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Effect of Cross Border Mergers and Acquisitions on Company Value Creation:
Case of Selected Indian Companies of Metal and Metal Product Sector

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Abstract

The corporate sector all over the world is restructuring its operations through different types of growth strategies like mergers and acquisitions in order to face challenges posed by the new pattern of globalization, which has led to the greater integration of national and international markets. The intensity of cross-border operations recorded an unprecedented surge since the mid-1990s and the same trend continues. The objective of the study is to analyze and compare the pre and post-merger and acquisition value creation by the financial performance of total five firms of Metal and Metal Product Industries.

For this, the data was being collected for the years before and after the acquisition from different secondary database like BSE, NSE, annual reports of the firm etc. The study concluded that cross-border Mergers and Acquisitions of the selected firms have resulted in no significant effect on value creation of selected Indian companies.

Key Words: Cross-Border, Mergers, Acquisitions, Restructuring, Company's Value Creation.

Introduction

In today's globalised economy, mergers and acquisitions (M&A) are being increasingly used the world over, for improving competitiveness of companies through gaining greater market share, broadening the portfolio to reduce business risk for entering new markets and geographies, and capitalizing on economies of scale and many other reasons. Mergers and acquisitions become the major force in the changing environment. The policy of liberalization, decontrol and globalization of the economy has exposed the corporate sector to domestic and global competition.

Merger and Acquisition

The phrase mergers and acquisitions refers to the aspect of corporate strategy, corporate finance and management dealing with the buying, selling and combining of different companies that can aid, finance, or help a growing company in a given industry grow rapidly without having to create another business entity.

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Cross Border Mergers and Acquisition

The rise of globalization has exponentially increased the market for cross border M&A. In 1996 alone there were over 2000 cross border transactions worth a total of approximately $256 billion. This rapid increase has taken many M&A firms by surprise because the majority of them never had to consider acquiring the capabilities or skills required to effectively handle this kind of transaction. In the past, the market's lack of significance and a more strictly national mindset prevented the majority of small and mid-sized intermediation as an option which left M&A firms inexperienced in this field.

Why Firms are Crossing Borders?

When we look at the business history, we can see at least four types of growth strategies adopted by the firms. Firms started with domestic production and began to export to the foreign markets, establishment of subsidiaries in overseas

market was the next stage and as a fourth phase, firms started to acquire firms in foreign markets instead of establishing subsidiaries. The increasing magnitude of investment through cross-border mergers and acquisitions and its emergence as a major component of FDI (Foreign Direct Investment) even in the case of developing countries such as India, demand us to think why firms are engaging in cross-border instead of establishing subsidiaries or to engage in export oriented growth. This necessitates us to merge the prime objectives of foreign investment with that of mergers and acquisitions.

Cross Border Mergers and Acquisition in India

Until up to a couple of years back, the news that Indian companies having acquired American-European entities was very rare. However, this scenario has taken a sudden U turn. Nowadays, news of Indian Companies acquiring foreign businesses are more common than other way round. Buoyant Indian Economy, extra cash with Indian corporates, Government policies and newly found dynamism in Indian businessmen have all contributed to this new acquisition trend. Indian companies are now aggressively looking at North American and European markets to spread their wings and become the global

players.

The Indian IT and ITES companies already have a strong presence in foreign markets; however, other sectors are also now growing rapidly. The increasing engagement of the Indian companies in the world markets, and particularly in the US, is not only an indication of the maturity reached by Indian Industry but also the extent of their participation in the overall globalization process.

