	87.22	9.177	25.59
3	Operating ratio [%]	82.40	81.67	79.58	83.58	82.67	84.90	95.60	103.60	84.54	72.11	100.5681	112.5701	85.47	87.19	86.47	88.24
4	Cash profit Ratio [%]	23.25	21.20	25.90	13.98	18.73	24.03	-0.71	1.66	13.98	24.32	3.18	4.79	7.68	91.04	13.47	29.33
5	Return on capital employed [%]	20.86	18.96	21.47	16.16	25.83	23.81	5.92	0.65	26.71	35.35	15.92	10.73	10.21	69.84	18.19	28.16
6	Return on Total assets [%]	17.90	16.96	13.08	9.69	19.73	25.03	4.00	-3.07	15.43	33.57	9.48	7.82	9.29	87.81	12.58	29.89
7	Return on Equity [%]	17.61	15.48	31.52	10.08	20.92	18.66	-13.00	-5.07	24.80	26.46	6.98	5.79	2.78	53.85	13.67	21.28
8	Earnings per share [Rs]	40.20	78.78	22.56	22.98	25.55	18.84	-0.89	-0.53	36.30	43.07	1.80	2.90	2.45	122.94	16.45	45.80

To be continue

	Ratio	Dr. Reddys Lab Ltd.		Hikal Ltd		J B Chemical And Pharmaceuticals Ltd		Kerela Ayurveda Ltd		Lupin Ltd.		Makers Lab Ltd.		Strides Shashun Ltd.		Consolidated Performance of 7 Companies	
		Pre-Merger Average	**Post-Merger Average**	**Pre-Merger Average**	**Post-Merger Average**	**Pre-Merger Average**	**Post-Merger Average**	**Pre-Merger Average**	**Post-Merger Average**	**Pre-Merger Average**	**Post-Merger Average**	**Pre-Merger Average**	**Post-Merger Average**	**Pre-Merger Average**	**Post-Merger Average**	**Pre-Merger Average**	**Post-Merger Average**
9	Equity dividend coverage ratio [Times]	8.43	4.22	3.64	5.62	3.40	5.29	------	------	4.74	7.39	--------	--------	4.39	14.44	5.02	7.27
10	Price earnings ratio [Times]	32.41	32.58	14.91	22.95	8.87	11.78	355.26	57.67	19.30	30.18	12.05	11.37	-3.29	23.36	70.71	40.37
11	Dividend Yield ratio [%]	0.58	0.97	2.71	1.16	4.81	6.85	-------	-------	1.88	0.46	-------	-------	0.45	23.51	2.35	8.15
Liquidity Ratios																	
12	Current Ratio [Proportion]	3.16	1.85	0.96	0.94	3.01	3.22	1.30	2.41	1.47	2.80	1.98	1.82	1.29	1.55	2.042	1.90
13	Quick Ratio [Proportion]	2.62	1.47	0.43	0.39	2.49	2.85	0.67	1.69	1.06	1.98	0.96	1.09	1.09	1.35	1.44	1.41
14	Super Quick Ratio [Proportion]	1.19	0.45	0.06	0.03	0.14	1.42	0.05	0.12	0.15	0.35	0.03	0.05	0.13	0.59	0.29	0.57
Long Term Solvency																	
15	Debt Equity ratio [Proportion]	0.015	0.072	0.86	0.48	0.04	0.05	1.48	3.50	0.491	0.010	0.523	0.005	0.87	0.21	0.64	0.63
16	Fixed asset Ratio [Proportion]	0.31	0.35	1.01	0.96	0.42	0.35	0.87	0.29	0.69	0.37	0.53	0.52	0.33	0.23	0.65	0.43

To be continue

	Ratio	Dr. Reddys Lab Ltd.		Hikal Ltd		J B Chemical And Pharmaceuticals Ltd		Kerela Ayurveda Ltd		Lupin Ltd.		Makers Lab Ltd.		Strides Shashun Ltd.		Consolidated Performance of 7 Companies	
		Pre-Merger Average	**Post-Merger Average**	**Pre-Merger Average**	**Post-Merger Average**	**Pre-Merger Average**	**Post-Merger Average**	**Pre-Merger Average**	**Post-Merger Average**	**Pre-Merger Average**	**Post-Merger Average**	**Pre-Merger Average**	**Post-Merger Average**	**Pre-Merger Average**	**Post-Merger Average**	**Pre-Merger Average**	**Post-Merger Average**
17	Proprietary Ratio [Proportion]	4.41	3.42	0.74	0.78	2.39	3.12	0.50	0.97	1.16	3.46	1.68	2.01	2.46	5.30	1.66	2.73
18	Interest coverage ratio [Times]	71.54	70.09	6.32	2.98	33.04	20.81	1.05	2.15	10.26	253.54	4.29	8.57	2.06	15.21	20.839	49.884
	Efficiency Ratios																
19	Capital Turnover ratio [Times]	0.927	0.88	0.97	1.00	1.25	0.97	0.98	0.40	1.54	1.23	3.04	2.12	0.69	0.49	1.30	1.02
20	Inventory Turnover ratio [Times]	2.84	2.22	1.89	1.97	4.47	4.75	1.15	1.66	3.63	2.81	4.27	5.25	4.91	4.54	3.31	3.45
21	Inventory to current asset ratio [%]	18.72	21.73	55.67	58.09	17.37	12.10	47.86	35.13	28.54	30.66	50.36	41.90	15.84	12.67	33.96	31.66
22	Working capital turnover ratio [Times]	2.30	2.44	-1.47	98.86	1.96	1.67	1.08	6.12	4.66	2.81	7.65	7.39	-3.00	3.63	2.41	24.81
23	Fixed asset turnover ratio [Times]	3.04	2.53	1.00	1.06	2.99	2.82	1.16	1.42	2.27	3.41	6.36	4.07	2.13	2.09	2.36	2.53
24	Debtors Turnover Ratio [Times]	3.85	2.89	11.12	8.19	2.24	3.12	4.72	5.31	4.35	3.75	6.90	5.46	2.61	3.72	5.54	5.11

Source – T.4.1.5, T.4.2.5, T.4.3.5, T.4.4.5, T.4.5.5, T.4.6.5, T.4.7.5 and T.4.8.5

