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IMPACT OF ACQUISITIONS THROUGH VALUE ADDITION - A CASE STUDY OF TATA STEEL AND TATA POWER COMPANIES IN INDIA

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Abstract:- Economic value added (EVA) and Market value added(MVA) are the two different approaches to measure the existing financial status and predicting the future performance of the company. The study is tried to explore the potentialities and capabilities of the firm by looking pre and post acquisition performance. The present study is mainly based on secondary data. In order to evaluate, calculate, Mean, Standard deviation t-test, and paired sample test have been used a tool of analysis using SPSS 20 version. Acquisitions of the both companies have resulted in significant relation between pre and post acquisition in the value added of the firms.

Keywords: Acquisitions , Tata Steel and Tata power companies , Economic value added (EVA) .

INTRODUCTION

A corporate action in which a company buys most, if not all, of the target company's ownership stakes in order to assume control of the target firm. Acquisitions are often made as part of a company's growth strategy whereby it is more beneficial to take over an existing firm's operations and niche compared to expanding on its own. Acquisitions are often paid in cash, the acquiring company's stock or a combination of both. Few would argue that the most important financial goal of a business organisation should be to maximise the wealth of its shareholders. For a number of years now, accounting measures such as earnings, return on assets and return on equity have been criticised and found wanting as performance indicators leading to greater shareholder wealth (Johnson, Natarajan and Rappaport 1985; Rappaport 1986; Stewart 1991; Ehrbar 1998). The concept of value management resulted from a pursuit of the real drivers of value, and the performance measures Economic Value Added (EVA) and Market Value Added (MVA) are now known fairly well and used widely by companies all over the world. Corporate restructuring has gained considerable importance all over the world because of intense competition, globalization and technological changes. The process got accelerated with the opening of the economy to attract foreign investment. The forces of liberalization, privatization and globalization (LPG) that swept the Indian economy in the post-reforms era compelled the corporate to restructure their businesses by adopting various strategies like mergers, amalgamations and takeovers. A common theme of the value based performance measures is that they take these drivers and summarise them into a single measure, be it EVA, MVA or any other value based measures. Thus, corporate world's need for a tool to measure value creation have been filled with the emergence of a new concept namely, EVA and MVA. It has been redefined and popularised by US-based Stern Stewart & Company. It is considered as the most accurate measure of the economic performance of the company. Economic Value Added (EVA) is the financial performance measure that comes closer than any other to capturing the true economic profit of an enterprise.

CONCEPT OF EVA AND MVA

EVA is the amount of economic value added for the owners by management. The thrust area for today's management is to find means to create value for the owners. It is now established that the accounting profit in no cases represents the real value created for the owners. But, it may originate the calculation. In other words, accounting profit is required to be converted into economic profit. EVA is the difference between Net Operating Profit after Tax (NOPAT) and the capital charge for both the debt and equity (overall cost of capital) using CAPM model.

EVA = NOPAT - COC
NOPAT = Net operating profit after taxes
COC = Cost of capital

The market value added(MVA) concept derives the difference between the market value of a business and the cost of the capital invested in it. When market value is less than the cost of invested capital, this implies that management has not done a good job of creating value with the equity made available to it by investors. MVA measures market's assessment of firm's value, which is the value, added by the management over and above the capital invested in the company by investors using CAPM model.

MVA = MVC - CI
MVC = Market value of the company
CI = Capital invested

REVIEW OF LITERATURE

There are a large number of studies concerning shareholder value creation. But for the purpose of this paper, only those articles focusing on the application of new market-oriented techniques to generate shareholder wealth have been looked into.

The study conducted by Stewart (1991) on the statistical association between MVA and EVA was based on a sample of 613 US companies over the period from 1984 to 1985 in relation to the period from 1987 to 1988. The author reports strong positive relation between the average standardized values of EVA and MVA. However the results do not seem to support the relation between negative EVA and negative MVA.

O'Byrne (1996) regresses firm value on EVA and earnings measured in the form of NOPAT (net operating profit after tax). The study considers a total of 6651 firm-years over the period from 1985 to 1993. Two types of regressions are used where the market value divided by the capital is the dependent variable. After a series of adjustments to the EVA regression, the author reports the robustness of EVA in explaining firm values.