Graphical representation of Indian outbound deals since 2000.
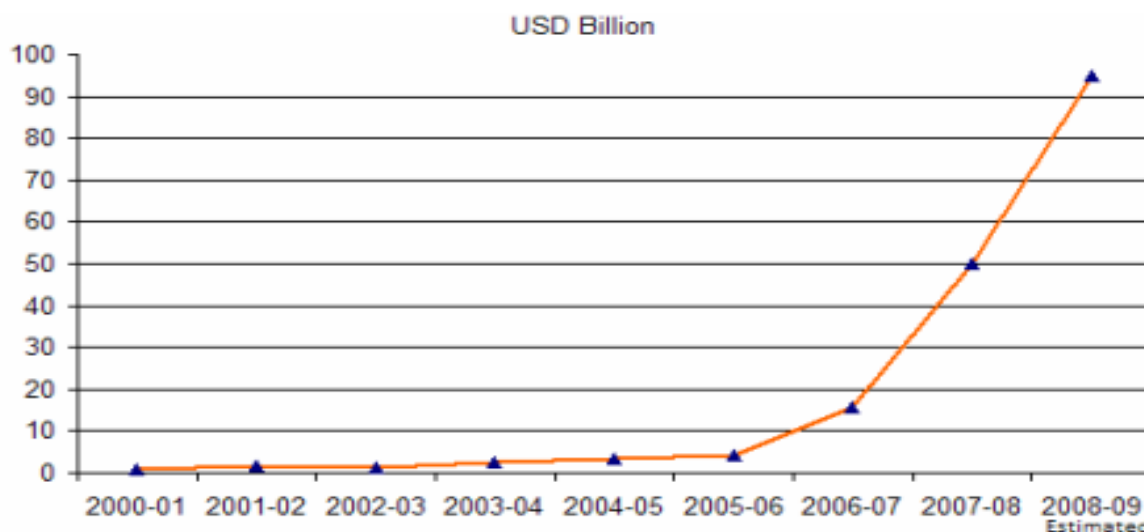
Have a look at some of the highlights of Indian Mergers and Acquisitions scenario as it stands (Source: http://ibef.org)

Indian outbound deals, which were valued at US$ 0.7 billion in 2000-01, increased to US$ 4.3 billion in 2005, and further crossed US$ 15 billion-mark in 2006. In fact, 2006 will be remembered in India's corporate history as a year when Indian companies covered a lot of new ground. They went shopping across the globe and acquired a number of strategically significant companies. This comprised 60 per cent of the total mergers and acquisitions (M&A) activity in India in 2006. And almost 99 per cent of acquisitions were made with cash payments.

Cross Border Mergers and Acquisition in India-Overview (2005-2010)

Table (A)   (Millions of Dollars)

Year	2005-2007	2008	2009	2010	Total
Sales	3119	10427	6049	5537	25132
Purchase	12558	13482	291	26421	52752

Table (a) exhibits Cross -border merger and acquisition in India for the period 2005 to 2010.

The table shows that cross border sales deals during 2005-2007 were 25132 million US $ while purchase deal were 52752 million US $. Thus the table clearly depicts that our country's counter cross border merger and acquisition purchase deals are more than the sales deal.

Scope of the Study

The scope of the study is confined to the cross border mergers and acquisitions undertaken by the Indian firms, focusing on 4 valuable cross border merger and acquisitions by Indian firms from the year 2005 to 2007. The study is based on the facts and figures available for the selected firms through authentic sources like their Annual Reports and National level Stock Exchanges like NSE (National Stock Exchange) and BSE (Bombay Stock Exchange) and capital line data base.

Objectives of the Study

1) To examine and evaluate the impact of cross border mergers and acquisitions on the liquidity and leverage position of the selected units by some important parameters of liquidity and leverage ratios.

2) To examine and evaluate the impact of cross border mergers and acquisitions on the profitability position of the selected companies by some important parameters of profitability ratios.

3) To examine the effect of cross border mergers and acquisition on company value creation.

Hypothesis

The following hypothesis was set to be tested with a view to examining the magnitude of impact of cross border mergers on the company value creation.

H_0: There is no significant difference between the mean of pre and post merger value creation of selected Indian companies

H_1: There is a significant difference between the mean of pre and post merger value creation of selected Indian companies

Limitations of the Study

- The period of study is up to 2005-07, since some year pre and post merger performance data are required for the study.

- The sample size consists of only 4 companies, each from the Metal and Metal Product Sectors.

Review of Literature

In this study an attempt has been made to briefly review the work already undertaken and methodology employed. A brief review of selected studies has been presented as below:

Ravenscraft and Scherer (1989). They tested the hypothesis that other variables maintained equal, if mergers result in economies of scale or scope, the post-merger profits should be higher than the pre-merger profits and/or their industry averages. Their study of 2,732 lines of business for the years 1975- 77 did not find any improvement in the post merger operating performance.

Cornett and Tehranian (1992) find an increase in the post-acquisition Return on Equity (ROE) and operating cash flow, but the authors focus only on 30 mergers between 1982 and 1987. In the later years, the observed post-acquisition performance of institutions involved in M&A deals improved on average.

