Article

Effect of cross-border Merger & Acquisition on the financial performance of acquirer company

Sakalesh S Nagouda*

Mercia Selva Malar**

Abstract:

A b s t r a c t

This is about Adani Ports and Special Economic Zone Ltd.'s (In short, APSEZ) acquisition of 100% stake in Abbott Point Coal Terminal, Queensland, Australia for USD 1.97 Bn. APSEZ announced acquisition on 3rd May,2011. Revenue from operations Rs.1,17,7.2595 [crores] in March, 2011 increased to Rs. 2481.90 [Crores] in March, 2012.Abbot Point has currently one operating terminal named Adani Abbot Point Terminal having firm take or pay contract for 50 million Metric Tons Per Annum (Popularly known as, MMTPA) cargo. Interestingly, several Indian companies have gone beyond the borders to engage and expand businesses through M&As, with mixed results. In this scenario, there is a case of M&A that had fruitful results in terms of financial performance, considering both the pre-M&A and post-M&A deals. This deal is regarded as very successful by stakeholders in home and host countries of acquirer company.

Key words: *Cross-Border Mergers &Acquisitions, Acquirer companies, Target companies, long term Financial Performance and Ratios, Impact.*

How to cite: Nagouda, S. S., & Malar, M. S. (2022). Effect of cross-border merger & acquisition on the financial performance of acquirer company. Journal of Management and Entrepreneurship, 16(4), 82–95

1. Introduction:

CB M&As is one of the attractive strategies to expand business nationally or internationally. It helps with quick growth and expansion**.** It provides a competitive advantage; the resources of the firm can be put to optimum use. It gives recognition to firms with established credentials. CB M&As adds to the strengths of an acquirer company if undertaken with scrupulous accuracy in terms of the appropriate valuation of the target company, if there are adequate resources to finance it, if it can create the right synergy and if stakeholders endorse it.

Though Mergers & Acquisitions are pursued globally by large no. of firms, many a times management decisions go wrong in terms of valuation, choice of industry, mode of financing, regulatory compliances, issues involving stakeholders, expected returns and risks etc. Despite several challenges and issues, firms look to use CB M&As as a key strategy for business growth. In certain cases, there have been less than expected short- and long-term performances, whereas in other cases, CB M&As have proved very fruitful for the acquirer companies. Even so, there have been win-win situations for both acquirers and target companies.

There are many firms which pursue CB M&As for attaining related or unrelated diversification. Earlier, we used to find only firms from developed countries engaging in it. But recently, since last few decades several firms across industries, from developing countries have started pursuing CB M&As deals, particularly across borders and in general domestically too. It is always interesting to know what motivates firms to engage in CB M&As. It forces us to think and ponder whether pursuing CB M&As will be beneficial. This study seeks to do the same. Is it always justifiable to go for CB M&As deals?

* Research Scholar, Xavier Institute of Management & Entrepreneurship, (A Recognized Research Centre of the University of Mysore) (Email Id: sakelesh@xime.org)

** Associate Professor, Xavier Institute of Management & Entrepreneurship, (A Recognized Research Centre of the University of Mysore), (Email Id: mercia@xime.org)

This study deals with the cause and effect of such CB M&As by an Indian company. The research focuses on the performance analysis of the effect of a cross-border Merger & Acquisition deal on the financial performance of an Indian acquiring company. Performance evaluation is done on short term as well as long term basis. The short-term performance is undertaken by assessing the stock market reaction through an event study method, while the long-term performance is assessed by analysing different ratios during the pre- and post-acquisition periods.

Statement of the problem: Every company looks to explore the opportunities for the growth and expansion of business globally across the industry through CB M&As since it is most preferred strategy to own assets. So, it becomes significant to know the factors that can contribute to successful CB M&As deals. It helps to ascertain the characteristics that target companies should have to get acquired and for the acquirer companies to possess the ideal characteristics. Through this research, it is investigated as to, impact of the decision of going for Outbound Mergers and Acquisitions and to analyse whether such CB M&As deals have resulted in to positive improvement in financial performance of such acquirer listed companies in India.

2. Review of Literature on Cross Border Mergers and Acquisitions (CB M&A s).

This literature is based on broadly three key aspects of CB M&As that are relooked in to. Viz., Factors influencing M&A s, Performance of CB M&As and impact created by the CB M&As deals for the purpose of proposed research paper.