Results based on one sample t- test case wise and Paired t test in consolidated performance [Tested at 5% level of significance]

Table T 5.2 Results Based on One Sample t- Test Case wise and Paired t-Test in Consolidated Performance

Sr. No	Ratio	Dr. Reddys Lab Ltd.		Hikal Ltd.		J B Chem. and Pharma Ltd.		Kerela Ayurveda Ltd.		Lupin Ltd.		Makers Lab Ltd.		Strides Shashun Ltd.		Consolidated	
	Profitability ratio	P value	Hypothesis accepted	P value	Hypothesis accepted	P value	Hypothesis accepted	P value	Hypothesis accepted	P value	Hypothesis accepted	P value	Hypothesis accepted	P value	Hypothesis accepted	P value	Hypothesis accepted
1	GP ratio	*0.044	Alternate	*0.001	Alternate	0.802	Null	*0.013	Alternate	*0.001	Alternate	*0.004	Alternate	0.574	Null	0.783	Null
2	NP ratio	0.553	NULL	*0.001	Alternate	*0.001	Alternate	0.960	Null	*0.001	Alternate	0.483	Null	*0.001	Alternate	0.269	Null
3	Operating ratio	0.818	NULL	*0.011	Alternate	*0.044	Alternate	*0.023	Alternate	*0.001	Alternate	*0.001	Alternate	0.438	Null	0.578	Null
4	Cash profit margin	0.484	NULL	*0.001	Alternate	*0.001	Alternate	0.551	Null	*0.001	Alternate	0.082	Null	*0.001	Alternate	0.288	Null
5	Return on capital employed	0.665	NULL	*0.001	Alternate	*0.047	Alternate	0.157	Null	*0.002	Alternate	0.151	Null	*0.001	Alternate	0.349	Null
6	Return on Total assets	0.768	NULL	*0.001	Alternate	*0.002	Alternate	*0.026	Alternate	*0.001	Alternate	0.440	Null	*0.001	Alternate	0.223	Null
7	Return on Equity	0.561	NULL	*0.001	Alternate	*0.002	Alternate	0.460	Null	0.443	Null	0.722	Null	*0.001	Alternate	0.466	Null
8	Earnings per share	*0.001	Alternate	0.816	Null	0.163	Null	0.660	Null	0.286	Null	0.219	Null	*0.001	Alternate	0.182	Null
9	Equity dividend coverage ratio	*0.001	Alternate	*0.001	Alternate	*0.001	Alternate			*0.001	Alternate			*0.001	Alternate	0.323	Null
10	Price earnings ratio	0.988	NULL	*0.029	Alternate	0.18	Null	0.401	Null	*0.023	Alternate	0.942	Null	0.416	Null	0.363	Null
11	Dividend Yield ratio	*0.001	Alternate	0.064	Null	0.286	Null			*0.023	Alternate			*0.001	Alternate	0.361	Null
	Liquidity ratios																
12	Current Ratio	*0.048	Alternate	0.882	Null	0.22	Null	*0.001	Alternate	*0.001	Alternate	0.557	Null	*0.008	Null	0.732	Null
13	Quick Ratio	*0.048	Alternate	0.532	Null	*0.042	Alternate	*0.001	Alternate	*0.001	Alternate	0.243	Null	*0.01	Alternate	0.931	Null

To be continue

Sr. No	Ratio	Dr. Reddys Lab Ltd.		Hikal Ltd.		J B Chem. and Pharma Ltd.		Kerela Ayurveda Ltd.		Lupin Ltd.		Makers Lab Ltd.		Strides Shashun Ltd.		Consolidated	
	Profitability ratio	**P value**	**Hypothesis accepted**	**P value**	**Hypothesis accepted**	**P value**	**Hypothesis accepted**	**P value**	**Hypothesis accepted**	**P value**	**Hypothesis accepted**	**P value**	**Hypothesis accepted**	**P value**	**Hypothesis accepted**	**P value**	**Hypothesis accepted**
14	Super Quick Ratio	0.061	NULL	0.323	Null	*0.001	Alternate	*0.001	Alternate	*0.023	Alternate	0.12	Null	*0.001	Alternate	0.471	Null
	Long term solvency																
15	Debt Equity ratio	*0.003	Alternate	*0.038	Alternate	0.474	Null	*0.001	Alternate	*0.001	Alternate	*0.035	Alternate	0.064	Null	0.985	Null
16	Fixed asset Ratio	0.396	NULL	0.593	Null	*0.014	Alternate	*0.001	Alternate	*0.001	Alternate	0.848	Null	*0.02	Alternate	*0.05	Alternate
17	Proprietary Ratio	0.056	NULL	0.741	Null	*0.003	Alternate	*0.002	Alternate	*0.001	Alternate	0.345	Null	*0.001	Alternate	*0.05	Alternate
18	Interest coverage ratio	0.958	NULL	*0.001	Alternate	0.072	Null	*0.036	Alternate	*0.001	Alternate	*0.005	Alternate	*0.001	Alternate	0.473	Null
	Efficiency Ratios																
19	Capital Turnover ratio	0.675	NULL	0.398	Null	*0.001	Alternate	*0.003	Alternate	*0.006	Alternate	*0.021	Alternate	0.971	Null	*0.009	Alternate
20	Inventory Turnover ratio	*0.001	Alternate	0.583	Null	0.42	Null	*0.003	Alternate	*0.05	Alternate	*0.013	Alternate	0.481	Null	0.753	Null
21	Inventory to current asset ratio	0.087	NULL	0.397	Null	*0.001	Alternate	*0.002	Alternate	0.421	Null	*0.003	Alternate	0.164	Null	0.323	Null
22	Working capital turnover ratio	0.846	NULL	*0.001	Alternate	*0.005	Alternate	0.322	Null	0.063	Null	0.843	Null	0.411	Null	0.335	Null
23	Fixed asset turnover ratio	*0.02	Alternate	0.441	Null	0.445	Null	0.203	Null	*0.001	Alternate	0.072	Null	0.783	Null	0.514	Null
24	Debtors Turnover ratio	*0.001	Alternate	0.417	Null	*0.001	Alternate	0.235	Null	*0.05	Alternate	*0.001	Alternate	*0.001	Alternate	0.682	Null

Source – T.4.1.5, T.4.2.5, T.4.3.5, T.4.4.5, T.4.5.5, T.4.6.5, T.4.7.5 and T.4.8.5

5.2. MAJOR FINDINGS

5.2.1 Profitability Analysis

1. The overall operating efficiency of all sample companies when measured by GP ratio, it was found that the average ratio increased in Post-Merger period as compared to Pre-Merger period in case of Dr Reddys Laboratories Ltd, Lupin Ltd & Strides Shashun Ltd. while it declined in all remaining sample companies. While testing the hypothesis at 5% level of significance it was observed that the average gross profit ratio changed significantly in all sample companies except for J B chemical and Pharmaceuticals ltd. & Strides Shashun ltd. Except these two, alternative hypothesis was accepted in all the remaining sample companies.