Piloff and Santomero (1998) and Calomiris and Karceski (2000) As per their research, the typical analysis of M&As using stock price data compares the change in returns after a deal is announced. These studies find a negligible effect of M&As deals on stock market value. There is a transfer of wealth from the acquirer to the target's shareholders mostly explained by high premiums paid on these transactions. The study is limited to the use of event methodology to analyze performance effects after cross-border M&As.

Vander Vennet (2002) studies a sample of European cross-border deals and finds

an increase in profit efficiency for target banks on the first year after an acquisition. Nevertheless, the author does not find similar improvements in the cost efficiency and ROA measures.

Beena (2004) analyzed the pre and post-merger performance of a sample of 115 acquiring firms in the manufacturing sector in India, between 1995-2000, using a set of financial ratios and t-test. The study could not find any evidence of improvement in the financial ratios during the post-merger period, as compared to the pre-Merger period, for the acquiring firms.

Marina et al. (2006) investigated the long-term profitability of corporate takeovers in Europe, and found that both acquiring and target companies significantly outperformed their peers in the industry prior to the takeovers, but the profitability of the combined firm decreased significantly following the takeover. However, the decrease became insignificant after controlling for the performance of the control sample of companies.

Becalli and Frantz (2007) Using a larger sample of cross-border deals, find a decrease in the profit efficiency and an increase in cost efficiency after cross-border deals. The difference in the findings of various authors could be explained by the laxer sample selection criteria used in the latter study. The authors do not

restrict the sample of deals to those acquisitions where the target bank's control is transferred to the acquiring institution. Therefore, the results might be driven by the effect of minority share acquisitions.

Malhotra, PengCheng Zhu (2008) This study examines the short-term stock performance of a sample of Indian firms acquiring U.S. firms in the period 1999-2005. Event study shows that Indian stock market reacts positively to the acquisition announcement. On carrying out multiple empirical tests, they conclude that the announcement returns in the Indian cross-border M&As are mainly driven by the price pressure effect rather than the informational effect.

Selvam et al. (2009) the study states that to determine the success of a merger, it is to be ascertained if there is financial gain from mergers. It is very important to study the liquidity performance of those companies to test whether those companies have sufficient liquid assets to meet its current obligations. The present study is limited to a sample of companies which underwent merger in the same industry during the period of 2002-2005 listed in one of the Indian stock exchange namely Bombay Stock Exchange. It is proposed to compare the liquidity performance of the thirteen sample acquirer and target companies before and after the period of mergers by using ratio

analysis and t-test during the study period of three years. The study found that the shareholders of the acquirer companies increased their liquidity performance after the merger event.

Sinha et al.(2010) The present paper examines the impact of mergers and acquisitions on the financial efficiency of selected financial institutions in India. While the results show a significant change in the earnings of the shareholders, there is no significant change in liquidity position of the firms. The result of the study indicate that M&A cases in India show a significant correlation between financial performance and the M&A deal, in the long run, and the acquiring firms were able to generate value.

Kohli, Mann (2011) this paper seeks to compare target shareholders' wealth gains in domestic and cross-border acquisitions in India. Standard event study methodology has been applied to compute the announcement returns for domestic and cross-border acquisitions. The results indicate that both domestic and cross-border acquisitions have created value for the target company shareholders on the announcement. Nonetheless, the analysis of cross-border effect as well as regression analysis makes it evident that value creation is higher for domestic acquisitions as compared to cross-border acquisitions due to the

influence of various factors.

Research Design

The Comparative study of company value creation before and after the cross border merger and acquisition of the selected corporate sectors is totally based on the Secondary Data of the Financial Statements of the Company. That's why **Descriptive Research Design** is appropriate for the current research study.

