



A STUDY ON IMPACT OF MERGER & ACQUISITION ON LONG TERM FINANCIAL PERFORMANCE OF ACQUIRING COMPANY WITH REFERENCE TO INFRASTRUCTURE SECTOR IN INDIA

¹Akhil Vaman Shetty, ²Dr. Manisha Khaladkar

¹Assistant Professor, ²Associate Professor

¹Finance Department,

¹MET Institute of Management, Mumbai, India

Abstract: The objective of this article is to investigate, using a wide range of financial statistics, how mergers and acquisitions (M&A) affect the financial performance of the infrastructure sector. The paired t-test methodology was utilised, and the study's time frame was from 2009 to 2019. The pre-M&A phase and post-M&A period are said to differ significantly from one another. The results of the analysis indicate that, while the profitability ratio has decreased while liquidity ratio and leverage have greatly improved. The fixed-asset turnover ratio significantly improves when compared to total and current assets, but only somewhat when compared to efficiency ratio. The study comes to the conclusion that, for the acquiring corporations during the post-M&A phase, the financial position of the Indian companies from Infrastructure sector has generally improved while profitability has reduced. According to the study, the infrastructure sector backs the synergy theory, which claims that the resource consolidation that results from mergers and acquisitions will enhance synergy in the post-merger and acquisition phase while management will take time to improve profitability.

Keyword: Mergers and acquisitions (M&A), infrastructure sector, paired t-test, ratio analysis

I. INTRODUCTION

India's ability to grow its economy to a 26 trillion dollar one thanks in large part to its infrastructure. Significant progress in important areas, with infrastructure development playing a crucial role in the development, will greatly support India's high growth objective in 2023 and beyond. Investments in physical infrastructure remain crucial to raising productivity and costs, especially when made in coordination with initiatives to make conducting business easier.

The Indian economy has experienced considerable transformation and structural changes during the past ten years as a result of several structural reforms that the Indian government has enacted since 1991 in response to policies of economic liberalisation and globalisation. Business organisations have therefore started a significant re-engineering initiative to develop a dominant presence in their primary business sectors. Mergers and acquisitions (M&A) are among the most often utilised corporate restructuring techniques and have evolved into a crucial component of long-term business strategy, which is the most popular method used by companies to recover from changing market conditions.

Rise of Infrastructure Sector

For India to grow its economy to a 26 trillion dollar one, infrastructure is a critical enabler. Investments in physical infrastructure remain crucial to raising efficiency and costs, especially when made in coordination with initiatives to make conducting business easier. Recently, Prime Minister Narendra Modi emphasised once more how important infrastructure is to ensuring effective governance in all sectors.

Given the number of projects that have lately been introduced, it is clear that the government is focused on developing the infrastructure of the future. In order to bring about systematic and effective reforms in the sector, the US\$ 1.3 trillion national master plan for infrastructure, Gati Shakti, has been a pioneer and has already made tremendous progress.

These programmes have helped the "Smart Cities Mission" and "Housing for All" efforts. Up to \$100 billion in investments from Saudi Arabia are planned for India in the fields of energy, petrochemicals, refineries, infrastructure, agriculture, minerals, and mining. A major engine of the Indian economy is the infrastructure industry. The sector receives great attention from the government in order to launch laws that would assure the country's production of world-class infrastructure within a set period of time. This sector plays a significant role in driving India's overall growth. Power, bridges, dams, highways, and the development of urban infrastructure all fall within the infrastructure sector. In other words, by promoting the expansion of related industries like townships, housing, built-up infrastructure, and construction development projects, the infrastructure sector serves as a catalyst for India's economic growth.

The construction of infrastructure is absolutely necessary if India is to achieve its goal of having a \$5 trillion economy by 2025. The National Infrastructure Pipeline (NIP) and other programmes like "Make in India" and the production-linked incentives (PLI) plan were introduced by the government to support the expansion of the infrastructure industry. In the past, funding for utilities, water and irrigation, and transportation accounted for more than 80% of the nation's infrastructure spending.

II LITERATURE REVIEW

The previous research on the topic of the effect of M&A on financial performance has produced conflicting conclusions. Existing literature offers conflicting information regarding whether M&As add value or take it away. The studies in the available literature, which are separated into short-term and long-term studies, look at the connection with M&As.

Analysis of stock returns and accounting techniques have been used in certain research to compare short- and long-term performance on both fronts. The analysis of stock returns has looked at the abnormal returns to shareholders using the event study approach. The long-term performance has been examined using a variety of accounting sets of ratios. The most popular measures employed in M&A are those measuring profitability, efficiency, liquidity, leverage, and cash flow. By comparing a company's performance before and after an acquisition, using accounting data, the operating performance approach can establish whether an acquisition improves costs, sales, and profit.

