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Mergers and Acquisitions: Quick or Distant Payoff Strategy: Pointers from Indian Consumer Goods and Information Technology Sector

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ABSTRACT
Mergers and Acquisitions (M&A) has a glorious past wherein this method was put forth in both - pre and post liberalization period with the different targets to be achieved. In former it was used as an effective tool by the government for rejuvenates the ailing units. Latterly in order to combat with the fierce competition by local as well as international players, business enterprises employed this technique. With the passage of time, M&A has gained popularity amongst local and global players from the diverse sectors for attaining growth. The present paper studies the impact of M&A in the long run by computing and comparing Return on Assets (ROA) as per Du Pont Framework for twelve years – six years pre and six years post-merger on the sample of seven companies that caters to Consumer Goods and Information Technology sector and have done M&A in F.Y. 2004-20052004-2005, 2005-2006 and 2006 -2007 and are yet operating. After applying the Du Pont Framework, the results found depicted the mixed effect of M&A on the all three ratios and was company centric and not particular to any sector.

***Keywords*: -**Mergers and Acquisitions, Consumer Goods, Information Technology, Du Pont.

I INTRODUCTION

Obtaining growth in the business is at the core of the corporate. However with the ever-changing business environment it has become strenuous target for the business organizations to achieve and sustain the same. Internal expansion and external expansion are two distinct mechanisms yet lead to same destination. In former, the firm depending on its internal strength can frame and enact any strategy ranging from entering into new segments, developing new products to exploring new markets. In latter, the enterprises look forward to the opportunities available in outer world and that can take form either of Strategic Alliance or Joint Ventures or Mergers and Acquisitions (M&A).

From all three, M&A is the most popular method and has been practiced by business entities in the diverse sectors across the globe for expanding their footprints in multiple verticals. In the recent past Indian telecom sector too have witnessed the wave of M&A where in three deals have been announced. First was Telenor merger with Bharti Airtel, Aircel's acquisition by Reliance Communication was second in the row and the third but bigger one Idea Vodafone merger.

Also there are number of companies who have charted their growth through series of M&As. Dabur India Limited, Hindustan Unilever Limited and Jyothy Laboratories from Consumer Goods space, RSWM Ltd. and Spentex Industries Ltd. from Indian Textile Sector are few instances. Tata Group is another example having expanded its footprints through M&A in different verticals like Information Technology, Metal and Metal Products, Food and Agro Based Products, Hotel and Tourism and Communication Services.

Having discussed the few examples of successful M&A, the question that arises and need to be answered are - While many companies opt for M&A but what is the success rate. Second the companies who eagerly thrust upon M&A survive in long term or they become target for M&A by other companies. Third M&A gives its fruits instantly or does it take time.

Thus current research work has been undertaken to assess the effect of M&A on financial performance of the companies in the long run by calculating and comparing the ratios based on Du Pont Framework – return on assets, net profit margin, asset turnover ratio.

II LITERATURE REVIEW

Verma & Sharma (2012) has examined the impact of M&A on financial performance of Tata group companies by taking sample of 24 out of 45 external deals that took place between 2003 - 04 to 2007 - 08. They computed and compared current, working capital, return on net worth, return on investment and debt - equity ratio over a period of six year -three years prior merger and three years' post-merger. They applied paired two sample t - test to validate the data statistically and found that there was no significance difference in the ratios.

Leepsa and Mishra (2013) conducted their study specific to Indian manufacturing sectors by selecting the deals during 2003-2004 to 2006-2007. They computed liquidity, profitability and solvency ratios and compared the effect with pre and post-merger taking the time frame of three years for each. Their research findings were that M&A impact were reflected in the immediate years categorically in event and the first year after M&A.

Panda and Sriram (2013) found that M&A improves the profitability as well as enhance the speed of innovation. They conducted their study specific to Indian pharmaceutical sector by taking sample of four companies who done acquisition overseas. For arriving at result they took financial and patent fillings data for eight years and measured profitability with respect to gross profit and operating margins.