Selection of Samples

The study has been carried out on the micro-level, as it is not possible for the researcher to conduct it on the macro-level The population of the study consists of all types of the Metal and Metal Product related **Indian companies** having any types of different operations of business. As the study is to be carried out by the individual researcher it is not easy to select

Population of the Study

The population of the study consists of all types of the **Metal and Metal Product related Indian companies** having any types of different operations of business but having any cross border Merger and Acquisition Deals in Indian Metal corporate sectors.

all the companies as the samples for the study. So, the **convenient random sampling** has been done. As such the universe of the study is Indian Metal Industries; the researcher has selected 4 companies (Which are top 4 cross border mergers and acquisitions during the year 2005 to 2007) as mentioned below:

Acquiring Company	Acquired Company	Target Country	Year of M & A Deal	Value
Tata Steel	Corus Group plc	UK	January,2007	$ 12 billion
Tata Steel	Millennium Steel	Thailand	December, 2005	$ 41 million
Hindalco	Novelis	U.S.	February, 2007	$ 6 billion
Essar Steel	Algoma Steel	U.S.	February, 2007	$ 1.58 billion

Method of Data Collection

As already mentioned, the sample includes 4 Cross border mergers and acquisitions deal made Indian firms from 2005 to 2007, so the data will be collected from authentic secondary sources. The merger and acquisition announcement dates, transaction values and other related information is collected from the Capitaline database. Stock trading information and firm level data is obtained from Bombay Stock Exchange and National stock Exchange websites, and individual firms' Annual Reports.

Tools Used

The pre and post cross border merger and acquisition analysis is done using the Ratio analysis technique where all the key ratios of the merging firms are compared like the Profit Margin Ratio, Return on Asset Ratio, Profit to current Liabilities Ratio, Return on Capital Ratio and Gearing Ratio, Debt Equity Ratio and Interest Coverage Ratio etc. etc. are compared equal years before and after the deal. T Test is carried out to assess the difference in the pre and post merger and acquisition performance of the selected firms.

Conceptualization of Value Creation

From the extensive literature review it has appeared that corporate value creation of mergers and acquisitions has been widely studied though with difference of objectives and methodology. While many researchers have explored the fundamental approaches to corporate value creation, some others have even gone to the extent of developing models based on residual income and attained a widespread use in practical valuation settings (Penman, 2000). Value creation is a never-ending cycle. It begins with modeling business operations, prioritizing areas for more detailed investigation, identifying opportunities for improvement, implementing the changes required to maximize success and the measurement and revision that starts the process over again and allows management to stay abreast of market changes. Value creation analysis is a critical but often overlooked component in the financial management of every company.

The conception of business lying in such actions is typically a very narrow definition of purpose: "to maximize the wealth of the shareholders," or to achieve a set of short-term financial goals. Managers are expected to address shareholder wealth, earnings growth, and return on assets, but the most successful firms understand that those measures should not be the primary targets of strategic management. Achieving attractive financial performance is the reward for having aimed at (and hit) the real target;

i.e., maximizing the value created for the primary constituents of the firm.

Profit Margin (PM)

Profit margin is an accounting measure designed to gauge the financial health of a business firm or industry. In general, it is defined as the ratio of profit earned to total sales receipts (or costs) over some defined period. It provides an indication of efficiency and, in that, it captures the amount of surplus generated per unit of the product or service sold.

Mathematically,

Profit Margin = Profit after Tax / Sales

Return on Asset (ROA)

Return on Assets is used to measure profitability of a company by taking in to account the net income and total assets. ROA reflects total revenue, total cost, and assets deployed explaining management's ability to generate income during a given period, usually a year. To calculate ROA, net income is divided by total assets, and then multiplied by 100 to express the figure as a percentage.

Mathematically,

Return on Asset = PBIT/Total Assets

Profit to Current Liabilities

It is one of the solvency measures which tests the magnitude to which the profit of a firm is able to cover its liabilities. Put differently, it indicates the ability of the firm to respect the payment commitment. Higher the ratio better is the coverage of debts taken up by the firm.

Mathematically,

Profit to Current Liabilities = PBIT/CL

Where, PBIT is profit before interest and tax, and CL is current liabilities.

Return on Capital (ROC)

Return on capital (ROC) shows how effectively a company is able to deploy its capital base (debt and equity) to generate returns for the capital providers. A company which can generate higher return from a lower capital base and continues to improve on the same, should in theory, always be preferred over its peers which need higher capital to generate the same level of return and which cannot sustain the growth in ROC. In the same vein, a company which exhibits a declining trend in ROC over the years should encourage investors to withdraw their investments, resulting in a fall in the share price of the company. Capital employed is a good measure of the total resources that a business has at its disposal. It also depicts the profitability of company's capital investments.

