



FINANCIAL ANALYSIS OF ACQUIRING COMPANIES- INDIAN PHARMACEUTICAL INDUSTRY

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ABSTRACT

Over the last few years, Indian pharmaceutical companies have been increasingly targeted by multinationals for both joint venture agreements as well as for acquisition. Mergers and Acquisitions in the pharmaceutical sectors have grown considerably in the past few years. The researcher attempted to analyze the financial performance of Acquirers of Indian Pharmaceutical Industry. For the present study, relevant financial ratios are identified (Profitability and liquidity ratios ROCE, RONW, ROTA, NPM, DER, and CR respectively and efficiency ratios like DTR, CTR and STR) and categorized into three broad groups. The sample for the study consists of 24 Indian Pharmaceutical Companies selection was done based on data availability according to the set performance standards. Further, five-year data pre-M&A and post M&A for every company has been carried out. The hypotheses are tested using the Paired Sample t-test. The research finds that there was no significant difference in pre- and post-M&A periods. Further, the study also investigates the question of why there is an insignificant difference using DuPont Analysis.

KEYWORDS: financial analysis, ratio analysis, mergers, acquisitions, pharmaceutical industry

JEL CLASSIFICATION: M40, M41, M49



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1. INTRODUCTION

Mergers and acquisitions are the most popular means of corporate restructuring or business combinations. They have played an important role in the external growth of several leading companies the world over. Economic reforms and deregulation of the Indian economy have brought in more domestic as well as international players in the Indian industries. The Indian pharmaceutical industry currently tops the chart amongst India's science-based industries with great varying abilities in the complicated field of drug manufacture and technology. Mergers and Acquisitions in the pharmaceutical sectors have grown considerably in the past few years. It has been a common trend that large pharmaceutical companies which enter into transactions with effectively or potentially competing companies, in many cases are found to do so patents are about to expire, to maintain their market share and try to reduce competition with other new-generation drugs.

Over the last few years, Indian pharmaceutical companies have been increasingly targeted by multinationals for both joint venture agreements as well as for acquisition. Some of the recent collaborations include Bayer and Zydus Cadila agreeing to set up a joint venture called Bayer Zydus Pharma (BZP), for the sales and marketing of pharmaceutical products in India, Sun Pharma working with MSD (Merck & Co) to market and distribute Merck's Januvia (sitagliptin) and Janumat (sitagliptin+metformin), Lupin-Lilly agreed to enter into collaboration to promote and distribute Lilly's Huminsulin range of products in India and Nepal, Biocon-Pfizer JV collaboration to give Pfizer exclusive rights to commercialize Biocon products globally including co-exclusive rights with Biocon in Germany, India, and Malaysia, etc. Some of the Indian pharmaceutical companies that have been acquired by MNCs in recent times include US\$ 4.6 billion acquisition of Ranbaxy by Daiichi Sankyo of Japan, Mylan taking over Matrix Labs, Sanofi buying Shantha for US\$ 783 million in 2008, Abbott of USA buyout Piramal Healthcare in 2010, Aventis acquired Universal Medicines for over US\$ 100 million, etc.

2. LITERATURE REVIEW

Merger and acquisition activity could be largely explained by the factors that motivate a firm to grow and expand, it is considered as a faster and efficient way of developing firm's asset base and productive capacity (Vyas & Narayana, 2015). Harford (2005) and Qui & Zhou (2006) found in their study that M&A's have taken place in the waves, wherein merger and acquisition activity is concentrated in certain periods. According to the study conducted by McDonald, Jarrod, Max Coulthard, and P. D. Lange (2005) strategic planning has long been emphasized by organizations as an important tool leading to business success.