2. The Net profit ratio measuring comprehensive efficiency is calculated for all sample companies. The results revealed that average NP ratio increased in Post-Merger period as compared to Pre-Merger period in case of J B chemical & Pharmaceuticals ltd, Kerala Ayurveda Ltd. Lupin limited, Makers Lab Ltd. and Strides Shashun Ltd, while it declined in remaining cases. While testing the hypothesis at 5% level of significance, it was observed that the average net profit ratio changed significantly in case of all companies except for Dr Reddys Laboratories ltd, Kerala Ayurveda Ltd and Makers Laboratories Ltd Except these three, alternative hypothesis was accepted for all the remaining sample companies.

3. Operating efficiency of all selected sample companies is measured by calculating operating ratio. The results show that average operating ratio decreased in Post-Merger period as compared to Pre-Merger period in case of Dr Reddys Laboratories Ltd and Lupin Ltd, while it increased in remaining cases. While testing the hypothesis at 5% level of significance, it was observed that the average operating ratio changed significantly in case of all companies except of Dr Reddys Laboratories Ltd. and Strides Shashun Ltd. Except these two, alternative hypothesis was accepted for all the remaining sample companies

4. The profit in the form of cash is measured by Cash Profit margin for all selected sample companies. The calculations indicate that average Cash Profit margin increased in Post-Merger period as compared to Pre-Merger period in case of J B Chemical and Pharmaceuticals ltd, Kerela Ayurveda Ltd, Lupin Ltd., Makers Laboratories Ltd. and Strides Shashun ltd., while it declined in remaining cases. While testing the hypothesis at 5% level of significance, it was observed that average Cash Profit ratio changed significantly in case of all companies except for Dr Reddy’s Laboratories Ltd, Kerela Ayurveda Ltd and Makers Laboratories Ltd. Except these three, alternative hypothesis was accepted for all the remaining sample companies

5. The efficient utilization of long-term funds is revealed by Return on Capital Employed ratio for all selected sample companies. The results indicate that average return on capital employed ratio increased in Post-Merger period as compared to Pre-Merger Period in case of Lupin Ltd. and Strides Shashun Ltd., while it declined in remaining cases. While testing the hypothesis at 5% level of significance, it was observed that average return on capital employed ratio changed significantly in case of all companies except for Dr Reddy's Laboratories Ltd, Kerela Ayurveda Ltd and Makers Laboratories Ltd. Except these three, alternative hypothesis was accepted for all the remaining sample companies

6. In order to evaluate how profitably the financial resources deployed in business are utilized, Return on Total Assets ratio is calculated for all selected sample companies**.** The results revealed that on an average the ratio increased in Post-Merger period as compared to Pre-Merger period in case of J B Chemical and Pharmaceuticals ltd, Lupin Ltd. and Strides Shashun Ltd while it declined in remaining cases. While testing the hypothesis at 5% level of significance, it was observed that average return on total assets ratio changed significantly in case of all companies except of Dr Reddy's Laboratories Ltd and Makers Laboratories Ltd. Except these two, alternative hypothesis was accepted for all the remaining sample companies

7. To measure the extent to which owner's funds are efficiently utilized for generating earnings, Return on Equity is calculated for all selected sample companies. The results indicate that on an average, the ratio increased in Post-Merger period as compared to Pre-Merger period in case of Kerela Ayurveda Ltd, Lupin Ltd and Strides Shashun Ltd while it declined in remaining cases. While testing the hypothesis at 5% level of significance, it was observed that average return on equity ratio changed significantly in case of all companies except of Dr Reddy's Laboratories Ltd, Kerela Ayurveda Ltd, Lupin Ltd and Makers Laboratories Ltd. Except these four, alternative hypothesis was accepted for all the remaining sample companies

8. Profit available per equity share is measured through EPS ratio for all selected sample companies. The results indicate that on an average, the ratio increased in Post-Merger period as compared to Pre-Merger period in case of Dr Reddy's Laboratories Ltd, Hikal Ltd, Lupin Limited, Makers Laboratories Limited and Strides Shashun Ltd. while declined in remaining cases. While testing the hypothesis at 5% level of significance, it was observed that average EPS changed significantly in case of all companies except of Hikal Ltd, J.B. Chemical and Pharmaceuticals Ltd, Kerela Ayurveda Ltd, Lupin ltd and Makers Laboratories Ltd. In the remaining two sample companies alternative hypothesis was accepted.

9. Calculating Equity Dividend coverage ratio in case of all selected sample companies except for Maker Laboratories Ltd and Kerela Ayurveda Ltd, it was found that on an average the ratio increased in Post-Merger period as compared to Pre-Merger period in case of Hikal Ltd, J B chemical and Pharmaceuticals Ltd, Lupin Ltd and Strides Shashun Limited while it declined in case of Dr Reddy's laboratories ltd. While testing the hypothesis at 5% level of significance, it was observed that average equity dividend coverage ratio changed significantly in case of all five companies, alternative hypothesis was accepted.

10. The market confidence on company's equity when measured by calculating Price Earnings ratio it was found that on an average the ratio increased in Post-Merger period as compared to Pre-Merger Period in case of all companies except Kerela Ayurveda Ltd and Makers Laboratories Ltd. While testing the hypothesis at 5% level of significance, it was observed that average price earnings ratio changed significantly in case of Hikal Ltd and Lupin Ltd. Except these two, null hypothesis was accepted for all the remaining sample companies.

