IMPACT OF ACQUISITION ON PROFITABILITY AND GROWTH IN PHARMACEUTICAL INDUSTRY: A STUDY ON SELECTED INDIAN COMPANIES

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ABSTRACT

Merger & Acquisition (M&A) is an important facet of corporate strategy. It plays a pivotal role in the development of any nation. On the other hand, the growth of the Pharmaceutical Industry and their contribution to Indian economy can never be overemphasized. In this paper an attempt has been made to analyze the impact of acquisition on the Pharmaceutical Industry based on selected companies (Ranbaxy Laboratories Ltd. and Sun Pharmaceutical Industries). For this study, various profitability ratios, different descriptive statistics and time series analysis has been used to make a comparative analysis on the profitability, operating performance in the pre and post-acquisition period. This study also helps to analyze the synergic growth achieved by the acquiring firms in the post-acquisition period. This research showed that there is no significant impact on profitability (as per *T*-Test) and over the time, the growth assumed by the acquisition is profitable for Sun Pharmaceutical Industries Ltd. in some aspects (as per time series analysis), i.e. competitive advantage has been gained by the Sun Pharmaceutical Industries Ltd. through acquisition. However, it has been found that for Ranbaxy Laboratories Ltd., there is no significant impact on profitability (as per *T*-Test) and over the time growth assumed by the acquisition is not profitable at all for Ranbaxy Laboratories Ltd. (as per time series analysis) i.e. competitive advantage has not been gained through Acquisition. Moreover, the performance was much better during the pre-acquisition period.

Keywords: Acquisition, Pharmaceutical Industry, Profitability and Growth, Acquiring Firms, Target Firms

INTRODUCTION

An entity may grow its business either by internal expansion or by external expansion. In the case of internal expansion, a firm grows gradually over time in the normal course of the business, through different ways viz. acquisition of new assets, replacement of the technologically obsolete equipments, the establishment of new lines of products etc.

However, if a firm wants to jump few steps in the growth ladder, they can opt for external expansion. Under this expansion technique, a firm may acquire a running business and grows overnight through combinations between two companies. These combinations may be in the form of mergers, acquisitions, amalgamations, takeovers etc. and have now become important facet of corporate strategy.

Merger and Acquisition plays an important role in the external growth of a number of leading firms in the world-wide. It has become popular because of the intense competition, breaking of trade barriers, exploration of new market, advent of new technology, diversification of product line, free flow of capital across countries and globalization of businesses. In the wake of economic reforms, Indian industries have also started restructuring their operations around their core business activities through merger, acquisition and takeovers because of their increasing exposure to competition both domestically and internationally.

In the Pharmaceutical sector, Mergers and acquisitions also play an important role for 'market-entry' strategy as well as for the 'expansion strategy'. In the last few decades there has been severe competition all over the world in the Pharmaceutical Sector. In order to avoid such unwilling competition, the pharmaceutical firms may go for mergers and acquisitions to strengthen their position for achieving its short-term as well as long-term corporate objectives viz. synergetic, dynamic and continuing as a competitive and successful entity.

This paper contributes on the study on effect of mergers and acquisitions on the profitability and growth of the pharmaceutical industry in India.

LITERATURE REVIEW

The survey of literature is an important part of any research work. It helps to identify the untouched area and thus to frame objectives of the study. Following are the brief presentation of the existing literature on Merger and Acquisition:

- Roll (1988), has also asserted the managerial over

optimism in hubris hypothesis of merger and acquisition. Above description helps to explain merger and acquisition motives which are justified by certain empirical evidences from time. After assessing in brief, the motives of merger and acquisition, this would be an interesting aspect to look for the factors that determine merger and acquisition activity in a particular industry or in the entire economy as a whole.

- Trautwein, (1990), has stated that the motives of merger and acquisition could depend upon shareholder's interest as well as on manager's interest and their deviation from shareholders' value maximization approach.

- Andrade, Mitchell & Stafford (2001) in their research paper titled *"New Evidence and Perspectives on Mergers"*: have analyzed that ownership changes are positively related to productivity improvements at the plant-level, but the relationship is not present in firm-level data.

- Andrade & Stafford (2004) have also noted that profitability doesn't play a significant role in firm's decision on merger investment, but it does impact non-merger investment positively.

- Danzon, Epstein & Nicholson (2007) while studying determinants of merger and acquisition in pharmaceutical industry have expected positive relationship between revenue of the firm and acquisitions but later found that this relationship is insignificant.

- Demirbag, Ng & Tatoglu (2007) has made their research between two set of companies – merged firms and non-merged firms belonging to pharmaceutical industry. They have observed that no additional value was generated in merged firms compare to the non-merged firms in terms of research productivity, return on investment, and profit margin.

- Mantravadi & Reddy (2007) in their research paper titled "Mergers and operating performance: Indian experience", have attempted to study the impact of mergers on the operating performance of acquiring corporate in different periods in India, after the announcement of industrial reforms, by examining some pre and post-merger financial ratios. The result of their study has suggested that there are minor variations in terms of impact on operating performance following mergers in different intervals of time in India. It has also indicated that for mergers between the same groups of companies in India, there has been deterioration in

performance and returns on investment.

- Grabowski & Kyle (2008) in their paper titled, *Merger and Alliances in Pharmaceuticals: Effect on Innovation and R&D Productivity*, have shown that a company's development experience is significantly related to the likelihood of success and there is suggestive evidence that very small firms with only a few projects in their R&D portfolio can gain the most benefits from mergers with more experienced firms in developing new drug introductions.

- Khan (2011) has tried to find out the purpose and motivation of merger and acquisition in Indian banking sector. Moreover, in his study he has observed the changes and overall impact on the acquiring banks caused by merger and acquisition. He has observed that merger and acquisition is an important tool for growth in the banking sector and efficiency of the acquiring bank has increased due to merger and acquisition.