Trivedi (2013) chosen top 30 M&A deals struck between 2006-2011 and evaluated their financial performance based on PBDIT, PBT, PAT, PBDIT to Total Income, Pat to Total Income, Return on net worth, on capital employed, quick, current, debt-equity, interest coverage and EPS ratios. All these parameters were compared prior and subsequent merger for the time period of three years and inferred that except EPS companies registered improvement in PBDIT, PBT and PAT.

III OBJECTIVE OF THE STUDY

As stated earlier, the present study has been carried out with an aim to find out whether the financial performance of the companies in the long run has become better following the merger or not. With the given set of objectives, following hypothesis has been constructed:-

H_0 = There is no significant effect on Return on Assets (ROA) after M&A.
H_1 = There is significant effect on Return on Assets (ROA) after M&A.
H_0 = There is no significant effect on Net Profit Margin (NPM) after M&A.
H_1 = There is significant effect on Net Profit Margin (NPM) after M&A.
H_0 = There is no significant effect on Asset Turnover Ratio (ATR) after M&A.
H_1 = There is significant effect on Asset Turnover Ratio (ATR) after M&A.

IV DATA COLLECTION AND METHODOLOGY APPLIED

Comprehensive data has been gathered about the M&A deals of F.Y. 2004-2005, 2005-2006 and 2006-2007 along with the sectors details and financial data with respect to sales, net profit and total assets for computing ratios by referring various secondary sources. Prowess – Centre For Monitoring Indian Economics (CMIE) Database was the key contributor followed by annual reports and websites of the companies and BSE. In order to unambiguous results, M&A deals between the companies having holding subsidiary relationship from inception has not been considered. After studying 453 deals of all three years, a sample of 7 companies covering two sectors - Consumer Goods and Information Technology has been sealed for the study purpose.

Table 1
List of companies along with sectors finalized for the study

S. No.	Main Sector of the Acquirer	Name of the Acquirer	Name of the Target	Main Sector of the Target	Year of Merger
1.	Consumer Goods	Mirza International Ltd.	Leather Trends Pvt. Ltd.	Consumer Goods	2004-2005
		Dabur India Ltd.	Balsara Home Products Ltd.	Consumer Goods	2005-2006
			Balsara Hygiene Products Ltd.		
			Besta Cosmetics Ltd.	Misc. Services	
		Hindustan Unilever Ltd.	T O C Disinfectants Ltd.	Consumer Goods	2005-2006
			Modern Food & Nutrition Inds. Ltd.	Food & Agro Based Products	2006-2007
			Modern Food Inds. (India) Ltd.		
		Videocon Industries Ltd.	E K L Appliances Ltd.	Consumer Goods	2005-2006
2.	Information Technology	H C L Technologies Ltd.	Shipara Technologies Ltd.	Information Technology	2004-2005
		Mphasis Ltd.	Kshema Technologies Ltd.	Information Technology	2005-2006
		Megasoft Ltd.	Visualsoft Technologies Ltd.	Information Technology	2006-2007

The financial data was collected for twelve years - six years before and six year after merger for comparing ratios. Thus F.Y. 2004-2005 financial data was collected from F.Y. 1998 - 1999 to F.Y. 2003 – 2004 for pre-merger and from F.Y. 2005-2006 to F.Y. 2010 – 2011 for post-merger period. Similarly for M&A Deals of F.Y. 2005 - 2006 financial data was collected from F.Y. 1999 - 2000 to F.Y. 2004 – 2005 for pre-merger and from F.Y. 2006 - 2007 to F.Y. 2011 – 2012 for post-merger period and for M&A Deals of F.Y. 2006 - 2007 financial data was collected from F.Y.2000 - 2001 to F.Y. 2005 – 2006 for pre-merger and from F.Y. 2007 - 2008 to F.Y. 2012 – 2013 for post-merger period. The duration of six years were chosen due to availability of pre-merger data for that period only in the Prowess.

Thereafter values for all three ratios were computed for pre and post-merger and analysis was done with respect to mean, standard deviation and coefficient of variation to check the impact of M&A on the firms. In addition to that paired t test were applied at 5% to check the significant effect.