11. Dividend Yield ratio shows percentage of yield received by an investor on investment in equity shares at current market price of shares. The ratio was calculated for all sample companies except for Maker Laboratories Ltd and Kerela Ayurveda Ltd. It was found that on an average the ratio increased in Post-Merger period as compared to Pre-Merger Period in case of Dr Reddy's Laboratories Ltd, J B Chemical and Pharmaceuticals Ltd and Strides Shashun Ltd. while it declined in case of Hikal Ltd and Lupin Ltd. While testing the hypothesis at 5% level of significance, it was observed that average Dividend yield ratio changed significantly in case of all companies except for Hikal Ltd. and J.B. Chemical & Pharmaceuticals Ltd. Except these two, alternate hypothesis was accepted for remaining sample companies

5.2.2. Liquidity Analysis

1. To analyse and evaluate the company's ability to meet short term obligations, current ratio is calculated for selected sample companies. It was found that on an average the ratio increased in Post-Merger period as compared to Pre-Merger period in case of J.B. Chemical & Pharmaceuticals Ltd, Kerela Ayurveda Ltd, Lupin Ltd. and strides Shashun Ltd. while it declined in remaining cases. While testing the hypothesis at 5% level of significance, it was observed that average current ratio changed significantly in case of Dr Reddy's Laboratories Ltd, Kerela Ayurveda Ltd. and Lupin Ltd. Except these three, null hypothesis was accepted for remaining three sample companies

2. Company's ability to meet current obligations in refined manner by excluding inventories from current assets is measured by quick ratio. On an average the quick ratio increased in Post-Merger period as compared to Pre-Merger period in case of J.B. Chemical and Pharmaceuticals Ltd, Kerela Ayurveda Ltd, Lupin Ltd, Makers Laboratories Ltd and strides

Shashun Ltd. while it declined in remaining cases. While testing the hypothesis at 5% level of significance, it was observed that average current ratio changed significantly in case of all companies except for Hikal Ltd and Makers Laboratories Ltd. Except these two, alternate hypothesis was accepted for remaining sample companies

3. Absolute liquidity when measured using super quick ratio for all sample companies it was observed that the ratio increased in Post-Merger period as compared to Pre-Merger period in case of J.B. Chemical and Pharmaceuticals Ltd, Kerela Ayurveda Ltd, Lupin Ltd, Makers Laboratories Ltd and Strides Shashun Ltd. while it declined in the remaining cases. While testing the hypothesis at 5% level of significance, it was observed that the average super quick ratio changed significantly in case of all companies except of Dr Reddy's Laboratories Ltd, Hikal Ltd and Makers Laboratories Ltd. Except these three, alternate hypothesis was accepted for remaining sample companies

5.2.3. Long Term Solvency Analysis

1. Debt equity ratio represents proportion of long term debt and shareholders fund in the capital structure of an enterprise. Measuring the long term solvency using Debt-Equity ratio it was found that on an average the ratio increased in Post-Merger period as compared to Pre-Merger period in case of Dr Reddy's Laboratories Ltd, J.B. Chemical & Pharmaceuticals Ltd and Kerela Ayurveda Ltd and Lupin Ltd while it declined in remaining cases. While testing the hypothesis at 5% level of significance, it was observed that average debt equity ratio changed significantly in case of all companies except of J.B. Chemical & Pharmaceuticals Ltd and Strides Shashun Ltd. Except these two, alternate hypothesis was accepted for remaining sample companies.

2. The extent to which the fixed assets are financed by long term funds and short term funds, the fixed asset ratio is calculated for all the selected sample companies. It was observed that on an average the ratio increased in Post-Merger period as compared to Pre-Merger period only in case of Dr Reddys Laboratories Ltd while declined in all the remaining sample companies. While testing the hypothesis at 5% level of significance, it was observed that average fixed asset ratio changed significantly in case of all companies except of Dr Reddy's Laboratories Ltd, Hikal Ltd and Makers Laboratories Ltd. Except these three, alternate hypothesis was accepted for remaining sample companies

3. Proprietary ratio reveals proportion of the total tangible assets financed by owner's funds. It was found that on an average the ratio increased in Post-Merger period as compared to Pre-Merger period in all sample companies except for Dr Reddy's Laboratories Ltd. While testing the hypothesis at 5% level of significance, it was observed that average proprietary ratio changed significantly in case of J.B. Chemical and Pharmaceuticals Ltd, Kerela Ayurveda Ltd, Lupin Ltd and Strides Shashun Ltd. In the remaining three sample companies, null hypothesis was accepted.

4. The interest coverage ratio indicates number of times a company can cover its interest payment from current profits available and also show the unused borrowing capacity. On an average interest coverage ratio increased in Post-Merger period as compared to Pre-Merger period in case of Kerela Ayurveda Ltd, Lupin ltd, Makers Laboratories Ltd and Strides Shashun Ltd while declined in remaining cases. While testing the hypothesis at 5% level of significance, it was observed that average Interest coverage ratio changed significantly in case of Hikal Ltd, Kerela Ayurveda Ltd, Lupin ltd. Makers Laboratories Ltd and Strides Shashun Ltd where alternate hypothesis was accepted.

5.2.4. Efficiency Analysis

1. The capital turnover ratio is mark of efficiency in utilizing capital employed for generating proportionately higher revenue for the company. It was found that on an average the ratio increased in Post-Merger period as compared to Pre-Merger period only in case of Hikal Ltd while declined in remaining cases. While testing the hypothesis at 5% level of significance, it was observed that average capital turnover ratio changed significantly in case of J.B. Chemical and Pharmaceuticals Ltd, Kerela Ayurveda Ltd, Lupin Ltd. and Makers Laboratories Ltd. Except these four, null hypothesis was accepted for remaining sample companies.

2. Inventory turnover ratio indicates how many times inventory turns over into sales and also indicates whether the inventory is efficiently managed by the company or not. Calculated results indicate that on an average Inventory turnover ratio increased in Post-Merger period as compared to Pre-Merger period in case of Hikal Ltd, J.B. Chemical & Pharmaceuticals Ltd, Kerela Ayurveda Ltd, and Makers Laboratories Ltd. While testing the hypothesis at 5% level of significance, it was observed that average inventory turnover ratio changed significantly in case of Dr Reddy’s Laboratories Ltd, Kerela Ayurveda Ltd, Lupin Ltd. and Makers Laboratories Ltd. wherein alternate hypothesis was accepted.