- Vyas, Narayanan & Ramanathan (2012) have attempted to find out the determinants of Merger and Acquisition in Indian pharmaceutical industry. The results of their Logit analysis suggests that large and multinational affiliated firms are investing more in Merger and Acquisition activities. Similarly, firms reporting excess capacity and high R&D investments are relying heavily on Merger and Acquisition to restructure and consolidate their position in the industry.

- Malik *et al.*, (2014) have initiated to find out the effect of Merger and Acquisition's on the financial performance of banks. The study was conducted on the banking sector of Pakistan. Five events were taken as a sample of the study. The data of every sample event was collected three years before and three years after the year of Merger and Acquisition's. The study was based on CRAMEL model. As per the results, capital adequacy, resource allocation, management capabilities and liquidity have insignificant effects on bank's performance after Merger and Acquisition's while assets quality and earning quality has significant effects on the bank performance after Merger and Acquisition's.

- Zhu & Hilsenrath (2015) have emphasised on the fact that despite the rapid growth of the pharmaceutical industries their profitability eroded due to merger. They tried to establish the fact that the concentration of the retail pharmacy industry has negative impact on the Producer Price Index

and positive impact on the profitability of the industry.

- Tamragundi & Devarajappa (2016), in their paper titled, *Impact of Mergers on Indian Banking Sector: A comparative study of Public and Private Sector merged Banks*, have examined the impact of mergers on performance of selected commercial banks in India. They have opined that the impact of mergers on performance of the banks has been evaluated from three prospective - physical Performance of merged banks, financial performance of merged banks and share price performance. They have used various Statistical tools like, Mean, Standard deviation and *T*-Test has been used for analyzing the performance and testing the hypotheses. They have concluded that, merger is a useful strategy, through this Banks can expand their operations, serve larger customer base, increases profitability, liquidity and efficiency but the overall growth and financial illness of the bank can't be solved from mergers.

The review of the above-mentioned literatures shows that although many research works have been conducted worldwide, including India, the study on effect of merger and acquisition on the profitability of pharmaceutical industry in India over a long period of time is untouched. In other words, no work has been found exclusively in the area on the relationship between the operating performance with merger and acquisition. Therefore, there is a research gap which induces us to take up the study.

Objectives of the study

The objectives of the study are the ends stated to establish the outcomes towards which we are intended and directed at. The sole purpose of the study is to achieve the aims which are stated as follows:

1. To understand the impact of merger and acquisition on the profitability of the selected Indian pharmaceutical companies. More specifically, it shows the difference in various types of profits (e.g. gross profit, operating profit, net profit etc.) in the pre and post-acquisition of such pharmaceutical companies.
2. To understand the impact of merger and acquisition on the growth of the selected Indian pharmaceutical companies.

Research Hypothesis

H_0=There is no significant impact of M&A on the Profitability of the acquiring companies.

H_1=There is a significant impact of M&A on the Profitability of the acquiring companies.

RESEARCH METHODOLOGY

Sources of Data

- The present study is entirely based on Secondary Data.
- The data was obtained from various Annual Reports relating to the various operating performances of pharmaceutical sector firms.
- The data has been augmented from various books, magazines, journals, annual reports, articles and websites.

The Area of Study

The present study is mainly based on Indian Pharmaceutical Sectors. The study is based on two large Indian Pharmaceutical Companies-

1. Sun Pharmaceutical Industries Ltd.
2. Ranbaxy Laboratories Ltd.

Selection of Companies & Sample Design

The sample of study is based on the data over a long period of two Indian Pharmaceutical Companies (refer to table 1a). List of Companies and the period of study is as follows:

Table 1a: List of Companies and the Period of Study

Sl. No.	Acquirer Company	Target Company	Year	Period of Study
1	Sun Pharmaceutical	Taro Pharmaceutical	2007	2000-01 to 2017-18
2	Ranbaxy Laboratories	Terapia	2006	1998 to 2013-14

Method of Analysis

Various Profitability Ratios [Gross Profit, Net Profit, Operating Profit, Return on Capital Employed and Return on Net Worth, earning per Share, and Dividend per Share (Pre-acquisition and Post-acquisition)] are used to analyze the impact on profitability & Operating performance on the selected Indian Pharmaceutical firms and descriptive statistics have been used to analyze the study. Moreover, to understand the growth of the selected Indian pharmaceutical companies, time series analysis has been used.

Research Limitations

This study only focuses on financial factors over the time period & other non-financial factors and other M&A activities have not been taken into consideration which could have an impact on the Profitability of the

companies. E.g. Government policy, Company management policies etc. The effect of take-over of Ranbaxy Laboratories Ltd. by Sun Pharmaceutical Industries Ltd. has not been considered in the study.

Data Presentation & Analysis

For analyzing the impact of acquisition on the profitability of the selected Indian pharmaceutical companies, we need to study only the annual reports of the acquiring companies (viz. Sun Pharmaceutical Industries Ltd. and Ranbaxy Laboratories Ltd.), not the target company as they are entirely controlled by its acquirer.

For ascertaining the profitability of the companies, the major important ratios are calculated in the pre and post-acquisition of such pharmaceutical companies.

Different descriptive statistics viz. mean, standard deviation and coefficient of variation are calculated to measure the effect on the different tier of profits. Moreover, to understand the changes of different tier of profits over the defined period, Time series Analysis has been made.

Presentation of Data of Sun Pharmaceutical Industries Ltd.:

The following charts are showing various pre-acquisition and post-acquisition profitability ratios of Sun Pharmaceutical Industries Ltd. over a period of 18 years (Table 1b & Table 2).

Table 1b: Post-acquisition Period Ratios of Sun Pharmaceutical Industries Ltd.