V DUPONT RETURN ON ASSETS (ROA) FRAMEWORK

In 1920s, Du Pont took over General Motors and F. Donaldson Brown was designated as a treasurer of General Motors. He joined Du Pont – the company in 1909 as an explosive salesman and later on promoted to company's finance section. The task assigned to him was to clean up the messy finance of infirm auto manufacturing company. While doing his work, he came across the fact that Return on Assets (ROA) is simply the multiplication of Net Profit Margin (NPM) with Asset Turnover Ratio (ATR). Since then, this model gained popularity as Du Pont Analysis.

Return on Assets (ROA) is the profit earned with respect to assets being deployed into the business in percentage term. Net Profit Margin (NPM) also shows the net income earned by the company in relation to total sales made in a year's time. Asset Turnover Ratio (ATR) manifests the firm's efficiency in utilizing the assets to generate sales.

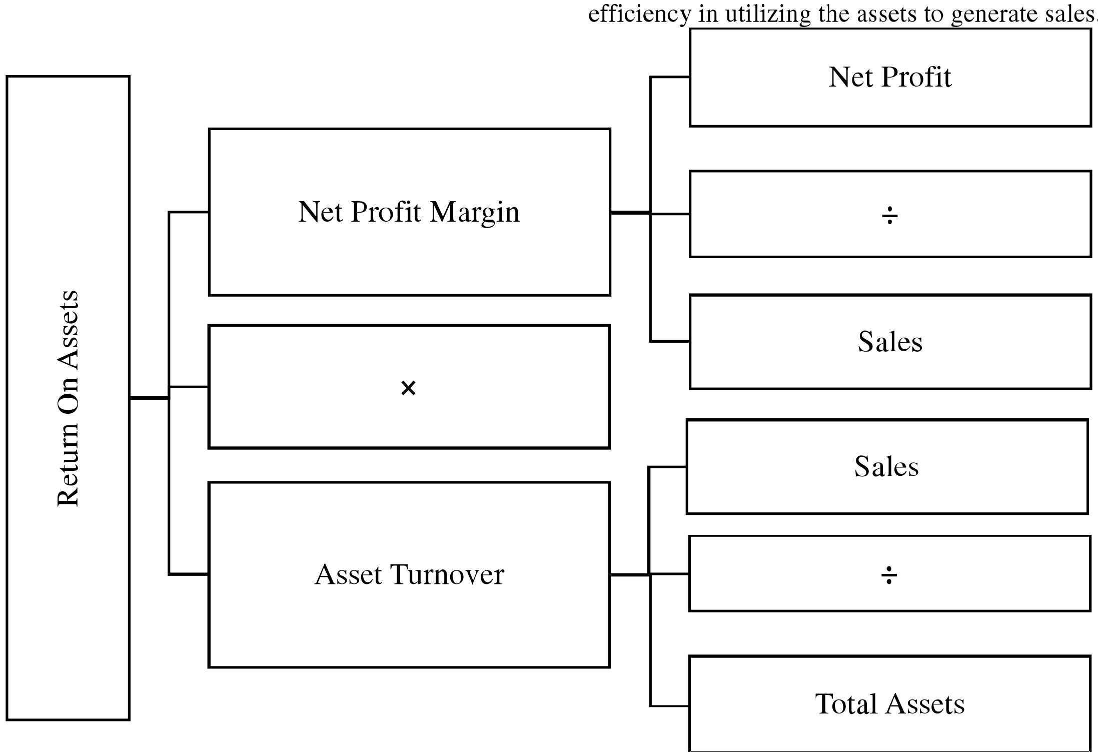

Fig. 1: Du Pont ROA Framework

VI RESULTS AND ANALYSIS

(a) **Impact on Return on Assets (ROA):-** It was observed from Table – II that 3 out of 4 companies that belong to consumer goods sector have been benefited from M&A as their ROA has become better after merger. On the contrary the standard deviation (Table - III) of all these firms has gone up whereas the coefficient of variation (Table - IV) has fallen with respect to two firms and increased in case of one firm following the merger. This indicate that although the companies are fetching good returns when compared to earlier situation but there exists high variability with the improvement in the degree of fluctuation. The remaining 1 firm along with dip in average values has also low standard deviation values but its coefficient of variation values has been escalated. This represents the fact that post-merger company have lost on the count of returns but at the same time have steadiness in the returns with the relatively high degree of fluctuation.