Grant (1996) identifies the 'wealth-creators' and the 'wealth-destroyers' among a set of firms with the help of EVA/Capital employed and MVA/Capital employed measurements. The findings indicate that the ratio, EVA/Capital employed can explain approximately 32% of the variation in MVA/Capital employed.

Dodd and Chen (1996) in their paper have studied the correlation between stock returns and EVA, residual income, RoA, RoE and EPS. It is based on a sample of 566 US companies over the period from 1983 to 1992. The adjusted EVA was found to offer few advantages over unadjusted EVA or residual income. The incremental tests also suggested that the components of EVA only add marginal information to earnings. The results hence do not support the notion that EVA dominates earnings in relative information content. A case study on the relative statistical significance of market capitalization and EVA as an effective valuation tool conducted by Chattopadhyay and Gupta (2001) found that EVA did not prove to be a better tool than the traditional measure like market capitalization. The study used correlation analysis, Runs test and simple regression on EVA and market capitalization of Hindustan Lever Limited over a nine-year period from 1991 to 1999.

In another Indian study, Prakash Singh (2005) first tests the robustness of the new tools of shareholder wealth measurement – EVA and MVA. He then goes on to test the efficacy of these two techniques on 28 Indian banks over a five-year period from 1999 to 2003. He finds that in India, EVA does not happen to be a better wealth measurement tool as compared to traditional performance measures. But he finds significant statistical relationship between EVA and MVA.

From the review of many excellent research papers analyzing the pre and post merger performance of merged companies, it is inferred that majority of the studies strongly support the concept of enhanced post merger performance due to merger and it is beneficial to the acquirer companies.

STATEMENT OF THE PROBLEM

Large number of studies have been conducted to analyze corporate events like mergers, takeovers, restructuring and corporate controls. The researchers have generally focused on public and corporate policy issues, financial implications and method of valuation. However, most of the studies have deeply concentrated only on the analysis of value added of both acquirer companies in the pre acquisition period and specifically compared the value addition of acquirer companies during post acquisition period. There has been no comprehensive analysis attempted from the view point of the acquirer companies in the pre- and post- acquisition periods. Hence, in order to fill this gap in research, the present study attempts to analyze the value addition of acquirer companies in the pre- and post-acquisition period.

RESEARCH OBJECTIVES

1. To Know the Impact of acquisition on value addition of acquiring companies in India.
2. To make a comparative analysis of the pre and post acquisition on value addition of the select Tata group companies in India
3. To offer the suggestions in the light of findings.

RESEARCH HYPOTHESIS

H0 : There is no significant relation between pre and acquisition of Economic value addition.
H0 : There is no significant relation between pre and acquisition of Market value addition.

METHODOLOGY OF THE STUDY:

Sample for the study

We have select Tata group companies in India which have acquired.

- Tata steel acquired Rawmet industries in the year 2007.
- Tata power acquired Coastal Gujarat power in the year 2007.

Period of the study

The present study covers a period of before the acquisition 5 years and after acquisition 5 years. But order to Value addition like, Economic value added(EVA), Market value added(MVA) performance of sample companies on a comparative basis, five years before acquisition and five years after acquisition were considered.

Sources of data

The present study basically depends on secondary data. The required data on Economic value added(EVA), Market value added(MVA) value addition before and after acquisition were collected during the period and they were obtained from annual report, www.moneycontrol.com, and BSE. The data were also collected from books, articles in various journals, magazines and newspapers.

Tools used

In order to study the EVA and MVA of value addition acquirer companies, Mean Standard deviation, t-test and Paired sample test were used.

Justification of the study

In order to carry out the study, Tata steel and Tata power companies have been selected due to the following reason:

1. Both companies belong to one group.
2. Both the companies acquired other companies in the same year.
3. To know whether the expectation with which companies have been acquired have determined results or not.