Mathematically,

Return on Capital (ROC) = PBIT/Capital Employed

Gearing Ratio

Gearing ratio measures the percentage of capital employed from debt and long term financing. A higher gearing ratio explains a greater dependence on borrowing and long term financing whereas a lower gearing ratio suggests bigger dependence on equity financing. Thus, higher level of gearing pushes the company in to higher financial risk due to the increased volatility of profits putting the financial manager in a great dilemma. Most businesses require long term debt in order to finance growth, as equity financing is rarely sufficient. On the other hand the introduction of debt and gearing increases financial risk. When a high gearing ratio is positive a large amount of debt will give higher return on capital employed but the company dependent on equity financing alone is unable to sustain growth. Gearing can be quite high for small businesses trying to become established, but in general they should not be higher than 50%. Shareholders benefit from gearing to the extent that return on the borrowed money exceeds the interest cost so that the market values of their shares rise

The more leverage a company has, the riskier that company may be. As with most ratios, the acceptable level of leverage is determined by comparing ratios of similar companies in the same industry. A company with high gearing (high leverage) is more vulnerable to downturns in the business cycle because it must continue to service its debt regardless of how bad sales are. A larger proportion of equity provides a cushion and is seen as a measure of financial strength.

Mathematically,

Gearing = Long Term Liabilities + Overdraft Shareholders' Fund

Debt-equity Ratio

The debt-to-equity ratio measures the relative proportion of equity and debt used to finance a company's assets. The ratio provides an indication of the relationship between the capital contributed by creditors and that contributed by shareholders. A high ratio typically would demonstrate that the company has aggressively financed its growth through debt. The resulting interest expense can have a detrimental effect on earnings. The ratio also indicates the extent to which shareholders'equity can fulfill the company's obligations to creditors if liquidated.

Mathematically,

Debt-equity = Long Term Debt / Equity'

Interest Coverage Ratio

Interest coverage ratio is a measure of the number of times a company could make the interest payments on its debt with its earnings before interest and taxes, also known as EBIT. The lower the interest coverage ratio, the higher the company's

debt burden and there is a greater possibility of bankruptcy or default. Interest coverage is the equivalent of a person taking the combined interest expense from their mortgage, credit cards, auto and education loans, and calculating the number of times they can pay it with their annual pre-tax income. For bond holders, the interest coverage ratio is supposed to act as a safety gauge. It gives a sense of how far a company's earnings can fall before it may start defaulting on its bond payments. For stockholders, the interest coverage ratio is important because it gives a clear picture of the short-term financial health of a company. Mathematically,

Interest Cover = PBIT / Interest

Mergers and acquisitions bear an impact on financial performance of the companies in terms of profit maximization or value creation. Financial performance largely relates with the profit measurement criteria such as Profit Margin (PM), Return on assets (ROA), Profit to Current Liabilities (P to CL), Return on capital (ROC) and leverage measurement criteria such as Gearing Ratio, Debt-equity ratio and Interest Coverage ratio.

PM is calculated by taking in to consideration the total profit or loss and total revenue in form of net sales during the year in order to determine the financial health of a business firm. ROA largely focuses on profitability of a company taking into account the profit before interest and tax and total assets at the end of the year. P to CL is the solvency measure that signifies the coverage of the liabilities with the profit earned during the year by a firm. Measurement of leverage has also been undertaken to discover the capacity of a firm to repay its long term and short term debts and the appropriate mix of capital employed in a firm.

Data Analysis and Interpretation

It is observed from the table **B** that p value for all the above companies in case of Profit Margin is more than 0.05 with degree of freedom 3. The analysis of t-test reveals that there is no significant difference between the mean of pre and post merger Profit Margin of Tata Steel Company. Hence one may conclude that cross border merger of Tata steel with Corus Steel of U.K. in 2007 and with Millennium Steel of Thailand in 2005 have not contributed much in increasing the profit earning capacity of Tata steel ltd. A finding of Moran (2001) portrays that Mergers and Acquisitions predominantly bring the corporate control on acquiring company.