A. Factors influencing Cross Border Mergers & Acquisitions (CB M&A s):

Mergers and Acquisitions on their own cannot be successful ventures. The factors that influence the success of M&A are many. Those factors could be favourable government policies, access to technology, Low/no competition, easy funding, regulatory approvals, risk factors, stringent corporate governance etc. In research conducted by Erel, I. et al., (2012) examining more than 50,000 M&A deals covering two decades starting 1990s it is found out that, accounting standards quality, volume of trade and geographical advantages increase the chances of cross border mergers and acquisitions between countries. The potential buyers are those firms whose stocks have appreciated locally, whose currencies have gained in value, having high market to book value. Whereas, business firms belonging to nations that are performing poorly on key economic indicators tend to be target firms. It is found that, very high no. of. that are involved in M&As are private sector companies. These could determine the fate of mergers and acquisition decision. Similarly, in another research by Chidambaram, N. K.et al., (2018), in the subsequent decade of policy reforms of 1991 in liberalized India, there has been tremendous increase in mergers and acquisition activities nationally and internationally. The research findings convey that, bigger, relatively younger business firms, with access to higher cash in hand and that are often subjected to over valuation carry high chances of going for mergers and acquisition as acquirer company. Such firms found to be preferring cross border mergers and acquisition rather than domestic M&A deal. Policy reforms could be specific to different markets like money market or capital market. Money market may witness industry-wise or business wise reforms. Another study conducted by Kohli, R. et al., (2012), talks about announcement gains for acquiring company stocks and key determinants of cross border M&As. In a study involving over 260 M&A deals with a 1:3 ratio of domestic and cross border M&A deals respectively using event study methodology being used, to check announcement gains. Using regression, it is revealed that it is clear through regression analysis, more wealth gain has happened relatively in case of cross border M&A deals for investors compared to domestic M&A deals. Technology intensive industries are preferred over others when it comes to cross border M&A. Many Indian firms are considering cross border mergers and acquisitions as part of firm characteristics. It is also revealed in research by Chousa, J. P. et al., (2008), that, rising market capitalization and value adding products and services of a company can cause robust performance in cross border mergers and acquisitions. Yet, strong financial sector and capital market reforms also have a huge impact in influencing international M&As. Firm characteristics matter for both acquirer as well as target firms. Chakrabarti, R. et al., (2009) examined in this research finding we learnt that through CB M&As, firms do well over all functioning in the long run if both acquirer as well as target firms come from two diverse cultural setting. Haleblian, J. et al., (2012) found, in this interesting study it is noticed that if a firm has relatively stronger firm characteristics, there is high probability of such firms becoming acquirers. Acquirer firms need to be very competitive in terms of firm characteristics. Greater the awareness about firm competitiveness resulting in stronger drive among the firms to develop greater capability leading to the competitive action in the form of higher out bound mergers and acquisition, known as competitive dynamics perspective. If a firm can have such dynamism, then its orientation will be highly strategic influencing the decision to be a potential acquirer of foreign firms to grow. Stronger firm characteristics can influence the success of CB Mergers and acquisition as synergy creation and strategic fit become critical.

B. Performance of Cross Border Mergers & Acquisition (CB M&A s):

In a study by Mantravadi, P. et al., (2008), M&A s are preferred over others when it comes to committing FDI (both inward and also as outward) investment. CB M&A s can be used for faster business growth internationally. In another study was held comparative in nature by Nicholson, R. R. et al., (2013), involving more than 200 M&As on the motives for outbound M&A deals and performance between Indian and Chinese firms. They found, value creation by cross border M&A deals by firms from India and China in the phase of rapid growth and participation of MNCs from developing countries in international M&As. There is evidence that many M&A deals involving firms from these two nations creating substantial amount of value. Location of firms found to be having an impact on the performance of cross border M&As as target companies based in developed nations have contributed favourably to the deal. Saboo, S. et al., (2009) found through this research that; India has emerged as one of the top nations for M&As-both domestic as well as international be it inbound or outbound. M&A s being pursued to improve firm competitiveness to acquire competitive advantage over others by way of increased market share, customer base, capital base, widened product range, access to new market, better access to technology and resources, greater economies of scale etc. India has emerged as one of the top countries with respect to merger and acquisition deals. Indian companies have been actively involved in mergers and acquisitions in India domestically as well as internationally. As revealed number of M&A deals by emerging country firms increased post 1990s owing to opening up of economy as result of embracing globalization, relaxing norms for cross border FDI, encouraging business firms through incentives and by building infrastructure. There was a drastic change in the mindset of governments and businesses led to embark upon the overseas business opportunities through cross border mergers and acquisitions. Similarly, in a study finding by Ahn, O. et al., (2009), it was revealed that, India and China have both encouraged inflow and outflow of FDI in attractive industries and markets. In case of cross border M&A s, Cross Border M&A enjoy lion's share. There are different motives, determinants and factors in influencing the performance of CB M&As. Compared to domestic M&As, overseas M&As involved high value deals.

Giving new directions to the research on CB M&As, Rani, N. et al., (2013) looked at the possibility of corporate governance practice at firm level influencing the performance (short-term abnormal returns) of acquiring companies. This research included a sample size of about 150 completed M&A deals during 5 years. This was in response to the detailed survey questionnaire followed by interview with key stakeholders and key managerial personnel of the companies. It between 2003-2008.as noticed that there was positive association between the two. Bris, A. et al., (2008). in their study, analysing the impact of good governance on Firm value in M&A deals, mergers are acquisitions are found to be benefitting investors in their protection, by way of bringing improved corporate governance practices especially in developing countries resulting in overall positive impact in the market. In a study involving more than 7000 M&A deals across nearly 40 industries and in 40 countries observing over two decades, this view was established.

In research by Leepsa, N. M et al. (2012), to examine the effect of M&A s particularly with reference to manufacturing firms using paired sample T-Test, CB M&A s being considered as one of the important strategic actions to attain growth in business. It is found that, the firms were expected to achieve post M&A growth in performance, emphasizing on the business acumen and calibre of key individuals responsible for the decisions. The key expectation was, positive change in post-merger performance compared with pre-merger in relation to profitability, liquidity and creditworthiness. The scope of the study is restricted to manufacturing sector companies in India. Another research by Sinha. N. et al., (2010) highlighted the present paper examines the impact of mergers and acquisitions involving, select Indian financial institutions on their financial proficiency. The study consists of two phases. Firstly, by ratio analysis method, they computed the change in the position of the firms in the period 2000-2008. Secondly, they observed variations in the productivity of the firms during the pre- and post-merger periods by non-parametric Wilcoxon employed rank test. It revealed that important change in the earnings of the investors, there was no significant difference in liquidity position of the businesses. The study specified that M&A cases in India shown a substantial positive correlation between financial performance and the M&A deal, in both short term and in the in the long run. However, the firms were able to add value. Gubbi, S. R. et al., (2010) in their study, explored whether and why CB M&A deals has generated value in terms of improved performance on the acquirer firms from Indian firms' perspective. In recent years, many firms from emerging nations are considering (outward FDI) outbound mergers and acquisitions-as acquirers. As many target firms are operated from advanced countries provided benefits in several ways such as skilled manpower, better resources, advanced technology and well-developed market. The scale of value created found to be more in case of CB M&A compared to domestic M&As.