From the 3 firms that constitute information technology sector, the ROA of 2 firms has fallen down and for 1 firm it has improved after merger. However the standard deviation value as well as coefficient of variation of values of all 3 firms has plunged. This indicates that the company with improved returns has also stability in earnings with the low magnitude of inconsistency after merger. Opposite to that the enterprises with diminished return too have consistency in earnings with less intensity of unsteadiness.

From paired t test results (Table V) it was noticed that Dabur India Ltd.from consumer goods andMphasis Ltd. from information technology sector are the firms having significant improvement in ROA following the merger.

(b) **Influence on Net Profit Margin (NPM):-** While looking at NPM (Table II), it was found that the from total 4 companies of consumer goods industry the profit margins of 2 firms has enhanced and that of 2 has tumbled after the merger. In case of former, the standard deviation (Table - III) and coefficient of variation values (Table - IV) has also dropped which specify mergers along with boost also bring firmness in the margins. With respect to latter, the standard deviation of both the firms has gone down whereas the coefficient of variation values of 1firm has increased and for other one it has decreased. This evinces that whilst a merger has hit the profit margins but at the same time there exist invariability too.

In Information Technology sector out of 3 companies, the NPM has slumped for 2 and for 1 it has upturned after the merger. The standard deviation and coefficient of variation values for all 3 firms has decreased following the merger. This demonstrates that post-merger all the companies have less wavering in the profit margins.

Dabur India Ltd. from consumer goods industry and H C L Technologies Ltd. from Information Technology are the enterprises whose NPM after merger has notably increased and decreased respectively (Table VI).

(c) **Influence on Asset Turnover Ratio (ATR):-** Subsequent to merger, the ATR (Table II) in consumer goods sector has upsurge for 2 firms and reduced for 2 firms. The standard deviation values (Table III) of both the firms having higher ATR has fallen albeit their coefficient of variation values (Table IV) depicts different picture one with high and other one with low value. Out of 2 companies with low ATR, the standard deviation and coefficient of variation values of one has enhanced whereas in case of other both the values has fallen. This bespeak that for some firms mergers are boon leading to improve in efficiency and for few it becomes bane as it hinder their efficiency with lack in the consistency part with proportion being vary.

Hindustan Unilever Ltd. from consumer goods sector and Mega soft Ltd. from information technology sector are the firms whose ATR following the merger has significantly improved and reduced respectively (Table VII).

VII DISCUSSION

The outcome of the study was that the effect of M&A was their but on companies and not on the sectors. There impact of M&A was varying from company to company. From consumer goods industry Dabur India Ltd. performance on the count of profitability have become better after the merger. Both ROA and NPM has significant positive impact of merger. However the efficiency of Hindustan Unilever Ltd. has increased remarkably after merger with improvement in ATR following the merger.

From the companies that constitutes information technology sector The ROA of Mphasis Ltd. has notably enhanced after merger. Post-merger there is noteworthy fall in NPM of H C L Technologies Ltd. and ATR of Megasoft Ltd.

VIII POSTLUDE

The current research work has been undertaken with an objective of assessing as to whether the financial performance of the companies in the long run improves after merger or not. The results obtained presented a mix outcome offer that the companies and not the sectors are the one who reap the fruits of M&A in the long run.

IX SCOPE FOR FUTURE RESEARCH

The present study has been conducted to study the long term effect of M&A on financial performance of the companies focusing on two sectors only. The study can be extended by adding other sectors. In this paper, Du Pont ROA framework has been used apart from this other Du Pont models like ROI or ROE can be applied. Variables like liquidity, solvency, and profitability by computing different set of ratios can be studied in future by researchers. Also quantitative model can be developed to find out the factors apart from M&A that affects the performance of the companies.

