

SYNERGY CREATION BY MERGER AND ACQUISITION WITH SPECIAL REFERENCE TO SUN PHARMACEUTICAL COMPANY LTD.

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Abstract:

Corporate strategies would lead companies to different destinations, companies of different industries may use different strategies to achieve their reason for existence. Irrespective of industries, mergers and acquisitions seem to be the most used strategies in different industries. Pharmaceutical industries in India are not exception for this practices, Sun Pharmaceutical company Ltd since 1996 using these strategies to be the largest pharmaceutical company at global market and its acquisition and join ventures crossed Indian political border too. The study aimed to know the financial synergy after merger and acquisitions of sun pharmaceutical, to know the financial synergy, study took seven years pre- and post- acquisition of 2014 Ranbaxy Company and three pre acquisition and post acquisitions ratios of 2019 Polo Pharma company acquisition. – financial rations of the company. 2014 and 2019 will be the base years. As per the study, to have financial synergy companies may take time, the required time may depend on various factors.

Key words: Merger and Acquisition, Synergy, Financial Performance, Sun Pharmaceutical Company.

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Introduction:

Global market would give number of opportunities participating companies in respective industries, pharmaceutical industry at global market has big companies like Pfizer, Novartis, Roche, Jonson and Jonson and others. At Indian Market, Sun Pharma, Dr. Reddy's, Cipla, Lupin Ltd, Aurobindo Pharma, and other. Each company uses their own strategies to lead the industry by various means, using corporate strategies would give success or some time may lead to dissolution of company or may lead to be a target company for acquisition. Success of the corporate strategies can be evaluated with various methods, the study selected impact of acquisition on financial performance of the sun pharmaceutical company. In 1996 they acquired API plant from Knoll Pharma, in 1999- acquired Mil met laboratory of India bases firm, In 200 Acquired Pradeep Drugs Company, India, In 2010 acquired controlling stack in Israel based Taro Pharmaceutical, In 2008 acquired Chattem Chemicals Inc, USA, In 2014 acquired Ranbaxy, In 2016 14 branches of Novartis in Japan and in 2019 Acquired Polo Pharma, Japan. Financial ratios are used to evaluate impact of acquisition on financial performance of the company, among more than 7 acquisitions, 2014 and 2019 acquisition have used for this study, for 2014 acquisition -2014 year is considered as base year and 7 pre- acquisition, and 7 post acquisition years' ratios are collected and evaluated and for 2019 acquisition- 3 pre- acquisition and 3 postacquisition ratios are used for evaluation. Corporate strategies like acquisition would take time to have their impact on the financial performance of the company, in short time duration, it would be difficult to know the difference in performance.

Review of Literature:

Merger and acquisition in pharmaceutical or biotech industry served various purposes of companies operating in the industry, small firms may use this strategy to have solution to financial problems and large scale companies used to become leaders in the industry as per the study on mergers and acquisition on biotech and pharmaceutical industry conducted by Patricia, M. Danzon, Andrew Epstein and Stean Nicholson (2007)¹, by evaluating 383 companies annual reports to know the motives for merger and acquisition in the industry by evaluating determinants of decision during 1988 and 2001, gap in pipeline of production, economy of scale and acquiring assets were primary motives or determinants of the decision as per the study.