3. The inventory to current asset ratio reveals proportion of the current assets held by company in form of Inventory. It was found that on an average Inventory to current asset ratio increased in Post-Merger period as compared to Pre-Merger Period in case of Dr Reddy’s Laboratories Ltd, Hikal Ltd and Lupin Ltd. while it declined in remaining cases. While testing the hypothesis at 5% level of significance, it was observed that average inventory to current

asset ratio changed significantly in case of J B Chemical & Pharmaceuticals Ltd, Kerela Ayurveda Ltd and Makers Laboratories Ltd. and thus alternate hypothesis was accepted.

4. Working capital turnover ratio reveals extent to which investment in working capital has contributed towards generating sales. On an average the ratio increased in Post-Merger period as compared to Pre-Merger period in case of Dr Reddy's Laboratories Ltd, Hikal Ltd, Kerela Ayurveda Ltd, and Strides Shashun Ltd while declined in remaining cases. While testing the hypothesis at 5% level of significance, it was observed that average working capital turnover ratio changed significantly in case of Hikal Ltd and J B Chemical and Pharmaceuticals Ltd. and thus alternate hypothesis was accepted while null hypothesis was accepted in the case of remaining sample companies.

5. Fixed asset turnover ratio reveals extent to which funds deployed in fixed assets is efficiently utilized to generate revenue from operation. On an average Fixed asset turnover ratio increased in Post-Merger period as compared to Pre-Merger period in case of Hikal Ltd, Kerela Ayurveda Ltd and Lupin Ltd while it declined in remaining sample companies. While testing the hypothesis at 5% level of significance, it was observed that average Fixed asset turnover ratio changed significantly in case of Dr Reddy's Laboratories Ltd and Lupin Ltd. and thus, alternate hypothesis was accepted while null hypothesis was accepted in the case of remaining sample companies.

6. The efficient management of debtors and receivables so as to maintain liquidity position, can be measured by debtor's turnover ratio. On an average the Debtors Turnover ratio increased in Post-Merger period as compared to Pre-Merger period in case of J.B. Chemical & Pharmaceuticals Ltd, Kerela Ayurveda Ltd and Strides Shashun Ltd. while it declined in case of remaining sample companies. While testing the hypothesis at 5% level of significance, it was, observed that average Debtors turnover ratio changed significantly in case of Dr Reddys Laboratories Ltd, J.B. Chemical and Pharmaceuticals Ltd, Lupin Ltd., Makers Laboratories Ltd and Strides Shashun Ltd. and thus, alternate hypothesis was accepted. In the remaining two sample companies' null hypothesis was accepted.

5.3. CONSOLIDATED PROFITABILITY, SOLVENCY AND EFFICIENCY ANALYSIS

Consolidated Profitability, Solvency and Efficiency calculated for selected sample acquirer companies (all Cases) as per Table T.5.1 and T.5.2 reveals following-

1. Analyzing the consolidated profitability performance of all selected sample companies it was found that on an average all the profitability ratios increased in Post-Merger period as compared to Pre-Merger period except for GP ratio and Price earnings ratio. While testing the hypothesis at 5% level of significance, it was observed that none of the average ratio changed significantly in Post-Merger period as compared to Pre-Merger period. Null hypothesis is accepted for all ratios.

2. Analyzing the consolidated liquidity position of all selected sample companies, it was found that average Current ratio and average quick ratio decreased in Post-Merger period as compared to Pre-Merger period while average super quick ratio increased. While testing the hypothesis at 5% level of significance, it was observed that none of the liquidity ratios changed significantly in Post-Merger period as compared to Pre-Merger period. Thus null hypothesis is accepted for all ratios.

3. Analyzing the consolidated long term solvency position of all selected sample companies, it was found that the average proprietary ratio and average interest coverage ratio increased in Post-Merger period as compared to Pre-Merger period while other ratios declined. While testing the hypothesis at 5% level of significance, it was observed that average fixed asset ratio and average proprietary ratio changed significantly in Post-Merger period as compared to Pre-Merger period. Alternate hypothesis was accepted for the above mentioned ratios while for the other two ratios null hypothesis is accepted

4. Analyzing the consolidated efficiency of all seven companies it was found that the average Inventory Turnover ratio, average Working Capital Turnover ratio and average Fixed Asset turnover ratio increased in Post-Merger period as compared to Pre-Merger period while other ratios declined. While testing the hypothesis at 5% level of significance, it was observed that average working capital turnover ratio changed significantly in Post-Merger period as compared to Pre-Merger period and thus alternate hypothesis is accepted.

5. Analyzing the difference in averages between and within the selected sample companies, one way Annova test is applied covering all the financial ratios for the three periods i.e. Pre-merger period, During the merger period and Post-Merger period as revealed in Table T.4.8.5 mentioned in chapter 4. The major findings are as follows:

- **a.** There was significant difference between averages of pre and Post-Merger periods of selected companies found in case of Return on total assets, Earnings per share, Fixed asset ratio, Proprietary ratio, Capital turnover ratio. The significant difference was found between averages of pre period and during merger periods of selected companies in case of Fixed asset ratio, Proprietary ratio Inventory to current asset ratio while significant difference between averages of during merger periods and post- merger period of selected companies was found in case of Net profit ratio, Cash profit margin, Return on Total assets, Super quick ratio and Proprietary ratio.

b. There is significant difference between groups and within groups of selected companies for following ratios - Net profit margin, Cash profit margin, return on total assets, earning per share, Super quick ratio, Fixed asset ratio, Proprietary ratio, Capital turnover ratio, Inventory to current asset ratio while no significant difference in remaining ratios.

5.4. COMPOSITE INDEX SCORE ANALYSIS

Composite Index Score calculated for selected sample acquirer companies as per Table T.5.3 reveals following-

1. The Composite index score based on profitability increased in Post-Merger period as compared to pre- merger period in case of Dr Reddy's Laboratories Ltd Lupin Ltd and Strides Shashun Ltd while it declined in case of remaining sample companies. While testing the hypothesis at 5% level of significance it was found that composite index score changed significantly in case of Lupin Ltd and Hikal Ltd and thus alternate hypothesis is accepted.

