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- Kumar S. (2011): "Customer Value: A Comparative Study of Rural and Urban Customers," Thesis, Kurukshetra University, Kurukshetra.

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MEASURING POST ACQUISITION EFFICIENCY OF CORPORATE M&A IN INDIA (WITH SPECIAL REFERENCE TO TATA STEEL ACQUIRING CORUS)

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ABSTRACT

The Indian economic reform since 1991 has opened up a whole lot of challenges both in the domestic and international spheres. The increased competition in the global market has prompted the Indian companies to go for mergers and acquisitions as an important strategic choice. The trends of mergers and acquisitions in India have changed over the years. . The situation has undergone a sea change in the last couple of years. Acquisition of foreign companies by the Indian businesses has been the latest trend in the Indian corporate sector. This paper focuses on measuring and comparing the pre and post merger performance of Indian corporate sector with special references to the one of the biggest outbound merger and acquisition, Tata Steel acquiring Corus. This research paper has aimed to measure pre & post acquisition performance of Tata Steel whether it has achieved the positive financial efficiency post-merger in terms of Net Profit, Operating Profit, EPS and DPS. Two-tailed paired T- test has been employed as the statistical tool to test the validity of the data i.e. to test if the difference is statistically significant between the mean value of seven years data before and after merger. The findings of the study show the significant positive increase in the financial performance of Tata Steel post-merger in measures of NP, OP, and EPS and not statistically significant difference between DPS pre and post-merger.

KEYWORDS

merger, acquisition, net profit, operating profit, earning per share, dividend per share.

1. INTRODUCTION

In the past India has predominantly been known to investors as the hotbed of outsourcing & IT and has not been in the global radar as a deal centre. The prospects of venturing in have often been over shadowed by foreign investors' apprehensions. The conventional view of India is an economy of contrasts, a populous region, inadequate infrastructure, fabled bureaucracies and tradition of restrictive terms of foreign investors. However while some of these realities have not yet disappeared, a new India is emerging – young, entrepreneurial, skilled, competitive and positioned to be one of the world's great economic centre in the not too – distant future. India is on the verge of assuming leadership in its region and is playing a growing role in the world economy. Foreign investors, both strategic and financial are increasingly entering or expanding in the Indian market¹.

The trends of mergers and acquisitions in India have changed over the years. The situation has undergone a sea change in the last couple of years. Acquisition of foreign companies by the Indian businesses has been the latest trend in the Indian corporate sector. The immediate effects of the mergers and acquisitions have also been diverse across the economy, additional liquidity in the corporate sector, and dynamic attitudes of the Indian entrepreneurs were the key factors behind the changing trends of merger and acquisition in India.

On January 31, 2007, Tata Steel Limited (Tata Steel), one of the leading steel producers in India, acquired the Anglo Dutch steel producer Corus Group Plc (Corus) for US\$ 12.11 billion (€ 8.5 billion). The process of acquisition concluded only after nine rounds of bidding against the other bidder for Corus - the Brazil based Companhia Siderurgica Nacional (CSN).

This acquisition was the biggest overseas acquisition by an Indian company. Tata Steel emerged as the fifth largest steel producer in the world after the acquisition. The acquisition gave Tata Steel access to Corus' strong distribution network in Europe. (www.icmrindia.org)

2. OBJECTIVE OF THE STUDY

The main objective of this research paper is to ascertain the impact of M&A on the progress of the company financially profitably, earning capacity and dividend policies of the acquirer company in Indian corporate sector with special reference to the Tata Steel Ltd.

3. THE PRESENT STATUS OF M&A IN INDIA

In the last few years, India had witnessed a substantial slowdown in the mergers and acquisitions ("M&A") activity. In the year 2011, Indian companies were involved in around 644 transactions worth \$44.6 billion which was reduced in 2012 to 598 transactions worth \$35.5 billion, which were further reduced to less than 500 transactions worth \$30 billion in 2013.¹ However, in 2014 the heightened global M&A trend was seen to replicate in India and several big-ticket announcements boosted deal value in the Indian M&A landscape².

Total number of merger and acquisition (M&A) deals of Indian companies in 2014 rose to 1,177 – valuing at about USD 50 billion – the highest ever in a decade and the momentum is set to pick even higher this year, according to a report. M&A deals contributed close to USD 38 billion from 573 deals and Private Equity (PE) deals contributed USD 12 billion from 604 deals, said a new report by advisory firm **Grant Thornton**.

1. Ernst & Young: Cross border Transaction, Spotlight on India.
2. Nishith Desai Associates, Merger and Acquisition in India, May 2015.