Data presentation and analysis

Empirical tests were carried out on the collected financial data with the help of value addition, mean, standard deviation, t-test and paired sample test. The pre-acquisition average performance of the acquirer companies were compared with the post acquisition performance of the combined firm. The present study attempts to measure and analyze the pre and post acquisition performance of acquirer companies by using Economic value added(EVA) and Market value added(MVA) in order to ascertain whether acquisition resulted in shareholders wealth or not. Accordingly, the following null hypothesis has been tested.

Table no.1 Economic value added of the Tata Steel company(Pre and Post Acquisition period) (Rs.in Crore)

Year	NOPAT	COC	Pre-Acquisition EVA	Year	NOPAT	COC	Post-Acquisition EVA
2002	197.8	38.50	159.29	2008	4687.03	282.31	4404.71
2003	966.11	35.29	930.81	2009	5201.74	311.96	4889.77
2004	1706.45	47.51	1658.93	2010	5046.8	390.20	4656.59
2005	3393.37	72.90	3320.46	2011	6865.69	486.81	6378.87
2006	3458.88	99.27	3359.60	2012	6696.42	545.49	6150.92
Avg.			**18885.82**	**Avg.**			**5296.17**

Source: Annual reports of the company, Moneycontrol.com, BSE.com
NOPAT = Net operating after tax COC = Cost of capital EVA = Economic value added

Table no.1 the above table clear that the economic value addition of the Tata steel company during pre and post acquisition period. During pre acquisition of EVA figure was increased year to year throughout the period of the study. It was 159.29 crore in the year 2002 which increased to Rs. 930.81 crore in 2003. The absolute figure of EVA in 2004, was Rs.1658.93 crore which sharply increased to Rs.3320.46 crore in 2005, It further increased to Rs. 3359.60 crore in 2006. during the year of the study, the company added sufficient economic value which is in fovour of the company. During the post acquisition the figure of EVA was fluctuated throughout the period of the study. It was Rs.4404.71 crore in the year 2008, which increased to Rs.4889.77 crore in 2009. However, it came down 4656.59 crore in 2010. In 2011, the figure of EVA improved and reached to Rs.6378.87 crore and it again decreased to Rs.6150.92 crore in 2012. The overall performance of the company was good in pre acquisition compared to post acquisition period.

Table no. 2 Analysis of Economic value addition of Tata Steel company Ltd. during pre and post acquisition period

Variables	Type	Mean	Std. Deviation	T-value	P-value	Null hypothesis
Tata Steel Company						
Economic Value Added	Pre	1885.8218	1429.56607	-11.782	.000	**Reject**
	Post	5296.1778	904.40000			

Source: Based on table no.1, SPSS 20version 5% Level of Significance
*Accept denotes not Statistically significant relationship
*Reject denotes Statistically significant relationship

RESULT AND DISCUSSION:

From the table no.2 the above result analyse that the acquisition of Tata steel company comparison between pre and post acquisition performance we seen the mean value of EVA (1885.8218 crore to 5296.1778 crore) with t-value is -11.782. There was statistically significant and improvement in value addition before and after the acquisition the overall performance of the company was good. it can be concluded the company added sufficient economic value which is in favour of company. From the above analysis we can conclude that the there is improvement of the company after acquisition so that the null hypothesis is rejected and alternative hypothesis accepted in the form of acquisition.

Table no.3 Economic value added of the Tata Power company(Pre and Post Acquisition period) (Rs.in Crore)

Year	NOPAT	COC	Pre-Acquisition EVA	Year	NOPAT	COC	Post- Acquisition EVA
2002	465.82	45.04	420.77	2008	851.74	88.17	763.56
2003	524.88	50.04	474.83	2009	910.25	83.79	826.45
2004	522.78	52.93	469.84	2010	965.45	109.54	855.90
2005	585.28	56.93	528.34	2011	923.01	116.36	806.64
2006	614.85	99.12	515.72	2012	1170.9	122.73	1048.16
Avg.			**481.90**	**Avg.**			**860.14**

Source: Annual reports of the company, Moneycontrol.com, BSE.com
NOPAT = Net operating after tax COC = Cost of capital EVA = Economic value added