2. The Composite index score based on Liquidity increased in Post-Merger period as compared to pre- merger period in all cases except Dr Reddy's Laboratories Ltd and Hikal Ltd. While testing the hypothesis at 5% level of significance it was observed that composite index score changed significantly in case of Dr Reddy's Laboratories Ltd and Kerela Ayurveda Ltd and thus alternate hypothesis is accepted.

3. Composite index score based on Long term solvency increased in Post-Merger period as compared to pre- merger period in all cases except, Hikal Ltd, Lupin Ltd and Makers Laboratories Ltd. While testing the hypothesis at 5% level of significance it was observed that composite index score changed significantly in case of Hikal Ltd, Lupin Ltd and Makers Laboratories Ltd. and thus alternate hypothesis is accepted.

Composite Index score analysis and Hypothesis tested by applying Independent t- Test

Table T.5.3 Composite Index Score Analysis and Hypothesis Tested by Applying Independent t- Test [Tested at 5% Level of Significance]

Name of company	Composite index score based on Profitability				Composite index score based on Liquidity				Composite index score based on Long term solvency			
	Pre-Merger period	Post-Merger Period	P value	Hypothesis accepted	Pre-Merger period	Post-Merger Period	P value	Hypothesis accepted	Pre-Merger period	Post-Merger Period	P value	Hypothesis accepted
Dr. Reddys lab Limited	0.47	0.51	0.678	Null	0.39	0.13	*0.05	Alternate	0.30	0.42	0.091	Null
Hikal Ltd	0.70	0.27	*0.001	Alternate	0.30	0.28	0.75	NULL	0.45	0.35	*0.03	Alternate
J B chemical and Pharmaceuticals Ltd	0.27	0.25	0.818	NULL	0.30	0.46	0.08	Null	0.37	0.39	0.65	Null
Kerela Ayurveda Ltd	0.66	0.59	0.610	NULL	0.18	0.39	*0.001	Alternate	0.33	0.38	0.07	Null
Lupin Limited	0.29	0.69	*0.004	Alternate	0.26	0.33	0.07	Null	0.40	0.27	*0.02	Alternate
Makers Laboratories Limited	0.46	0.37	0.542	NULL	0.37	0.39	0.747	Null	0.35	0.26	*0.02	Alternate
Strides Shashun Limited	0.19	0.36	0.113	NULL	0.36	0.54	0.122	Null	0.30	0.34	0.17	Null

Table T.4.1.7, T.4.1.9, T.4.1.11, T.4.2.7, T.4.2.9, T.4.2.11, T.4.3.7, T.4.3.9, T.4.3.11 T.4.4.7, T.4.4.9, T.4.4.11 T.4.5.7, T.4.5.9, T.4.5.11, T.4.6.7, T.4.6.9, T.4.6.11, T.4.7.7, T.4.7.9, and T.4.7.11

EVA and MVA analysis and Hypothesis tested by applying one sample t- test

Table T.5.4 EVA and MVA Analysis and Hypothesis Tested by Applying One Sample t - Test [Tested at 5% Level of Significance]

Name of company	EVA Rs in Millions				MVA Rs in Millions			
	Pre-Merger period[Rs]	Post-Merger Period[Rs]	P value	Hypothesis accepted	Pre-Merger period [Rs]	Post-Merger Period [Rs]	P value	Hypothesis accepted
Dr. Reddys Lab Limited	-142.01	1697.97	*0.042	Alternate	54652.29	317195.8	*0 .001	Alternate
Hikal Ltd	168.47	33.89	*0 .001	Alternate	3278.117	2489.996	0.428	Null
J B chemical and Pharmaceuticals Ltd	89.39	(341.12).	*0 .001	Alternate	2111.026	1105.714	0.359	Null
Kerela Ayurveda Ltd	-10.82	-29.54	*0.02	Alternate	13.3838	314.6685	*0.001	Alternate
Lupin Limited	907.534	10238.51	*0.001	Alternate	30195.35	428869.8	*0.001	Alternate
Makers laboratories Limited	(23.49)	(109.31)	*0.001	Alternate	(15.3768)	(62.7436)	*0 .003	Alternate
Strides Shashun Limited	-105.48	4484.345	*0 .001	Alternate	3239.557	32747.84	*0.001	Alternate

Source – Table T.4.1.14, T.4.2.14, T.4.3.14, T.4.4.14, T.4.5.14, T.4.6.14 and T.4.7.14

5.5 SHAREHOLDER'S WEALTH MEASUREMENT

The measurement of shareholder's wealth for all the sample companies is gauged by Table T.5.4 calculating EVA and MVA individually during Pre-Merger and Post-Merger period of study**.** The major findings were as follows:

a) The average EVA increased in case of Dr Reddys Laboratories Ltd, Lupin Ltd and Strides Shashun Ltd in Post-Merger period as compared to Pre-Merger period, whereas it declined in rest of the sample companies. While testing hypothesis at 5 % level of significance it was found that EVA changed significantly in all sample companies and thus alternate hypothesis was accepted.

b) The average MVA increased in case of Dr Reddys laboratories, Kerela Ayurveda Ltd, Lupin Ltd and Strides Shashun Ltd in Post-Merger period as compared to Pre-Merger period whereas it declined in rest of the sample companies. While testing hypothesis at 5 % level of significance it was found that MVA changed significantly in all sample companies except Hikal Ltd and J.B. Chemical and Pharmaceuticals Ltd. Except these two companies, alternate hypothesis was accepted in case of all remaining companies.

5.6 ANALYSIS OF FINANCIAL HEALTH USING ALTMAN Z SCORE

The Financial health of the each of the 7 sample acquirer companies (Cases) is measured using Altman Z score as revealed by Table T.5.5. The Major findings are as following

1. Analyzing the financial health of all the sample companies using Altman Z score it was found that there was improvement in financial health of Dr Reddy's Laboratories Ltd, Lupin Ltd and Strides Shashun Ltd as Altman Z score improved in Post- Merger Period as compared to Pre-Merger period and special improvement was seen in case of Strides Shashun Ltd wherein it turned to safe zone in Post-Merger period as compared to financial distress in Pre-Merger Period.