Financial goals also played important role in decision making process of this merger and acquisition, and in case of large and small scale companies, both have different motives. For small scale, surveillance in the industry would have determinant factor for large companies' other determinants as specified as per the study. But the study showed that merger and acquisition may be the mean to solve the troubles and not a solution. Along with the mentioned objectives, increasing capital and expanding R&D may ne another reason as per the study conducted in India on determinants of M&A in Indian pharmaceutical industry by Vidhisha VYAS, Krishna Narayan and A. Ramanath (2012)², with PROWESS data provided by centre for monitoring Indian Economy for the year 2001-2010. Further study have done on the effect of Merger and acquisition (M&A) on shareholders wealth creation in US pharmaceutical industry during the year 1981 to 2004 by Mahmud Hassan, Dilip K.Patro and Howard Tuckman (2007)³, merger and acquisition have been happening for various reasons in pharmaceutical industry- the primary motives may be to have leading role and expand scope of business, as per the study merger have failed to create value compare to acquisition. And in case of acquisition too, company's operating efficiency have increased more than financial efficiency. How this merger and acquisition had impact on shareholders wealth in Indian pharmaceutical industry, have studied with help of BSE market index values of acquiring company during 2001 -2007 by Neelam Rani, Surendra S Yadav ad P K Jain (2011)⁴, as per the study for initial days it not giving abnormal profit but over a period of time acquisition activities helped Indian company to strengthen their market and financial position along with patent acquisition, acquisition of small biotech companies and etc.. Merger and acquisition increases the competition levels in industry and the level of activities going to impact price supply of the drugs in the market as per the study conducted by Marc Andre Gagnon and Karena D. Volesky (2017)⁵, on merger and acquisition in US during 1995 and 2016 and its impact on competition level.

Objective statement:

Study aimed to know the effect of merger and acquisition on financial performance of sun pharmaceutical company.

Hypothesis.

 H_{00} - There is no impact of acquisition on the financial performance of the company.

 H_{01} - There is an impact of acquisition on the financial performance of the company.

Research Methodology:

Sun pharma's 2019 and 2014 acquisitions have been taken for the study, for 2014 acquisitions – Seven years pre- and post-acquisition data have been taken and considered 2014 as base year. In the case of 2019th year, 2019 is base year and three years post and pre acquisition data have been taken from money control website.

Ratios from the year 2007 to year 2022 have been used for two different events, to know the

improvement in financial performance in connection to financial synergy t test have done with help of SPSS application.

Limitation of the study:

The study considered 2014 and 2019 acquisition of ... company by sun pharma and evaluation financial aspects only. The study does not consider motives for the merger and acquisition and its impact on other aspects or departments except financial performance. And prior 2014 acquisition is not considered for the study.

Data analysis and interpretation

	Table 01: Pre and Post Merger and Acquisition - Pershare ratios and t test result for 2014th Acquisition.											
	Tal	ole 01: Pre and	Post Mer	ger and Ac	quisition - l	Pershare ra	tios and t t	test result f	or 2014th	Acquisiti	on.	
		Basic EPS	Diluted EPS	Cash EPS (Rs.)	Value [ExclReval Reserve]/ Share (Rs.)	Share (Rs.)	Share(Rs.)	Operation s/Share (Rs.)	hare (Rs.)	PBIT/Sh are (Rs.)	re (Rs.)	Net Profit/Sh are (Rs.)
	21	8.92		11.36							8.97	8.92
Post	20	13.4			101.68	101.68		52.23	17.6		13.56	
Merger		3.4			95.21	95.21	2.75	42.94	12.62	10.31	3	3.4
and	18	1.3		3.3	93.04	93.04		37.54	8.78			1.27
Acquisiti		-0.1	-0.1	1.66	87.58	87.58			2.62	0.86		-0.1
on	16	-4.5	-4.5	-2.53	89.27	89.27	1	31.64	-0.01	-1.94	-4.44	-4.46
	15	-6.1	-6.1	-3.93	109.78	109.78	3	38.71	-1.68	-4.87	-7.53	-7.12
	13	5	5	5.82	75.21	75.21	5	23.49	7.24		6.4	4.99
Pre-	12	16.4			76.07	76.07			20.3	19.57	16.67	16.39
Merger	11	13.4	13.4	13.98	64.51	64.51	3.5	30.01	14.67	14.05	14.04	13.36
and	10	43.39	43.39	46.74	276.07	276.07	13.75	89.08	49.13	45.77	45.75	43.39
Acquisiti	9	61.65	61.65	64.5	248.72	248.72	13.75	133.96	65.52	62.68	62.54	61.65
on	8	48.96	48.96	51.67	203.15	203.15	10.5	114.35	53.75	51.05	50.8	48.96
	7	32.52	32.52	34.91	126.58	126.58	6.75	85.96	35.97	33.57	33.12	32.52
	Paired Sar	Basic EPS	Diluted EPS	Cash EPS (Rs	Book Value [1	Book Value [Dividend / Sh	Revenue from	PBDIT/Shai	PBIT/Share	PBT/Share (Profit/Share (
	Sig. (2- tailed)	0.025	0.025	0.03	0.17	0.17	0.065	0.147	0.038	0.031	0.022	0.024