Year	GP (%)	NP (%)	OP (%)	ROCE (%)	RONW (%)	EPS	DPS
2017-18	-3.90	-6.24	1.55	3.08	-2.50	-2.10	2.00
2016-17	-4.01	-0.29	1.48	0.80	-0.10	-2.10	3.50
2015-16	-11.80	-14.09	-5.71	-1.72	-4.99	-2.10	1.00
2014-15	-15.20	-18.38	-6.96	-3.57	-6.48	-0.10	3.00
2013-14	57.74	-94.65	0.6	-36.58	-38.18	-13.66	1.5
2012-13	54.04	19.35	43.8	7.94	6.63	4.99	5
2011-12	73.67	38.94	43.8	21.54	21.55	16.39	4.25
2010-11	47.74	41.91	42.61	21.21	20.71	13.36	3.5
2009-10	13.63	33.99	13.63	17.05	15.71	43.39	13.75
2008-09	0.79	31.43	2.91	24.57	24.56	61.09	13.75
2007-08	6.01	31.01	8.38	24.21	24.09	48.96	10.5

Source:https://www.moneycontrol.com/india/stockpricequote/pharmaceuticals/sunpharmaceuticalindustries/SPI

Table 2: Pre-acquisition Period Ratios of Sun Pharmaceutical Industries Ltd.

Year	GP (%)	NP (%)	OP (%)	ROCE (%)	RONW (%)	EPS	DPS
2006-07	26.73	26.69	-3.28	16.83	25.68	32.52	6.75
2005-06	27.81	25.85	1.16	14.53	31.43	24.83	5.5
2004-05	51.27	24.78	11.92	11.47	27.65	16.48	3.75
2003-04	56.54	25.29	23.93	25.4	27.99	25.84	3.25
2002-03	33.63	28.98	33.32	35.95	33.24	24.83	10
2001-02	29.21	24.39	29.16	34.92	31.98	36.33	5
2000-01	28.15	23.85	28.77	30.14	29.05	28.03	5

Source: https://www.moneycontrol.com/india/stockpricequote/pharmaceuticals/sunpharmaceuticalindustries/SPI

Presentation of Data of Ranbaxy Laboratories Ltd.:

The following charts are showing various pre-acquisition and post-acquisition profitability ratios of Ranbaxy Laboratories Ltd. over a period of 16 years (Table 3 & Table 4).

Table 3: Post-Acquisition Period Ratios of Ranbaxy Laboratories Ltd.

Year	GP (%)	NP (%)	OP (%)	ROCE (%)	RONW (%)	EPS	DPS
2013-14	-8.8	-11.49	-4.72	2.54	-80.16	-20.74	0
2012	4.07	-2.47	7.02	7.68	-8.45	-3.84	0
2011	10.25	-38.04	13.77	17.6	-158.61	-72.32	0
2010	18.31	19.74	22.35	12.82	22.41	27.28	2
2009	10.52	11.72	13.62	8.03	14.44	13.61	0
2008	2.07	-22.02	5.39	2.52	-29.5	-24.85	0
2007	7.51	14.33	9.31	4.93	24.34	16.56	8.5
2006	14.39	9.07	15.17	10.05	16.19	10.21	8.5

Source: https://www.moneycontrol.com/india/stockpricequote/pharmaceuticals/ranbaxylaboratories/RL

Table 4: Pre-acquisition period Ratios of Ranbaxy Laboratories Ltd.

Year	GP (%)	NP (%)	OP (%)	ROCE (%)	RONW (%)	EPS	DPS
2005	4.9	5.78	5.01	3.07	8.92	5.64	8.5
2004	16.9	13.81	16.58	21.73	21.02	28.38	17
2003	24.14	20.72	23.98	36.69	34.23	42.84	17
2002	23.09	20.43	23.54	27.56	33.12	33.62	15
2001	12.74	12.04	14.35	14.09	15.68	21.74	10
2000	14.21	10.32	14.04	13.65	11.53	15.74	7.50
1999	16.66	12.80	21.94	16.02	13.14	16.16	7.5
1998	14.59	11	11.66	8.28	8.35	13.46	5

Source: https://www.moneycontrol.com/india/stockpricequote/pharmaceuticals/ranbaxylaboratories/RL

Statistical Analysis

Table 5 & Table 6 shows various statistical measures viz. mean, standard deviation and co-efficient of variance of pre and post-acquisition profitability ratios. Moreover, Table 7 & Table 8 shows Independent Sample Test & *T*-test for equality of Means Time Series Analysis [through Coefficient of Time (B)]:

A. Measurement of Dispersion

Ratios	Mean		Std. Deviation		Coefficient of Variation	
	Pre	Post	Pre	Post	Pre	Post
GP	35.19	19.88	12.39	31.99	34.24	160.92
NP	25.69	5.73	1.73	39.91	6.73	696.51
OP	17.85	13.28	14.63	20.16	81.92	151.81
ROCE	24.18	7.14	10.00	18.06	41.35	252.94
RONW	29.58	5.55	2.72	18.87	9.21	340
EPS	26.98	15.28	6.32	24.73	23.44	161.85
DPS	5.61	5.61	2.25	4.75	40.12	84.67

Table 6: Ranbaxy Laboratories Ltd.

Ratios	Mean		Std. Deviation		Coefficient of Variation	
	Pre	Post	Pre	Post	Pre	Post
GP	15.90	7.25	5.99	8.33	37.67	114.87
NP	13.40	-2.25	4.98	20.12	37.21	-894.19
OP	16.50	10.13	6.64	8.11	40.25	80.14
ROCE	17.76	8.50	10.92	5.15	61.48	60.64
RONW	18.21	-25.13	10.24	64.48	56.25	-256.65
EPS	22.26	-6.75	12.09	32.11	54.30	-475.64
DPS	10.88	2.25	4.76	3.62	43.74	160.69

A. Independent Sample Test & T-test for equality of Means

Table 7: Independent Sample Test & T-test for Equality of Means

Ratios	Sun Laboratories Industries Ltd.				Ranbaxy Laboratories Ltd.			
	t value	Degree of freedom	*P* value	Significance	*t* value	Degree of freedom	*P* value	Significance
GP	0.22	16	0.049	Significant	2.38	14	0.032	Significant
NP	0.21	16	0.039	Significant	2.13	14	0.066	Not Significant
OP	0.61	16	0.650	Not Significant	1.72	14	0.108	Not Significant
ROCE	0.04	16	0.187	Not Significant	2.17	14	0.048	Significant
RONW	0.004	16	0.047	Significant	1.88	14	0.101	Not Significant
EPS	0.24	16	0.847	Not Significant	2.39	14	0.031	Significant
DPS	1	16	0.997	Not Significant	4.08	14	0.001	Significant