According to Paris-based think tank OECD, Indian economy saw the "strongest growth" in the first quarter of 2015 among large economies, including China, the US, Germany and Canada. Data compiled by the Organization for Economic Cooperation and Development (OECD) showed that overall GDP growth in the G-20 area was slightly lower at 0.7 per cent during the January-March period. In the 2014 December quarter, the region had seen an overall expansion of 0.8 per cent. India recorded the strongest growth in the first quarter of 2015 (2.1 per cent, up from 1.4 per cent in the previous quarter).

4. RESEARCH HYPOTHESIS

There are 4 hypotheses which we would be starting our research study with and are as follows:-

- i) H_0 – There is no significant difference between the pre and post merger **operating profit** of the acquirer company.
 H_1 – There is significant difference the pre and post merger **operating profit** of the acquirer company.
- ii) H_0 – There is no significant difference between the pre and post merger **net profit** of the acquirer company
 H_1 – There is significant difference between the pre and post merger **net profit** of the acquirer company.
- iii) H_0 – There is no significant difference between the pre and post merger **EPS** of the acquirer company.
 H_1 – There is significant difference between the pre and post merger **EPS** of the acquirer company.
- iv) H_0 – There is no significant difference between the pre and post merger **DPS** of the acquirer company.
 H_1 – There is significant difference between the pre and post merger **DPS** of the acquirer company.

5. REVIEW OF LITERATURE

A lot of literature is available in context of measuring performance of concerns post M&A. Some of the literature is as follows:

Prasad V Daddikar, Dr. Arifur Rehman H Shaikh (2014), in their research paper entitled – Impact of M&A on surviving firm Financial Performance: A Study of Jet Airways Ltd. examined that there is insignificant improvement in return on equity, expenses to income, EPS and DPS post merger. The study had the objective to ascertain if Jet Airways has achieved financial performance efficiency during post M&A period specifically in the areas of profitability, leverage, liquidity and capital structure.

Kumar (2009), "Post-Merger Corporate Performance: an Indian Perspective", examined the post-merger operating performance of a sample of 30 acquiring companies involved in merger activities during the period 1999-2002 in India. The study attempts to identify synergies, if any, resulting from mergers. The study uses accounting data to examine merger related gains to the acquiring firms. It was found that the post-merger profitability, assets turnover and solvency of the acquiring companies, on average, show no improvement when compared with pre- merger values. Kumar, R., (2009) "Post-Merger Corporate Performance: an Indian Perspective", Management Research News 32 (2).

Dr. Ramachandran Azhagaiah and T. Sathish Kumar (2011) analysed examined the corporate financial and operating performance of Indian manufacturing firms covering a period from 2004 to 2010. To measure the corporate performance, ratios analysis is used. Results show mixed results of pre-and post-merger values computed. The study proves that Indian manufacturing corporate firms involved in merger& acquisition (M&A) have increased their corporate performance.

Dr. V. K. Shobhana and Dr. N. Deepa (2011) made a probe into the fulfilment of motives as vowed in the merger deals of the nine select merged banks. The study uses Summary Statistics, Wilcoxon Matched Paired Signed Rank Test and 't' test for analysis and interpretation of data pertaining to the five pre and post merger periods each. The result indicates that there has been only partial fulfilment of the motives as envisaged in the merger deals.

Mahesh R. & Daddikar Prasad (2012) focused on the performance of Indian Airline Companies after the consolidation of Airline sector in year 2007-08. The main objective of this paper is to analyze whether the Indian Airline Companies have achieved financial performance efficiency during the post merger & acquisition period specifically in the areas of profitability, leverage, liquidity, and capital market standards. The finding of this study shows that there is no improvement in surviving Company's return on equity, net profit margin, interest coverage, earning per share and dividend per share post-merger & acquisition.

6. DATA COLLECTION AND METHODOLOGY

The empirical study analyses the data of selected acquiring firm for 15 years, 7 years before and 7 years after merger i.e. from 1999-00 to 2005-06 (pre-merger period) and 2007-08 to 2013-14 (post-merger period), 2006-07 is the year of acquisition. The research is based on secondary data and all financial data is collected from annual reports. To analyse the data various statistical measures like mean, variance and correlation are used for descriptive statistics.

7. SAMPLE TECHNIQUE

Convenience sampling has been employed to select the sample for the research purpose. Such sample is undertaken as it represents the better unit for the present study. Its last 15 years financial data is available easily for the research purpose. To perform the research study Tata Steel has been selected from the Indian corporate sector as it made the biggest outbound acquisition ever in Indian M&A history.