Table 01 showing per share ratios for post and premerger for the year 2014. From year 2007 till 2013, there are positive development along with fluctuations- after 2014 acquisition, for initial three years ratios been negative, from year 2018 there are growth in these ratios. Paired t test has done for

data of two time, as per value in green box indicating impact of merger and acquisition of per share ration. In the case of book value per share, dividend per share and revenue per share have no impact of acquisition as per significant values.

Tab	Table 02: Pre and Post Merger and Acquisition - Profitability ratios and t test result for 2014th												
				A	cquisition	1.							
	Years	PBDIT Margin	PBIT Margin (%)	PBT Margin (%)	Net Profit Margin (%)	Return on Networth / Equity (%)	Return on Capital Employed (%)	Return on	Total Debt/Equi ty (X)	Asset Turnover Ratio (%)			
	21	24.1	19.52			8.54							
Post	20	33.69	29.21	25.95	25.62		13.45	8.36	0.24	32.62			
Merger	19	29.38	24.01	6.98	7.92	3.57	10.12	2.16	0.26	27.31			
and	18	23.38	17.97	3.11	3.39	1.36	6.68	0.83	0.3	24.47			
Acquisiti	17	8.18	2.69	-0.21	-0.29	-0.1	0.9	-0.06	0.23	22.68			
on	16	-0.04	-6.13	-14.02	-14.09	-4.99	-4.23	-3.13	0.26	22.27			
	15	-4.32	-12.56	-19.44	-18.38	-6.48	-5.58	-3.93	0.24	21.41			
	13	30.8	27.27	27.26	21.23	6.63	6.38	5.58	0.01	26.3			
Pre-	12	52.34	50.45	42.97	42.27	21.54	20.92	18.58	0.01	43.97			
Merger	11	48.87	46.8	46.78	44.52	20.71	20.29	18.19	0.01	40.85			
and	10	55.14	51.38	51.35	48.7	15.71	15.37	13.87	0.01	28.48			
Acquisiti	9	48.9	46.78	46.68	46.02	24.78	24.2	20.55	0	44.65			
on	8	47	44.63	44.42	42.81	24.1	23.01	18.71	0.02	43.71			
	7	41.83	39.05	38.52	37.82	25.68	17.41	16.24	0.44	42.95			
		PBDIT Mar	PBIT Margi	PBT Margin	Net Profit M	Return on N	Return on C	Return on A	Total Debt/E	Asset Turnov			
	Sig. (2- tailed)	0.002	0.002	0.001	0.003	0.008	0.013	0.002	0.029	0.022			

Table 02 showing profitability ratios for preacquisition and post-acquisition of the year 2014 acquisition, acquisition would have impact on profitability of the company, as per the table, after acquisition for initial two years, company have experienced negative values among different

profitability ratios and after that improved. But in the year 2021 we can observe reduced values- it would be cause of pandemic. At the bottom of table, we have paired t-test values, as per the value, acquisition have impact on the profitability ratios of the company.