Bower and Sulej (2006) have pointed out that Indian pharmaceutical firms have built wide global networks and have been able to access external knowledge through western alliances and acquisitions. **Brick, Haber and Weaver (1982)** empirically explored the financial motives in mergers. To isolate the effect of diversification from other possible motives for mergers such as operational synergies. They have confined their analysis to conglomerate mergers only. Their study analysed 57 conglomerate mergers to investigate the role of leverage and diversification in the determination of total merger premium. The regressions performed indicated that significant positive correlation exists between the merger premium and diversification. The results confirmed the view that diversification, especially in the presence of high levels of debt provided a powerful stimulus for mergers. Another study conducted by **Myers and Majluf (1984)** suggested a specific financial motive for mergers based on a complementary fit between slack rich bidders and slack poor targets. The study assumed asymmetry in information between managers and shareholders, and that manager's act in the interest of existing shareholders. The assumption made the form of financing important that is the model generally predicted disadvantage to equity financing and value to internal financing.

Patricia M. Danzon, Andrew Epstein and Sean Nicholson (2004), examined the effects of merger activity in the pharmaceutical/ biotechnology industry from 1988 to 2001. The study has found that the firms that experienced merger had slower growth in operating profit as compared to the similar firms that did not merge. For smaller firms, mergers were mainly an exit strategy in response to financial trouble.

Michail Pazarskis, Manthos Vogiatzoglou, Petros Christodoulou and George Drogalas (2006), examined the impact of mergers and acquisitions on the operating performance of fifty Greek companies from 1998 to 2002. Both financial and non-financial parameters were used to analyse the performance. Ratio analysis was done to measure pre and post-merger/acquisition financial performance and it was found that the profitability of the merging firms decreased post-merger/acquisition event. Furthermore, the operating performances of the firms were evaluated on a set of non-financial variables which include the type of deal, the method of evaluation and the method of payment. These non-financial characteristics were not found to influence the operating performance of the firms.

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 five years 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 the case of Japanese firms was positive but statistically insignificant.

Pankaj Sinha and Sushant Gupta (2011), studied the impact of mergers in the Indian Financial Services Sector during the period 1993-2010 & has found that merger activity had a positive effect on the profitability in of the majority cases but the liquidity position has deteriorated after the mergers pointing to the fact, that though companies may have been able to leverage the synergies arising out of the mergers they were not able to manage their capital structure to improve their liquidity.



Sonia Sharma (2013), measured the post-merger performance of BSE listed companies of the metal industry during the period 2009-10 and has found that there was a marginal but not significant improvement in the liquidity and solvency ratios while in case of profitability ratios, there was a significant decline post-merger.

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 significant deterioration.

Neha Verma and Rahul Sharma (2014), analysed the impact of mergers and acquisitions on the performance of Indian Telecom industry during the period 2001-02 to 2007-08, by examining pre and post-merger financial and operating variables. The study has found that though, companies may have been able to leverage the synergies arising out of the merger or acquisition, but they haven't been able to improve their financial and operating performance. The decisions of M&A's might have been inspired by the intention of empire building, market consolidation or acquiring bigger size which led to the declining performance.

3. OBJECTIVES OF THE STUDY

The analysis of the financial performance metrics provides a relative basis for comparing the company with itself and its peer's overtime and within the industry. The financial statements are often considered as the language of business. The quantitative figures of business can be used to analyze strengths and weaknesses in a firm's performance. Such analysis must include the consideration of strategic and economic developments for the firm's long-run success. Moreover, such metrics provide actionable feedback to improve the operations of the firm and carefully plan investment decisions. The researcher would like to investigate the sources of performance as well. This is to be done to know the reasons for increasing or decreasing performance using DuPont Analysis.

1. To analyse the acquirer's financial performance in the pre-M&A & post-M&A periods.
2. To investigate the sources of the financial performance of the acquirers in the pre-M&A and post-M&A periods.

1. H0: There is no significant positive influence of M&A on profitability improvements for the surviving company in the Indian pharmaceutical industry.

2. H0: There is no significant positive influence of M&A on liquidity and solvency position for the surviving company in the Indian pharmaceutical industry.