C. Time Series Analysis [through Coefficient of Time (B)]

Table 8: Time Series Analysis

Factors	Sun Pharmaceutical Industries Ltd.		Ranbaxy Laboratories Ltd.	
	Post-acquisition (B value)	Pre-acquisition (B value)	Post-acquisition (B value)	Pre-acquisition (B value)
GP	-11.500	0.429	-1.786	1.420
NP	-14.179	0.321	-3.095	0.096
OP	-3.250	-6.179	-1.369	-0.435
EPS	-11.714	-0.571	-5.357	1.220
MPS(BSE)	69.964	14.393	16.107	50.454
MPS(NSE)	70.107	14.429	16.095	50.428

D. Graphical Presentation of Trend through slope of B Value:

Figure 1 to 6 shows upward or downward trend, i.e. the slope of 'B' (coefficient of time) of post & pre-acquisition period of Profitability and Market Price per Share (BSE &NSE) Sun Pharmaceutical Industries Ltd and Figure 7 to 12 show the same for Ranbaxy Laboratories Ltd.

Sun Pharmaceutical Industries Ltd:

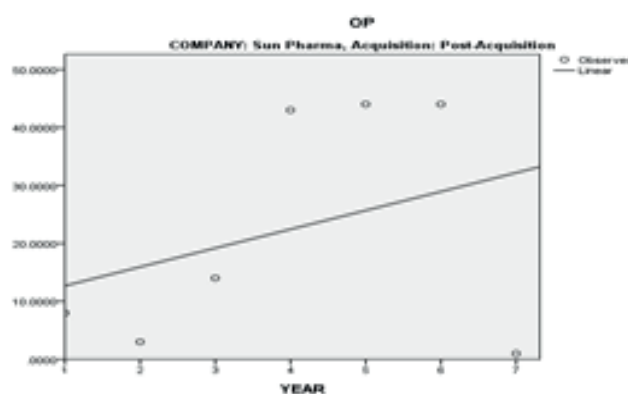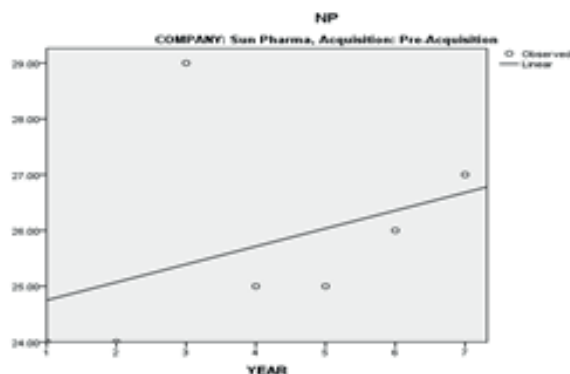### *Figure 1: Gross Profit*
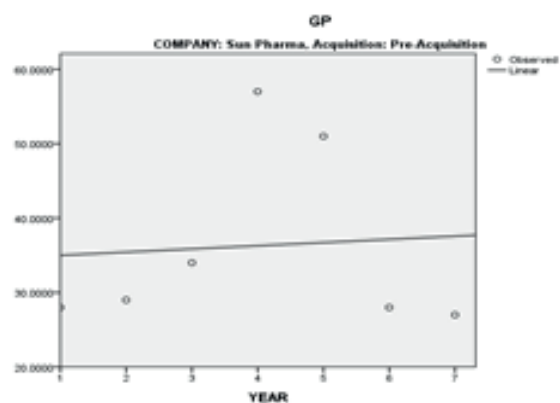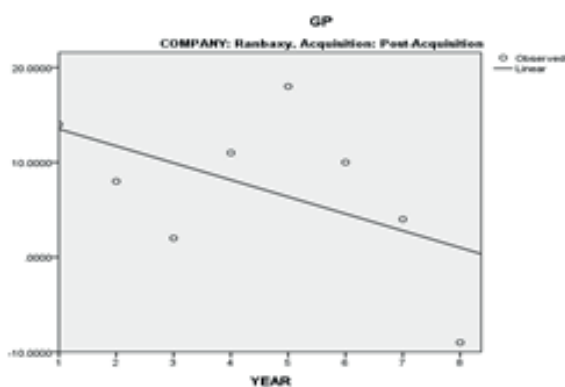
Figure 2: Net Profit
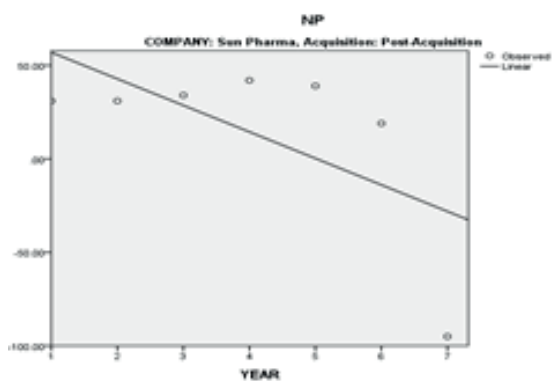
Figure 3: Operating Profit
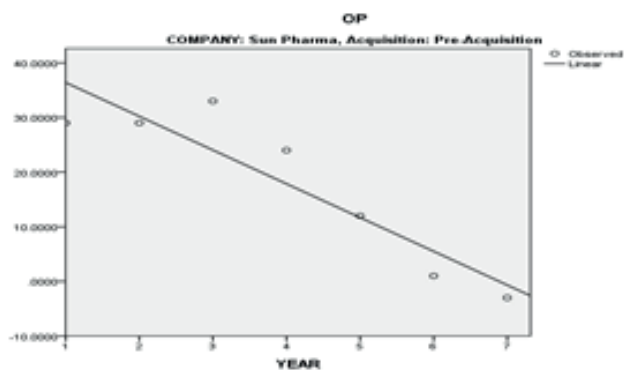
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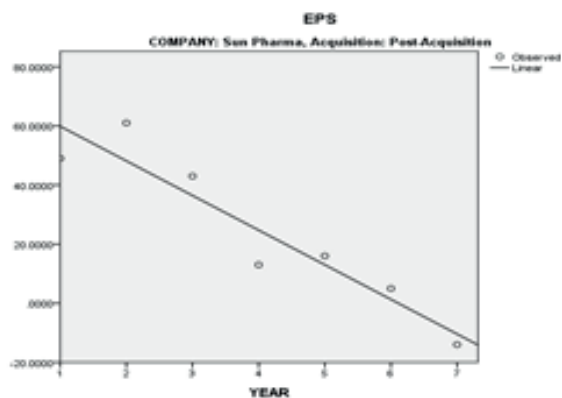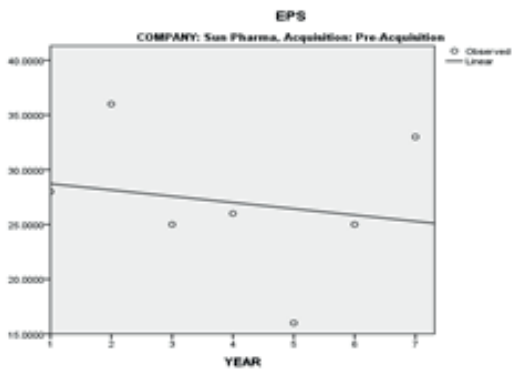
Figure 5: Market Price per Share (BSE)
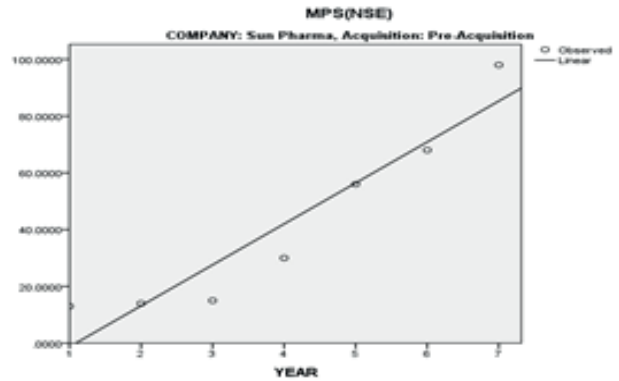
Ranbaxy Laboratories Ltd:

Figure 7: Gross Profit
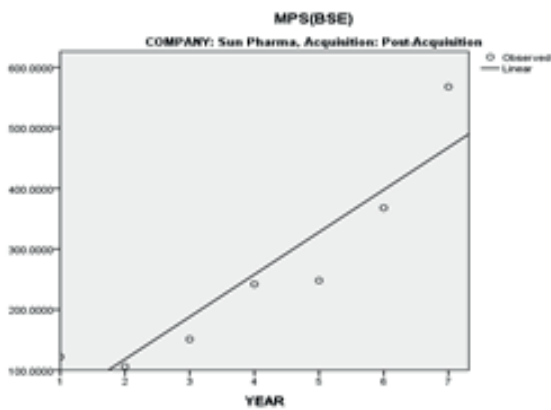
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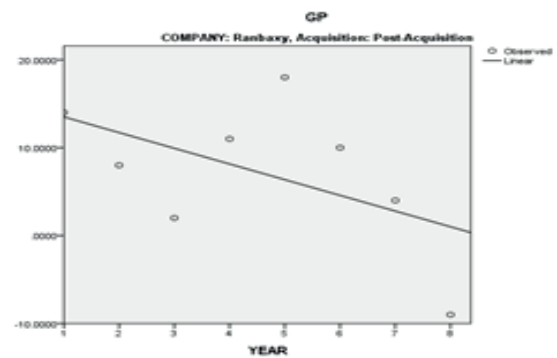
Figure 8: Net Profit
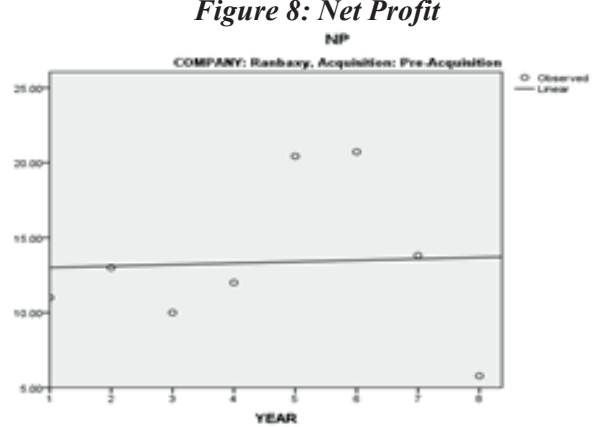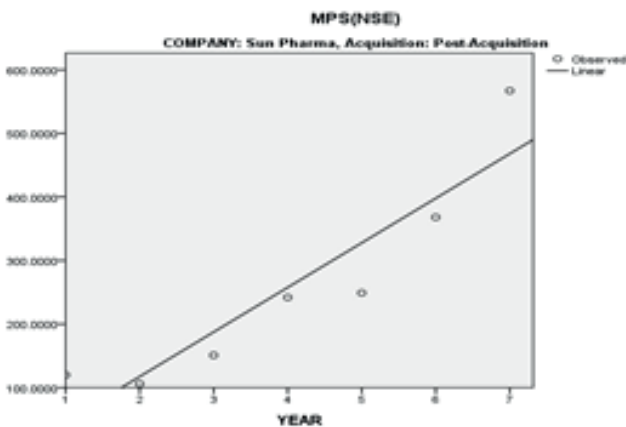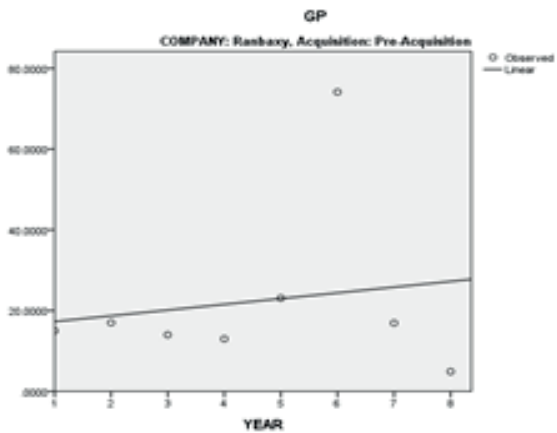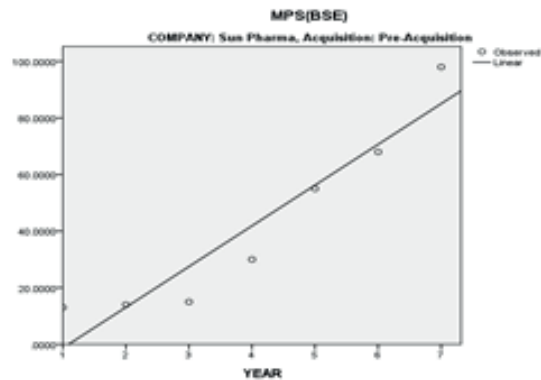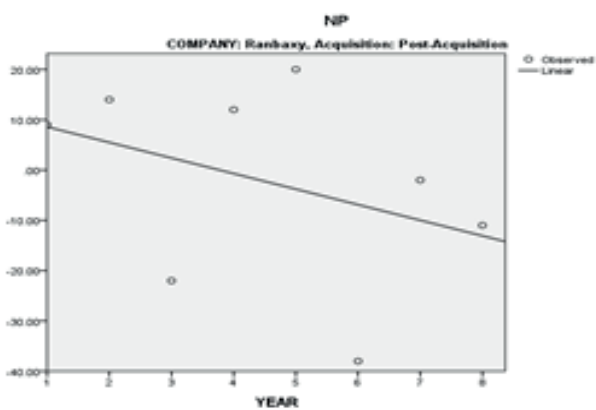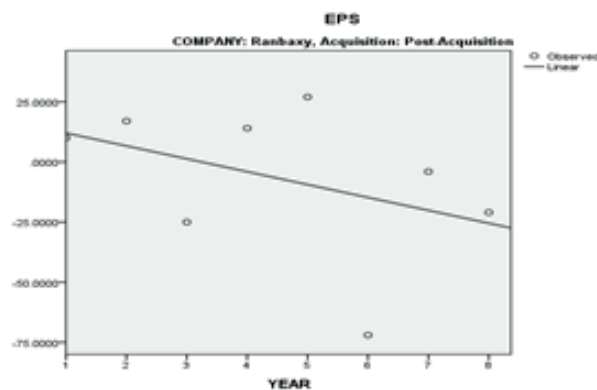
Figure 9: Operating Profit