Table 03	Table 03: Pre and Post Merger and Acquisition - Liquidity ratios and t test result for 2014th Acquisition													
	Years	Current Ratio (X)	Quick Ratio (X)	Inventor Y Turnover Ratio (X)	Dividend Payout Ratio (NP) (%)	Dividend Payout Ratio (CP) (%)	Earnings Retentio n Ratio (%)	Cash Earnings Retentio n Ratio (%)						
_	21	1.45	1.07	4.04	72.86	57.18	27.14	42.82						
Post	20	1.07	0.83	4.76	_	36.55	57.06							
Merger	19	0.84	0.63	3.69	58.67	34.98	41.33	65.02						
and	18	0.76	0.59	4.22	261	100.61	-161	-0.61						
Acquisiti	17	0.58	0.37	3.33		60.25	1,153.76	39.75						
on	16	0.6	0.36	3.57	-22.42	-39.49	122.42	139.49						
	15	0.49	0.3	3.66	-48.97	-88.75	148.97	188.75						
	13	3.37	2.61	2.8	100.24	85.95	-0.24	14.05						
Pre-	12	3.9	3.27	6.27	25.92	24.82	74.08	75.18						
Merger	11	5.97	5.18	5.03	26.19	25.03	73.81	74.97						
and	10	2.65	1.75	3.24	31.69	29.41	68.31	70.59						
Acquisiti	9	2.92	2.4	5.7	22.3	21.31	77.7	78.69						
on	8	2.87	2.49	6.08	21.44	20.32	78.56	79.68						
	7	8.43	7.14	4.99	20.67	19.25	79.33	80.75						
		Current Rati	Quick Ratio	Inventory Tu	Dividend Pa	Dividend Pa	Earnings Re	Cash Earnin						
	Sig. (2- tailed)	0.007	0.008	0.136	0.438	0.702	0.438	0.702						

Table 03 showing liquidity ratios for the year 2007 to 2021 and paired sample t test result for the same. In the case of current ratios and quick ratios for both pre- and post-acquisition, acquisition had impact on these two as per t test. For other liquidity ratios, acquisition had no impact as per the test

result- as per the values in table, during year 2015 to 2017 (after acquisition) company experienced negative values in case of dividend payout ratio, after 2017, recovered to the positive values. So, values are insignificant to prove the difference between pre-acquisition and post-acquisition.

Tab	Table 04: Pre and Post Merger and Acquisition - Valuation ratios and t test result for 2014th												
				Acq	uisition								
	Years	Enterprise Value (Cr.)	EV/Net Operatin g Revenue (X)	EV/EBITDA (X)	MarketCa p/Net Operating Revenue (X)	Retention Ratios (%)	Price/BV (X)	Price/Net Operating Revenue	Earnings Yield				
	21	149,635.45							0.01				
Post	20	89,593.53		21.22	6.74	57.05	3.46	6.74	0.04				
Merger	19	120,496.23	11.7	39.8	11.16	41.32	5.03	11.16	0.01				
and	18	125,484.55	13.93	59.58	13.2	-161	5.32	13.2	0				
Acquisiti	17	169,644.26	22.08	269.68	21.47	1,153.76	7.85	21.47	0				
on	16	202,702.44	26.62	-64,146.34	25.9	122.42	9.18	25.9	-0.01				
	15	216,735.09	27.03	-624.52	26.41	148.97	9.31	26.41	-0.01				
	13	84,360.34	34.69	112.59	34.85	-0.24	10.88	34.85	0.01				
Pre-	12	57,690.01	14.37	27.45	14.69	74.07	7.49	14.69	0.03				
Merger	11	44,552.43	14.34	29.33	14.72	73.8	6.85	14.72	0.03				
and	10	36,908.42	20	36.27	20.09	68.3	6.48	20.09	0.02				
Acquisiti	9	21,797.12	7.86	16.06	8.3	77.69	4.47	8.3	0.06				
on	8	24,534.86	10.36	22.04	10.77	78.55	6.06	10.77	0.04				
	7	20,251.20	12.18	29.11	12.26	79.32	8.33	12.26	0.03				
		Enterprise Val	EV/Net Opei	EV/EBITDA (X	MarketCap/N	Retention Rat	Price/BV (X)	Price/Net Ope	Earnings Yield				
	Sig. (2- tailed)	0.003			0.992				0.038				

Valuation ratios of sun pharma company for preacquisition and post- acquisition period are in the above **table 04**. As per the values in the table, enterprise value has been improved and significant value for the same is showing the positive impact of acquisition on enterprise value. In case of earning yield, acquisition had impact, but value is not supporting positive impact. But in case of other liquidity ratios, values are positive in both time and significance value is insufficient to prove the difference between these two-time periods.

Data analysis for 2019th Acquisition.