**Table B .Value creation through cross border mergers in Metal and Metal Products**

Metal and Metal Products

Pre and Post Merger P value

Acquiring Company	Acquired Company	Country of Acquired Company	Year of Merger	Period*	Degrees of freedom	PM = P&L/Sales	ROA=PBIT/TA	P to C L =PBIT/CL	ROC =PBIT/CE	Gearing =LTL+OD/SHF	DE=LTD/E	IC=PBIT / Int.
Tata Steel	Corus Steel	U.K.	2007	4	3	0.40	0.06	0.23	0.06	0.97	0.72	0.16
Tata Steel	Millennium Steel	Thailand	2005	2	1	0.12	0.75	0.16	0.75	0.46	0.22	0.20
Hindalco (Aditya Birla)	Novelis	U.S.	2007	4	3	0.33	0.09	0.10	0.09	0.27	0.57	0.55
Essar Steel	Algoma Steel	U.S.	2007	4	3	0.34	0.51	0.35	0.51	0.18	0.27	0.56

Note: *indicates equal number of years before and after the year of merger

Source: Own calculation with the help of time series data extract from capital line database

Figure-B: .Value creation through cross border mergers in Metal and Metal Products
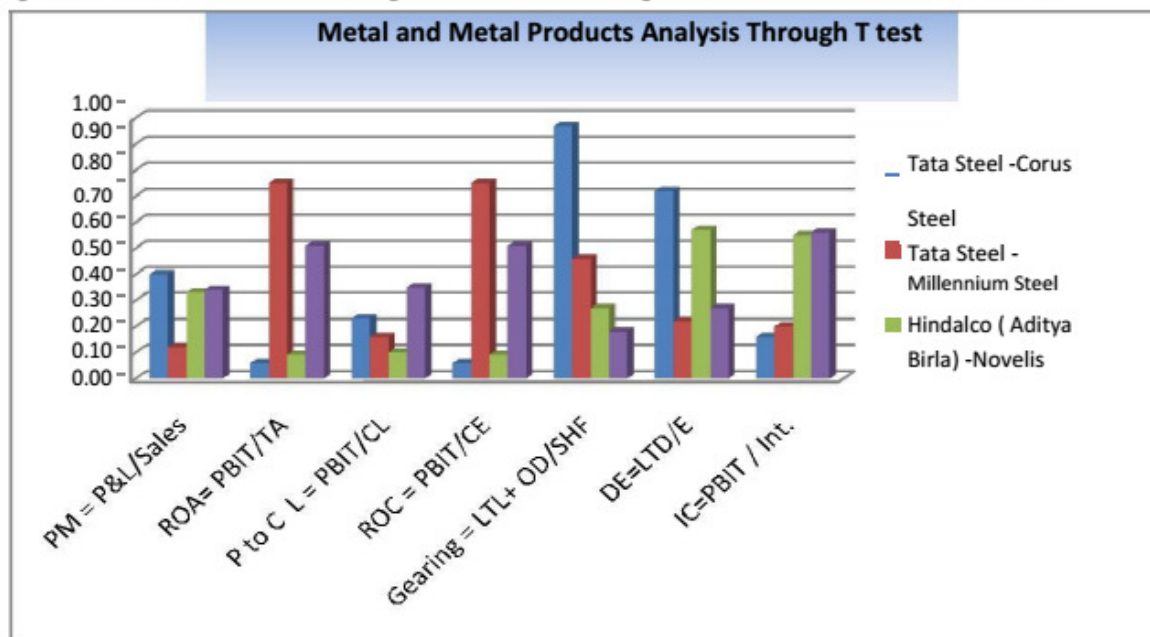
Source: Own calculation with the help of time series data extracted from capital line database.

Interpretation

Many authors have suggested that one of the key firm-level determinants of the likelihood of engaging in a cross border merger is the level of intangible assets of the firms involved in the deal. Firms with high levels of intangible assets or R&D intensity develop knowledge base and amicable corporate control. In case of the Merger of Hidlco (Aditya Birla) with Novelis in 2007 (U.S.) and Essar Steel with Algoma Steel (U.S.) in 2007; the effect of cross border Mergers and Acquisitions has been demonstrated in the same the direction.

Return on Assets (ROA) signifies management's ability to generate income as well as deployment of total expenditure for reaching the targeted revenue. The p-value in case of all the companies considered for analysis appears more than 0.05 with degree of freedom 3 (Table-B). It denotes that there is no significant difference between the mean of pre and post **merger Return on Assets (ROA)** of such companies. Hence the null hypothesis is accepted and alternate hypothesis is rejected. Similar case has been noticed while referring to the **profit to Current liabilities ratio.** This suggests that cross border mergers and Acquisitions could not enhance the efficiency level for meeting current liabilities requirement of Indian companies those adopted outbound mergers and acquisitions as a business strategy.