C. Impact of Cross Border Mergers and Acquisitions (CB M&A s):

Mergers and acquisitions may create positive and negative effect that could be measured quantitatively and qualitatively. On numerous occasions, CB M&As create multiplier effect in the economy, in industry and also within firms. Impact can be assessed as both short-term as well as long- term. As found by Cartwright, S. et al., (2006), in three decades of research on Cross Border M&A s, different aspects are covered and critical analysis is made on the findings of qualitative and quantitative studies. We come across that, despite results of cross border mergers and acquisitions are either negative or mixed compared to very positive in many cases, the wave of M&A deals continues to be very strong and robust across industries. Moreover, emerging country firms, have pursued outbound M&As than never before with the deal size running in to multi billions of dollars. The research on CB M&As continues to be interesting and exciting to track and trace the actual motives and factors that prompt firms to go for international M&A deals. Maček, A. (2014) revealed in an analysis of threats and benefits of CB M&As to East- European transition economies, it is revealed that countries benefitted in finding new source of capital, technology know-how critical to their economic growth. It also provided access to new markets, new skills as benefits. Whereas low allegedly low valuation of target firms, overcrowding and intense competition, anti-competitive behaviour and reduced jobs due to high tech process of operations etc. were found to be threats. However, threats were found to be outweighed by benefits. These threats and opportunities could emanate geographically (from neighbouring countries in a given region), financially and technologically. The economic factors in both countries of acquirer and target firms can play significant role in determining the success for firms, resulting in better synergy. Reddy, K. et al. (2015) also focused their research on performance analysis of Indian market conditions in relation to the impact of inward and outward FDI through M&A deals among BRIC nations during two decades starting with post reforms era using data from international agencies mixed results were found. However, certain improvement was seen though it was marginally less compared to some other economies. Firms have at their disposal, no of ways to reach out to foreign markets with and without FDI.

Nagano, M. et al., (2013), in a study involving inbound M&A s in India and China, two findings were made. Viz., First one is-such target firms become attractive that have higher cash reserve ratio, belonging to industries having high growth and have customer base outside home countries. Second one being-relatively if acquirers happen to be foreign firm rather than domestic firm greater share value is created for the deal. This reflects win-win situation for acquirer as well as target companies as both find international

M&As are attractive. In another research, Gupta, B. et al., (2017) also analysed the impact of M&A on the profitability and liquidity of selected firms' Indian companies across few industries using paired T-Test, but no significant impact is found. However, certain financial indicators of companies performed poorly post-acquisitions. Mann, B. J. S. et al., (2011), 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 M&A as equated to CB M&A due to the effect of many factors. So, in India, bid-related variables are the vital drivers of the target's announcement wealth gains irrespective of the nationality of the acquirer.

The review provided mixed results in terms of impact of the CB M&A decision on their financial performance, it would be incorrect to claim that, in every aspect, both target and acquirer companies will either fail or succeed through CB M&As. The proposed study seeks to find out the impact of outbound (cross border) M&A made by an Indian company from private sector in sea-port infrastructure sector and evaluate performance. When we weigh the key indicators (either positive or negative result yielding) based on their significance of each indicator in terms of worth, we will know actual impact created by such deals.

The research on CB M&As continues to be interesting and exciting to track and trace the actual motives and factors that prompt firms to go for international M&A deals. After review of relevant literature, I found that impact of cross border merger and acquisition in the context of on the financial performance of acquirer company: A study on Adani Ports and Special Economic Zone Ltd.'s acquisition of Abbott Point Coal Terminal, Queensland Australia. Hence, the proposed study seeking to find out the impact of this outbound M&A deal from Indian private sector in infrastructure sector and evaluate performance.

3. Research Methodology:

This study is undertaken to assess the effect of mergers and acquisitions on a short-term and long-term basis. The data is collected from a few reliable sources, like the CMIE-Prowess database, the EMIS database and MoneyControl.com, to name.

For the purpose of the study only one M&A deal/case is taken in to consideration- Adani Ports and Special Economic Zone Ltd acquisition of Abbott Point Coal Terminal, Queensland Australia, though there are several Indian companies engaged in cross border M&As.

Using stock prices and ratio analysis, event study methodology is used to assess the impact of M&A. This study evaluates whether the acquirer has benefited from the deal in terms of short- and long-term performance. Analysis of short-term effect, to obtain Abnormal Return (AR) is used [Cumulative Abnormal Return]. The Abnormal Returns (CARs) were obtained by summing up the Abnormal Returns for the event window based on Nifty 50_CP. Taking in to consideration as 2 days, 5 days, and 10 days $\pm$ as short-term window period.

To fulfil the objective of analysing the short-term performance, market reactions are to be captured to know the effect of corporate actions, in this case cross border merger or an acquisition. Earlier researchers have adopted a standard event study methodology to capture the effect of any announcement made by corporate firms. Therefor to understand the short-term effect of the deal on shareholders' wealth, this study also adopts an event study methodology to know the immediate reaction of the stock market and its effect on shareholders' wealth creation.

The process of an event study is listed below.

- Define the event of interest
- Identify the period
- Determine the selection criteria
- Analyse the event impact
- Selection of normal performance model
- Define event window and estimation window
- Calculation of abnormal returns
- Testing of abnormal returns
- Presentation of empirical results and concluding comments

Thus, the short-term effect was analysed following the above process, to obtain Abnormal Returns

(AR) using a market model, Cumulative Abnormal Returns (CARs) were obtained by summing up the Abnormal Returns for the event window. The results were checked for statistical significance using a t-test to know the if the event has created a value to the shareholders in the short run.