3. H0: There is no significant positive influence of M&A on efficiency standards for the surviving company in the Indian pharmaceutical industry.

4. SCOPE OF THE STUDY

The study has been carried on to analyze corporate restructuring practices in India with special reference to the Pharmaceutical Industry, to explore the impact of Merger & Acquisition on the financial performance of the surviving firm.



The mergers and acquisitions have increased in the Indian Pharmaceutical industry as compared to other industries. There are various reasons which can be attributed to such a dramatic increase in M&A. Some of them are discussed below:

Expansion of the product range: To build a good product portfolio companies find M&A lucrative. This way firms grow inorganically rather than building organically through research and development activities which involves a massive amount of finance.

Access to the cross-border facilities: Indian companies have faced import bans and penalties under the scrutiny of US regulatory authorities for irregularities in the manufacturing facilities, therefore the Indian Pharma looked out for approved facilities to overcome such constraints.

Marketing and distribution: This is another focus area for Indian Pharma companies to access and cater to different geographical areas. Moreover, use already established marketing networks and distribution channels.

There is tremendous pressure by the government agencies to reduce the cost of medicines. Indian Pharma companies look for overseas acquisitions as well as domestic ones due to difficulty in meeting mounting healthcare costs.

5. RESEARCH METHODOLOGY

In this paper, the researcher has tested the impact of M&A on the financial performance of the surviving company by considering Pre and Post M&A financial ratios. For the present study, relevant financial ratios are identified and categorized into three broad groups. Each group is further classified into various significant ratios for pre & post-performance analysis and they are as follows:

Table 1: Profitability Ratios

Ratio	Description	Standard
ROCE	EBIT/Capital Employed.	High
ROTA/ROI	NPAT/ Average Total Assets	High
RONW/ROE	Net Income / Shareholders' Equity	High
NPM	NPAT/ Sales	High

Source: Author compilation

Table 2: Liquidity and Solvency Ratios

Ratio	Description	Standard
CR	Current Assets/ Current Liabilities	High
DER	Total Assets/ Equity Share Capital	Low

Source: Author compilation



Table 3: Efficiency Ratios

Ratio	Description	Standard
DTR	Net Credit Sales/Average Account Receivable	High
CTR	Net Credit Purchases/ Average Trade Payables	High
STR	COGS/ Average Inventory	High

Source: Author compilation

SAMPLE SELECTION

To perform this research, 24 Indian Pharmaceutical companies were selected. The study period is post-recession i.e., 2009 to 2019. The selection was done based on data availability according to the set performance standards. Further, five-year data pre M&A and post M&A for every company has been carried out.

DATA COLLECTION

The data required for this research is collected from the PROWESS CMIE and different web sites journal and annual reports.

STATISTICAL TOOLS & TECHNIQUES

To analyze the data collected and to prove the hypothesis, various statistical tools and techniques have been applied in this study. Mean, Variance and standard deviation were used for descriptive statistics. The hypotheses are tested using the Paired Sample t-test. The data has been analyzed with the help of SPSS and MS-Excel.

6. DATA ANALYSIS

Pre- and post-merger performance ratios are computed for every company. The pre and post-M&A performance ratios are compared to see if there is any statistically significant change in the financial performance of surviving firm after M&A using paired sample t-test at a confidence level of 95%.

TESTING OF HYPOTHESIS

To test the hypotheses, Pre and Post M&A financial performance standards of the surviving firm is compared to see if there are any statistically significant changes in the financial performance after M&A, using "paired sample t-test" at a confidence level of 95% {2-tailed} and also descriptive statistics analysis has been performed to ascertain the mean difference. The results are shown in the following tables related to the sample firms.