Maintaining appropriate and adequate capital base is critical to making optimum use of capital resources for any entity. **Return on capital** employed helps the company to find out an appropriate capital base, thereby enabling it for effective deployment of its capital base (debt and equity) to generate returns for the capital providers. From table B it is quite apparent that the p-value for the companies under study are higher than 0.05. Hence, it may be concluded that there is no significant difference between the mean of pre and post merger return on capital of Indian companies those are into outbound M&As. Often it is seen that soundness in solvency of a company becomes the main motivation for investors to invest and outsiders to join hands in various forms. **Debt equity and gearing ratio** are the major variables to judge the solvency of a company.In Case of Tata Steel Ltd, Hindalco (Aditya Birla) and Essar Steel; It is found that cross border mergers and acquisition could not add to their ability of to meet the requirement of long term fund. Both **gearing ratio and debt equity ratio** of the companies shows that the event of cross border M&A has not improvised the Solvency.

Table C. Value creation through cross border mergers in Metal and Metal Products

Acquiring Company	Acquired Company	Country of Acquired Company	Year of Merger	Post Merger Period*	PM =P&L/Sales	ROA= PBIT/TA	P to C L =PBIT/CL	ROC =PBIT/CE	Gearing =LTL+OD/SHF	DE=LTD/E	IC=PBIT / Int.
				Metal and Metal Products							
				Average							
				Pre and Post Merger P value							
Tata Steel	Corus Steel	U.K	2007	5	0.22	0.16	0.75	0.16	0.63	0.66	6.43
Tata Steel	Millennium Steel	Thailand	2005	7	0.22	0.21	0.76	0.21	0.59	0.59	12.73
Tata Steel	Nat Steel Asia	Singapore	2004	8	0.22	0.26	0.77	0.26	0.56	0.58	14.16
Hindalco (Aditya Birla)	Novelis	U.S.	2007	5	0.11	0.09	0.77	0.09	0.32	0.31	10.61
Essar Steel	Algoma Steel	U.S.	2007	5	0.01	0.06	0.28	0.06	2.00	1.87	1.04

Note: * indicates post merger period

Source: Own calculation With the help of time series data extracted from capital line database

Efficiency in terms of having adequate fund to make timely payment of cost of debt capital is generally measured with the help of interest coverage ratio, the lower the interest coverage ratio, the higher the company's debt burden and there is a greater possibility of bankruptcy or default. From the p-value it is evident that there is no significant difference between the mean of pre and post merger interest coverage. Hence, there has not been any substantial gain in this respect after the case of merger.

The Comprehensive review of the empirical evidence on the impact of outbound mergers and acquisitions on the performance of acquiring companies suggests that cross border M&As have an insignificant impact on value creation in the companies which opted for such a business strategy. This outcome of our investigation is also supported by the result of the performance analysis through averages as revealed in Table C.