The Long-term performance of a firm before and after an event is measured by the change in financial performance. The Financial Performance of the acquiring firm is evaluated by considering its Liquidity, Profitability, Long-term solvency, Management efficiency position and Valuation ratios. For long term financial performance analysis, The Year of deal being 2011-12. Three years preceding to this as, Pre-M&A deal period (2008-09. 2009-10, and 2010-11) whereas, Post Merger period (2012-13, 2013-14 and 2014-15) for the purpose of this study.

Long-term Performance:

Long-term performance of a firm before and after an event is measured by the change in financial performance. Financial Performance of the acquiring firm is evaluated by considering their Liquidity, Profitability, Long-term solvency, Management efficiency position and Valuation ratios. The following table provides the list of ratios taken into consideration to evaluate the financial performance of the selected firms for the study.

Long-term performance of a firm before and after an event is measured by the change in financial performance. Financial Performance of the acquiring firm is evaluated by considering their Liquidity, Profitability, Long-term solvency, Management efficiency position and Valuation ratios.

4. Results & Discussion:

The focus of research has been on one of the major outbound Merger & Acquisitions involving Indian and a foreign company. This research analysed the short- and long-term impacts of the CB M&As by Adani Ports and Special Economic Zone Ltd.'s acquisition of Abbott Point Coal Terminal, Queensland, Australia.

4.1. Short term Performance of Adani Ports and Special Economic Zone Ltd.

India based, Adani Ports and Special Economic Zone Ltd announced acquisition on 3rd May, 2011 acquisition of 100% stake in Abbott Point Coal Terminal, Queensland Australia for USD 1.97 Bn. Revenue from operations Rs.1,17,7.2595 [crores] in March, 2011 increased to Rs. 2481.90 [Crores] in March, 2012.

The short-term performance of Adani Ports and Special Economic Zone Ltd. is measured by calculating the Abnormal returns (AR) for a period of 41 days, i.e., 20 days before the announcement of the deal and 20 days after the announcement of the deal, to know the effect of such an announcement on the share price of the company.

The following table provides the details of Abnormal returns (AR) for each day of the event window period and the corresponding

Table 2. Showing daily Abnormal Returns (AR) of Adani Ports and Special Economic Zone Ltd for an event window of 41 days (-20 to +20)

Day	AR	t-test	Day	AR	t-test
-20	0.001	0.012	1	-0.029	-0.252
-19	0.035	0.302	2	-0.004	-0.035
-18	0.039	0.337	3	0.013	0.114
-17	0.062	0.533	4	-0.004	-0.035
-16	-0.009	-0.078	5	0.047	0.404
-15	0.022	0.189	6	-0.005	-0.041
-14	0.009	0.081	7	0.014	0.118
-13	-0.033	-0.289	8	0.029	0.254
-12	-0.007	-0.056	9	0.025	0.215
-11	0.012	0.103	10	0.060	0.514
-10	0.053	0.457	11	0.043	0.375
-9	-0.015	-0.125	12	-0.019	-0.160
-8	-0.006	-0.048	13	0.021	0.181
-7	-0.001	-0.008	14	0.045	0.389
-6	0.006	0.055	15	0.015	0.133
-5	-0.001	-0.004	16	0.034	0.296
-4	-0.007	-0.056	17	-0.015	-0.129
-3	0.036	0.315	18	-0.004	-0.039
-2	0.015	0.131	19	0.024	0.211
-1	0.015	0.132	20	0.023	0.200
0	0.001	0.013			

Source: Authors own calculation based on NSE data.

The above table shows that the shareholders of Adani Ports and Special Economic Zones Ltd do not gain any significant abnormal returns during any day of the event period. It can be seen that the abnormal return on the event date is negligible (0.001), which is statistically insignificant. This is true for all 41 days.

Further we have also considered different event windows to know if there is any significant value creation to the shareholders in these shorter event windows.

The Cumulative Average Abnormal Returns (CAAR) were considered for each event window and were tested for their statistical significance. The event windows considered are 41 days, 31 days, 21 days and 11 days event windows. It is worth mentioning that there is no standard event window to measure the short-term performance of stock prices following a corporate announcement.

Hence, different researchers have considered different event window periods to analyse an event. The following table provides Cumulative Average Abnormal Returns (CAAR) along wit

Table 3. Showing Cumulative Average Abnormal Returns of Adani Ports and Special Economic Zone Ltd for different event windows.

Event window	CAAR	Standard error	t-test	Significance
41 days	0.0133	0.00368	3.619	0.00***
31 days	0.0113	0.00418	2.702	0.01***
21 days	0.0115	0.00503	2.288	0.03***
11 days	0.0074	0.00635	1.174	0.27

Source: Authors own calculation based on NSE data.

*, **, *** represents significance at 10%, 5% & 1% respectively

The above table shows the CAAR value with the corresponding t-test value. It is interesting to know that for an event window of 41 days, the Cumulative Average Abnormal Returns (CAAR) is 1.33%, which is statistically significant. Similar results can be observed for 31 days event window, where CAAR is 1.13% which is statistically significant at 1% level, and the 21-day event window, where CAAR is 1.15% which is statistically significant at 5% level. However, for an event window of 11 days, the CAAR is 0.74% which is statistically insignificant.

4.2 Long term Performance of Adani Exports and Special Economic Zone Ltd.

The Long-term Performance of Adani Ports and Special Economic Zone Ltd., an Indian acquirer, has been analysed based on various financial parameters as listed above. To measure the financial performance of the firm, a three-year pre-acquisition period and a three-year post-acquisition period are considered, excluding the year of acquisition.

The financial data required is collected from the CMIE database and Money Control.com. The results of the pre-acquisition and post-acquisition periods for the firm for selected financial parameters are discussed below.