ANALYSIS OF PROFITABILITY STANDARDS

It is hypothesized that the profitability position of acquirers has improved during the post-M&A period. The Sample t-test values for comparison of means of profitability ratio based on ROCE, RONW and ROI before and after M&A have been presented in three different tables 4, 5 and 6 respectively. The relevant data contained in the tables show that mean profitability in terms of these ratios show a sharp decline in the post-M&A period. The paired sample t-test for comparison of means reveals that ROCE exhibits a decrease of -1.76% (-5, +5) during the post-M&A period. Similarly, RONW and ROA have declined in post M&A period -8.43% and -1.24% respectively. But these declines are not statistically significant as the p-values are greater than the significance level.

Table 4: Paired Sample t-test for ROCE

ROCE								
Pre-M&A	Post-M&A	Post-M&A Ratio	Mean	Pre-M&A Mean Ratio	Mean Difference	t-Value	DOF	Significance
(-1 +1)		12.51		12.14	0.37	0.210	23	0.84
(-2 +2)		11.30		8.49	2.81	1.098	23	0.28
(-3 +3)		9.19		9.45	-0.26	-0.117	23	0.91
(-4 +4)		6.36		6.56	-0.21	-0.073	23	0.94
(-5 +5)		7.06		8.82	-1.76	-0.712	23	0.48

Source: Author compilation

Table 5: Paired Sample t-test for RNOW

RNOW							
Pre-M&A	Post-M&A	Post-M&A Mean Ratio	Pre M&A Mean Ratio	Mean Difference	t-Value	D OF	Significance
(-1 +1)		19.69	21.59	-1.90	-0.62	23	0.54
(-2 +2)		17.30	65.28	-47.98	-0.95	23	0.35
(-3 +3)		12.51	16.51	-4.01	-1.22	23	0.24
(-4 +4)		8.24	-1.15	9.39	0.63	23	0.53
(-5 +5)		6.48	14.91	-8.43	-1.45	23	0.16

Source: Author compilation



Table 6: Paired Sample t-test for ROA

ROA								
Pre-M&A	Post-M&A	Post-M&A Ratio	Mean	Pre-M&A Mean Ratio	Mean Difference	t-Value	DOF	Significance
	(-1 +1)	8.99		9.31	-0.32	-0.27	23	0.79
	(-2 +2)	8.48		6.62	1.86	0.96	23	0.35
	(-3 +3)	7.17		7.49	-0.32	-0.19	23	0.85
	(-4 +4)	5.15		5.31	-0.17	-0.08	23	0.94
	(-5 +5)	5.73		6.97	-1.24	-0.63	23	0.53

Source: Author compilation

Table 7 & 8 present the paired sample t-test for comparison of means of profitability of NPM and PAT respectively before and after M&A. The relevant data contained in the tables show that NPM has exhibited mediocre improvement of 1.13% in the 4th year and then again decreased to -0.68% in the 5th year. The PAT has exhibited impressive improvement for the last 3 pairs and is significant in the last year where the p-value is less than 0.05.

Table 7: Paired Sample t-test for NPM

NPM							
Pre-M&A	Post-M&A	Pre-M&A	Mean	t-Value	DOF	Significance	
Post-M&A	Mean Ratio	Mean Ratio	Difference				
	(-1 +1)	11.86	11.36	0.50	0.28	23	0.78
	(-2 +2)	10.09	8.85	1.24	0.51	23	0.62
	(-3 +3)	8.53	9.81	-1.28	-0.49	23	0.63
	(-4 +4)	7.10	5.97	1.13	0.30	23	0.76
	(-5 +5)	7.55	8.23	-0.68	-0.27	23	0.79

Source: Author compilation



Table 8: Paired Sample t-test for PAT

PAT						
Pre-M&A Post-M&A	Post-M&A Mean Ratio	Pre-M&A Mean Ratio	Mean Difference	t-Value	DOF	Signific ance
(-1 +1)	2329.49	2027.01	302.48	0.56	23	0.58
(-2 +2)	1214.95	1555.97	-341.02	-0.20	23	0.85
(-3 +3)	2236.33	1123.21	1113.11	0.70	23	0.49
(-4 +4)	1970.76	659.78	1310.98	1.08	23	0.29
(-5 +5)	3251.13	573.27	2677.85	2.23	23	0.04

Source: Author compilation

The analysis reveals the negative relationship between profits earned and capital employed. ROCE had shown declining trends over the years due to non-strategic investment decisions. The management team has able to provide a minimum return on capital employed on account of sound financial decisions.