2. In case of J.B. Chemical and Pharmaceuticals Ltd there was decline in financial health of company in Post-Merger period as compared to Pre-Merger period. The Z score moved from safe zone to Grey Area However, in case of Hikal Ltd, Kerela Ayurveda Ltd and Makers Laboratories Ltd there is no change the financial health of companies.

Table T.5.5 Altman Z Score

Name of company	Pre - Merger Z score	Post- Merger Z score	Interpretation in Pre-Merger Period	Interpretation in Post-Merger Period	Result of Merger
Dr. Reddy'S Laboratories Ltd.	3.444463	3.727223	Safe Zone	Safe Zone	Success
Hikal ltd	2.069069	1.822886	Grey area	Grey area	No change
J B Chemicals & Pharmaceuticals Ltd.	3.437473	2.978668	Safe Zone	Grey area	Failure
Kerala Ayurveda Ltd.	0.764638	0.801908	Financial Distress	Financial Distress	No change
Lupin Ltd.	3.006436	6.050671	Safe Zone	Safe Zone	Success
Makers Laboratories Ltd.	2.529372	2.473375	Grey area	Grey area	No change
Strides Shashun Ltd.	1.226732	3.096918	Financial Distress	Safe Zone	Success

Source – Annexure IV and V

Regression Analysis

Table T.5.6 Regression Analysis

Name of company	Regression equation in Pre-Merger Period	Regression equation in Post-Merger Period	Dependent variables	Pre-Merger Independent Variables	Post-Merger Independent Variables	Common Variables affecting to NP in Pre and Post Merger Period	Correlation coefficient between NP and Common Variables in Pre- merger Period	Correlation coefficient between NP and Common Variables in Post- merger Period
Dr. Reddys Lab Limited	NP= -714.556+0.361WC	NP= 6813.822+0.165WC	Net profit	Working capital	Working capital	Working capital	0.85	0.83
Hikal Ltd	NP=52.594+0.679 OE	NP= 675.411+1.509FC-0.769OE+0.140WC	Net profit	Operating Expenses	Finance cost, operating expenses and Working capital	Operating Expenses	0.97	-0.46
J B Chemical and Pharmaceuticals Ltd	NP= -13.674+0.215SF	NP=-6375.773+ 30.142FC+0.533SF	Net profit	Shareholders fund	Finance cost and Shareholders fund	Shareholders fund	0.99	0.28
Kerela Ayurveda Ltd	NP=69.072-1.004OE	NP=30.145+0.123OE-4.117FC	Net profit	Operating expenses	Finance cost and Operating expenses	Operating expenses	-0.92	0.11
Lupin Limited	NP= -053.51+0.291CE	NP=209.381+0.262 CE	Net profit	Capital employed	Capital employed	Capital employed	0.99	0.95
Makers laboratories Limited	NP=476.799+0.726FC	NP=308.200-2.098LTB-2.055OE-2.515FC	Net profit	Finance cost	Long term borrowings, Operating expenses and Finance cost	Finance cost	-0.74	-0.56
Strides Shashun Limited	NP=882.408-1.257WC-7.444FC+0.790SF	NP=10671.505+4.771FC+0.722LTB-0.550WC-1.620FA	Net profit	Working capital, finance cost and shareholders fund	Finance cost, Long term borrowings, Working capital and Fixed assets	Working capital, Finance cost	NP and WC 0.01 NP and FC -0.19	NP and WC -0.12 NP and FC 0.19

Source – Annexure I, II and III

5.7. REGRESSION ANALYSIS

In order to understand impact of merger and acquisition on financial performance of selected sample companies one dependent variable i.e. Net profit and 9 independent variables viz Cost of goods sold, operating expenses, Finance cost, Capital employed, Long term borrowings, Shareholders fund, working capital, Current assets, fixed assets have been selected based on which Multiple Linear Regression equation for each sample company for pre and Post-Merger period has been framed as revealed in Table T.5.6.

1. In case of Dr. Reddy's Laboratories Ltd., Working capital is the only independent variable affecting Net profit during Pre-Merger and Post-Merger period. Correlation co-efficient between Net profit and working capital was positive and slightly declined in Post-Merger period as compared to pre- merger period

2. In case of Hikal Ltd operating expense was only variable affecting net profit in Pre-Merger period but in post- merger period along with operating expenses, finance cost and working capital was also affecting net profit of sample company. Correlation coefficient between Net profit and Operating expenses in Pre-Merger period was high and positive whereas in Post-Merger period it turned low and negative.

3. In case of J B Chemical and Pharmaceuticals Ltd shareholders fund was only variable affecting net profit in Pre-Merger period but in post- merger period along with Shareholders fund, finance cost was also affecting net profit of sample company. Correlation coefficient between Net profit and shareholders fund was positive but declined in Post-Merger period as compared to pre- merger period

4. In case of Kerela Ayurveda Ltd operating expenses was only variable affecting net profit in Pre-Merger period but in post- merger period along with operating expenses, finance cost was also affecting net profit of sample company. Correlation coefficient between Net profit and Operating expenses in Pre-Merger period was high and negative whereas in Post-Merger period it turned low but positive.

5. In case of Lupin Ltd capital employed was the only independent variable affecting net profit during Pre-Merger and Post-Merger period. Correlation coefficient between Net profit and capital employed in Post-Merger period was marginally less as compared to Pre-Merger period

6. In case of Makers Laboratories Ltd. finance cost was the only variable affecting net profit in Pre-Merger period but in post- merger period along with Finance cost, Long term borrowings and operating expenses was also affecting net profit. The Correlation coefficient between Net

profit and finance cost was high negative during Pre-Merger and low negative during Post-Merger period.

7. In case of Strides Shashun Ltd Working capital, finance cost and shareholders fund were variables affecting net profit in Pre-Merger period while in post- merger period finance cost, long term borrowings working capital and fixed assets were affecting net profit of sample company. Finance cost and working capital are the common independent variable affecting Net profit in Pre-Merger and Post-Merger period. As more number of variables are affecting net profit of sample company during Pre-Merger and Post-Merger period thus the correlation coefficient was negligible between common variables and net profit during Pre-Merger and Post-Merger period.