Liquidity Ratios:

The first set of financial parameters to be analysed are the current ratio and Quick ratio. These financial parameters help us know if there is any improvement in the liquidity measure of this acquiring firm during the post-acquisition period when compared to the pre-acquisition period. The data for three years before and after the acquisition year are collected from CMIE Database and Money Control.com. A paired-sample t-test is conducted to find if there is any difference in the liquidity position of this acquiring firm after the acquisition when compared to that of the

Table.4: Showing Paired two Sample t-test for Current ratio and Quick ratio

Financial parameter	*Mean value*	*t-value*	*Significance (two-tailed)*
Current Ratio (Post)	1.84		
Current Ratio (Pre)	0.66	2.82	0.10*
Quick Ratio (Post)	1.79		
Quick Ratio (Pre)	0.64	2.86	0.10*

Source: Authors own calculation based on CMIE database.

*, **, *** represents significance at 10%, 5% & 1% respectively

From the above table, it can be seen that there is an improvement in the current ratio for a three-year period after acquisition when compared to the three-year pre-acquisition period. The mean difference is 1.18 with a t-value of 2.82, which is statistically significant at 10% level. Due to the reduction of current liabilities regularly as a result of paying-off of those current liabilities, post-merger and acquisition.

Thus, it can be concluded that there has been a significant improvement in the firm's current ratio from the pre-acquisition period. Similarly, in the case of the Quick ratio (revealing firm's short term liquidity position), the mean value for the post-acquisition period is 1.79 as compared to 0.64 in the pre-acquisition period. Quick ration deals with firm's ability to honour its short-term liabilities with the help of its most liquid assets. As a result of rise in current assets in comparison with change in current liabilities post M&A deal, there has been improvement in the ratio. This significant improvement is reflecting that firm has become more liquid and it has generated cash more quickly.

The mean difference is 1.15 times. The t-value is 2.86. The results are significant at 10% level. Thus, it can be said that there is an improvement in the Quick ratio during the three-year post-acquisition period when compared to the pre-acquisition period.

Overall, it can be concluded that the Liquidity position of the firm has improved after the acquisition, as there is an improvement in the average current ratio and average quick ratio for a three-year post-acquisition period when compared to the pre-acquisition period.

Management Efficiency Ratios.

The next set of financial parameters is related to Management efficiency. The ratios analysed are the Debtor turnover ratio, Fixed asset turnover ratio and Total asset turnover ratio. These financial parameters measure the management efficiency and are hence analysed to know whether there is an improvement in the efficiency ratios of the firm during the post-acquisition period of three years when compared to the pre-acquisition period of three years. A paired two-sample t test is applied to the pre- and post-period data to analyse the performance. The following table depicts the results of a pai

Table.5: Showing Paired two Sample t-test for Debtors turnover ratio, Fixed Assets turnover ratio and Total Assets turnover ratio.

Financial parameter	*Mean value*	*t value*	*Significance (two-tailed)*
Debtors' turnover ratio (Post)	5.81		
Debtors' turnover ratio (Pre)	6.98	-0.6180	0.5996
Fixed Assets turnover ratio (Post)	0.373		
Fixed Assets turnover ratio (Pre)	0.3	3.1429	0.0881*
Total Assets turnover ratio (Post)	0.223		
Total Assets turnover ratio (Pre)	0.25	-0.50903	0.6613

Source: Authors own calculation based on CMIE database.

*, **, *** represents significance at 10%, 5% & 1% respectively.

From the above table, it can be seen that there is a decline in the debtors' turnover ratio. The mean difference is -1.17. However, the results are not statistically significant as the p value (two tail) of 0.5996 is greater than 0.10. Thus, it can be said that there is no significant difference in the pre- and post-average debtors' turnover ratio. The same holds true in the case of the Total Assets turnover ratio, where the mean difference of -0.027 is statistically insignificant and hence it can be said that there is no significant difference in the pre- and post-average total assets turnover ratio. In the case of the Fixed Asset turnover ratio, there is an increase in the Fixed Asset turnover ratio. The mean difference is 0.073. The t value is 3.1429 with a p value (two tails) of 0.088, which is statistically significant at 10% level. Thus, we can say that there is a significant difference in the pre- and post-fixed asset turnover ratio.

Long Term Solvency Ratios:

The next set of financial parameters evaluated measures the Long-term solvency position of the company. The long-term solvency position is analysed by taking into consideration the debt-equity ratio, the long-term debt-equity ratio and the interest coverage ratio. The following table depicts the results of

Table.6: Showing Paired two Sample t-test for Debt-equity ratio, Long-term debt equity ratio and interest coverage ratio.

Financial Parameter	Mean value	t value	Significance (two-tailed)
Debt Equity ratio (Post)	0.98		
Debt Equity ratio (Pre)	0.69	1.81	0.21
Long term debt equity ratio (Post)	0.9		
Long term debt equity ratio (Pre)	0.43	12.6	0.00***
Interest coverage (Post)	4.41		
Interest coverage (Pre)	5.77	-0.7	0.51

Source: Authors own calculation based on CMIE database.

*, **, *** represents significance at 10%, 5% & 1% respectively.

The results of the long-term solvency position of the company are measured by three relevant ratios for a period of three years before and three years after the acquisition year. It can be observed that the debt-equity ratio has increased from 0.69 during the pre-acquisition period to 0.98 for the post-acquisition period. This shows that the long-term debt capital has increased during the post-acquisition period.

However, the results are not statistically significant. Thus, it can be said that there is no significant difference in the debt-to-equity ratio before and after the acquisition. In the case of the long-term debt-to-equity ratio, it can be observed that there is a significant increase in the ratio during the post-acquisition period when compared to the pre-acquisition period. The mean difference is 0.47 with value of 12.6, which is statistically significant at 1% level. Thus, we reject the null hypothesis and conclude that there is a significant difference in the long-term debt equity ratio. A reason could be the use of debt to finance this acquisition. However, the interest coverage ratio has decreased, though the results are not statistically significant.