The comparison of pre and post-merger financial performance of sample companies indicates that there was a decline in all the mean-values of selected performance standards but it is observed that the declines were not statistically significant because the calculated t-values are less than the DF table value and p-value are greater than set confidence level value.

Based on the results of the paired sample t-test analysis at 95% confidence level, the Hypothesis

H₀: There is no significant positive influence of M&A on profitability improvements for the surviving company in Indian Pharmaceutical industry was not rejected, since paired sample t-test failed to reveal a statistically reliable difference between the pre & post-M&A mean values, SD, t-calculated value < t-table value and p-value > $\alpha = 0.05$ for all the select profitability standards in sample company under study.

ANALYSIS OF LIQUIDITY AND SOLVENCY STANDARDS

A comparison has been made between liquidity position before and after M&A, prima-facie, Indian Acquiring firms seem to have an adequate and satisfactory level of liquidity position before as well as after M&A as reflected in mean current ratio. The corporate firms in India have access to short term borrowings in the form of bank borrowings, overdraft and cash credit limits form banks (Jain and Yadav, 2000). These facilities enable management to operate on a lesser margin of working capital reflected in lower current ratio. The mean current ratio is moderate which means the firms have adequate inventories for the current requirements before as well as after M&A. the high current ratio is indicative of slack management practices and poor credit management in terms of overextended accounts receivable also. The acquiring firms have managed better liquidity during both the phases, as reflected in Table 9.



Table 9: Paired Sample t-test for CR

CR						
Pre-M&A Post-M&A	Post-M&A Mean Ratio	Pre-M&A Mean Ratio	Mean Difference	t-Value	DOF	Significance
(-1 +1)	1.34	1.55	-0.21	-1.19	23	0.25
(-2 +2)	1.32	1.53	-0.21	-0.90	23	0.38
(-3 +3)	1.52	1.40	0.12	0.49	23	0.63
(-4 +4)	1.50	1.50	0.00	0.00	23	1.00
(-5 +5)	1.61	1.63	-0.02	-0.07	23	0.94

Source: Author compilation

Debt is a vital part of capital structure and a significant source of financing total assets of the acquiring company. The debt to equity ratio represented in Table 10; evidently, seems to be almost satisfactory before as well as after M&A. Paired t-test has not identified any considerable change in the leverage of acquirers over the post-M&A period. As expected, there is no change in the leverage of acquirers over the post-M&A period. Based on these findings, it may be concluded that M&A has no impact on the leverage of acquiring firms before and after M&A.

Based on the results of the paired sample t-test analysis at 95% confidence level, the Hypothesis

2H0: There is no significant positive influence of M&A on liquidity and solvency improvements for the surviving company in Indian Pharmaceutical industry was not rejected, since paired sample t-test failed to reveal a statistically reliable difference between the pre & post-M&A mean values, SD, t-calculated value < t-tab value and p-value > $\alpha = 0.05$ for all the select profitability standards in sample company under study.

Table 10: Paired Sample t-test for DER

DER						
Pre-M&A Post-M&A	Post-M&A Mean Ratio	Pre-M&A Mean Ratio	Mean Difference	t-Value	DOF	Significance
(-1 +1)	0.79	0.76	0.03	0.52	23	0.61
(-2 +2)	0.81	1.52	-0.71	-1.06	23	0.30
(-3 +3)	0.71	0.84	-0.13	-1.13	23	0.27
(-4 +4)	0.75	0.80	-0.05	-0.34	23	0.74
(-5 +5)	0.90	1.05	-0.15	-0.45	23	0.66