Figure 10: Earnings per Share

Figure 11: Market Price per Share (BSE)
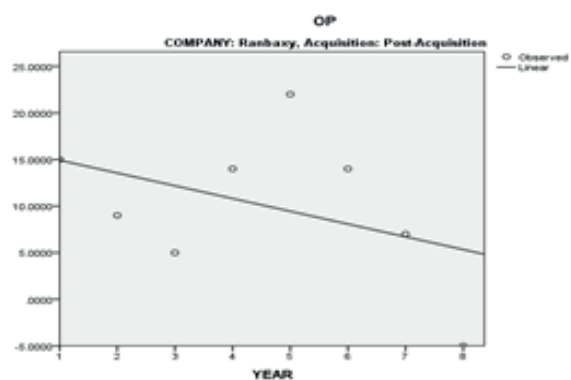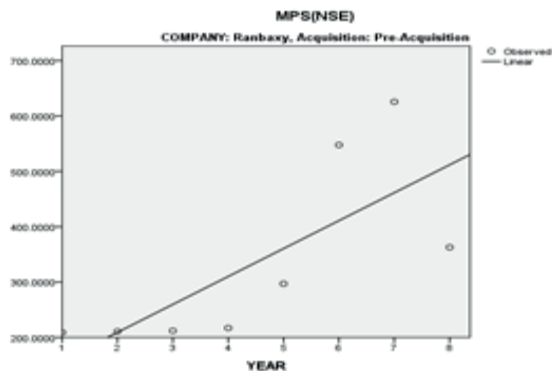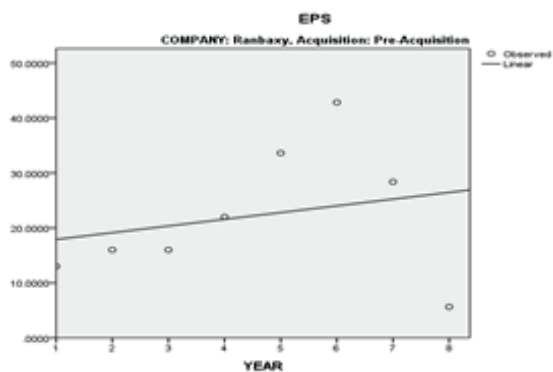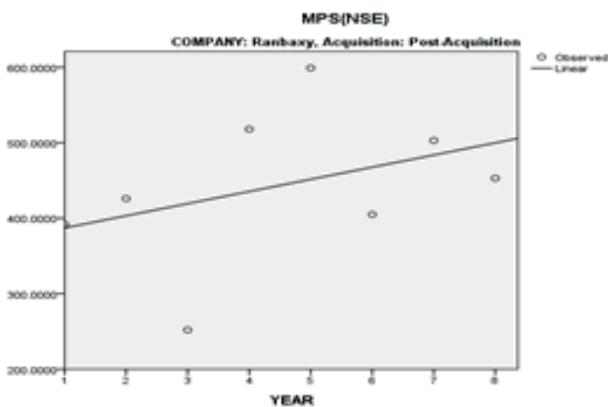

Figure 12: Market Price per Share (NSE)

RESULT

Sun Pharmaceutical Industries Ltd.