	Table 05: Pre and Post Merger and Acquisition - Pershare ratios and t test result for 2019th Acquisition.													
	Years	Basic EPS (Rs.)	Diluted EPS (Rs.)	Cash EPS (Rs.)		Book Value [InclReva IReserve] /Share (Rs.)		Revenue from Operation s/Share (Rs.)	PBDIT/S hare (Rs.)	PBIT/Sha re (Rs.)	PBT/Shar e (Rs.)	Net Profit/Sha re (Rs.)		
Post Merger and	22	-0.4	-0.4	5.21	102.48	102.48	10	64.96	16.11	10.48	1.28	-0.42		
Acquisition	21	8.92	8.92	11.36	104.36	104.36	7.5	53.36	12.86	10.42	8.97	8.92		
	20	13.4	13.4	15.72	101.68	101.68	4	52.23	17.6	15.26	13.56	13.38		
D M	18	1.3	1.3	3.3	93.04	93.04	2	37.54	8.78	6.75	1.17	1.27		
Pre- Merger and Acquisition	17	-0.1	-0.1	1.66	87.58	87.58	3.5	32.03	2.62	0.86	-0.07	-0.1		
requisition	16	-4.5	-4.5	-2.53	89.27	89.27	1	31.64	-0.01	-1.94	-4.44	-4.46		
	Paired													
	Samples Test	Basic EPS (I	Diluted EPS	Cash EPS (F	Book Value	Book Value	Dividend / S	Revenue froi	PBDIT/Sha	PBIT/Share	PBT/Share (Net Profit/Sh		
	Sig. (2-tailed)	0.276	0.276	0.169	0.026	0.026	0.082	0.009	0.062	0.121	0.222	0.276		

Table 05 showing per share ratio of sun pharma company from the year 2016 to 2022 and t test significance value for two group of data- for the first group 2016-2018 and 2020- to 2022. 2019 where another acquisition has happened is considered as the base year. As per the value in the table, during pre-acquisition period- values were negative and during post-acquisition period value seems to be improved as per the data, but *except*

book value per share and revenue from operation per share, for other ratios, t value is unstuffing to prove the impact of acquisition on per share ratios of sun pharma company. But, in 2014th acquisition, majority of per share ratio were affected by acquisition as per table 01. It seems, to have synergy by corporate strategies, company may need longer time (longer time depended on macroeconomic factors and company's internal factors)

Table (Table 06: Pre and Post Merger and Acquisition - Profitability ratios and t test result for 2019th												
	Acquisition.												
	Years	PBDIT Margin (%)	Margin	PBT Margin (%)	Net Profit Margin (%)	Return on Networth / Equity (%)	Return on Assets	Debt/Equi	Asset Turnover Ratio (%)				
Post Merger	22	24.8	16.13	1.96	-0.64	-0.4	-0.24	0.2	0.39				
and	21	24.1	19.52	16.81	16.71	8.54	5.48	0.26	32.82				
Acquisition	20	33.69	29.21	25.95	25.62	13.16	8.36	0.24	32.62				
Pre- Merger	18	23.38	17.97	3.11	3.39	1.36	0.83	0.3	24.47				
and	17	8.18	2.69	-0.21	-0.29	-0.1	-0.06	0.23	22.68				
Acquisition	16	-0.04	-6.13	-14.02	-14.09	-4.99	-3.13	0.26	22.27				
	Paired Samples Test	PBDIT Mar	PBIT Margi	PBT Margin	Net Profit M	Return on N	Return on C	Return on A	Total Debt/E				
	Sig. (2-tailed)	0.21	0.258	0.258	0.299	0.284	0.28	0.511	0.926				

Table 06 shows the details of profitability ratios of sun pharma company for pre- and post-acquisition period of 2019th acquisition. Values in the table

showing the improvement in values after acquisition, but significance values are insufficient to prove the impact of acquisition of profitability

ratios of sun pharma company after 2019 acquisition, but in case of 2014 acquisition, profitability ratios were affected by 2014 acquisition as per values in table 02. The difference between significance values in table 02 and table

06 shows again, corporate strategies may not give results in shorter period. It would take more than three years of time to create synergy and it depends on the individual company and the economic conditions where it operates.