Source: Author compilation



ANALYSIS OF EFFICIENCY STANDARDS

Efficiency ratios have been used to assess the operational performance of acquirers before and after M&A. Analysis has been carried out primarily based on efficiency ratios (DTR, ATR, & STR). It is hypothesised that the efficiency of the acquirers has shown improvement in utilization of resources after M&A. The relevant data contained in tables 11, 12 & 13 below suggest that the ratios of sample companies for both the periods (before and after M&A). It is evident from the data that ATR has shown a significant change in post M&A period, whereas, DTR and STR remained unchanged in both the periods. This represents the picture of efficiency in the utilization of fixed assets which was better in pre-M&A phase than the post-M&A phase.

Table 11: Paired Sample t-test for DTR

DTR								
Pre-M&A	Post-M&A	Post-M&A Ratio	Mean	Pre-M&A Mean Ratio	Mean Difference	t-Value	DOF	Significance
(-1 +1)		6.09		6.02	0.07	0.17	23	0.87
(-2 +2)		5.82		5.66	0.16	0.30	23	0.77
(-3 +3)		5.42		5.43	-0.01	-0.02	23	0.98
(-4 +4)		4.93		5.66	-0.73	-1.19	23	0.25
(-5 +5)		4.88		6.00	-1.12	-1.92	23	0.07

Source: Author compilation

Table No 12: Paired Sample t-test for ATR

ATR						
Pre-M&A	Post-M&A	Pre-M&A	Mean	t-Value	DOF	Significance
Post-M&A	Mean Ratio	Mean Ratio	Difference			
(-1 +1)	4.59	5.25	-0.65	-2.39	23	0.03
(-2 +2)	4.41	5.26	-0.84	-1.80	23	0.09
(-3 +3)	3.94	5.78	-1.83	-2.08	23	0.05
(-4 +4)	3.65	6.36	-2.71	-2.15	23	0.04
(-5 +5)	3.68	5.47	-1.79	-3.56	23	0.00

Source: Author compilation



Table No 13: Paired Sample t-test for STR

STR						
Pre-M&A Post-M&A	Post-M&A Mean Ratio	Pre-M&A Mean Ratio	Mean Difference	t-Value	DOF	Significance
(-1 +1)	44.13	54.40	-10.27	-1.69	23	0.10
(-2 +2)	41.95	47.05	-5.10	-0.63	23	0.53
(-3 +3)	41.76	28.42	13.34	1.19	23	0.25
(-4 +4)	26.34	21.93	4.41	0.98	23	0.34
(-5 +5)	30.18	24.71	5.47	0.74	23	0.47

Source: Author compilation

Based on the results of the paired sample t-test analysis at 95% confidence level, the Hypothesis 3H0: There is no significant positive influence of M&A on efficiency improvements for the surviving company in Indian Pharmaceutical industry was not rejected, since paired sample t-test failed to reveal a statistically reliable difference between the pre & post-M&A mean values, SD, t-calculated value < t-tab value and p-value > $\alpha = 0.05$ for all the select profitability standards in sample company under study.

ANALYSIS OF SOURCES OF PERFORMANCE

The performance of the sample companies has not improved post-M&A period so the researcher tried to investigate further using DuPont analysis model. This model was developed in the 1920s by the DuPont Corporation. It is a tool that may help us avoid misleading conclusions regarding a company's profitability. The analysis of a company's profitability involves some nuances. The DuPont analysis model is a method of breaking down the original equation for ROE into three components: operating efficiency, asset efficiency, and leverage. Operating efficiency is measured by Net Profit Margin and indicates the amount of net income generated per dollar of sales. Asset efficiency is measured by the Total Asset Turnover and represents the sales amount generated per dollar of assets. Finally, financial leverage is determined by the Equity Multiplier.