Profitability Ratios:

The next set of financial parameters enables one to evaluate the profitability position of the company during the post-acquisition period as compared to the pre-acquisition period. The ratios analysed are the Net Profit Margin Ratio, Profit Before Interest and Tax Margin, Cash Profit Margin, Return on Capital Employed, Return on Net worth, Return on Assets and EPS. The results are depicted in the following Table.

Table.7: Showing Paired two Sample t-test for Net Profi

Financial Parameter	Mean value	t value	Significance (two-tail)
Net profit Margin (post)	51.47		
Net profit Margin (Pre)	47.69	0.84	0.487
Profit Before Interest and Tax Margin (Post)	50.24		
Profit Before Interest and Tax Margin (Pre)	52.72	-0.42	0.713
Cash Profit Margin (Post)	55.16		
Cash Profit Margin (Pre)	54.79	0.08	0.943
Return on Capital Employed (post)	15.5		
Return on Capital Employed (Pre)	16.11	-0.18	0.869
Return on Net Worth (Post)	22.42		
Return on Net Worth (Pre)	19.59	0.692	0.56
Return on Assets (Post)	44.22		
Return on Assets (Pre)	60.62	-0.667	0.573
Basic EPS (Rs.) (Post)	9.7		
Basic EPS (Rs.) (Pre)	11.3	-0.412	0.72

Source: Authors own calculation based on CMIE database.

*, **, *** represents significance at 10%, 5% & 1% respectively

Net-profit margin assesses how much net income or profit is generated as a percentage of revenue. The net profit margin has increased by 3.78% in the post-acquisition period of three years for the company, which indicates that there is an improvement in the overall profitability position of the company. The have been efforts by the company to cut costs, there revenue increase was also witnessed. However, during the same period, profit before interest and tax margin (PBIT) has declined by 2.48%. This decline is a sign that the operating performance of the company has declined during the post-acquisition period. Though increase in revenue recorded, there is increase in expenses due to unforeseen rise in inflation.

Even though we can see that there is an increase in the net profit margin, earnings before interest and tax, which is a measure of operating performance, have declined. Therefore, the increase in net profit margin can be attributed to an increase in non-operating incomes as dividend earnings and profits have resulted in increased earnings. This included gains from foreign exchange as dollar strengthened against rupee.

Cash Profit Margins:

Cash Profit ratio that measures cash from operating activities as a percentage of total sales revenue in a given period. The cash profit margin is a good indicator of earnings quality, has slightly improved during the post-acquisition period, indicating improvement in the firm's ability to convert sales into cash. However, these results are statistically insignificant, concluding that there is no significant difference in the pre- and post-acquisition ratios of NP margin, PBIT margin and cash profit margin.

Return on Capital Employed (ROCE) is a better indicator of the efficient utilization of capital, provided by both equity and long-term debt. A higher ROCE is considered to be better for a company. The ROCE for the said company has slightly declined by 0.61%. Return on capital employed is a financial ratio that measures a company's profitability in terms of all of its capital

The Return on Net worth (RONW) represents the profits generated based on the strength of its shareholders' equity. RONW has improved after the acquisition, indicating the firm's ability to generate profits from its shareholders' equity.

It reveals how much profit a company generates with the money that the equity shareholders have invested. Return on Net Worth (RONW) is used in finance as a measure of a company's profitability.

Basic EPS has declined, indicating that the firm has increased retained earnings. The management also took a decision for stock split resulting increase in total shares. However, there is drop in earning per share. in to drop. However, these results are not statistically significant. Hence, it can be concluded that there is no difference in the pre- and post-acquisition ratios of ROCE, RONW, ROA and basic EPS.

Valuation Ratios:

The next set of financial parameters analysed is related to valuation ratios. The ratios considered for the study are EV to Net Operating Revenue, EV/ EBITDA, Market Capitalization to Net Operating Revenue and Price to B

Table.8: showing Paired two Sample t-test for different valuation ratios

Financial parameter	Mean value	t value	Significance (two tail)
EV/Net Operating Revenue (Post)	13.28		
EV/Net Operating Revenue (pre)	17.35	-0.81	0.502
EV/EBITDA (Post)	16.19		
EV/EBITDA (Pre)	22.22	-1.10	0.386
Market Cap/Net Operating Revenue (Post)	11.17		
Market Cap/Net Operating Revenue (Pre)	16.19	-1.09	0.388
Price/BV (Post)	4.67		
Price/BV (Pre)	6.61	-1.30	0.320

Source: Authors own calculation based on CMIE database.

*, **, *** represents significance at 10%, 5% & 1% respectively.

Enterprise value includes in its calculation the market capitalization of a company but also short-term and long-term debt and any cash on the company's balance sheet. The enterprise value is used because it adds debt and takes out cash, which an acquirer would take on and receive, respectively.

EV/R=Enterprise Value

Revenue

where: Enterprise Value=MC+D−CC

MC=Market capitalization

D=Debt

CC=Cash and cash equivalents

The Enterprise value to Net Operating Revenue had decreased from 17.35 to 13.28, with a mean difference of -4.07 as market capitalization has declined. A low Enterprise value to Net operating revenue indicates that the company is undervalued. The EV/EBITDA multiple has declined from 22.22 to 16.19, with a mean difference of -6.03. The ratio of EV/EBITDA is used to compare the entire value of a business with the amount of EBITDA it earns on an annual basis. This ratio tells investors how many times EBITDA they would have to pay to acquire the entire business. The lower the multiple, the better for the acquiring firm. Thus, we can see that there is an improvement in EV/EBITDA.

The average Market Capitalization to Net Operating Revenue multiple has declined from 16.19 to 11.19. This makes the company attractive for investments. The Price to Book value ratio has also declined, making it more attractive for investors. Thus, it can be said that the valuations of the company have become attractive to investors after the deal. However, these results are not statistically significant.