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Annexure

Table 2: Pre and Post Mean Values of All Three Ratios

Sectors	Company Name	Return on Assets		Net Profit Margin		Asset Turnover Ratio	
		Pre-Merger Mean	Post-Merger Mean	Pre-Merger Mean	Post-Merger Mean	Pre-Merger Mean	Post-Merger Mean
Consumer Goods	Mirza International Ltd.	10.4650	4.8600	10.8983	4.5383	0.9583	1.0367
	Dabur India Ltd.*	13.3850	23.6383	7.8117	14.4917	1.6850	1.6183
	Hindustan Unilever Ltd.#	21.7733	25.1717	13.0850	12.1800	1.7000	2.0767
		21.8317	26.4400	13.3933	12.1567	1.6483	2.1700
	Videocon Industries Ltd.	3.1100	3.8067	4.2750	6.2700	0.7433	0.5850
Information Technology	H C L Technologies Ltd.	20.1717	15.0866	44.2567	21.1567	0.4783	0.7117
	Mphasis Ltd.	6.9933	18.2517	21.1433	19.5517	0.5017	0.9417
	Megasoft Ltd.	2.7350	2.4767	4.1350	8.1483	0.8233	0.2850

*This company has done three acquisitions in F.Y. 2005 - 2006.

#This company has done one acquisition in F.Y. 2005 – 2006 and two acquisitionsin F.Y. 2006 – 2007respectively.

Table 3: Pre and Post Standard Deviation Values of All Three Ratios

Sectors	Company Name	Return on Assets		Net Profit Margin		Asset Turnover Ratio	
		Pre-Merger Std. Dev.	Post-Merger Std. Dev.	Pre-Merger Std. Dev.	Post-Merger Std. Dev.	Pre-Merger Std. Dev.	Post-Merger Std. Dev.
Consumer Goods	Mirza International Ltd.	4.7161	3.2155	4.5925	2.5148	0.0842	0.1324
	Dabur India Ltd.*	4.8320	5.4413	2.1424	1.1888	0.2230	0.2792
	Hindustan Unilever Ltd.#	3.1126	2.8356	2.7569	1.1133	0.2987	0.2831
		3.0928	4.0055	2.3927	1.0663	0.2306	0.2434
	Videocon Industries Ltd.	1.0823	1.8783	1.7429	2.3061	0.1380	0.1065
Information Technology	H C L Technologies Ltd.	11.6668	4.0327	12.1532	4.37240	0.3309	0.0982
	Mphasis Ltd.	7.1576	6.3774	13.1704	6.1516	0.5130	0.1579
	Megasoft Ltd.	10.9953	1.8198	19.1148	4.6214	0.2441	0.0720

*This company has done three acquisitions in F.Y. 2005 - 2006.
#This company has done one acquisition in F.Y. 2005 – 2006 and two acquisitions in F.Y. 2006 – 2007respectively

Table 4: Pre and Post Coefficient of Variation Values of All Three Ratios

Sectors	Company Name	Return on Assets		Net Profit Margin		Asset Turnover Ratio	
		Pre-Merger C.V.	Post-Merger C.V.	Pre-Merger C.V.	Post-Merger C.V.	Pre-Merger C.V.	Post-Merger C.V.
Consumer Goods	Mirza International Ltd.	45.03	66.17	42.13	55.43	8.72	12.75
	Dabur India Ltd.*	36.10	23.02	27.42	8.19	13.35	17.30
	Hindustan Unilever Ltd.#	14.30	11.26	21.06	9.12	17.57	13.51
		14.17	15.15	17.85	8.75	14.01	11.10
	Videocon Industries Ltd.	34.80	49.36	40.77	36.77	18.61	17.97
Information Technology	H C L Technologies Ltd.	57.85	26.74	27.46	20.67	69.14	13.34
	Mphasis Ltd.	102.33	34.95	62.28	31.47	101.86	16.88
	Megasoft Ltd.	402.20	73.55	462.38	56.72	29.38	25.39

*This company has done three acquisitions in F.Y. 2005 - 2006.
#This company has done one acquisition in F.Y. 2005 – 2006 and two acquisitions in F.Y. 2006 – 2007respectively.