Below is the given equation:

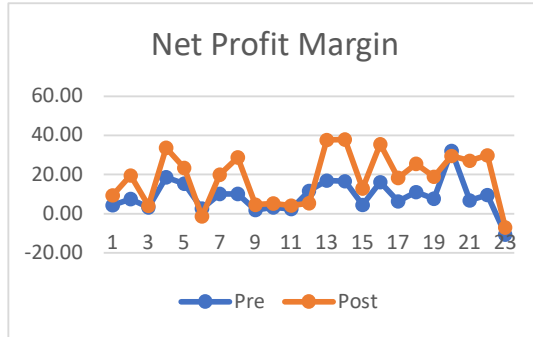
$$ROE = \text{Net Profit Margin} \times \text{Total Asset Turnover} \times \text{Equity Multiplier}$$

To ascertain the sources of long-term performances pre and post M&A periods, the researcher collected the data related to the three components of DuPont analysis for each company. The data were divided into two groups Pre-M&A and Post-M&A. The means of each component was calculated for both periods before M&A and after M&A. We plotted the means on the graphs and it is clear that in post M&A period total asset turnover and equity multiplier have changed negatively while as operating efficiency has increased. DuPont analysis indicates that the companies are not able to use their assets efficiently. Moreover, that use of debt has increased post-merger and increase in leverage increases the interest payments and reduces the net income and cash flow. This cycle affects the financial performance of the companies.

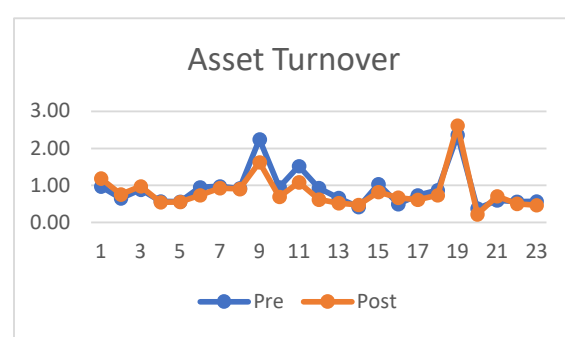


Graphs of the sample companies:

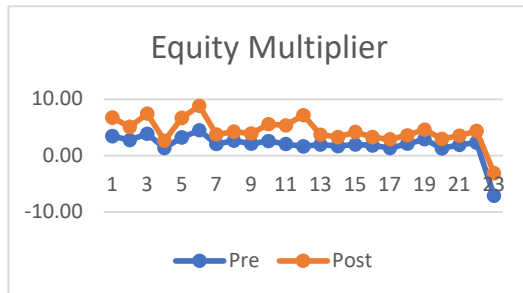
Graph 1: Net Profit Margin



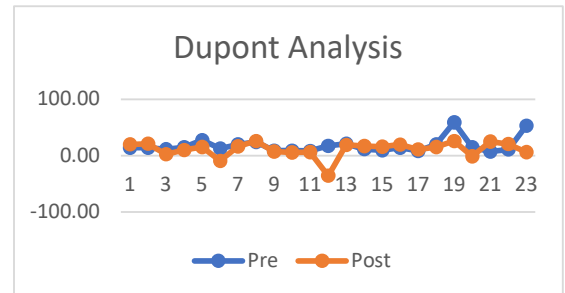
Graph 2: Asset Turnover



Graph 3: Equity Multiplier



Graph 4: DuPont Analysis



After Dupont analysis, it is quite clear why companies were not able to increase overall financial performance. The analysis reveals that companies have increased their operating efficiency post-merger but at the same time efficiency of assets was decreased as well as the leverage increased which offsets the increase in NPM overall. So, when we see the graph of DuPont analysis it shows that there is not much difference in pre and post-merger periods.

7. LIMITATIONS OF RESEARCH

1. The research was restricted to Indian Pharmaceutical companies.
2. The study shall focus on M&A in Indian Pharmaceutical Industry for the post-recession period and did not consider other M&A that took place during the study period due to inadequacy of time and resources.
3. The word 'Strategy' has multiple definitions and the proposed definition is concerning survival and growth in the business environment.
4. The study did not consider the changes in the international political situation and its impact on global marketing scenario.