Figure-C: Value creation through cross border mergers in Metal and Metal Products
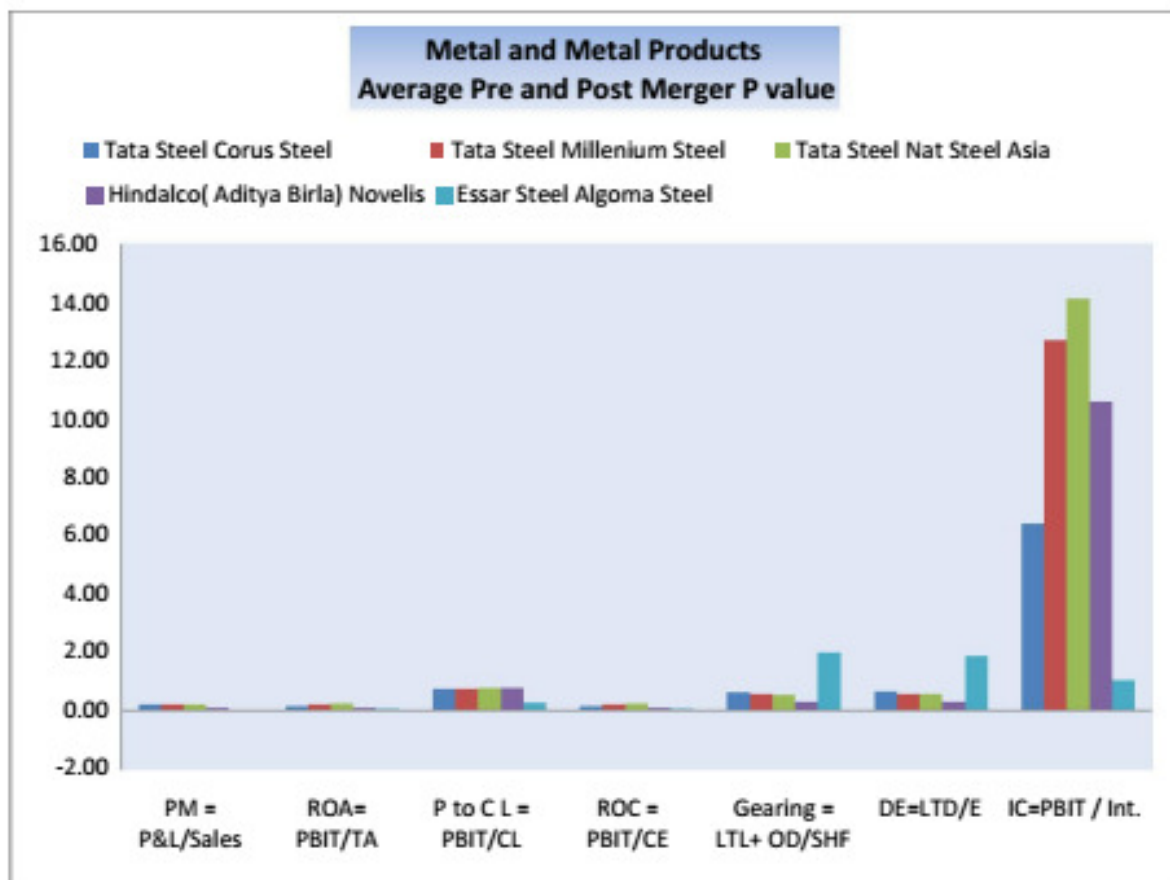
Source: Own calculation with the help of time series data extracted from capital line database

It is found from Table C that the average performance of Tata Steel, Hindalco (Aditya Birla) and Essar Steel is not statistically significant at 5% significance level. The average performance of Indian selected companies in the metal and metal products sector is not affected due to outbound mergers and acquisitions. Hence it is established that there exists no significant difference between the mean of pre and post merger value creation. Tata Steel acquired Nat Steel Asia of Singapore in 2004 and after eight years of acquisition Tata Steels' average performance did not reveal improvement in terms of value creation.

Conclusion

- It denotes that there is no significant difference between the mean of pre and post merger Return on Assets (ROA) of such companies. Hence the null hypothesis is accepted and alternate hypothesis is rejected.

- Similar case has been noticed while referring to the profit to Current liabilities ratio. This suggests that cross border mergers and Acquisitions could not enhance the efficiency level for meeting current liabilities requirement of Indian companies those adopted outbound mergers and acquisitions as a business strategy.

- Return on capital employed helps the company to find out an appropriate capital base, it may be concluded that there is no significant difference between the mean of pre and post merger return on capital of Indian companies those are into outbound M&As.

- Both gearing ratio and debt equity ratio of the companies shows that the event of cross border M&A has not improvised the Solvency.

- Efficiency in terms of having adequate fund to make timely payment of cost of debt capital is generally measured with the help of interest coverage ratio, the lower the interest coverage ratio, the higher the company's debt burden and there is a greater possibility of bankruptcy or default. With the help of research we can find out that there has not been any

substantial gain in this respect after the case of merger.

- It is also established that there exists no significant difference between the mean of pre and post merger value creation.

In the metal and metal products sector, three major Indian companies such as Tata Steel (acquiring of Corus Steel, U.K. and Millennium Steel, Thailand), Hindalco (acquiring of NOvelis, U.S.) and Essar Steel (acquiring of Algoma Steel, U.S.) were found aggressive in terms of cross border M&As.

However, in case of all the three companies t-test reveals poor results with regard to the effect of such acquisitions on their value creation.

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