Emanuele Teti, Stefano Tului (2020) in his study demonstrates that target companies' Cumulative Average Abnormal Returns (CAARs) are positive and statistically significant, whereas acquirer firms' CAARs are positive but not statistically significant over a 20-year period from 1997 to 2017 for a global sample of listed infrastructure companies, 80% of which were utilities. The outcomes must be considered in the context of the restructuring that has stood out over the past 20 years by significantly altering the infrastructure environment and promoting the spread of mergers and acquisitions (M&A). Our findings, with particular reference to the target companies, support the potential efficiency and financial soundness of M&A transactions in the infrastructure and public utility sectors.

According to Tarigan et al.'s (2018) analysis of Indonesia's non-banking companies' financial performance from 2009 to 2012, the performance dramatically increased after M&A. They contended that a higher solvency ratio indicated a lower cost of capital, which could be attained through financial synergy, but this had come at the expense of ROE, which could have been caused by an increase in operating profit that was lower than anticipated, implying that operating synergy may take longer to fully realise.

In their study, Azhagaiah & Kumar (2011) used a paired t-test to assess the hypothesis of whether the corporate performance of Indian manufacturing corporate entities improved significantly after the merger event. According to the study's findings, Indian corporate enterprises who have participated in M&A have improved their liquidity position, operating efficiency, profitability, and operating and financial risk. In a different study, they looked at a sample of 20 acquiring companies that happened to be active in the year 2007. They came to the conclusion that corporate firms in India appeared to have operated more profitably following the merger than they had during the pre-merger period.

Dutta and Dawn (2012) examine the success of combined banks in terms of increase in total assets, profitability, income, deposits, and number of employees in their study titled "Merger and acquisitions in Indian banks after liberalisation: An analysis". Four years prior to the merger and four years after the merger are used to compare the performance of the combined banks. According to the study's findings, the post-merger phases of the Indian banking industry saw a successful rise in total assets, profitability, income, deposits, and the number of workers of the acquiring organisations.

Tambi (2005) assessed how mergers affected an Indian corporation's performance. Theoretically, mergers are thought to enhance a company's overall performance due to increased market power and synergistic effects. By comparing the means of the three measures PBITDA, PAT, and ROCE, he has assessed a number of banks to see if there has been any difference between the two. His research's findings suggest that mergers have not made a positive contribution.

III Research Methodology

Secondary data were used in this study and were gathered from a number of databases, including the National Stock Exchange (NSE), the Bombay Stock Exchange (BSE), and the Refinitiv database. Refinitiv's database was initially used to compile information on M&A announcements made between 2009 till 2019.

From the websites of the NSE and BSE as well as annual reports of the companies, information about the deal's completion was gathered. Long periods are required to fully capture the effects of M&A, hence the analysis of the 3-year pre- and 3-year post window. The success and creation of favourable results following an M&A are thought to depend on the three-year window.

The study looked at a variety of accounting ratios to provide a full picture of long-term performance and profitability after the M&A. The multiple ratios—profitability, liquidity, efficiency, and leverage—are covered in this article.

A two-sample paired t-test was additionally employed to see whether there was a significant difference between the pre-M&A and post-M&A for 45 Acquiring organisations. The study looks at 13 ratios, including those that relate to profitability, liquidity, and leverage. These 13 ratios include ROE, ROCE, operating profit margin, net profit margin, fixed-asset turnover ratio, current asset turnover ratio, total asset turnover ratio, current ratio, quick ratio, cash ratio, total debt to total asset, debt to equity ratio, and financial leverage ratio.

IV Data Analysis and Interpretation:

Based on profitability, liquidity, efficiency, and leverage ratio, this study sought to assess acquiring organisations' financial performance throughout the pre-M&A and post-M&A periods. In the paper, it is hypothesized that the performance of the acquiring firm has increased in comparison to the pre-M&A period. Four hypotheses are created and tested in order to empirically prove the performance of Acquirer post M&A.

Hypothesis and Analysis:

H01: There is no significant positive difference in acquirer's profitability ratio in the post- M&A period when compared to the pre-M&A period

Ha1: There is a significant positive difference in acquirer's profitability ratio in the post- M&A period when compared to the pre-M&A period

According to the Table 1, post M&A profitability ratios like operating income margin, net income margin, return on equity, and return on capital employed have declined over time. In terms of profitability ratios, the long-term synergy goal for the infrastructure industry has not been met in the past three years. This may be due to restructuring costs that acquiring corporations must pay both during and after an M&A.

Table 1. Profitability Ratio Pre M&A and Post M&A

| | Mean (Post M&A) | Mean (Pre M&A) | Difference in Mean | t-value | Significance |
|-------------------------------------|-----------------|----------------|--------------------|---------|--------------|
| Operating Profit Margin (-3, +3) | 22.8 | 26.5 | -3.7 | -2.98* | 0.00 |
| Net Profit Margin (-3, +3) | 9.05 | 14.5 | -5.45 | -3.56* | 0.00 |
| Return on Equity (-3, +3) | 20.6 | 27.8 | -7.2 | -2.66* | 0.00 |
| Return on Capital Employed (-3, +3) | 12.8 | 18.9 | -6.1 | 2.01** | 0.02 |

Source: Authors' own calculation.