Table no.3 the above table found that the acquisition of Tata power company during the pre and post acquisition of EVA. During the pre acquisition EVA fluctuated from year to year throughout the period of study. It was Rs.420.77 crore in the year 2002, which increased to Rs.474.83 crore in 2003. However, slightly decreased figure of Rs.469.84 in 2004. In 2005, the figure of EVA improved and reached to Rs.528.34 crore which further decline the figure to 515.72 crore in 2006. During post acquisition EVA fluctuating trend it was Rs. 763.56 crore in 2008, which sharply increased to Rs. 826.45 crore in 2009, again which went up to Rs. 855.90 crore in 2010. The figure declined to Rs. 806.64 crore in 2011, in the last year the figure of EVA increased sharply to Rs. 1048.16 crore in 2012. Tata power company could record positive upward value addition to the shareholders during pre and post acquisition period.

Table no. 4 Analysis of Economic value addition of Tata Power company Ltd. during pre and post acquisition period

Variables	Type	Mean	Std. Deviation	T-value	P-value	Null hypothesis
Tata Power Company						
Economic Value Added	Pre	481.9048	42.52382	-8.941	.001	**Reject**
	Post	860.1471	110.33259			

Source: Based on table no.3, SPSS 20version 5% Level of Significance
*Accept denotes not Statistically significant relationship
*Reject denotes Statistically significant relationship

RESULT AND DISCUSSION:

From the table no.4 the above result analyse that the acquisition of Tata power company comparison between pre and post acquisition performance we seen the mean value of EVA (481.9048 crore to 860.1471 crore) with t-value is -8.941. There was statistically significant and improvement in value addition before and after the acquisition the overall performance of the company was good. it can be concluded the company added sufficient economic value which is in favour of company. From the above analysis we can conclude that the there is improvement of the company after acquisition so that the null hypothesis is rejected and alternative hypothesis accepted in the form of acquisition.

Table no.5 Market value added of the Tata Steel company(Pre and Post Acquisition period) (Rs.in Crore)

Year	MVC	CI	Pre-Acquisition MVA	Year	MVC	CI	Post-Acquisition MVA
2002	2547.77	3445.96	-898.19	2008	9756.95	27300.73	-17543.8
2003	31706.97	3186.02	28520.95	2009	54439.71	29704.6	24735.12
2004	37286.22	4515.86	32770.36	2010	29628.06	37168.75	-7540.69
2005	18123.65	7059.92	11063.74	2011	9098.86	46944.63	-37845.8
2006	20414.84	9755.3	10659.54	2012	9863.85	52621.36	-42757.5
Avg.			**16423.28**	**Avg.**			**-16190.52**

Source: Annual reports of the company, Moneycontrol.com, BSE.com
MVC = Market value of the company CI= Capital invested MVA = Market value added

Table no.5 the above table evident that the Pre acquisition MVA of the Tata steel company during pre acquisition of MVA recorded a negative figure of Rs. -898.19 crore in 2002, being lowest during the period of study. In 2003 and 2004, it increased to Rs. 28520.95 crore & Rs.32770.36 crore indicated an increase in value addition to shareholders in terms of their market's assessment. In last two years decreased to Rs.11063.74 crore and Rs. 10659.54 crore in 2005 and 2006 followed by fall in market price of the share. During post acquisition of MVA in the year 2008, it was negative figure Rs. -17543.8 crore while it increased to Rs. 24735.12 crore (positive) in the year 2009. The MVA recorded a negative figure Rs. -7540.69 crore in 2010, MVA again increased to Rs. -37845.8 crore and further to Rs. -42757.5 crore (negative) in the last year of the study and increased trend of the company. Pre acquisition of this company market value added compared to post acquisition.

Table no. 6 Analysis of Market value addition of Tata Steel company Ltd. during pre and post acquisition period

Variables	Type	Mean	Std. Deviation	T-value	P-value	Null hypothesis
Tata Steel Company						
Market Value Added	Pre	16423.2807	13924.43510	3.397	.027	**Reject**
	Post	-16190.522	27047.70159			

Source: Based on table no.5, SPSS 20version 5% Level of Significance
*Accept denotes not Statistically significant relationship
*Reject denotes Statistically significant relationship

RESULT AND DISCUSSION:

From the table no.6 the above result analyse that the acquisition of the Tata steel company, the company generated more value addition in market price of the share during the pre and post merger period. There was an decrease(negative) in the mean MVA(Rs.16423.2807 crore and -16190.522 crores) with t-value 3.397 the expected figure of the MVA was significant improvement in value addition. It may be concluded that the performance of was satisfactory due to increase the market price of share in market this is good for the company. Based on the result of analysis the null hypothesis rejected and alternative hypothesis accepted.