The findings of this study are similar with the previous research findings by the following authors:

G. Andrew Karolyi1(2004), Mamoru Nagano (2007), Neena Sinha et al (2010), G. Andrew Karolyi1(2004), N. M. Leepsa et al. (2012).

While, they found significant change in the earnings of the shareholders, there is no significant change in liquidity position of firms. M&A is considered as one of the strategies for growth, the companies are expected to perform post M&A, so that those are proved successful.

5. Conclusion:

After detailed analysis, the following conclusion is drawn for the above-mentioned outbound M&A deal:It is interesting to know that for an event window of 41 days, the Cumulative Average Abnormal Returns (CAAR) are 1.33%, which is statistically significant. Similar results can be observed for 31-day event window, where CAAR is 1.13% which is statistically significant at 1% level, and the 21-day event window, where CAAR is 1.15%, which is statistically significant at 5% level. However, for an event window of 11 days, the CAAR is 0.74%, which is statistically insignificant. It can be concluded that there has been a significant improvement in the firm's current ratio from the pre-acquisition period. A current ratio of less than 1.00 may seem alarming, although different situations could have negatively affected the current ratio in a solid company till the year of deal indicating inadequacy in meeting the short-term obligations. Ratio has improved for the company post-merger, indicating it was more than adequate.

Debtors' turnover ratio has been consistent as adequate no. of times company has been able to convert debtors in to cash as it is able to collect receivables consistently. Company has been able to turnover debtors in to in post-merger period, more than pre-merger period.

Company's fixed asset turnover ratio has gradually increased indicating efficiently and efficiently. it has been generating sales from its existing fixed assets.

As far as debt equity ratio is concerned, Adani company has been able to raise more loan from the market to finance its operations as we find it is consistently in an ascending order spreading in to post acquisition years. Similarly, company's ability to interest easily on outstanding debt has improved over the years in line with other indicators.

Among profitability ratios, company's net profit ratio was relatively better before M&A deal i.e., till 2011-12 where it has dropped subsequently as M&A can be seen affecting profitability here due to increased costs. However, Profit before interest and tax has been consistent throughout these seven years covering 3 years pre-and 3 years post period including year of the event (M&A deal). Indicating interest and tax components were more and affected the company. When it comes to cash profit margin has seen positively consistent, indicating company has effectively converted sales in to cash revenue.

Return on Capital Employed [ROCE] was positive in 2008 but relatively less compared other subsequent years. It increased every year till 2011 and was at peak till the year of M&A deal (2011), but relatively it was more in post-merger period though it was slight less compared to previous years. Company's ability to earn amount of profit for every rupee employed in business.

Return on Net worth as amount of return shareholders would get if all of the profit shareholders would get. It has been very positive and good. Rs.8.17 in 2008 to Rs. 21.6 in 2012.Showing M&A have really worked well for the investors. Return on Assets being a significant indicator of financial performance, is obtained by dividing a company's earnings after tax by its total assets. This was. 3.72 in 2008 to 9.64 in 2012, which clearly worked in favour of acquirer company, indicating company has been able to use assets very efficiently in business post-merger deal. However, Earning Per Share (EPS), Rs. 5.53 in 2008 till Rs.9.8 in 2012 whereas, peak was Rs. 17.49 in 2010 where as in the year of deal it was Rs.4.92 which subsequently was Rs. 9.8 in 2012.

Similarly, in the case of the Quick ratio, the mean value for the post-acquisition period is 1.79 as compared to 0.64 in the pre-acquisition period. Thus, it can be said that there is an improvement in the Quick ratio during the three-year post-acquisition period when compared to the pre-acquisition period.

Overall, it can be concluded that the Liquidity position of the firm has improved after the acquisition, as there is an improvement in the average current ratio and average Quick ratio for a three-year post-acquisition period when compared to the pre-acquisition period.

As far as the Debtors Turnover Ratio is concerned, it can be said that there is no significant difference between the pre- and post-average debtor turnover ratio. The same holds true in the case of the Total Assets turnover ratio, where the mean difference of -0.027 is statistically insignificant and hence it can be said that there is no significant difference in the pre- and post-average total assets turnover ratio. In the case of the Fixed Assets turnover ratio, there is an increase in the Fixed Assets turnover ratio. This shows that the long-term debt capital has increased during the post-acquisition period. However, the results are not statistically significant. Thus, it can be said that there is no significant difference in the debt-to-equity ratio before and after the acquisition. In the case of the long-term debt-to-equity ratio, it can be observed that there is a significant increase in the ratio during the post-acquisition period when compared to the pre-acquisition period.

The net profit margin has increased by 3.78% in the post-acquisition period of three years for the company, which indicates that there is an improvement in the overall profitability position of the company. However, during the same period, profit before interest and tax margin (PBIT) has declined by 2.48%. This decline is a sign that the operating performance of the company has declined during the post-acquisition period. Even though we can see that there is an increase in the net profit margin, earnings before interest and tax, which is a measure of operating performance, have declined. Therefore, the increase in net profit margin can be attributed to an increase in non-operating incomes.

The cash profit margin has slightly improved during the post-acquisition period, indicating an improvement in the firm's ability to convert sales into cash. However, these results are statistically insignificant, concluding that there is no significant difference in the pre- and post-acquisition ratios of NP margin, PBIT margin and cash profit margin. Return on Capital Employed is a better indicator of the efficient utilization of capital, provided by both equity and long-term debt. A higher ROCE is considered to be better for a company. The Return on Net worth (RONW) has improved after the acquisition, indicating the ability of the firm to generate profits from its shareholders' equity. Basic EPS has declined. However, these results are not statistically significant. Hence, it can be concluded that there is no difference in the pre- and post-acquisition ratios of ROCE, RONW, ROA and basic EPS.