Table 07:	Table 07: Pre and Post Merger and Acquisition - Liquidity ratios and t test result for 2019th Acquisition											
	Years	Current Ratio (X)	Quick Ratio (X)	Inventory Turnover Ratio (X)	Dividend Payout Ratio (NP) (%)	Dividend Payout Ratio (CP) (%)	Earnings Retention Ratio (%)	Cash Earnings Retention Ratio (%)				
Post Merger	22	0.96	0.62	1.4	-2,159.12	172.71	2,259.12	-72.71				
and	21	1.45	1.07	4.04	72.86	57.18	27.14	42.82				
Acquisition	20	1.07	0.83	4.76	42.94	36.55	57.06	63.45				
Pre- Merger	18	0.76	0.59	4.22	261	100.61	-161	-0.61				
and	17	0.58	0.37	3.33	-1,053.76	60.25	1,153.76	39.75				
Acquisition	16	0.6	0.36	3.57	-22.42	-39.49	122.42	139.49				
	Paired Samples Test	Current Rati	Quick Ratio	Inventory Tu	Dividend Pa	Dividend Pa	Earnings Re	Cash Earnin				
	Sig. (2-tailed)	0.119	0.179	0.831	0.734	0.201	0.734	0.201				

Table 07 showing the details of liquidity ratios of sun pharma company for pre-acquisition and post-acquisition of 2019 acquisition and significance value of t test. As per the ratios in the table, ratios are improved after 2019 acquisition but

significance values are not sufficient to prove the difference between there two different timed data. 2019 Acquisition had no impact on liquidity position of the company, company doing well as per the ratios in the above table.

Tab	Table 08: Pre and Post Merger and Acquisition - Valuation ratios and t test result for 2019th Acquisition													
	Years	Enterprise Value (Cr.)	EV/Net Operating Revenue (X)	EV/EBITDA (X)	MarketCa p/Net Operating Revenue (X)	Retention Ratios (%)	Price/BV (X)	Price/Net Operating Revenue	Earnings Yield					
Post Merger	22	223,821.71	14.36	57.9	14.08	2,259.12	8.93	14.08	0					
and	21	149,635.45	11.69	48.49	11.2	27.13	5.73	11.2	0.01					
Acquisition	20	89,593.53	7.15	21.22	6.74	57.05	3.46	6.74	0.04					
Pre- Merger	18	125,484.55	13.93	59.58	13.2	-161	5.32	13.2	0					
and	17	169,644.26	22.08	269.68	21.47	1,153.76	7.85	21.47	0					
Acquisition	16	202,702.44	26.62	-64,146.34	25.9	122.42	9.18	25.9	-0.01					
	Paired Samples Test	Enterprise Val	EV/Net Opera	EV/EBITDA (X)	MarketCap/N	Retention Rat	Price/BV(X)	Price/Net Ope	Earnings Yield					
	Sig. (2-tailed)	0.867	0.23	0.425	0.242	0.734	0.655	0.242	0.321					

Table 08 showing the valuation ratio of sun pharma company for pre-acquisition and post-acquisition of 2019 acquisition and significance value of t test for these two groups of data. As per the ratios in the table, a company is performing well after acquisition, but significant value is not sufficient to prove the impact of 2019 acquisition of valuation ratios of these periods.

Findings and Conclusion:

Corporate strategies like merger and acquisition are not new to the pharmaceutical industry, irrespective of industries, merger and acquisition seems to be wildly used strategy to have leadership role in the market along with other competitive advantages. Sun pharmaceuticals company also used the strategy for various reasons from the year 1996, till here more than 7 acquisitions. As per the study, when it comes to recent 2019 acquisition of Polo pharma- Japan based company had no impact on the financial performance of the company expect negative impact on basic EPS, cash EPS and Profitability, and had improved enterprise value and had positive impact on other valuation ratios too. But when it comes to 2014 acquisition, the company had no impact of acquisition on their financial performance. Study further found that due to 2014 acquisition and its time duration company improved their performance, and it had impact on 2019 acquisition's performed also.

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