5.8. CONCLUSIONS

The study focuses on impact of mergers and acquisition on financial performance of selected pharmaceutical companies in India. On the basis of finding and analysis following conclusions are drawn

1. Profitability of selected sample companies analyzed through various tools like ratio analysis, composite index score based on profitability, Altman Z score indicated that there was improvement in performance of Dr Reddy's Laboratories Ltd, Lupin Ltd and Strides Shashun Ltd.in the Post-Merger period as compared to Pre-Merger period. It is evident by improvement in maximum profitability ratios in Post-Merger period as compared to Pre-Merger period in above stated companies. Composite index score based on profitability increased in above mentioned 3 companies. Altman Z score also supported the above result as score increased in Post-Merger period as compared to Pre-Merger period in above stated 3 companies. The composite index score tested by applying independent t- test at 5 % level of significance it can be concluded that in case of Lupin Ltd change in profitability was significant.

2. Profitability declined in case of Hikal Ltd, J B Chemical and Pharmaceuticals Ltd, Kerela Ayurveda Ltd and Makers Laboratories Ltd which is evident by decline in majority profitability ratios. Composite index score based on profitability had also decreased in above mentioned 4 companies. Altman Z score also supports the above result as score decrease in Post-Merger period as compared to Pre-Merger period in above stated 3 companies excepting Kerela Ayurveda Ltd where it increased marginally. The composite index score tested by applying independent t- test at 5 % level of significance it can be concluded that in case of Hikal Ltd change in profitability was significant.

3. Liquidity of selected sample companies analyzed through various tools like ratio analysis, composite index score based on liquidity. The efficiency of selected sample companies was gauged by calculating various efficiency ratios revealed that mixed performance of all selected sample companies. Some of the efficiency ratios revealing liquidity too were included in calculation of composite index score based on liquidity like Inventory turnover ratio, Working capital turnover ratio and Debtors turnover ratio. Results indicated that there was improvement in liquidity performance of J B Chemical and Pharmaceuticals Ltd, Kerela Ayurveda Ltd, Lupin Ltd, Makers Laboratories Ltd and Strides Shashun Ltd. in Post-Merger period as compared to Pre-Merger period. It is evident by improvement in majority liquidity ratios in Post-Merger period as compared to Pre-Merger period in above stated companies. The composite index score tested by applying independent t- test at 5 % level of significance it can be concluded that in case of Kerela Ayurveda Ltd change in liquidity was significant.

4. Liquidity declined in case of Dr Reddy's Laboratories Ltd and Hikal Ltd which is evident by decline in majority of liquidity ratios. Composite index score based on liquidity had also decreased in above mentioned companies. The composite index score tested by applying independent t- test at 5 % level of significance it can be concluded that in case of Dr Reddy's Laboratories Ltd change in liquidity was significant.

5. Long term solvency of selected sample companies analyzed through various tools like ratio analysis, composite index score based on long term solvency indicated that there was improvement in long term financial strength of Dr Reddy's Laboratories Ltd, J B Chemical and Pharmaceuticals Ltd, Kerela Ayurveda Ltd and Strides Shashun Ltd. as also evident by improvement in composite index score based on Long term solvency ratios of above stated companies. In other words, the capital structure became more sound and the companies were taking utmost advantage of financial leverage in the Post-Merger period as also reflected by increase in EPS. The composite index score tested by applying independent t- test at 5 % level of significance it can be concluded that in the change in long term solvency was not significant in above stated companies.

6. Long term solvency declined in case of Hikal Ltd, Lupin Ltd and Makers Laboratories Ltd which is evident by decline in composite index score based on long term solvency. The composite index score tested by applying independent t- test at 5 % level of significance it can be concluded that in all stated companies change in long term solvency was significant.

7. Impact of merger and acquisition on shareholder's wealth of selected sample companies was measured through EVA and MVA during Pre-Merger and Post-Merger period. It is concluded that overall wealth of shareholders improved in case of Dr Reddy's Laboratories Ltd, Lupin Ltd and Strides Shashun Ltd. Thus, there is a positive impact of merger and acquisition. In

case of Kerela Ayurveda Ltd only MVA improved showing positive effect of merger and acquisition. In remaining 2 sample companies the shareholder’s wealth declined.

8. Based on regression analysis it can be concluded that independent variables like working capital, operating expenses, capital employed, shareholders fund and finance cost affected net profit in majority of sample companies throughout the period of study.

9. Consolidated performance of all seven companies revealed that overall profitability, liquidity and long term solvency did not change significantly. However, fixed asset ratio, proprietary ratio and capital turnover ratio changed significantly. In other words, it can be concluded that there is no impact of mergers and acquisition on consolidated performances of all selected seven companies taken together. [Supported by (Ahmed & Ahmed, 2014). (S & M, 2007).

10. From selected seven companies Mergers and Acquisitions was overall fruitful in for three sample companies viz. Dr Reddys Laboratories Ltd, Lupin Ltd and Strides Shashun Ltd. whereas it was not benefiting in case of rest of the sample companies viz. Hikal Ltd. J B Chemical and Pharmaceuticals Ltd, Kerela Ayurveda Ltd and Makers Laboratories Ltd. Combined profitability performance of all seven cases together showed mixed results in Post-Merger period.

5.9. SCOPE FOR FURTHER RESEARCH

1. Study can be done considering more number of cases and different industries

2. Detailed analysis can be done considering factors responsible for success or failure of Merger and Acquisitions in different industries

3. Study can be done on different restructuring activities like Demergers asset acquisitions, divestitures etc.

4. Research can be done on other variables from cash flow statement and fund flow statement affected by mergers and acquisitions

5. Study can also be undertaken on the impact of mergers and acquisitions [other than financial performance] on employees, shareholders and society in general.

6. Study can be done considering individual profitability, liquidity and long term analysis separately.

5.10. LIMITATIONS OF THE STUDY

1. Present study is based on secondary data so limitations related to secondary data are applicable to study.

2. Sample selection is confined to year 2005-06 to 2010-2011 however larger span can be selected for selecting more companies.

3. Period of study is from 2000-2001 to 2015-2016 which can be extended further.

4. Study is limited to pharmaceutical sector only. More sectors can be involved for further study.

5. During the period of study any significant structural and law related changes can also affect the results.

6. Present study is based on only Mergers and Acquisitions which is one of the corporate restructuring activities. It doesn’t take it to account other restructuring activities like Joint Venture, Asset Acquisition, Demerger etc.

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