The Return on Net worth (RONW) has improved after the acquisition, indicating the ability of the firm to generate profits from its shareholders' equity. Hence, it can be concluded that there is no difference in the pre- and post-acquisition ratios of ROCE, RONW, ROA and basic Esther average Market Capitalization to Net Operating Revenue multiple has declined from 16.19 to 11.19. This makes the company attractive for investments. The Price to Book value ratio has also declined, making it more attractive for investors. Thus, it can be said that the valuations of the company have become attractive to investors after the deal. However, these results are not statistically significant.

The limitations and scope of the future study:

1. The study is aimed at assessing the, an analytical study on the cross-border mergers & acquisitions by Indian companies with special reference to post-economic reforms scenario.
2. This research study relies mainly on secondary data derived from published sources such as national and international government bodies like the RBI, OECD, UNCTAD and other national and international professional organizations/ bodies.
3. Other limitations are the lack of adequacy of data, the limited period of study and the suitable techniques used. Time and resource constraints affect the research process.
4. For the present study, only financial implications are considered. However, there can be many important non-financial factors that are not included such as synergy, government policy, market demand, competition, goodwill, technology, IPR etc.

This study would provide an insight in to the decision to go for outbound cross border Merger & Acquisition for all those who were involved in this decision and may influence the decision to go for outbound M&A in future for all likeminded decision makers and other stake holders like investment bankers, investors, employees and government.

REFERENCES:

1. Ahn, O. (2009). The Role of Cross-border Mergers and Acquisitions in Foreign Direct Investment: Evidence from the Chinese Stock Market. *East Asian Economic Review*, *13*(2), 39-84.
2. Bris, A., Brisley, N., & Cabolis, C. (2008). Adopting better corporate governance: Evidence from cross-border mergers. Journal of Corporate Finance, 14(3), 224-240.
3. Chakrabarti, R., Gupta-Mukherjee, S., & Jayaraman, N. (2009). Mars–Venus's marriages: Culture and cross-border M&A. Journal of international business studies, 40(2), 216-236.
4. Chidambaram, N. K., Krishnakumar, D., & Sethi, M. (2018). Cross-border vs. domestic acquisitions: Evidence from India. *Journal of Economics and business*, *95*, 3-25.
5. Chousa, J. P., Chaitanya, K., & Tamazian, A. (2008). Does growth & quality of capital markets drive foreign capital? The case of cross-border mergers & acquisitions from leading emerging economies.
6. Erel, I., Liao, R. C., & Weisbach, M. S. (2012). Determinants of cross-border mergers and acquisitions. The Journal of finance, 67(3), 1045-1082.
7. Gubbi, S. R., Aulakh, P. S., Ray, S., Sarkar, M. B., & Chittoor, R. (2010). Do international acquisitions by emerging-economy firms create shareholder value? The case of Indian firms. Journal of International Business Studies, 41(3), 397-418.
8. Gupta, B., & Banerjee, P. (2017). Impact of merger and acquisitions on financial performance: Evidence from selected companies in India. International Journal of Commerce and Management Research, 3(1), 14-19.
9. Haleblian, J., McNamara, G., Kolev, K., & Dykes, B. J. (2012). Exploring firm characteristics that differentiate leaders from followers in industry merger waves: A competitive dynamics perspective. Strategic Management Journal, 33(9), 1037-1052.
10. Karolyi, G. A. (2006). The world of cross-listings and cross-listings of the world: Challenging conventional wisdom. Review of Finance, 10(1), 99-152.
11. Kohli, R., & Mann, B. J. S. (2012). Analysing determinants of value creation in domestic and cross border acquisitions in India. International Business Review, 21(6), 998-1016.

12. Leepsa, N. M., & Mishra, C. S. (2012). Post-merger financial performance: A study with reference to select manufacturing companies in India. International Research Journal of Finance and Economics, 83(83), 6-17.

13. MAČEK, A. Benefits and Threats of Cross-Border Mergers and Acquisitions for European Transition Countries.

14. Mann, B. J. S., & Kohli, R. (2011). Target shareholders' wealth creation in domestic and cross-border acquisitions in India. International Journal of Commerce and Management, 21(1), 63-81.

15. Mantravadi, P., & Reddy, A. V. (2008). Type of merger and impact on operating performance: The Indian experience. Economic and Political Weekly, 66-74.

16. Nagano, M., & Yuan, Y. (2013). Cross-border acquisitions in a transition economy: The recent experiences of China and India. Journal of Asian Economics, 24, 66-79.

17. Nicholson, R. R., & Salaber, J. (2013). The motives and performance of cross-border acquirers from emerging economies: Comparison between Chinese and Indian firms. International Business Review, 22(6), 963-980.

18. Rani, N., Yadav, S. S., & Jain, P. K. (2013). Impact of corporate governance score on abnormal returns of mergers and acquisitions. Procedia Economics and Finance, 5, 637-646.

19. Reddy, K., Li, Y., & Xie, E. (2015). Economic transition and cross-border mergers & acquisitions: the Indian experience among BRICs. Journal of Comparative International Management, 18(2), 23-53.

20. Saboo, S., & Gopi, S. (2009). Comparison of Post-Merger performance of Acquiring Firms (India) involved in Domestic and Cross-border acquisitions.

21. Sinha, N., Kaushik, K. P., & Chaudhary, T. (2010). Measuring post-merger and acquisition performance: An investigation of select financial sector organizations in India. *International journal of Economics and Finance*, *2*(4), 190-200.

Websites/Weblinks:

https://www.siliconindia.com/news/business/12-Biggest-Acquisitions-by-Indian-Companies-nid-145037-cid-3.html

https://unctad.org/en/Pages/DIAE/World%20Investment%20Report/Annex-Tables.aspx