8. TEST OF HYPOTHESIS

To test the hypothesis, pre and post acquisition financial performance of Tata Steel Co. is compared to see if there is any statistically significant positive change in the financial performance after M&A using paired T-test at confidence level of 95%. The results are calculated using MS-Excel.

9. OPERATING PROFIT OF TATA STEEL LTD. 7 YEARS BEFORE AND 7 YEARS AFTER MERGER

TABLE 1: OPERATING PROFIT OF TATA STEEL (₹ in crore)

Year	₹	Year	₹
1999-00	1372.85	2007-08	8244.54
2000-01	1768.01	2008-09	9176.44
2001-02	1052.27	2009-10	8905.59
2002-03	2066.84	2010-11	11482.29
2003-04	3474.93	2011-12	11536.77
2004-05	5956.02	2012-13	11126.77
2005-06	5844.22	2013-14	12816.90

Source: www.moneycontrol.com

TABLE 2: t-TEST: PAIRED TWO SAMPLE FOR MEANS OF OPERATING PROFIT

	Before	After
Mean	3076.448571	10469.82429
Variance	4307024.281	2862444.657
Observations	7	7
Pearson Correlation	0.780305946	
Hypothesized Mean Difference	0	
Degree of freedom	6	
t Stat	-15.04771572	
P(T<=t) one-tail	2.7141E-06	
t Critical one-tail	1.943180274	
P(T<=t) two-tail	5.4282E-06	
t Critical two-tail	2.446911846	

Source: MS Excel

DISCUSSION

Ms Excel shows the following results comparing the operating profit of the Tata Steel Co. 7 years before and after merger, mean value of post merger is much higher (more than 3 times) than the mean value of the pre merger. The difference between the pre and post merger is also statistically significant as the two tail t-value 15.04771572 (ignoring negative sign) is greater than table value 2.446911846 i.e. ($t_{stat} > t_{crit}$) and p-value (two tail) 5.4282E-06 is less than .05 i.e. ($p\text{-value} < \alpha$).

Based on the above results and with 95% confidence level we are in position to **reject** the null hypothesis H_0 "There is no significant difference between the pre and post merger **operating profit** of the acquirer company" and **accept** the alternative hypothesis H_1 "There is significant difference the pre and post merger **operating profit** of the acquirer company".

10. NET PROFIT OF TATA STEEL LTD. 7 YEARS PRE AND 7 YEARS POST MERGER

TABLE 3: NET PROFIT OF TATA STEEL (₹ IN CRORE)

Year	₹	Year	₹
1999-00	422.59	2007-08	4687.03
2000-01	553.44	2008-09	5201.74
2001-02	189.19	2009-10	5046.8
2002-03	1012.31	2010-11	6865.69
2003-04	1746.22	2011-12	6696.42
2004-05	3474.16	2012-13	5062.97
2005-06	3506.38	2013-14	6412.19

Source: www.moneycontrol.com

TABLE 4: t-TEST: PAIRED TWO SAMPLE FOR MEANS OF NET PROFIT

	Before	After
Mean	1557.755714	5710.405714
Variance	1995499.196	827498.5576
Observations	7	7
Pearson Correlation	0.293536481	
Hypothesized Mean Difference	0	
Degree of freedom	6	
t Stat	-7.638996097	
P(T<=t) one-tail	0.000131324	
t Critical one-tail	1.943180274	
P(T<=t) two-tail	0.000262648	
t Critical two-tail	2.446911846	

Source: MS Excel

This is table which MS Excel shows when comparing the 14 years Net Profit data i.e. 7 years pre merger and 7 years post merger in t-test. The mean value of net profit has increased more than the three fold during post merger indicates the positive effect of the M&A. The difference between the pre and post merger net profit is statistically significant too because the calculated t-value (two tail) (ignoring the negative sign) is 7.638996097 is greater than the critical value 2.446911846 i.e. ($t_{stat} > t_{crit}$) and p-value (two tail) 0.000262648 is less than the alpha value 0.05 i.e. ($p\text{-value} < \alpha$).

Based on the results of the two tailed paired t-test analysed at 95% confidence level the null hypothesis H_0 "There is no significant difference between the pre and post merger **net profit** of the acquirer company" is **rejected** and alternative hypothesis H_1 "There is significant difference the pre and post merger **net profit** of the acquirer company" is **accepted**.