Table 1 and Table 2 are representing various post and pre-acquisition profitability ratios [such as Gross Profit (GP), Net Profit (NP), Operating Profit (OP) etc.] of Sun Pharmaceutical over a period of 18 years.

From the various profitability ratios of post and pre-acquisition period, the statistical analysis, such as Standard deviation, Mean and Coefficient of Variation (table 5) have been made and it can be observed that the variations in respect of Gross Profit Ratio, Net Profit Ratio, Operating Profit Ratio, Return on Net Worth, Earnings per Share and Dividend per Share was much higher in post-acquisition period than pre-acquisition period.

Thorough the Independent Sample Test, i.e. *T*-test for Equality of Means (table 7) we have observed the following:

▪ In respect of Operating Profit, Return on Capital Employed, Earning Per Share and Dividend per share, the corresponding "*p*" values (OP=-0.650, ROCE=0.187, EPS=0.847, DPS=-0.395) in respect of "*t*" values (OP= 0.61, ROCE= 0.04, EPS= 0.24, DPS= 1) are higher than 5% level of significance, i.e. $P > 0.05$, which leads to the acceptance of our Research Hypothesis that the company after acquisition has no significant effect on the profitability of the company.

▪ However in respect of Gross Profit, Net profit, Return on Net Worth, the corresponding "p" value (GP=0.049, NP= 0.039, RONW= 0.047) in respect of "*t*" value (GP= 0.22, NP= 0.21, RONW=2.21) is lower than the 5% level of significance, i.e. $P < 0.05$, which leads to rejection of the Research Hypothesis that the company after acquisition has significant effect regarding Net Worth which again leads to the further conclusion that Gross Profit, Net Profit and Return on Net Worth was significantly lower in the pre-acquisition period.

Various factors of profitability and Market price per Share are analyzed by using time series analysis (table 8). Through this analysis, it is to observe that whether the impact of acquisition is profitable or not for the company in the long run with the passage of time, i.e. whether competitive advantage gained by the Sun pharmaceutical through acquisition or not. From 'B" values (coefficient of time) it can be stated that:

▪ The value of Gross Profit (figure 1) during the post-acquisition period was-11.500, where as in pre-acquisition period it was 0.429. Therefore, during the post-acquisition period, it GP shows a downward trend more than the pre-acquisition period. This leads to the conclusion that in respect of GP the performance in respect of profitability and growth after acquisition was poor.

▪ In respect of Net Profit (figure 2), the value was negative (-14.179), i.e. B < 0 during the post-acquisition period. This leads to a downward trend in the post-acquisition period. However, the value of NP in pre-acquisition was 0.321 which leads to an upward trend. In this respect the performance in respect of profitability and growth was not better in the post-acquisition period.

▪ In respect of Operating profit (figure 3), the value shows a negative trend during the pre-acquisition period (-0.6149) with the corresponding positive value in the post-acquisition period (-3.250). So, it can be said that growth was poor during post-acquisition period in respect of Operating Profit.

▪ In respect of Earnings per Share (figure 4), both the post and pre acquisition 'B' value was negative, i.e. B < 0. However, post-acquisition period shows a higher negative trend (-11.714) than the pre-acquisition period (-0.571). So, it can be inferred that the growth was very poor in post-acquisition period than pre-acquisition period.

▪ In respect of Market price per Share in BSE (figure 5), the value was much higher during the post-acquisition period (69.964) than pre-acquisition period (14.393). So, in this respect the growth was much better during the post-acquisition period.

▪ Finally, in respect of Market price per Share in NSE (figure 6), the value was much higher during the post-acquisition period (70.107) than pre-acquisition period (14.429). So, in this respect also the growth was much better during the post-acquisition period.

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Table 4 and Table 5 are representing various post and

pre acquisition profitability ratios [such as Gross Profit (GP), Net Profit (NP), Operating Profit (OP) etc.] of Sun Pharmaceutical over a period of 12 years. The variations in respect of Gross Profit Ratio, Net Profit Ratio, Operating Profit Ratio, Return on Net Worth, Earnings per Share and Dividend per Share was very much higher in post-acquisition period than pre-acquisition period. However, the Coefficient of Variation (table 6) was negative in respect of Net Profit (-894.19), Return on Net Worth (-256.65) and Earnings per share (-475.64). (This is due to negative value of mean)

Thorough the Independent Sample Test, i.e. T-test for Equality of Means (table 7) we have observed the following:

- In respect of Net Profit, Operating Profit, Return on Net Worth, the corresponding "p" values (NP= 0.066, OP= 0.108, RONW= 0.101) in respect of "t" values (NP= 2.13, OP= 1.72, NW=1.88) are higher than 5% level of significance, i.e. $P > 0.05$, this leads to acceptance of our Research Hypothesis, i.e. that the company after acquisition has no significant effect on profitability.

- In respect of Gross profit, Earning per Share and Dividend per Share, the corresponding "p" values (GP= 0.032, ROCE= 0.048, EPS= 0.031, DPS= 0.001) in respect of "t" values (GP= 2.38, ROCE= 2.17, EPS= 2.39, DPS= 4.08) are lower than 5% level of significance, i.e. $P < 0.05$, this leads to rejection of our Research Hypothesis, i.e. there was a significant effect on profitability after acquisition which leads to further conclusion that Net Profit, Return on Capital Employed, Earning per Share and Dividend per share was higher in pre-acquisition. Various factors of profitability and Market price per Share are analyzed by using time series analysis (table 8). Through this analysis, it is to observe that whether the impact of acquisition is profitable or not for the company in the long run with the passage of time, i.e. whether competitive advantage gained by the Sun pharmaceutical through acquisition or not. From 'B" values (coefficient of time) it can be stated that:

- In respect of Gross profit (figure 7), the value was negative (-1.786), i.e. B < 0 in the post-acquisition period. However, the value was positive (1.420) (B >0) in the pre-acquisition period which leads to the downward trend of GP during the post-acquisition period and an upward trend during the pre-acquisition period.