Note: * and ** Represent significance at the 1% and 5% levels, respectively.

H02: There is no significant positive difference in acquirer's efficiency ratio in the post- M&A period when compared to the pre-M&A period

Ha2: There is a significant positive difference in acquirer's efficiency ratio in the post- M&A period when compared to the pre-M&A period

According to the Table 2, post M&A efficiency ratios like Fixed asset turnover and Total asset turnover have improved over time while current asset turnover is statistically indifferent. In terms of efficiency ratios, the long-term synergy goal for the infrastructure industry has been met in the past three years. This may be due management efficiency of creating synergy in order to generate more revenue from combined assets.

Table 2. Efficiency Ratio Pre M&A and Post M&A

| | Mean (Post M&A) | Mean (Pre M&A) | Difference in Mean | t-value | Significance |
|--|-----------------|----------------|--------------------|---------|--------------|
| Fixed-asset turnover ratio (-3, +3) | 4.05 | 3.55 | 0.5 | 2.07** | 0.01 |
| Current asset turnover ratio (-3, +3) | 1.01 | 1.05 | -0.04 | 1.56 | 0.11 |
| Total asset turnover ratio (-3, +3) | 0.98 | 0.88 | 0.1 | 2.56* | 0.00 |

Source: Authors' own calculation.

Note: * and ** Represent significance at the 1% and 5% levels, respectively.

H03: There is no significant positive difference in acquiror's Liquidity ratio in the post- M&A period when compared to the pre-M&A period

Ha3: There is a significant positive difference in acquiror's Liquidity ratio in the post- M&A period when compared to the pre-M&A period

According to the Table 3, post M&A Liquidity ratios like current ratio, quick ratio and cash ratio have improved over time. In terms of liquidity ratios, the long-term synergy goal for the infrastructure industry has been met in the past three years.

Table 3. Liquidity Ratio Pre M&A and Post M&A

| | Mean (Post M&A) | Mean (Pre M&A) | Difference in Mean | t-value | Significance |
|---------------------------|-----------------|----------------|--------------------|---------|--------------|
| Current Ratio (-3, +3) | 1.45 | 1.18 | 0.27 | 2.87* | 0.00 |
| Quick Ratio (-3, +3) | 0.99 | 0.81 | 0.18 | 2.96* | 0.00 |
| Cash Ratio (-3, +3) | 0.65 | 0.52 | 0.13 | 2.06** | 0.012 |

Source: Authors' own calculation.

Note: * and ** Represent significance at the 1% and 5% levels, respectively.

H04: There is no significant positive difference in acquiror's Leverage ratio in the post- M&A period when compared to the pre-M&A period

Ha4: There is a significant positive difference in acquiror's Leverage ratio in the post- M&A period when compared to the pre-M&A period

According to the Table 4, post M&A Leverage ratios like debt to total asset, debt to equity, financial leverage ratio have improved over time. In terms of leverage ratios, the long-term synergy goal for the infrastructure industry has been met in the past three years.

Table 4. Leverage Ratio Pre-M&A and Post-M&A,

| | Mean (Post M&A) | Mean (Pre M&A) | Difference in Mean | t-value | Significance |
|---------------------------------------|-----------------|----------------|--------------------|---------|--------------|
| Debt to Total Asset Ratio (-3, +3) | 0.55 | 0.62 | -0.07 | 2.11** | 0.00 |
| Debt to Equity Ratio (-3, +3) | 1.57 | 1.77 | -0.2 | -2.98* | 0.00 |
| Financial Leverage Ratio (-3, +3) | 2.55 | 2.85 | -0.3 | -3.06* | 0.00 |

Source: Authors' own calculation.

Note: * and ** Represent significance at the 1% and 5% levels, respectively.

V Conclusion

This article examines the post-M&A long-term financial performance of Indian infrastructure sector. It is assumed that following the M&A, the acquiring companies' financial performance will increase. The performance of acquiring firms during the post-M&A phase was therefore evaluated using a variety of profitability, efficiency, liquidity, and leverage ratios with paired t-test techniques.

According to the data, the acquiring firm's long-term profitability ratios has decreased. The companies in infrastructure sector couldn't able to generate synergies within 3 year post merger. The company's management need to consolidation in order to achieve cost synergy soon after M&A.

According to the current ratio, both before and after mergers and acquisitions, Indian companies in the infrastructure sectors tend to have an improved level of liquidity. Bank loans, overdrafts, and cash credit limits are simple to obtain for Indian business companies when the size of business is large.

The leverage ratio also improved after the M&A, indicating that companies have become more solvent. As it is regarded as the main source of financing the capital of the company, this shows that the acquiring firm have reduced debt to equity and other leverage ratio after the M&A. As a result, it can be said that the financial position of Indian infrastructure enterprises has generally improved in the post-M&A period as opposed to the pre-M&A period.

VI REFERENCES

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