Table no.7 Market value added of the Tata Power company(Pre and Post Acquisition period) (Rs.in Crore)

Year	MVC	CI	Pre-Acquisition MVA	Year	MVC	CI	Post-Acquisition MVA
2002	660.77	4190.83	-3530.06	2008	1005.22	8052.83	-7047.61
2003	5939.02	4678.43	1260.59	2009	1425.66	8643.5	-7217.83
2004	9971.85	5008.53	4963.32	2010	1011.70	10532.36	-9520.66
2005	2093.53	5094.66	-3001.13	2011	935.08	11175.58	-10240.5
2006	1504.70	5513.83	-4009.13	2012	4897.76	11756.99	-6859.23
Avg.			**-863.28**	**Avg.**			**-8177.16**

Source: Annual reports of the company, Moneycontrol.com, BSE.com
MVC = Market value of the company CI= Capital invested MVA = Market value added

Table no.7 the above table shows that the acquisition of Tata power company during pre and post acquisition of MVA. During pre acquisition of MVA for the company fluctuating trend during the study period, negative figure Rs.-3530.06 crores in 2002, which increased to Rs.1260.59 crore in 2003. However, increased during the year 2004 and came up to Rs.4963.32 crore. The reasons for better performance was improved customer service and better market condition. The figure of MVA Rs.-3001.13 crore in 2005, but again came down to Rs.-4009.13 crore(negative) in the year 2006. During post acquisition of MVA recorded negative figure in the year 2008 to 2012. Slow company growth adversely affected the company's business and performance during the year. Operations in certain plants were also interrupted for some period while company implemented some changes in work practices.

Table no. 8 Analysis of Market value addition of Tata Power company (Pre and Post acquisition period) (Rs.in Crore)

Variables	Type	Mean	Std. Deviation	T-value	P-value	Null hypothesis
Tata Steel Company						
Market Value Added	Pre	-863.2795	3874.22955	3.505	.025	**Reject**
	Post	-8177.1648	1580.78333			

Source: Based on table no.7, SPSS 20version 5% Level of Significance
*Accept denotes not Statistically significant relationship
*Reject denotes Statistically significant relationship

RESULT AND DISCUSSION:

From the table no.8 the above result analyse that the acquisition of the Tata power company, the company generated more value addition in market price of the share during the pre and post merger period. There was an decrease(negative) in the mean(negative) MVA(Rs. -863.2795 crore & -8177.1648 crores) increased with t-value 3.505 the expected figure of the MVA was significant improvement in value addition. this increase was due to additional capital issued by the company during the year and high performance standard. It may be concluded that the performance of was satisfactory due to increase the market price of share in market this is good for the company. Based on the result of analysis the null hypothesis rejected and alternative hypothesis accepted.

SUGGESTIONS

1. It is suggested that the companies should focus on technology and efficiency improvement to create value for its shareholders.
2. Both companies should focus on value added products.
3. Both companies should continue its focus on safety and protection of environment.
4. To increase its value added, the companies should control its cost of bought-in goods and services from outsiders.

5. The companies should encourage teamwork and co-operation for the achievement of corporate goal.

LIMITATIONS

The major limitations of this study are as under:

1. This study is mainly based on secondary data derived from the annual reports of the company.
2. The reliability and the finding are contingent upon the data published in annual report.
3. The study is limited to five years before acquisition and five years after acquisition only.

CONCLUSIONS

The analysis pertaining to value addition carried out in this paper revealed that, Overall this study, it is observed that the value added (EVA & MVA) of the study showing the same results regarding the performance of the companies. In two value added measures, Tata steel and Tata power co. ltd. is having satisfactory performance with consistent returns to the shareholders. These two companies are having relative important assess the performance during pre and post acquisition.

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