- In respect of Net profit (figure 8), the value was

negative (-3.095), i.e. B < 0 in the post-acquisition period. However, the value was positive (0.096) (B >0) in the pre-acquisition period which leads to the downward trend of GP during the post-acquisition period and an upward trend during the pre-acquisition period.

- In respect of Operating Profit (figure 9), the value was negative (-1.369), i.e. B<0 in the post-acquisition period. However, the value was also negative (-0.435) (B<0) in the pre-acquisition period which leads to the downward trend of GP during the post-acquisition period as well as during the pre-acquisition period. However, the situation is better in respect of pre-acquisition period.

- In respect of Earnings per Share (figure 10), the value was negative (-5.357), i.e. B < 0 in the post-acquisition period. However, the value was positive (1.220) (B >0) in the pre-acquisition period which leads to the downward trend of GP during the post-acquisition period and an upward trend during the pre-acquisition period with a better growth.

- In respect of Market price per Share in BSE (figure 11), the value was much lower during the post-acquisition period (16.107) than pre-acquisition period (59.454). So, in this respect the growth was much better during the pre-acquisition period.

- Finally, in respect of Market price per Share in NSE (figure 12), the value was much lower during the post-acquisition period (16.095) than pre-acquisition period (50.428). So, in this respect also the growth was much better during the post-acquisition period.

DISCUSSION

The summary of the study relating to acquisition of selected Indian Pharmaceutical Companies are as under:

Sun Pharmaceutical Industries Ltd.

- Thorough the Independent Sample T-Test (table 7), we have observed that there is no significant effect on the profitability viz. Operating Profit, Return on Capital Employed, Earning Per Share and Dividend Per Share of the company after acquisition. Moreover, the company after acquisition has significant effect on Gross Profit, Net Profit and Return on Net Worth which were significantly lower in the pre-acquisition period.

- Various factors of profitability and Market price per Share are analyzed by using time series analysis (from 'B" values: coefficient of time) (table 8). By the analysis, it can be stated that Gross Profit, Net

Profit and Opening Profit were not better in the post-acquisition period. Moreover, Earnings per Share, was very poor in post-acquisition period than pre-acquisition period. However, Market price per Share in BSE as well as that of NSE was much higher during the post-acquisition period than pre-acquisition period.

Ranbaxy Laboratories Ltd.

- Thorough the Independent Sample T-Test (table 7) we have observed that there is no significant effect on the profitability viz. Net Profit, Operating Profit, Return on Net Worth. Moreover, in respect of Gross profit, Earning per Share and Dividend per Share, there was a significant effect on profitability after acquisition which leads to further conclusion that these were higher in pre-acquisition period.

- Various factors of profitability and Market price per Share are analyzed by using time series analysis (from 'B" values: coefficient of time) (table 8). By the analysis, it can be stated that the Gross profit, Net Profit, Operating Profit, Earnings Per Share and Market Price per Share in BSE were better in pre-acquisition period than post-acquisition period. However, Market Price per Share in NSE was much better during the post-acquisition period than pre-acquisition period.

CONCLUSION

Regarding Sun Pharmaceutical Industries Ltd.:

- Different profitability ratios such as Gross Profit, Net Profit, and Operating Profit are showing an upward trend in the pre-acquisition period and downward trend in the post-acquisition period but in respect of Earnings per Share, it shows a negative trend in both the pre and post-acquisition period. So, from these ratios, it can be concluded that over the time, growth assumed by the acquisition is not profitable for Sun Pharmaceutical i.e. competitive advantage has not been gained by the Sun Pharmaceutical through acquisition.

- However, some of the profitability ratios such as return on capital employed, return on net worth and DPS are not significant in pre as well as post-acquisition situation.

Regarding Ranbaxy Laboratories Ltd.

- In respect of Ranbaxy Laboratories Ltd., Gross Profit, Net Profit, Operating profit and Earnings per Share are showing a downward trend during the post-acquisition period and an upward trend during the pre-acquisition period. However, in respect of

Operating profit, it shows a downward trend in the pre-acquisition period. However, the situation is worst in the post-acquisition in respect of Operating profit.

- Moreover, in respect of Market Price per Share (both BSE and NSE), it shows an upward trend in case of both the pre and post-acquisition period. However, the growth in respect of Marker Price per Share (BSE and NSE) is much better in pre-acquisition period than post-acquisition period.

- So, it can be concluded that with time growth assumed by the acquisition is not profitable at all for Ranbaxy Laboratories Ltd., i.e. competitive advantage has not been gained through Acquisition. Moreover, the performance was much better during the pre-acquisition period.

- The reason behind such downfall in the profitability and growth of Ranbaxy Laboratories Ltd. and the Sun Pharmaceutical Industries Ltd. was that the company has faced multiple exceptional situations that have adversely affected its profitability. These exceptional items are:

o Stock provision
o Provision for diminution in the value of Investment etc.

Finally, it can be concluded that the operating performance, i.e. profitability of Sun pharmaceutical Industries Ltd. is not much better as compared to Ranbaxy laboratories Ltd., even though the Net Profit of Sun Pharmaceutical Industries Ltd. is not satisfactory.

RECOMMENDATIONS

- Sun Pharmaceutical Industries Ltd. should try to improve the profitability, which indicates that the operating cost of these companies is higher. These companies should try to control such expenses and Sun pharmaceutical industries should improve the return on shareholders' wealth.

- Ranbaxy Laboratories Ltd. should try to improve in all aspects relating to its Gross Profit, Net Profit, Return on Capital Employed, Earnings per share and Dividend per share.

- The companies can take proper Measures for the following areas to improve financial performance:

o Reduction in Exceptional charges
o Improvement in base-business and key-product launches
o Focus on cost containment viz, Cost of goods sold, manpower & other costs.

o Rationalizing operations
o Research & Development (R&D)

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