Table 5:Paired Sample Test Results for Return on Asset Ratio

Sectors		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Consumer Goods	Pair 1 Mirza International Limited Post and Pre Merger	5.6050	6.1840	2.5246	-0.8847	12.0947	2.220	5	0.077
	*Pair 2 Dabur India Limited Post and Pre Merger**	*-10.2533*	*9.7303*	*3.9724*	*-20.4647*	*-.04196*	*-2.581*	*5*	*0.049*
	Pair 3 Hindustan Unilever Limited Post and Pre Merger#	-3.3983	3.5258	1.4394	-7.0985	0.3018	-2.361	5	0.065
		-4.6083	4.7555	1.9414	-9.5989	0.3823	-2.374	5	0.064
	Pair 4 Videocon Industries Limited Post and Pre Merger	-0.6966	2.4588	1.0038	-3.2771	1.8837	-0.694	5	0.519
Information Technology	Pair 5 HCL Technologies Limited Post and Pre Merger	5.0850	11.4004	4.6542	-6.8790	17.0490	1.093	5	0.324
	Pair 6 Mphasis Limited Post and Pre Merger	*-11.2583*	*4.5264*	*1.8479*	*-16.0085*	*-6.5081*	*-6.093*	*5*	*0.002*
	Pair 7 Megasoft Limited Post and Pre Merger	0.2583	11.2454	4.5909	-11.5430	12.0596	0.056	5	0.957

Table 6:Paired Sample Test Results for Net Profit Margin Ratio

Sectors		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Consumer Goods	Pair 1 Mirza International Limited Post and Pre Merger	6.3600	5.2267	2.1337	0.87491	11.8450	2.981	5	0.031
	*Pair 2 Dabur India Limited Post and Pre Merger**	*-6.6800*	*3.2863*	*1.3416*	*-10.1287*	*-3.2312*	*-4.979*	*5*	*0.004*
	Pair 3 Hindustan Unilever Limited Post and Pre Merger#	0.9050	3.6032	1.4710	-2.8764	4.6864	0.615	5	0.565
		1.2366	3.0835	1.2588	-1.9993	4.4726	0.982	5	0.371
	Pair 4 Videocon Industries Limited Post and Pre Merger	-1.9950	3.2738	1.3365	-5.4307	1.4407	-1.493	5	0.196
Information Technology	*Pair 5 HCL Technologies Limited Post and Pre Merger*	*23.1000*	*12.2164*	*4.9873*	*10.2796*	*35.9203*	*4.632*	*5*	*0.006*
	Pair 6 Mphasis Limited Post and Pre Merger	1.59167	8.25078	3.36837	-7.06700	10.2503	0.473	5	0.656
	Pair 7 Megasoft Limited Post and Pre Merger	-4.0133	21.3889	8.7319	-26.4596	18.4329	-0.460	5	0.665

Table 7:Paired Sample Test Results for Asset Turnover Ratio

Sectors		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference Lower	95% Confidence Interval of the Difference Upper			
Consumer Goods	Pair 1 Mirza International Limited Post and Pre Merger	-0.0783	0.1452	0.0593	-0.2307	0.0740	-1.321	5	0.244
	Pair 2 Dabur India Limited Post and Pre Merger*	0.0666	0.4638	0.1893	-0.4200	0.5533	0.352	5	0.739
	Pair 3 Hindustan Unilever Limited Post and Pre Merger#	-0.3766	0.4224	0.1724	-0.8199	0.0666	-2.184	5	0.081
		-0.5216	*0.2115*	*0.0863*	*-0.7436*	*-0.2997*	*-6.041*	*5*	*0.002*
	Pair 4 Videocon Industries Limited Post and Pre Merger	0.1583	0.1758	0.0718	-0.0262	0.3429	2.205	5	0.079
Information Technology	Pair 5 HCL Technologies Limited Post and Pre Merger	-0.2333	0.2969	0.1212	-0.5449	0.0782	-1.925	5	0.112
	Pair 6 Mphasis Limited Post and Pre Merger	-0.4400	0.5309	0.2167	-0.9972	0.1172	-2.030	5	0.098
	Pair 7 Megasoft Limited Post and Pre Merger	*0.5383*	*0.2261*	*0.0923*	*0.3010*	*0.7756*	*5.831*	*5*	*0.002*