11. EPS OF TATA STEEL 7 YEARS BEFORE AND 7 YEARS AFTER MERGER

TABLE 5: EARNING PER SHARE OF TATA STEEL (₹ in crore)

Year	₹	Year	₹
1999-00	11.49	2007-08	63.85
2000-01	15.05	2008-09	69.70
2001-02	5.09	2009-10	56.37
2002-03	27.53	2010-11	71.58
2003-04	47.48	2011-12	68.25
2004-05	62.77	2012-13	53.13
2005-06	63.35	2013-14	66.02

Source: www.moneycontrol.com

TABLE 6: t-TEST: PAIRED TWO SAMPLE FOR MEANS OF EARNING PER SHARE

	Before	After
Mean	33.25142857	64.12857143
Variance	601.7291476	48.06164762
Observations	7	7
Pearson Correlation	-0.126012068	
Hypothesized Mean Difference	0	
Degree of freedom	6	
t Stat	-3.10405404	
P(T<=t) one-tail	0.010503764	
t Critical one-tail	1.943180274	
P(T<=t) two-tail	0.021007528	
t Critical two-tail	2.446911846	

Source: MS Excel

Post merger mean value of EPS has increased around double and this increased is statistically significant too as the results show the t-value 3.10405404 (ignoring negative sign) is greater than the table value 2.446911846 i.e. ($t_{\text{stat}} > t_{\text{crit}}$) and p -value (two tail) 0.021007528 is less than alpha value 0.05 i.e. ($p\text{-value} < \alpha$), so we are in position to **reject** the null hypothesis H_0 "There is no significant difference between the pre and post merger EPS of the acquirer company" and alternative hypothesis H_1 "There is significant difference between the pre and post merger EPS of the acquirer company" is **accepted**.

12. DPS OF TATA STEEL 7 YEARS BEFORE AND 7 YEARS AFTER MERGER

TABLE 7: DIVIDEND PER SHARE OF TATA STEEL (₹ IN CRORE)

Year	₹	Year	₹
1999-00	4	2007-08	16
2000-01	5	2008-09	16
2001-02	4	2009-10	8
2002-03	8	2010-11	12
2003-04	10	2011-12	12
2004-05	13	2012-13	8
2005-06	13	2013-14	10

Source: www.moneycontrol.com

TABLE 8: t-TEST: PAIRED TWO SAMPLE FOR MEANS OF DIVIDEND PER SHARE

	Before	After
Mean	8.142857143	11.71428571
Variance	15.80952381	11.23809524
Observations	7	7
Pearson Correlation	-0.521588266	
Hypothesized Mean Difference	0	
Degree of Freedom	6	
t Stat	-1.476561058	
P(T<=t) one-tail	0.095127487	
t Critical one-tail	1.943180274	
P(T<=t) two-tail	0.190254974	
t Critical two-tail	2.446911846	

Source: MS Excel

The mean value for the post 7 years have increased in comparison to the mean value of pre merger 7 years, but based on the above paired sample t – test analysis at 95% confidence level results the difference is not statistically significant because the calculated t-value 1.476561058 (ignoring negative sign) is less than the critical value 2.446911846 i.e. ($t_{\text{stat}} < t_{\text{crit}}$) and p -value 0.190254974 is greater than 0.05 i.e. ($p\text{-value} > \alpha$). Analysing these results, the null hypothesis H_0 "There is no significant difference between the pre and post merger DPS of the acquirer company" is **accepted** and alternate hypothesis H_1 "There is significant difference between the pre and post merger DPS of the acquirer company" is **rejected**.

13. CONCLUSION

The results show that there is significant improvement in Net Profit, Operating Profit and Earning per share and insignificant improvement in Dividend per share. The results from paired sample t-test at significant level of 95% illustrated that there is significant difference in the defined financial performance (OP, NP and EPS) standards between pre & post merger period due to significance level is less than the alpha level, hence this study has rejected the null hypothesis which shows the company had the positive impact of M&A on it. In terms of DPS t-test did not show any significant improvement in the post merger period and null hypothesis was rejected which shows company financial performance increased significantly but did not increased the level of dividend distributions on its share post merger.

14. LIMITATIONS OF THE STUDY

1. The study has focussed on selected industry and company for M&A in India context for the period of 1999-00 to 2013-14.
2. The study has analysed the performance of 7 years pre and post merger period which might not portray the total true picture of the concern performance.
3. The study has touched only four aspects of financial performance i.e. OP, NP, EPS, DPS and analysed the impact of M&A based upon them, this might again not present the true picture of performance of the concern post merger.
4. The study has ignored the change in accounting methods or principle or concept post merger.
5. The study has not used any control groups.

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