8. CONCLUSION

The financial analysis of the sample companies shows that there is an insignificant statistical improvement in the financial position of the companies in the post-merger phase. The result from paired sample t-test at a significance level of 95% illustrated that there is no significant



difference in the mentioned financial performance standards between pre-merger and post-merger due to the significance value is greater than 0.05. Studies with similar results, Neha Verma and Rahul Sharma (2014), Sonia Sharma (2013); and Mohamad Ahmed and Zahid Ahmed (2014). To look for the reasons of the insignificant performance the researcher used DuPont analysis. The result throws light on two important aspects that are aggressive use of debt and the inefficient use of assets. In the post-M&A period efficiency of assets has declined which affect the profitability of the companies, on the other hand, the use of more debt in the capital structure has increased the interest payments so shareholder value is also affected. Hence, this study has not rejected the null hypothesis which mentions that there is no significant positive influence on surviving firm's financial performance after M&A; so rejected the alternate hypothesis which considers that there is a significant positive influence on the financial performance of surviving company's post-M&A.

REFERENCES

1. Ahmed, Muhammad, Zahid Ahmed, "Mergers and Acquisitions: Effect on Financial Performance of Manufacturing Companies of Pakistan", *Middle East Journal of Scientific Research*, pp. 689-699, 2014.
2. D. Jane Bower & Julian Sulej, 2006. "Social And Intellectual Capital Formation In Leading Indian Pharmaceutical Companies," *International Journal of Innovation Management (ijim)*, World Scientific Publishing Co. Pte. Ltd., vol. 10(04), pages 407-423.
3. Harford, Jarrad, 2005, What drives merger waves?, *Journal of Financial Economics* 77, 529–560.
4. Kruse, T. A., Park, H. Y., Park, K., & Suzuki, K. (2007). Long-term performance following mergers of Japanese companies: The effect of diversification and affiliation. *Pacific-Basin Finance Journal*, 15(2), 154-172.
5. McDonald, J., Coulthard, M.R., & Lange, P.D. (2006). Planning for a successful merger or acquisition: lessons from an Australian study.
6. Patricia M. Danzon & Andrew Epstein & Sean Nicholson, 2004. "Mergers and Acquisitions in the Pharmaceutical and Biotech Industries," NBER Working Papers 10536, National Bureau of Economic Research, Inc.
7. Pazarskis, M., Vogiazogloy, M., Christodoulou, P., Drogas, G., "Exploring the Improvement of Corporate Performance after Mergers – the Case of Greece", *International Research Journal of Finance and Economics*, 2006, pp.184-192.
8. Qiu, L.D., Zhou, W., (2007). Merger waves: a model of endogenous mergers. *RAND Journal of Economics* 38, 214–226.
9. Sinha Pankaj & Gupta Sushant, (2011), "Mergers and Acquisitions: A Pre-Post Analysis for the Indian Financial Services Sector", *India Finance and Investment Guide, 'History of Banking in India'*
10. Sonia Sharma (2013), "Measuring Post Merger Performance-A Study of Metal Industry", *International Journal of Applied Research and Studies*, Volume2, Issue 8, ISSN:22778-9480
11. Stewart C. Myers and Nicholas S. Majluf *Journal of Financial Economics*, 1984, vol. 13, issue 2, 187-221



12. Verma, N. & Sharma, R. (2014), Research Report On: "Impact of Mergers & Acquisitions on Firms' Long Term Performance: A Pre & Post Analysis of the Indian Telecom Industry" IRACST-*International Journal of Research in Management & Technology* (IJRMT), ISSN: 2249-9563 Vol. 4, No.1, February
13. Vyas, V., Narayanan, K., and Ramanathan, A., "Determinants of Mergers and Acquisitions in Indian Pharmaceutical Industry" *Eurasian Journal of Business and Economics* 2012, 5 (9), 79-102.